

**ECMA-376-4:2016**

**Office Open XML File Formats — Transitional  
Migration Features**

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# Foreword

Changes from the 4th edition were made to align this 5th edition Standard with ISO/IEC 29500:2016. Both this 5th edition and ISO/IEC 29500:2016 refer to the 1st edition. As such, this 5th edition does not cancel or replace the 1st edition. This 5th edition does, however, cancel and replace the 4th edition.

Some important differences between ECMA-376:2016 and ECMA-376:2006 are given in Annex D.

ECMA-376 consists of the following parts:

- *Part 1: Fundamentals and Markup Language Reference*
- *Part 2: Open Packaging Conventions*
- *Part 3: Markup Compatibility and Extensibility*
- *Part 4: Transitional Migration Features*

Annex A forms a normative part of this Part of ECMA-376. Annexes B, C, and D are for information only.

This Part of ECMA-376 includes two annexes (Annex A and Annex B) that refer to data files provided in electronic form.

The document representation formats defined by this Part are different from the formats defined in the corresponding Part of ECMA-376:2006. Some of the differences are reflected in schema changes, as shown in Annex D of this Part.



# Introduction

ECMA-376 specifies a family of XML schemas, collectively called *Office Open XML*, which define the XML vocabularies for word-processing, spreadsheet, and presentation documents, as well as the packaging of documents that conform to these schemas.

The goal is to enable the implementation of the Office Open XML formats by the widest set of tools and platforms, fostering interoperability across office productivity applications and line-of-business systems, as well as to support and strengthen document archival and preservation, all in a way that is fully compatible with the existing corpus of Microsoft Office documents.

The intent of this Part of ECMA-376 is to enable a transitional period during which existing binary documents being migrated to ECMA-376 can make use of legacy features to preserve their fidelity, while noting that new documents should not use them.

This Part of ECMA-376 is normative for the current edition of ECMA-376, but is not guaranteed to be included in future revisions of that Standard. The intent is to enable the group responsible for maintenance of ECMA-376 to choose, at a later date, to remove this set of features from a revised version of that Standard.

In general, this Part of ECMA-376 augments Part 1, and inherits the provisions of that Part. Exceptions to this are indicated explicitly.



# 1. Scope

ECMA-376 defines a set of XML vocabularies for representing word-processing documents, spreadsheets and presentations. On the one hand, the goal of ECMA-376 is to represent faithfully the existing corpus of word-processing documents, spreadsheets and presentations that have been produced by Microsoft Office applications (from Microsoft Office 97 to Microsoft Office 2008, inclusive). It also specifies requirements for Office Open XML consumers and producers. On the other hand, the goal is to facilitate extensibility and interoperability by enabling implementations by multiple vendors and on multiple platforms.

This Part of ECMA-376 defines features for backward-compatibility and that are useful for high-quality migration of existing binary documents to ECMA-376. These features are used only by documents of conformance class WML Transitional (§2.1), SML Transitional (§2.1), or PML Transitional (§2.1). These features are sometimes needed for high-quality migration of existing binary documents to ECMA-376.



## 2. Conformance

### 2.1 Document Conformance

A document of conformance class Office Open XML Transitional shall be a package of conformance class OPC, as specified in ECMA-376-2, for which all the following shall hold:

- The document obeys all constraints specified in this Part of ECMA-376
- The document is of category Wordprocessing, Spreadsheet, or Presentation. These categories are defined in ECMA-376-1:2016 §4
- VML Drawing Parts (§8.1) contain markup in the Markup Compatibility namespace as specified in ECMA-376-3. Any child elements of the root element of VMLDrawing Parts are valid against the VML schema shown in A.7, “VML”, after the removal of any extensions specified using the mechanisms in ECMA-376-3. VML Drawing Parts obey all constraints specified in this Part of ECMA-376
- For each OPC Part of the document of the types listed in §9.2 or ECMA-376-1:2016 §11.3, §12.3, §13.3, §14.2, and §15.2, all the following shall hold:
  - i. The Part may contain markup in the Markup Compatibility namespace as specified in ECMA-376-3
  - ii. After the removal of any extensions by an MCE processor as specified in ECMA-376-3, the part is valid against the Transitional W3C XML Schema (Annex A)

This Part of ECMA-376 uses the following further terms to refer to documents of conformance class Office Open XML Transitional:

- *WML Transitional*, if the document is of category Wordprocessing
- *SML Transitional*, if the document is of category Spreadsheet
- *PML Transitional*, if the document is of category Presentation

### 2.2 Application Conformance

Application conformance incorporates both syntax and semantics.

- A conforming consumer shall not reject any conforming documents of at least one document conformance class.
- A conforming producer shall be able to produce conforming documents of at least one document conformance class.
- A conforming application shall treat the information in Office Open XML documents in a manner consistent with the semantic definitions given in ECMA-376. An application's intended behavior need not require that application to process all of the information in an Office Open XML document. However, the information that it does process shall be processed in a manner that is consistent with the semantic definitions given in ECMA-376.



[*Note:* This note illustrates the third bullet above. Conforming applications might serve various functions. Examples include a viewer, an editor, and a back-end processor. Here is an illustration of how the third bullet applies to each of those examples:

- If a conforming viewer supports a given feature, then when it displays information using that feature, it respects the semantics of that feature as described in the Standard.
- If a conforming editor supports a given feature, then when it provides its user with an interface for manipulating information using that feature, it respects the semantics of that feature as described in the Standard.
- If a conforming back-end processor supports a given feature, then when that processor transforms or assembles information involving that feature, that processor respects the semantics of that feature as described in the Standard.

*end note]*

This Part of ECMA-376 defines the following application conformance classes:

- *WML Transitional*, if the application is a conforming application that is a consumer or producer of documents having conformance class WML Transitional.
- *SML Transitional*, if the application is a conforming application that is a consumer or producer of documents having conformance class SML Transitional.
- *PML Transitional*, if the application is a conforming application that is a consumer or producer of documents having conformance class PML Transitional.



### 3. Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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## 4. Terms and Definitions

For the purposes of this document, the following terms and definitions apply. Other terms are defined where they appear in *italic* typeface, on the left side of a syntax rule, or within subclauses of language-specific grammars. Terms explicitly defined in this Part of ECMA-376 are not to be presumed to refer implicitly to similar terms defined elsewhere. [*Note: This part uses terms defined in ECMA-376-1 and ECMA-376-2. end note*]

**DOS file path** —A legacy file naming scheme which used a file name of at most eight characters, followed by a period ("."), followed by a filename extension of at most three characters. This name may be preceded by a slash-delimited path, and the combined structure may be preceded by a drive letter specifier. The grammar for DOS file paths is defined as follows:

```
filepath = [drive] [ folder] [filename]
filename = corefilename "." (0 * 3 validchar)
corefilename = (1 * 8 validchar)
validchar = uppercaseletter | decimaldigit | "!" | "#" | "$" | "%" | "&"
           | "'" | "\" | "-" | "@" | "^" | "_" | "`" | "{" | "}" | "~"
corefoldername = (1 * 8 validchar) | "." | ".."
folder = 1 * (corefoldername "\\") | "\\\"
drive = uppercaseletter ":"\\"
uppercaseletter = "A" | "B" | "C" | "D" | "E" | "F" | "G" | "H" | "I" | "J"
              | "K" | "L" | "M" | "N" | "O" | "P" | "Q" | "R" | "S" | "T" | "U" | "V"
              | "W" | "X" | "Y" | "Z"
decimaldigit = "0" | "1" | "2" | "3" | "4" | "5" | "6" | "7" | "8" | "9"
```



## 5. Notational Conventions

The following typographical conventions are used in this Part of ECMA-376:

- 1) The first occurrence of a new term is written in italics. [*Example*: The text in ECMA-376 is divided into *normative* and *informative* categories. *end example*]
- 2) In each definition of a term in §4 (Terms and Definitions), the term is written in bold. [*Example*: **behavior** — External appearance or action. *end example*]
- 3) The tag name of an XML element is written using a distinct style and typeface. [*Example*: The bookmarkStart and bookmarkEnd elements specify ... *end example*]
- 4) The name of an XML attribute is written using a distinct style and typeface. [*Example*: The dropCap attribute specifies ... *end example*]
- 5) The value of an XML attribute is written using a constant-width style. [*Example*: The attribute value of auto specifies ... *end example*]
- 6) The qualified or unqualified name of a simple type, complex type, or base datatype is written using a distinct style and typeface. [*Example*: The possible values for this attribute are defined by the ST\_HexColor simple type. *end example*]



## 6. Acronyms and Abbreviations

**This clause is informative.**

The following acronyms and abbreviations are used throughout ECMA-376:

IEC — the International Electrotechnical Commission

ISO — the International Organization for Standardization

W3C — World Wide Web Consortium

**End of informative text.**



## 7. General Description

This Part of ECMA-376 is divided into the following subdivisions:

- 1) Front matter (clauses 1–7);
- 2) Main body (clauses 8–20);
- 3) Annexes

Examples are provided to illustrate possible forms of the constructions described. References are used to refer to related clauses. Notes are provided to give advice or guidance to implementers or programmers. Rationale provides explanatory material as to why something is or is not in ECMA-376. Annexes provide additional information or summarize the information contained in ECMA-376.

The following form the normative pieces of this Part of ECMA-376:

- Introduction
- Clauses 1–5, 7, and 8–20
- Annex A

The following form the informative pieces of this Part of ECMA-376:

- Clause 6
- Annex B–Annex D
- All notes
- All examples

Except for whole clauses or annexes that are identified as being informative, informative text that is contained within normative text is indicated in the following ways:

- 1) [*Example*: code fragment, possibly with some narrative ... *end example*]
- 2) [*Note*: narrative ... *end note*]
- 3) [*Rationale*: narrative ... *end rationale*]
- 4) [*Guidance*: narrative ... *end guidance*]

Unless stated otherwise in this Part, the functionality defined in Part 1 is applicable to Part 4. However, Part 4 uses namespaces that are different from those used by Part 1. As such, when examples in Part 1 are read in the context of Part 4, they should be understood in the context of the corresponding Part 4 namespaces.







## 8. Additional Shared Parts

### 8.1 General

A transitional implementation can provide support for a VML Drawing Part, which is discussed below.

### 8.2 VML Drawing Part

Content Type:	application/vnd.openxmlformats-officedocument.vmlDrawing
Root Namespace:	not applicable
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/vmlDrawing">http://schemas.openxmlformats.org/officeDocument/2006/relationships/vmlDrawing</a>

An instance of this part type contains markup in the Vector Markup Language (VML) syntax, which is used to provide an alternative image representation of objects stored in a SpreadsheetML or PresentationML document.

[*Note:* The VML format is a legacy format originally introduced with Office 2000 and is included and fully defined in ECMA-376 for backwards compatibility reasons. The DrawingML format is a newer and richer format created with the goal of eventually replacing any uses of VML in the Office Open XML formats. VML should be considered a deprecated format included in Office Open XML for legacy reasons only and new applications that need a file format for drawings are strongly encouraged to use preferentially DrawingML. *end note*]

A package is permitted to contain zero or more VML Drawing parts, each of which shall be the target of an explicit relationship in a Handout Master (Part 1, §13.3.3), Notes Slide (Part 1, §13.3.5), Notes Master (Part 1, §13.3.4), Slide (Part 1, §13.3.8), Slide Layout (Part 1, §13.3.9), or Slide Master (Part 1, §13.3.10) part in a PresentationML document; or a Dialogsheet (Part 1, §12.3.7) or Worksheet part (Part 1, §12.3.24) in a SpreadsheetML document.

[*Example:* The following SpreadsheetML's package-relationship item contains one relationship, for the VML Drawing part stored in the ZIP item ../drawings/drawing1.vml:

```
<Relationships xmlns="...">
  <Relationship Id="rId8"
    Type="http://.../vmlDrawing" Target="../drawings/drawing1.vml"/>
</Relationships>
```

*end example]*

The root element for a part of this content type shall be xml in the null namespace, encapsulating an arbitrary amount of VML markup as defined by ECMA-376.



[*Example*: Consider the following VML Drawing part:

```
<xml>
  <v:shape ...>
    ...
  </v:shape>
  ...
</xml>
```

*end example*]

A VML Drawing part shall be located within the package containing the relationships part (expressed syntactically, the TargetMode attribute of the Relationship element shall be Internal).

A VML Drawing part is permitted to have explicit relationships to the following parts defined by ECMA-376:

- Image (Part 1, §15.2.14)

A VML Drawing part shall not have implicit or explicit relationships to any other part defined by ECMA-376.



# 9. WordprocessingML

## 9.1 General

The following parts, which are defined in subclauses within Part 1, §11, “WordprocessingML”, have different source relationships and/or root namespaces when used in documents of the Transitional conformance class:

## 9.2 Part Summary (Part 1, §11.3)

### 9.2.1 Alternative Format Import Part (Part 1, §11.3.1)

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/aFChunk">http://schemas.openxmlformats.org/officeDocument/2006/relationships/aFChunk</a>
----------------------	---

### 9.2.2 Comments Part (Part 1, §11.3.2)

Root Namespace:	<a href="http://schemas.openxmlformats.org/wordprocessingml/2006/main">http://schemas.openxmlformats.org/wordprocessingml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/comments">http://schemas.openxmlformats.org/officeDocument/2006/relationships/comments</a>

### 9.2.3 Document Settings Part (Part 1, §11.3.3)

Root Namespace:	<a href="http://schemas.openxmlformats.org/wordprocessingml/2006/main">http://schemas.openxmlformats.org/wordprocessingml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/settings">http://schemas.openxmlformats.org/officeDocument/2006/relationships/settings</a>

### 9.2.4 Endnotes Part (Part 1, §11.3.4)

Root Namespace:	<a href="http://schemas.openxmlformats.org/wordprocessingml/2006/main">http://schemas.openxmlformats.org/wordprocessingml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/endnotes">http://schemas.openxmlformats.org/officeDocument/2006/relationships/endnotes</a>

### 9.2.5 Fonts Table Part (Part 1, §11.3.5)

Root Namespace:	<a href="http://schemas.openxmlformats.org/wordprocessingml/2006/main">http://schemas.openxmlformats.org/wordprocessingml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/fontTable">http://schemas.openxmlformats.org/officeDocument/2006/relationships/fontTable</a>

### 9.2.6 Footer Part (Part 1, §11.3.6)

Root	<a href="http://schemas.openxmlformats.org/wordprocessingml/2006/main">http://schemas.openxmlformats.org/wordprocessingml/2006/main</a>
------	---



Namespace:	
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer">http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer</a>

### 9.2.7 Footnotes Part (Part 1, §11.3.7)

Root Namespace:	<a href="http://schemas.openxmlformats.org/wordprocessingml/2006/main">http://schemas.openxmlformats.org/wordprocessingml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/footnotes">http://schemas.openxmlformats.org/officeDocument/2006/relationships/footnotes</a>

### 9.2.8 Glossary Document Part (Part 1, §11.3.8)

Root Namespace:	<a href="http://schemas.openxmlformats.org/wordprocessingml/2006/main">http://schemas.openxmlformats.org/wordprocessingml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/glossaryDocument">http://schemas.openxmlformats.org/officeDocument/2006/relationships/glossaryDocument</a>

### 9.2.9 Header Part (Part 1, §11.3.9)

Root Namespace:	<a href="http://schemas.openxmlformats.org/wordprocessingml/2006/main">http://schemas.openxmlformats.org/wordprocessingml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/header">http://schemas.openxmlformats.org/officeDocument/2006/relationships/header</a>

### 9.2.10 Main Document Part (Part 1, §11.3.10)

Root Namespace:	<a href="http://schemas.openxmlformats.org/wordprocessingml/2006/main">http://schemas.openxmlformats.org/wordprocessingml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/officeDocument">http://schemas.openxmlformats.org/officeDocument/2006/relationships/officeDocument</a>

### 9.2.11 Numbering Definitions Part (Part 1, §11.3.11)

Root Namespace:	<a href="http://schemas.openxmlformats.org/wordprocessingml/2006/main">http://schemas.openxmlformats.org/wordprocessingml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/numbering">http://schemas.openxmlformats.org/officeDocument/2006/relationships/numbering</a>

### 9.2.12 Style Definitions Part (Part 1, §11.3.12)

Root Namespace:	<a href="http://schemas.openxmlformats.org/wordprocessingml/2006/main">http://schemas.openxmlformats.org/wordprocessingml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/styles">http://schemas.openxmlformats.org/officeDocument/2006/relationships/styles</a>



**9.2.13 Web Settings Part (Part 1, §11.3.13)**

Root Namespace:	<a href="http://schemas.openxmlformats.org/wordprocessingml/2006/main">http://schemas.openxmlformats.org/wordprocessingml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/webSettings">http://schemas.openxmlformats.org/officeDocument/2006/relationships/webSettings</a>

**9.3 Document Template (Part 1, §11.4)**

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/attachedTemplate">http://schemas.openxmlformats.org/officeDocument/2006/relationships/attachedTemplate</a>
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**9.4 Framesets (Part 1, §11.5)**

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/frame">http://schemas.openxmlformats.org/officeDocument/2006/relationships/frame</a>
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**9.5 Master Documents and Subdocuments (Part 1, §11.6)**

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/subDocument">http://schemas.openxmlformats.org/officeDocument/2006/relationships/subDocument</a>
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**9.6 Mail Merge Data Source (Part 1, §11.7)**

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/mailMergeSource">http://schemas.openxmlformats.org/officeDocument/2006/relationships/mailMergeSource</a>
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**9.7 Mail Merger Header Data Source (Part 1, §11.8)**

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/mailMergeHeaderSource">http://schemas.openxmlformats.org/officeDocument/2006/relationships/mailMergeHeaderSource</a>
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**9.8 XSL Transformation (Part 1, §11.9)**

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/transform">http://schemas.openxmlformats.org/officeDocument/2006/relationships/transform</a>
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# 10. SpreadsheetML

## 10.1 General

The following parts, which are defined in subclauses within Part 1, §12, “SpreadsheetML”, have different source relationships and/or root namespaces when used in documents of the Transitional conformance class:

## 10.2 Part Summary (Part 1, §12.3)

### 10.2.1 Calculation Chain Part (Part 1, §12.3.1)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/calcChain">http://schemas.openxmlformats.org/officeDocument/2006/relationships/calcChain</a>

### 10.2.2 Chartsheet Part (Part 1, §12.3.2)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/chartsheet">http://schemas.openxmlformats.org/officeDocument/2006/relationships/chartsheet</a>

### 10.2.3 Comments Part (Part 1, §12.3.3)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/comments">http://schemas.openxmlformats.org/officeDocument/2006/relationships/comments</a>

### 10.2.4 Connections Part (Part 1, §12.3.4)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/connections">http://schemas.openxmlformats.org/officeDocument/2006/relationships/connections</a>

### 10.2.5 Custom Property Part (Part 1, §12.3.5)

Root Namespace:	Not applicable
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/customProperty">http://schemas.openxmlformats.org/officeDocument/2006/relationships/customProperty</a>



### 10.2.6 Custom XML Mappings Part (Part 1, §12.3.6)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/xmlMaps">http://schemas.openxmlformats.org/officeDocument/2006/relationships/xmlMaps</a>

### 10.2.7 Dialogsheet Part (Part 1, §12.3.7)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/dialogsheet">http://schemas.openxmlformats.org/officeDocument/2006/relationships/dialogsheet</a>

### 10.2.8 Drawings Part (Part 1, §12.3.8)

Root Namespace:	<a href="http://schemas.openxmlformats.org/drawingml/2006/spreadsheetDrawing">http://schemas.openxmlformats.org/drawingml/2006/spreadsheetDrawing</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/drawing">http://schemas.openxmlformats.org/officeDocument/2006/relationships/drawing</a>

### 10.2.9 External Workbook References Part (Part 1, §12.3.9)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/externalLink">http://schemas.openxmlformats.org/officeDocument/2006/relationships/externalLink</a>

### 10.2.10 Metadata Part (Part 1, §12.3.10)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/sheetMetadata">http://schemas.openxmlformats.org/officeDocument/2006/relationships/sheetMetadata</a>

### 10.2.11 Pivot Table Part (Part 1, §12.3.11)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/pivotTable">http://schemas.openxmlformats.org/officeDocument/2006/relationships/pivotTable</a>

### 10.2.12 Pivot Table Cache Definition Part (Part 1, §12.3.12)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/pivotCacheDefinition">http://schemas.openxmlformats.org/officeDocument/2006/relationships/pivotCacheDefinition</a>



Relationship:	
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### 10.2.13 Pivot Table Cache Records Part (Part 1, §12.3.13)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/pivotCacheRecords">http://schemas.openxmlformats.org/officeDocument/2006/relationships/pivotCacheRecords</a>

### 10.2.14 Query Table Part (Part 1, §12.3.14)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/queryTable">http://schemas.openxmlformats.org/officeDocument/2006/relationships/queryTable</a>

### 10.2.15 Shared Strings Table Part (Part 1, §12.3.15)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/sharedStrings">http://schemas.openxmlformats.org/officeDocument/2006/relationships/sharedStrings</a>

### 10.2.16 Shared Workbook Revision Headers Part (Part 1, §12.3.16)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/revisionHeaders">http://schemas.openxmlformats.org/officeDocument/2006/relationships/revisionHeaders</a>

### 10.2.17 Shared Workbook Revision Log Part (Part 1, §12.3.17)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/revisionLog">http://schemas.openxmlformats.org/officeDocument/2006/relationships/revisionLog</a>

### 10.2.18 Shared Workbook User Data part (Part 1, §12.3.18)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/usernames">http://schemas.openxmlformats.org/officeDocument/2006/relationships/usernames</a>

### 10.2.19 Single Cell Table Definitions Part (Part 1, §12.3.19)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
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Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/tableSingleCells">http://schemas.openxmlformats.org/officeDocument/2006/relationships/tableSingleCells</a>
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### 10.2.20 Styles Part (Part 1, §12.3.20)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/styles">http://schemas.openxmlformats.org/officeDocument/2006/relationships/styles</a>

### 10.2.21 Table Definition Part (Part 1, §12.3.21)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/table">http://schemas.openxmlformats.org/officeDocument/2006/relationships/table</a>

### 10.2.22 Volatile Dependencies Part (Part 1, §12.3.22)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/volatileDependencies">http://schemas.openxmlformats.org/officeDocument/2006/relationships/volatileDependencies</a>

### 10.2.23 Workbook Part (Part 1, §12.3.23)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/officeDocument">http://schemas.openxmlformats.org/officeDocument/2006/relationships/officeDocument</a>

### 10.2.24 Worksheet Part (Part 1, §12.3.24)

Root Namespace:	<a href="http://schemas.openxmlformats.org/spreadsheetml/2006/main">http://schemas.openxmlformats.org/spreadsheetml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/worksheet">http://schemas.openxmlformats.org/officeDocument/2006/relationships/worksheet</a>

## 10.3 External Workbooks (Part 1, §12.4)

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/externalLinkPath">http://schemas.openxmlformats.org/officeDocument/2006/relationships/externalLinkPath</a>
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# 11. PresentationML

## 11.1 General

The following parts, which are defined in subclauses within Part 1, §13, “PresentationML”, have different source relationships and/or root namespaces when used in documents of the Transitional conformance class:

## 11.2 Part Summary (Part 1, §13.3)

### 11.2.1 Comment Authors Part (Part 1, §13.3.1)

Root Namespace:	<a href="http://schemas.openxmlformats.org/presentationml/2006/main">http://schemas.openxmlformats.org/presentationml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/commentAuthors">http://schemas.openxmlformats.org/officeDocument/2006/relationships/commentAuthors</a>

### 11.2.2 Comments Part (Part 1, §13.3.2)

Root Namespace:	<a href="http://schemas.openxmlformats.org/presentationml/2006/main">http://schemas.openxmlformats.org/presentationml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/comments">http://schemas.openxmlformats.org/officeDocument/2006/relationships/comments</a>

### 11.2.3 Handout Master Part (Part 1, §13.3.3)

Root Namespace:	<a href="http://schemas.openxmlformats.org/presentationml/2006/main">http://schemas.openxmlformats.org/presentationml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/handoutMaster">http://schemas.openxmlformats.org/officeDocument/2006/relationships/handoutMaster</a>

### 11.2.4 Notes Master Part (Part 1, §13.3.4)

Root Namespace:	<a href="http://schemas.openxmlformats.org/presentationml/2006/main">http://schemas.openxmlformats.org/presentationml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/notesMaster">http://schemas.openxmlformats.org/officeDocument/2006/relationships/notesMaster</a>

### 11.2.5 Notes Slide Part (Part 1, §13.3.5)

Root Namespace:	<a href="http://schemas.openxmlformats.org/presentationml/2006/main">http://schemas.openxmlformats.org/presentationml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/notesSlide">http://schemas.openxmlformats.org/officeDocument/2006/relationships/notesSlide</a>



**11.2.6 Presentation Part (Part 1, §13.3.6)**

Root Namespace:	<a href="http://schemas.openxmlformats.org/presentationml/2006/main">http://schemas.openxmlformats.org/presentationml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/officeDocument">http://schemas.openxmlformats.org/officeDocument/2006/relationships/officeDocument</a>

**11.2.7 Presentation Properties Part (Part 1, §13.3.7)**

Root Namespace:	<a href="http://schemas.openxmlformats.org/presentationml/2006/main">http://schemas.openxmlformats.org/presentationml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/presProps">http://schemas.openxmlformats.org/officeDocument/2006/relationships/presProps</a>

**11.2.8 Slide Part (Part 1, §13.3.8)**

Root Namespace:	<a href="http://schemas.openxmlformats.org/presentationml/2006/main">http://schemas.openxmlformats.org/presentationml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/slide">http://schemas.openxmlformats.org/officeDocument/2006/relationships/slide</a>

**11.2.9 Slide Layout Part (Part 1, §13.3.9)**

Root Namespace:	<a href="http://schemas.openxmlformats.org/presentationml/2006/main">http://schemas.openxmlformats.org/presentationml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/slideLayout">http://schemas.openxmlformats.org/officeDocument/2006/relationships/slideLayout</a>

**11.2.10 Slide Master Part (Part 1, §13.3.10)**

Root Namespace:	<a href="http://schemas.openxmlformats.org/presentationml/2006/main">http://schemas.openxmlformats.org/presentationml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/slideMaster">http://schemas.openxmlformats.org/officeDocument/2006/relationships/slideMaster</a>

**11.2.11 Slide Synchronization Data Part (Part 1, §13.3.11)**

Root Namespace:	<a href="http://schemas.openxmlformats.org/presentationml/2006/main">http://schemas.openxmlformats.org/presentationml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/slideUpdateInfo">http://schemas.openxmlformats.org/officeDocument/2006/relationships/slideUpdateInfo</a>

**11.2.12 User Defined Tags Part (Part 1, §13.3.12)**

Root Namespace:	<a href="http://schemas.openxmlformats.org/presentationml/2006/main">http://schemas.openxmlformats.org/presentationml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/tags">http://schemas.openxmlformats.org/officeDocument/2006/relationships/tags</a>



Relationship:	
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### 11.2.13 View Properties Part (Part 1, §13.3.13)

Root Namespace:	<a href="http://schemas.openxmlformats.org/presentationml/2006/main">http://schemas.openxmlformats.org/presentationml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/viewProps">http://schemas.openxmlformats.org/officeDocument/2006/relationships/viewProps</a>

### 11.3 HTML Publish Location (Part 1, §13.4)

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/htmlPubSaveAs">http://schemas.openxmlformats.org/officeDocument/2006/relationships/htmlPubSaveAs</a>
----------------------	---

### 11.4 Slide Synchronization Server Location (Part 1, §13.5)

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/slideUpdateUrl">http://schemas.openxmlformats.org/officeDocument/2006/relationships/slideUpdateUrl</a>
----------------------	---



# 12. DrawingML

## 12.1 General

The following parts, which are defined in subclauses within Part 1, §14, “DrawingML”, have different source relationships and/or root namespaces when used in documents of the Transitional conformance class:

## 12.2 Part Summary (Part 1, §14.2)

### 12.2.1 Chart Part (Part 1, §14.2.1)

Root Namespace:	<a href="http://schemas.openxmlformats.org/drawingml/2006/chart">http://schemas.openxmlformats.org/drawingml/2006/chart</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/chart">http://schemas.openxmlformats.org/officeDocument/2006/relationships/chart</a>

### 12.2.2 Chart Drawing Part (Part 1, §14.2.2)

Root Namespace:	<a href="http://schemas.openxmlformats.org/drawingml/2006/chart">http://schemas.openxmlformats.org/drawingml/2006/chart</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/chartUserShapes">http://schemas.openxmlformats.org/officeDocument/2006/relationships/chartUserShapes</a>

### 12.2.3 Diagram Colors Part (Part 1, §14.2.3)

Root Namespace:	<a href="http://schemas.openxmlformats.org/drawingml/2006/diagram">http://schemas.openxmlformats.org/drawingml/2006/diagram</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/diagramColors">http://schemas.openxmlformats.org/officeDocument/2006/relationships/diagramColors</a>

### 12.2.4 Diagram Data Part (Part 1, §14.2.4)

Root Namespace:	<a href="http://schemas.openxmlformats.org/drawingml/2006/diagram">http://schemas.openxmlformats.org/drawingml/2006/diagram</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/diagramData">http://schemas.openxmlformats.org/officeDocument/2006/relationships/diagramData</a>

### 12.2.5 Diagram Layout Definition Part (Part 1, §14.2.5)

Root Namespace:	<a href="http://schemas.openxmlformats.org/drawingml/2006/diagram">http://schemas.openxmlformats.org/drawingml/2006/diagram</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/diagramLayout">http://schemas.openxmlformats.org/officeDocument/2006/relationships/diagramLayout</a>



**12.2.6 Diagram Style Part (Part 1, §14.2.6)**

Root Namespace:	<a href="http://schemas.openxmlformats.org/drawingml/2006/diagram">http://schemas.openxmlformats.org/drawingml/2006/diagram</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/diagramQuickStyle">http://schemas.openxmlformats.org/officeDocument/2006/relationships/diagramQuickStyle</a>

**12.2.7 Theme Part (Part 1, §14.2.7)**

Root Namespace:	<a href="http://schemas.openxmlformats.org/drawingml/2006/main">http://schemas.openxmlformats.org/drawingml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/theme">http://schemas.openxmlformats.org/officeDocument/2006/relationships/theme</a>

**12.2.8 Theme Override Part (Part 1, §14.2.8)**

Root Namespace:	<a href="http://schemas.openxmlformats.org/drawingml/2006/main">http://schemas.openxmlformats.org/drawingml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/themeOverride">http://schemas.openxmlformats.org/officeDocument/2006/relationships/themeOverride</a>

**12.2.9 Table Styles Part (Part 1, §14.2.9)**

Root Namespace:	<a href="http://schemas.openxmlformats.org/drawingml/2006/main">http://schemas.openxmlformats.org/drawingml/2006/main</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/tableStyles">http://schemas.openxmlformats.org/officeDocument/2006/relationships/tableStyles</a>



# 13. Shared MLs

## 13.1 General

The following parts, which are defined in subclauses within Part 1, §15, “Shared”, have different source relationships and/or root namespaces when used in documents of the Transitional conformance class:

## 13.2 Part Summary (Part 1, §15.2)

### 13.2.1 Additional Characteristics Part (Part 1, §15.2.1)

Root Namespace:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/additionalCharacteristics">http://schemas.openxmlformats.org/officeDocument/2006/additionalCharacteristics</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/customXml">http://schemas.openxmlformats.org/officeDocument/2006/relationships/customXml</a>

### 13.2.2 Audio Part (Part 1, §15.2.2)

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/audio">http://schemas.openxmlformats.org/officeDocument/2006/relationships/audio</a>
----------------------	---

### 13.2.3 Bibliography Part (Part 1, §15.2.3)

Root Namespace:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/bibliography">http://schemas.openxmlformats.org/officeDocument/2006/bibliography</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/customXml">http://schemas.openxmlformats.org/officeDocument/2006/relationships/customXml</a>

### 13.2.4 Content Part (Part 1, §15.2.4)

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/customXml">http://schemas.openxmlformats.org/officeDocument/2006/relationships/customXml</a>
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### 13.2.5 Custom XML Data Storage Part (Part 1, §15.2.5)

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/customXml">http://schemas.openxmlformats.org/officeDocument/2006/relationships/customXml</a>
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### 13.2.6 Custom XML Data Storage Properties Part (Part 1, §15.2.6)

Root Namespace:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/customXmlDataProps">http://schemas.openxmlformats.org/officeDocument/2006/customXmlDataProps</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/customXmlProps">http://schemas.openxmlformats.org/officeDocument/2006/relationships/customXmlProps</a>



**13.2.7 Embedded Control Persistence Part (Part 1, §15.2.9)**

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/control">http://schemas.openxmlformats.org/officeDocument/2006/relationships/control</a>
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**13.2.8 Embedded Object Part (Part 1, §15.2.10)**

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/oleObject">http://schemas.openxmlformats.org/officeDocument/2006/relationships/oleObject</a>
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**13.2.9 Embedded Package Part (Part 1, §15.2.11)**

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/package">http://schemas.openxmlformats.org/officeDocument/2006/relationships/package</a>
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**13.2.10 Core File Properties Part (Part 1, §15.2.12.1)**

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/metadata/core-properties">http://schemas.openxmlformats.org/officeDocument/2006/relationships/metadata/core-properties</a>
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**13.2.11 Custom File Properties Part (Part 1, §15.2.12.2)**

Root Namespace:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/custom-properties">http://schemas.openxmlformats.org/officeDocument/2006/custom-properties</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/custom-properties">http://schemas.openxmlformats.org/officeDocument/2006/relationships/custom-properties</a>

**13.2.12 Extended File Properties Part (Part 1, §15.2.12.3)**

Root Namespace:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/extended-properties">http://schemas.openxmlformats.org/officeDocument/2006/extended-properties</a>
Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/extended-properties">http://schemas.openxmlformats.org/officeDocument/2006/relationships/extended-properties</a>

**13.2.13 Font Part (Part 1, §15.2.13)**

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/font">http://schemas.openxmlformats.org/officeDocument/2006/relationships/font</a>
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**13.2.14 Image Part (Part 1, §15.2.14)**

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/image">http://schemas.openxmlformats.org/officeDocument/2006/relationships/image</a>
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**13.2.15 Printer Settings Part (Part 1, §15.2.15)**

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings">http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings</a>
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### 13.2.16 Thumbnail Part (Part 1, §15.2.16)

Source Relationship:	<a href="http://schemas.openxmlformats.org/package/2006/relationships/metadata/thumbnail">http://schemas.openxmlformats.org/package/2006/relationships/metadata/thumbnail</a>
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### 13.2.17 Video Part (Part 1, §15.2.17)

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/video">http://schemas.openxmlformats.org/officeDocument/2006/relationships/video</a>
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## 13.3 Hyperlinks Part (Part 1, §15.3)

Source Relationship:	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink">http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink</a>
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# 14. WordprocessingML Reference Material

## 14.1 General

[Note: For further information on the mapping of elements and attributes to OPC parts, see the Bibliography entry, “Information on elements, attributes, and OPC parts in ISO/IEC 29500 (OOXML)” . *end note*]

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**End of informative text.**



## 14.3 Paragraphs and Rich Formatting

### 14.3.1 Paragraphs

#### 14.3.1.1 Additional attribute for cnfStyle element (Part 1, §17.3.1.8)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
val (Conditional Formatting Bit Mask)	<p>Specifies the set of conditional formatting properties that have been applied to this object.</p> <p>These properties are expressed using a string serialization of a binary bitmask for each of the following properties (reading from the first character position right):</p> <ul style="list-style-type: none"> <li>• First Row - Is this the first row of the table?</li> <li>• Last Row - Is this the last row of the table?</li> <li>• First Column - Does this belong to the first column of the table?</li> <li>• Last Column - Does this belong to the last column of the table?</li> <li>• Band 1 Vertical - Does this belong to a column which should receive band 1 formatting? This property specifies whether the cell should receive the formatting specified for odd-numbered columns (e.g. 1,3,5,...)</li> <li>• Band 2 Vertical - Does this belong to a column which should receive band 2 formatting? This property specifies whether the cell should receive the formatting specified for even-numbered columns (e.g. 2,4,6...)</li> <li>• Band 1 Horizontal - Does this receive band 1 formatting? This property specifies whether the cell should receive the formatting specified for odd-numbered rows (e.g. 1,3,5,...)</li> <li>• Band 2 Horizontal - Does this receive band 2 formatting? This property specifies whether the cell should receive the formatting specified for even-numbered rows (e.g. 2,4,6...)</li> <li>• NE Cell - Is this part of the top-right corner of the table?</li> <li>• NW Cell - Is this part of the top-left corner of the table?</li> <li>• SE Cell - Is this part of the bottom-right corner of the table?</li> <li>• SW Cell - Is this part of the bottom-left corner of the table?</li> </ul> <p>For each of these properties, a value of 1 in the specified character position in the string means that the value is true, a value of 0 means false. All values shall be specified.</p> <p>[Example: Consider a paragraph in the top right corner of a table with a table style applied. This paragraph would need to specify the following WordprocessingML:</p> <pre> &lt;w:p&gt;   &lt;w:pPr&gt;     &lt;w:cnfStyle w:val="101000000100" /&gt;     ...   &lt;/w:pPr&gt; </pre>



Attributes	Description
	<p>...</p> <p>&lt;/w:p&gt;</p> <p>This paragraph specifies that it has the conditional properties from the table style for the first column, first row, and the NW corner of the parent table by setting the appropriate bits in the val attribute. <i>end example</i></p> <p>The possible values for this attribute are defined by the ST_Cnf simple type (§14.11.8).</p>

### 14.3.1.2 Additional attributes for ind element (Part 1, §17.3.1.12)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
left (Start Indentation)	<p>Semantically equivalent to the start attribute.</p> <p>The possible values for this attribute are defined by the ST_SignedTwipsMeasure simple type (Part 1, §17.18.81).</p>
leftChars (Start Indentation in Character Units)	<p>Semantically equivalent to the startChars attribute.</p> <p>The possible values for this attribute are defined by the ST_DecimalNumber simple type (Part 1, §17.18.10).</p>
right (End Indentation)	<p>Semantically equivalent to the end attribute.</p> <p>The possible values for this attribute are defined by the ST_SignedTwipsMeasure simple type (Part 1, §17.18.81).</p>
rightChars (End Indentation in Character Units)	<p>Semantically equivalent to the endChars attribute.</p> <p>The possible values for this attribute are defined by the ST_DecimalNumber simple type (Part 1, §17.18.10).</p>

## 14.3.2 Run Content

### 14.3.2.1 control (Floating Embedded Control)

This element specifies that the parent VML object is a representation of an embedded control at the current location in the document. This element shall be used to associate the VML data with the appropriate embedded control settings and properties when the document is displayed.

If the embedded control is not present, cannot be loaded due to application settings, or is not supported, then the VML data shall be used to provide an image representation of the control at the appropriate location in the document.

[*Example:* Consider a run which consists of an embedded control. That run would be specified using the following WordprocessingML:



```

<w:r>
  <w:pict>
    ...
    <w:control r:id="rId99" w:shapeid="shape01" ... />
  </w:pict>
</w:r>

```

The control element indicates that the parent VML object contains the positioning and last known image representation of an embedded control, whose settings and properties are stored on this element. *end example*]

Attributes	Description
<p>id (Embedded Control Properties Relationship Reference)</p> <p>Namespace: .../officeDocument/2006/relationships</p>	<p>Specifies the relationship ID for the relationship which contains the properties for this embedded control. This property bag is contained in a separate part within the Office Open XML package.</p> <p>The relationship explicitly targeted by this attribute shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/control">http://schemas.openxmlformats.org/officeDocument/2006/relationships/control</a> or the document shall be considered non-conformant.</p> <p>If this attribute is omitted, then the embedded control shall be given no property bag when instantiated.</p> <p>[<i>Example:</i> Consider the following WordprocessingML markup for an embedded control in a document:</p> <pre>&lt;w:control r:id="rId5" w:name="CheckBox1" w:shapeid="_x0000_s1027" /&gt;</pre> <p>The id attribute in the relationship reference namespace specifies that the relationship with relationship ID rId5 must contain the property data for this embedded control. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>
<p>name (Unique Name for Embedded Control)</p>	<p>Specifies a unique name for this embedded control. This name shall be unique across all controls in this document.</p> <p>[<i>Example:</i> Consider the following WordprocessingML markup for an embedded control in a document:</p> <pre>&lt;w:control r:id="rId5" w:name="CheckBox1" w:shapeid="_x0000_s1027" /&gt;</pre> <p>The name attribute specifies that the unique name for this control must be CheckBox1. <i>end example</i>]</p>



Attributes	Description
	The possible values for this attribute are defined by the ST_String simple type (Part 1, §22.9.2.13).
shapeid (Shape Reference)	<p>Specifies the shape ID for a shape which shall be used to define the presentation and location of this embedded control within the document if the control is floating using the DrawingML syntax.</p> <p>[<i>Note</i>: This positioning data is sufficient to display the control in any case where:</p> <ul style="list-style-type: none"> <li>• The embedded control is not on the current machine</li> <li>• Embedded controls are disabled</li> <li>• Embedded controls of this control type are not supported</li> </ul> <p><i>end note</i>]</p> <p>This shape ID reference is resolved by looking for a DrawingML object whose id attribute matches the value specified within this attribute. If no such shape exists, then the control shall be rendered inline in the document content at the current run content location.</p> <p>If this attribute is omitted, then this embedded control shall be displayed inline in the current location in the parent run.</p> <p>[<i>Example</i>: Consider the following WordprocessingML markup for an embedded control in a document:</p> <pre>&lt;w:control r:id="rId5" w:name="CheckBox1" w:shapeid="10" /&gt;</pre> <p>The shapeid attribute specifies that the DrawingML object with an id attribute value of 10 must contain the positioning data for this embedded control. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_String simple type (Part 1, §22.9.2.13).</p>

[*Note*: The W3C XML Schema definition of this element's content model ([CT\\_Control](#)) is located in §A.2. *end note*]

#### 14.3.2.2 `pict` (VML Object)

This element specifies that an object is located at this position in the run's contents. The layout properties of this object are specified using the VML syntax (§19.1).

[*Example*: Consider a run which consists of an object specified using VML. That run would be specified using the following WordprocessingML:



```

<w:r>
  <w:pict>
    ...
  </w:pict>
</w:r>

```

The pict element indicates that an object specified in VML is located at the current position in the run (e.g. a floating embedded control). *end example*]

[Note: The W3C XML Schema definition of this element's content model ([CT Picture](#)) is located in §A.2. *end note*]

## 14.4 Tables

### 14.4.1 left (Table Cell Leading Edge Border)

This element is semantically equivalent to start (Part 1, §17.4.33), specified above.

For tables which have the bidiVisual property (Part 1, §17.4.1) applied, this border is applied to the right edge of the cell.

This element's content model is defined by the common border properties definition in Part 1, §17.3.4.

### 14.4.2 left (Table Leading Edge Border)

This element is semantically equivalent to start (Part 1, §17.4.36), specified above.

For tables which have the bidiVisual property (Part 1, §17.4.1) applied, this border is applied to the right edge of the table.

This element's content model is defined by the common border properties definition in Part 1, §17.3.4.

### 14.4.3 left (Table Cell Leading Margin Exception)

This element is semantically equivalent to start (Part 1, §17.4.35), specified above.

For tables which have the bidiVisual property (Part 1, §17.4.1) applied, this cell margin is applied to the right edge of the cell.

This element's content model is defined by the common table measurement definition in Part 1, §17.4.88.

### 14.4.4 left (Table Cell Leading Margin Default)

This element is semantically equivalent to start (Part 1, §17.4.34), specified above.

For tables which have the bidiVisual property (Part 1, §17.4.1) applied, this cell margin is applied to the right edge of the cell.

This element's content model is defined by the common table measurement definition in Part 1, §17.4.88.



#### 14.4.5 **right (Table Cell Trailing Edge Border)**

This element is semantically equivalent to end (Part 1, §17.4.12), specified above.

For tables which have the `bidiVisual` property (Part 1, §17.4.1) applied, this border is applied to the left edge of the cell.

This element's content model is defined by the common border properties definition in Part 1, §17.3.4.

#### 14.4.6 **right (Table Trailing Edge Border)**

This element is semantically equivalent to end (Part 1, §17.4.13), specified above.

For tables which have the `bidiVisual` property (Part 1, §17.4.1) applied, this border is applied to the left edge of the table.

This element's content model is defined by the common border properties definition in Part 1, §17.3.4.

#### 14.4.7 **right (Table Cell Trailing Margin Default)**

This element is semantically equivalent to end (Part 1, §17.4.11), specified above.

For tables which have the `bidiVisual` property (Part 1, §17.4.1) applied, this cell margin is applied to the left edge of the cell.

This element's content model is defined by the common table measurement definition in Part 1, §17.4.88.

#### 14.4.8 **right (Table Cell Trailing Margin Exception)**

This element is semantically equivalent to end (Part 1, §17.4.10), specified above.

For tables which have the `bidiVisual` property (Part 1, §17.4.1) applied, this cell margin is applied to the left edge of the cell.

This element's content model is defined by the common table measurement definition in Part 1, §17.4.88.

#### 14.4.9 **Additional attribute for `cnfStyle` element (Part 1, §17.4.7)**

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
<code>val</code> (Conditional Formatting Bit Mask)	<p>Specifies the set of conditional formatting properties that have been applied to this object.</p> <p>These properties are expressed using a string serialization of a binary bitmask for each of the following properties (reading from the first character position right):</p> <ul style="list-style-type: none"> <li>First Row - Is this the first row of the table?</li> <li>Last Row - Is this the last row of the table?</li> </ul>



Attributes	Description
	<ul style="list-style-type: none"> <li>• First Column - Does this belong to the first column of the table?</li> <li>• Last Column - Does this belong to the last column of the table?</li> <li>• Band 1 Vertical - Does this belong to a column which should receive band 1 formatting? This property specifies whether the cell should receive the formatting specified for odd-numbered columns (e.g. 1,3,5,...)</li> <li>• Band 2 Vertical - Does this belong to a column which should receive band 2 formatting? This property specifies whether the cell should receive the formatting specified for even-numbered columns (e.g. 2,4,6...)</li> <li>• Band 1 Horizontal - Does this receive band 1 formatting? This property specifies whether the cell should receive the formatting specified for odd-numbered rows (e.g. 1,3,5,...)</li> <li>• Band 2 Horizontal - Does this receive band 2 formatting? This property specifies whether the cell should receive the formatting specified for even-numbered rows (e.g. 2,4,6...)</li> <li>• NE Cell - Is this part of the top-right corner of the table?</li> <li>• NW Cell - Is this part of the top-left corner of the table?</li> <li>• SE Cell - Is this part of the bottom-right corner of the table?</li> <li>• SW Cell - Is this part of the bottom-left corner of the table?</li> </ul> <p>For each of these properties, a value of 1 in the specified character position in the string means that the value is true, a value of 0 means false. All values shall be specified.</p> <p>[Example: Consider a paragraph in the top right corner of a table with a table style applied. This paragraph would need to specify the following WordprocessingML:</p> <pre> &lt;w:p&gt;   &lt;w:pPr&gt;     &lt;w:cnfStyle w:val="101000000100" /&gt;     ...   &lt;/w:pPr&gt;   ... &lt;/w:p&gt; </pre> <p>This paragraph specifies that it has the conditional properties from the table style for the first column, first row, and the NW corner of the parent table by setting the appropriate bits in the val attribute. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_Cnf simple type (§14.11.8).</p>

#### 14.4.10 Additional attribute for cnfStyle element (Part 1, §17.4.8)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
val (Conditional Formatting Bit)	Specifies the set of conditional formatting properties that have been applied to this object.



Attributes	Description
Mask)	<p>These properties are expressed using a string serialization of a binary bitmask for each of the following properties (reading from the first character position right):</p> <ul style="list-style-type: none"> <li>• First Row - Is this the first row of the table?</li> <li>• Last Row - Is this the last row of the table?</li> <li>• First Column - Does this belong to the first column of the table?</li> <li>• Last Column - Does this belong to the last column of the table?</li> <li>• Band 1 Vertical - Does this belong to a column which should receive band 1 formatting? This property specifies whether the cell should receive the formatting specified for odd-numbered columns (e.g. 1,3,5,...)</li> <li>• Band 2 Vertical - Does this belong to a column which should receive band 2 formatting? This property specifies whether the cell should receive the formatting specified for even-numbered columns (e.g. 2,4,6...)</li> <li>• Band 1 Horizontal - Does this receive band 1 formatting? This property specifies whether the cell should receive the formatting specified for odd-numbered rows (e.g. 1,3,5,...)</li> <li>• Band 2 Horizontal - Does this receive band 2 formatting? This property specifies whether the cell should receive the formatting specified for even-numbered rows (e.g. 2,4,6...)</li> <li>• NE Cell - Is this part of the top-right corner of the table?</li> <li>• NW Cell - Is this part of the top-left corner of the table?</li> <li>• SE Cell - Is this part of the bottom-right corner of the table?</li> <li>• SW Cell - Is this part of the bottom-left corner of the table?</li> </ul> <p>For each of these properties, a value of 1 in the specified character position in the string means that the value is true, a value of 0 means false. All values shall be specified.</p> <p>[<i>Example:</i> Consider a paragraph in the top right corner of a table with a table style applied. This paragraph would need to specify the following WordprocessingML:</p> <pre> &lt;w:p&gt;   &lt;w:pPr&gt;     &lt;w:cnfStyle w:val="101000000100" /&gt;     ...   &lt;/w:pPr&gt;   ... &lt;/w:p&gt; </pre> <p>This paragraph specifies that it has the conditional properties from the table style for the first column, first row, and the NW corner of the parent table by setting the appropriate bits in the val attribute. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_Cnf simple type (§14.11.8).</p>



### 14.4.11 Additional attribute for tblLook element (Part 1, §17.4.54)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
val (Bitmask of Table Conditional Formatting)	<p>Specifies a hexadecimal code containing a bitmask of options, interpreted as follows:</p> <ul style="list-style-type: none"> <li>• 0x0020=Apply first row conditional formatting</li> <li>• 0x0040=Apply last row conditional formatting</li> <li>• 0x0080=Apply first column conditional formatting</li> <li>• 0x0100=Apply last column conditional formatting</li> <li>• 0x0200=Do not apply row banding conditional formatting</li> <li>• 0x0400=Do not apply column banding conditional formatting</li> </ul> <p>If omitted, the bitmask of table style options on the current table shall be assumed to be 0000.</p> <p>[<i>Example:</i> Consider a table which must use the following conditional formatting properties from the referenced table style:</p> <ul style="list-style-type: none"> <li>• First row conditional formatting</li> <li>• Last row conditional formatting</li> </ul> <p>This table would then apply the following portions of the bitmask:</p> <ul style="list-style-type: none"> <li>• 0x0020=Apply first row conditional formatting</li> <li>• 0x0040=Apply last row conditional formatting</li> <li>• 0x0200=Do not apply row banding conditional formatting</li> <li>• 0x0400=Do not apply column banding conditional formatting</li> </ul> <p>The resulting WordprocessingML would be specified as follows:</p> <pre>&lt;w:tblPr&gt;   &lt;w:tblLook w:val="0660"/&gt; &lt;/w:tblPr&gt;</pre> <p>The val attribute specifies a bitmask which determines the components of the table style applied to the current table. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_ShortHexNumber simple type (Part 1, §17.18.79).</p>

### 14.4.12 Additional attribute for tblLook element (Part 1, §17.4.55)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
val (Bitmask of Table Conditional Formatting)	<p>Specifies a hexadecimal code containing a bitmask of options, interpreted as follows:</p> <ul style="list-style-type: none"> <li>• 0x0020=Apply first row conditional formatting</li> <li>• 0x0040=Apply last row conditional formatting</li> </ul>



Attributes	Description
	<ul style="list-style-type: none"> <li>• 0x0080=Apply first column conditional formatting</li> <li>• 0x0100=Apply last column conditional formatting</li> <li>• 0x0200=Do not apply row banding conditional formatting</li> <li>• 0x0400=Do not apply column banding conditional formatting</li> </ul> <p>If omitted, the bitmask of table style options on the current table shall be assumed to be 0000.</p> <p>[<i>Example:</i> Consider a table which must use the following conditional formatting properties from the referenced table style:</p> <ul style="list-style-type: none"> <li>• First row conditional formatting</li> <li>• Last row conditional formatting</li> </ul> <p>This table would then apply the following portions of the bitmask:</p> <ul style="list-style-type: none"> <li>• 0x0020=Apply first row conditional formatting</li> <li>• 0x0040=Apply last row conditional formatting</li> <li>• 0x0200=Do not apply row banding conditional formatting</li> <li>• 0x0400=Do not apply column banding conditional formatting</li> </ul> <p>The resulting WordprocessingML would be specified as follows:</p> <pre>&lt;w:tblPr&gt;   &lt;w:tblLook w:val="0660"/&gt; &lt;/w:tblPr&gt;</pre> <p>The val attribute specifies a bitmask which determines the components of the table style applied to the current table. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_ShortHexNumber simple type (Part 1, §17.18.79).</p>

#### 14.4.13 hMerge (Horizontally Merged Cell)

This element specifies that this cell is part of a horizontally merged set of cells in a table. The val attribute on this element determines how this cell is defined with respect to the previous cell in the table (i.e., whether this cell continues the horizontal merge or starts a new merged group of cells).

[*Note:* This property is maintained for compatibility with legacy word processing documents that defined tables in this manner. Whenever possible, this form or horizontal merges should not be produced, and should be translated to the appropriate gridSpan (Part 1) settings on the table cells instead. *end note*]

If this element is omitted, then this cell shall not be part of any horizontally merged grouping of cells, and any horizontal merge group in the preceding cells shall be closed.

[*Example:* Consider a table with one row and three columns with the last two columns horizontally merged:



--	--

The second cell in the first row starts a merge that is completed in the right adjacent cell, resulting in the following WordprocessingML:

```
<w:tbl>
  ...
  <w:tr>
    <w:tc>
      ...
    </w:tc>
    <w:tc>
      <w:tcPr>
        <w:hMerge w:val="restart"/>
      </w:tcPr>
      ...
    </w:tc>
    <w:tc>
      <w:tcPr>
        <w:hMerge/>
      </w:tcPr>
      ...
    </w:tc>
  </w:tr>
</w:tbl>
```

The hMerge element defines the cells that are to be horizontally merged, and how each group is merged together. *end example*]



Attributes	Description
val (Horizontal Merge Type)	<p>Specifies how the table cell is part of a horizontally merged region. This determines whether the cell should join onto an existing grouping of merged cells if any exist, or start a new group of merged cells. Refer to the simple type definition for a full description of each type.</p> <p>If this attribute is omitted, its value shall be assumed to be continue.</p> <p>[<i>Example:</i> Consider a table cell where a horizontal cell merge begins represented as the following WordprocessingML:</p> <pre>&lt;w:tcPr&gt;   &lt;w:hMerge w:val="restart"/&gt; &lt;/w:tcPr&gt;</pre> <p>The attribute value of restart specifies that this element must start a new horizontally merged region in this table. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_Merge simple type (Part 1, §17.18.57).</p>

[*Note:* The W3C XML Schema definition of this element's content model (CT\_HMerge) is located in §A.2. *end note*]

## 14.5 Fonts

### 14.5.1 Elements

#### 14.5.1.1 Additional attribute for charset element (Part 1, §17.8.3.2)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
val (Value)	<p>Specifies a value specified as single octet (two-digit) hexadecimal number whose contents are interpreted based on the context of the parent XML element.</p> <p>If this attribute is not present, then the character set for this font shall be assumed to be ISO/IEC 8859-1.</p> <p>[<i>Note:</i> Implementations should document implementation-specific or platform-dependent differences from the standard IANA character set definitions. Platform-specific interoperability notes about character sets listed below are found at the IANA character set registrations page at <a href="http://www.iana.org/assignments/charset-reg/index.html">http://www.iana.org/assignments/charset-reg/index.html</a> and the Unicode character-set mapping website at <a href="http://www.unicode.org/Public/MAPPINGS/">http://www.unicode.org/Public/MAPPINGS/</a>. <i>end note</i>]</p>



Attributes	Description																																										
	<p>The value of this attribute shall be interpreted as follows:</p> <table border="1"> <thead> <tr> <th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>0x00</td><td>Specifies a Latin character set. (IANA name iso-8859-1)</td></tr> <tr> <td>0x01</td><td>Specifies the default character set.</td></tr> <tr> <td>0x02</td><td>Specifies the Symbol character set. This value specifies that the characters in the Unicode private use area (U+FF00 to U+FFFF) of the font should be used to display the corresponding characters in the range U+0000 to U+00FF.</td></tr> <tr> <td>0x4D</td><td>Specifies a Macintosh (Standard Roman) character set. (IANA name macintosh)</td></tr> <tr> <td>0x80</td><td>Specifies the JIS character set. (IANA name shift_jis)</td></tr> <tr> <td>0x81</td><td>Specifies the Hangul character set. (IANA name ks_c-5601-1987)</td></tr> <tr> <td>0x82</td><td>Specifies a Johab character set. (IANA name KS_C-5601-1992)</td></tr> <tr> <td>0x86</td><td>Specifies the GBK character set. (IANA name GBK)</td></tr> <tr> <td>0x88</td><td>Specifies the Chinese Big Five character set. (IANA name Big5)</td></tr> <tr> <td>0xA1</td><td>Specifies a Greek character set. (IANA name windows-1253)</td></tr> <tr> <td>0xA2</td><td>Specifies a Turkish character set. (IANA name iso-8859-9)</td></tr> <tr> <td>0xA3</td><td>Specifies a Vietnamese character set. (IANA name windows-1258)</td></tr> <tr> <td>0xB1</td><td>Specifies a Hebrew character set. (IANA name windows-1255)</td></tr> <tr> <td>0xB2</td><td>Specifies an Arabic character set. (IANA name windows-1256)</td></tr> <tr> <td>0xBA</td><td>Specifies a Baltic character set. (IANA name windows-1257)</td></tr> <tr> <td>0xCC</td><td>Specifies a Russian character set. (IANA name windows-1251)</td></tr> <tr> <td>0xDE</td><td>Specifies a Thai character set. (IANA name windows-874)</td></tr> <tr> <td>0xEE</td><td>Specifies an Eastern European character set. (IANA name windows-1250)</td></tr> <tr> <td>0xFF</td><td>Specifies an OEM character set not defined by ECMA-376.</td></tr> <tr> <td>Any other value</td><td>Application-defined, can be ignored.</td></tr> </tbody> </table> <p>[Example: Consider the following value for an attribute of type ST_UCharHexNumber:</p> <pre>&lt;... w:val="BE"/&gt;</pre> <p>This value is permitted, as it contains two hexadecimal digits, an encoding of an octet of the actual decimal number value. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_UcharHexNumber simple</p>	Value	Description	0x00	Specifies a Latin character set. (IANA name iso-8859-1)	0x01	Specifies the default character set.	0x02	Specifies the Symbol character set. This value specifies that the characters in the Unicode private use area (U+FF00 to U+FFFF) of the font should be used to display the corresponding characters in the range U+0000 to U+00FF.	0x4D	Specifies a Macintosh (Standard Roman) character set. (IANA name macintosh)	0x80	Specifies the JIS character set. (IANA name shift_jis)	0x81	Specifies the Hangul character set. (IANA name ks_c-5601-1987)	0x82	Specifies a Johab character set. (IANA name KS_C-5601-1992)	0x86	Specifies the GBK character set. (IANA name GBK)	0x88	Specifies the Chinese Big Five character set. (IANA name Big5)	0xA1	Specifies a Greek character set. (IANA name windows-1253)	0xA2	Specifies a Turkish character set. (IANA name iso-8859-9)	0xA3	Specifies a Vietnamese character set. (IANA name windows-1258)	0xB1	Specifies a Hebrew character set. (IANA name windows-1255)	0xB2	Specifies an Arabic character set. (IANA name windows-1256)	0xBA	Specifies a Baltic character set. (IANA name windows-1257)	0xCC	Specifies a Russian character set. (IANA name windows-1251)	0xDE	Specifies a Thai character set. (IANA name windows-874)	0xEE	Specifies an Eastern European character set. (IANA name windows-1250)	0xFF	Specifies an OEM character set not defined by ECMA-376.	Any other value	Application-defined, can be ignored.
Value	Description																																										
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Any other value	Application-defined, can be ignored.																																										



Attributes	Description
	type (Part 1, §17.18.98).

## 14.6 Numbering

### 14.6.1 pict (Picture Numbering Symbol Properties)

This element specifies the properties for a picture which shall be used as a picture numbering symbol in a given document, using the VML syntax.

[*Example:* Consider the WordprocessingML below illustrating the usage of the pict element in a document containing a single picture numbering symbol:

```
<w:numPicBullet w:numPicBulletId="0">
  <w:pict>
    <v:shapetype id="_x0000_t75" coordsize="21600,21600" o:spt="75"
o:preferrelative="t" path="m@4@5l@4@11@9@11@9@5xe" filled="f" stroked="f">
      <v:stroke joinstyle="miter" />
      <v:formulas>
        <v:f eqn="if lineDrawn pixelLineWidth 0" />
        <v:f eqn="sum @0 1 0" />
        <v:f eqn="sum 0 0 @1" />
        <v:f eqn="prod @2 1 2" />
        <v:f eqn="prod @3 21600 pixelWidth" />
        <v:f eqn="prod @3 21600 pixelHeight" />
        <v:f eqn="sum @0 0 1" />
        <v:f eqn="prod @6 1 2" />
        <v:f eqn="prod @7 21600 pixelWidth" />
        <v:f eqn="sum @8 21600 0" />
        <v:f eqn="prod @7 21600 pixelHeight" />
        <v:f eqn="sum @10 21600 0" />
      </v:formulas>
      <v:path o:extrusionok="f" gradientshapeok="t" o:connecttype="rect" />
      <o:lock v:ext="edit" aspectratio="t" />
    </v:shapetype>
    <v:shape id="_x0000_i1029" type="#_x0000_t75"
style="width:11.25pt;height:11.25pt" o:bullet="t">
      <v:imagedata r:id="rId1" o:title="sample picture" />
    </v:shape>
  </w:pict>
</w:numPicBullet>
```

*end example]*



[*Note:* The W3C XML Schema definition of this element's content model ([CT\\_Picture](#)) is located in §A.2. *end note*]

### 14.6.2 legacy (Legacy Numbering Level Properties)

This element specifies that a given numbering level is from an earlier word processing application which did not support the full richness of the numbering properties supported by WordprocessingML.

These properties shall be used to render any numbered paragraph which references this numbering level if the legacy attribute is set. [*Note:* Using this element in generated WordprocessingML documents is not recommended, as updated numbering structures in WordprocessingML should be used in its place. This element is provided solely to save and roundtrip the numbering properties of legacy word processing products in WordprocessingML such that they are recreated if the document is resaved in an older word processor format. *end note*]

[*Example:* Consider the following WordprocessingML numbering level:

```
<w:lvl w:ilvl="0">
...
<w:legacy w:legacySpace="820" w:legacyIndent="960" />
<w:lvljc w:val="start" />
<w:pPr>
  <w:ind w:start="360" w:hanging="360" />
</w:pPr>
</w:lvl>
```

This level has the legacy element present, therefore the legacy numbering level properties must be used to format all paragraphs which reference this level. *end example*]

Attributes	Description
legacy (Use Legacy Numbering Properties)	<p>Specifies whether the legacy numbering properties present for this numbering level shall be used to format the numbering for any paragraph which references it.</p> <p>A value of <code>on</code>, <code>1</code>, or <code>true</code> for this attribute value specifies that the legacy numbering properties shall be applied. This is the default value for this attribute, and is implied when the attribute is omitted.</p> <p>A value of <code>off</code>, <code>0</code>, or <code>false</code> for this attribute value specifies that the legacy numbering properties shall not be used, and shall be explicitly turned off.</p> <p>[<i>Example:</i> For example, consider the set of legacy numbering properties from a document:</p> <pre>&lt;w:legacy w:legacy="off" w:legacySpace="820" w:legacyIndent="960" /&gt;</pre> <p>This set of legacy properties are explicitly not used when processing the numbering level via the fact that the legacy attribute is turned off for this example. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_OnOff simple type (Part 1, §22.9.2.7).</p>



Attributes	Description
legacyIndent (Legacy Indent)	<p>Specifies the indentation which shall be applied to a legacy numbering symbol from the text margin of the document. This value is specified in twentieths of a point.</p> <p>If this attribute is not present, then no indentation shall be applied with respect to the margin.</p> <p>[<i>Example:</i> For example, consider the set of legacy numbering properties from a document:</p> <pre>&lt;w:legacy w:legacySpace="820" w:legacyIndent="960" /&gt;</pre> <p>This set of legacy properties specify that there must be exactly 960 twentieths of a point (<math>\frac{3}{8}</math> of an inch) between the text margin and the start of the numbering on the paragraph. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_SignedTwipsMeasure simple type (Part 1, §17.18.81).</p>
legacySpace (Legacy Spacing)	<p>Specifies the indentation which shall be applied between a legacy numbering symbol and the accompanying text of the associated paragraph in the document. This value is specified in twentieths of a point.</p> <p>If this attribute is not present, then no indentation shall be applied with respect to the paragraph text.</p> <p>[<i>Example:</i> For example, consider the set of legacy numbering properties from a document:</p> <pre>&lt;w:legacy w:legacySpace="820" w:legacyIndent="960" /&gt;</pre> <p>This set of legacy properties specify that there must be exactly 860 twentieths of a point between the end of the numbering on the paragraph and the associated paragraph text. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_TwipsMeasure simple type (Part 1, §22.9.2.14).</p>

[*Note:* The W3C XML Schema definition of this element's content model (CT\_LvlLegacy) is located in §A.2. *end note*]

## 14.7 Annotations

### 14.7.1 Revisions

#### 14.7.1.1 numberingChange (Previous Numbering Field Properties)

This element specifies the previous state of the numbering displayed by a LISTNUM field (Part 1, §17.16.5.33) within a WordprocessingML document when additional LISTNUM fields are added and revisions are being tracked.

[*Rationale:* The legacy numbering mechanism provided by the LISTNUM field relies on the presence of fields in the run content of the document, rather than being a paragraph property (as numbering typically is



represented). For this reason, these fields must store their previous state as a unique revision type on the field character of the numbering field. *end rationale*]

If this element is supplied for a field which is not of type LISTNUM as defined by its field codes (Part 1, §17.16.5), then this property shall be ignored.

[*Example*: Consider the following paragraph containing a single LISTNUM field, as follows:

Some 1. text

If another LISTNUM field is added before it in the document, resulting in its evaluation to a different number, as follows:

Some ~~1.~~2. text

This revision to the field result would be stored as follows in the WordprocessingML:

```
<w:fldChar w:fldCharType="begin">
  <w:numberingChange w:id="0" ... w:original="1." />
</w:fldChar>
<w:r>
  <w:instrText>LISTNUM</w:instrText>
</w:r>
<w:fldChar w:fldCharType="separate"/>
<w:r>
  <w:t>2.</w:t>
</w:r>
<w:fldChar w:fldCharType="end" />
```

The numberingChange element specifies that the numbering resulting from this LISTNUM field was modified and this change was tracked as a revision. The previous numbering result of 1. is cached in the original attribute. *end example*]

For numbering fields, the original attribute shall specify the previous numbering displayed by the parent LISTNUM field within a WordprocessingML document. This information is a performance-enhancing cache of the state of the numbering before the revision to allow applications to show the previous state without having to recalculate all of the LISTNUM fields in the document.

If this attribute is omitted, then no previous numbering value is implied and applications can choose to calculate this value, or display no previous numbering value.

[*Example*: Consider the following paragraph containing a single LISTNUM field with a revision, as follows:



Some ~~1~~2. text

This revision to the field result would be stored as follows in the WordprocessingML:

```
<w:fldChar w:fldCharType="begin">
  <w:numberingChange w:id="0" ... w:original="1." />
</w:fldChar>
```

The original attribute specifies that the previous numbering value of the field was 1. *end example*

Attributes	Description
author (Annotation Author)	<p>Specifies the author for an annotation within a WordprocessingML document.</p> <p>If this attribute is omitted, then no author shall be associated with the parent annotation type.</p> <p>[<i>Example:</i> Consider a comment represented using the following WordprocessingML fragment:</p> <pre>&lt;... w:id="1" w:author="Example Author"&gt; ... &lt;/...&gt;</pre> <p>The author attribute specifies that the author of the current annotation is Example Author, which can be used as desired. <i>end example</i></p> <p>The possible values for this attribute are defined by the ST_String simple type (Part 1, §22.9.2.13).</p>
date (Annotation Date)	<p>Specifies the date information for an annotation within a WordprocessingML document. The use of this information is outside of the scope of ECMA-376.</p> <p>If this attribute is omitted, then no date information shall be associated with the parent annotation type.</p> <p>[<i>Example:</i> Consider a comment represented using the following WordprocessingML fragment:</p> <pre>&lt;... w:id="1" w:date="2006-01-01T10:00:00"&gt; ... &lt;/...&gt;</pre> <p>The date attribute specifies that the date of the current annotation is January 1st 2006 at 10:00 AM, which can be used as desired. <i>end example</i></p> <p>The possible values for this attribute are defined by the ST_DateTime simple type (Part</p>



Attributes	Description
id (Annotation Identifier)	<p>1, §17.18.9).</p> <p>Specifies a unique identifier for an annotation within a WordprocessingML document. The restrictions on the id attribute, if any, are defined by the parent XML element.</p> <p>If this attribute is omitted, then the document is non-conformant.</p> <p>[<i>Example:</i> Consider an annotation represented using the following WordprocessingML fragment:</p> <pre>&lt;... w:id="1" ... &gt; ... &lt;/...&gt;</pre> <p>The id attribute specifies that the ID of the current annotation is 1. This value is used to uniquely identify this annotation within the document content. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_DecimalNumber simple type (Part 1, §17.18.10).</p>
original (Previous Numbering Value)	<p>Specifies the previous numbering displayed by the parent numbering change revision. Its format is specified by the parent element.</p> <p>If this attribute is omitted, then no previous numbering value is implied and applications can choose to calculate this value, or display no previous numbering value.</p> <p>[<i>Example:</i> Consider the following paragraph containing a single LISTNUM field with a revision, as follows:</p> <p>Some <del>1</del><ins>2</ins>. text</p> <p>This revision to the field result would be stored as follows in the WordprocessingML:</p> <pre>&lt;w:fldChar w:fldCharType="begin"&gt;   &lt;w:numberingChange w:id="0" ... w:original="1." /&gt; &lt;/w:fldChar&gt;</pre> <p>The original attribute specifies that the previous numbering value of the field was 1. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_String simple type (Part 1, §22.9.2.13).</p>

[*Note:* The W3C XML Schema definition of this element's content model ([CT\\_TrackChangeNumbering](#)) is located in §A.2. *end note*]



### 14.7.1.2 numberingChange (Previous Paragraph Numbering Properties)

This element specifies the previous state of the numbering on a paragraph when revisions are being tracked.

[*Rationale:* This mechanism is simply used to provide storage for revisions to numbering produced by legacy word processing applications, and applications are encouraged to use the pPrChange element to store these changes as changes to the paragraph properties instead. *end rationale*]

[*Example:* Consider the following list using Arabic numerals as the numbering, as follows:

1. one
2. two
3. three

Consider a revision where the numbering definition is changed from Arabic numerals to Roman numerals, as follows:

- 1.i. one
- 2.ii. two
- 3.iii. three

This revision to the numbering definition would be stored as follows in the WordprocessingML:

```
<w:p>
  <w:pPr>
    <w:numPr>
      <w:ilvl w:val="0" />
      <w:numId w:val="1" />
      <w:numberingChange w:id="0" ... w:original="%1:1:0:." />
    </w:numPr>
  </w:pPr>
  <w:r>
    <w:t>one</w:t>
  </w:r>
</w:p>
<w:p>
  <w:pPr>
    <w:numPr>
      <w:ilvl w:val="0" />
      <w:numId w:val="1" />
      <w:numberingChange w:id="1" ... w:original="%1:2:0:." />
    </w:numPr>
  </w:pPr>
  <w:r>
    <w:t>two</w:t>
  </w:r>
</w:p>
```



```

    </w:r>
</w:p>
<w:p>
  <w:pPr>
    <w:numPr>
      <w:ilvl w:val="0" />
      <w:numId w:val="1" />
      <w:numberingChange w:id="2" ... w:original="%1:3:0:." />
    </w:numPr>
  </w:pPr>
  <w:r>
    <w:t>three</w:t>
  </w:r>
</w:p>

```

The numberingChange element specifies that the numbering definition was modified and this change was tracked as a revision. The previous Arabic numeral numbering definition is cached in the original attribute. *end example*

For paragraph numbering, the original attribute shall specify the previous numbering definition for an individual paragraph of text within a WordprocessingML document while revisions are being tracked.

The value of original is represented as separate numbering level definitions defined as follows:

```

<[%[numbering level]:[nfc value]:[numbering format]:[separator]>[repeat if more
than one level]

```

where

- **numbering level** – The level for which the numbering definition is defined
- **nfc value** – The value of the numbering style at the specific numbering level
- **numbering format** – The nfc value of the numbering format, as referenced in the table below.
- **separator** – The separator used to separate the numbering level definitions

The numbering format values are mapped as follows:

nfc Value	ST_NumberFormat enumeration equivalent
0	decimal
1	upperRoman
2	lowerRoman
3	upperLetter
4	lowerLetter
5	ordinal
6	cardinalText



nfc Value	ST_NumberFormat enumeration equivalent
7	ordinalText
8	hex
9	chicago
10	ideographDigital
11	japaneseCounting
12	Aiueo
13	Iroha
14	decimalFullWidth
15	decimalHalfWidth
16	japaneseLegal
17	japaneseDigitalTenThousand
18	decimalEnclosedCircle
19	decimalFullWidth2
20	aiueoFullWidth
21	irohaFullWidth
22	decimalZero
23	bullet
24	ganada
25	chosung
26	decimalEnclosedFullstop
27	decimalEnclosedParen
28	decimalEnclosedCircleChinese
29	ideographEnclosedCircle
30	ideographTraditional
31	ideographZodiac
32	ideographZodiacTraditional
33	taiwaneseCounting
34	ideographLegalTraditional
35	taiwaneseCountingThousand
36	taiwaneseDigital
37	chineseCounting
38	chineseLegalSimplified
39	chineseCountingThousand
40	Application-defined. Can be ignored.
41	koreanDigital
42	koreanCounting
43	koreanLegal



nfc Value	ST_NumberFormat enumeration equivalent
44	koreanDigital2
45	hebrew1
46	arabicAlpha
47	hebrew2
48	arabicAbjad
49	hindiVowels
50	hindiConsonants
51	hindiNumbers
52	hindiCounting
53	thaiLetters
54	thaiNumbers
55	thaiCounting
56	vietnameseCounting
57	numberInDash
58	russianLower
59	russianUpper
60 or above	Application-defined. Can be ignored.

[Example: Consider the following numbered paragraph where the numbering definition has changed while revisions are being tracked, as follows:

~~1.1.1.~~ Three

This revision to the numbered paragraph would be stored as follows in the WordprocessingML:

```
<w:numPr>
...
  <w:numberingChange ... w:original="%1:1:0:..%2:1:2:..%3:1:0:.." />
</w:numPr>
```

In the above example there are three levels in the original numbering definition, thus three numbering level definitions are needed to represent the original numbering definition.

The first level is specified by %1, and says that it was number value 1 in the nfc format 0 (arabic).

The original attribute specifies that the previous numbering definition was made up of three levels whose value was 1.i.1.. *end example*]

Attributes	Description
author (Annotation Author)	Specifies the author for an annotation within a WordprocessingML document.



Attributes	Description
	<p>If this attribute is omitted, then no author shall be associated with the parent annotation type.</p> <p>[<i>Example:</i> Consider a comment represented using the following WordprocessingML fragment:</p> <pre>&lt;... w:id="1" w:author="Example Author"&gt; ... &lt;/...&gt;</pre> <p>The author attribute specifies that the author of the current annotation is <i>Example Author</i>, which can be used as desired. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_String simple type (Part 1, §22.9.2.13).</p>
date (Annotation Date)	<p>Specifies the date information for an annotation within a WordprocessingML document. The use of this information is outside of the scope of ECMA-376.</p> <p>If this attribute is omitted, then no date information shall be associated with the parent annotation type.</p> <p>[<i>Example:</i> Consider a comment represented using the following WordprocessingML fragment:</p> <pre>&lt;... w:id="1" w:date="2006-01-01T10:00:00"&gt; ... &lt;/...&gt;</pre> <p>The date attribute specifies that the date of the current annotation is January 1st 2006 at 10:00 AM, which can be used as desired. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_DateTime simple type (Part 1, §17.18.9).</p>
id (Annotation Identifier)	<p>Specifies a unique identifier for an annotation within a WordprocessingML document. The restrictions on the id attribute, if any, are defined by the parent XML element.</p> <p>If this attribute is omitted, then the document is non-conformant.</p> <p>[<i>Example:</i> Consider an annotation represented using the following WordprocessingML fragment:</p> <pre>&lt;... w:id="1" ... &gt; ... &lt;/...&gt;</pre>



Attributes	Description
	<p>The id attribute specifies that the ID of the current annotation is 1. This value is used to uniquely identify this annotation within the document content. <i>end example</i></p> <p>The possible values for this attribute are defined by the ST_DecimalNumber simple type (Part 1, §17.18.10).</p>
original (Previous Numbering Value)	<p>Specifies the previous numbering displayed by the parent numbering change revision. Its format is specified by the parent element.</p> <p>If this attribute is omitted, then no previous numbering value is implied and applications can choose to calculate this value, or display no previous numbering value.</p> <p>[<i>Example</i>: Consider the following paragraph containing a single LISTNUM field with a revision, as follows:</p> <p style="text-align: center;">Some <del>1</del><ins>2</ins>. text</p> <p>This revision to the field result would be stored as follows in the WordprocessingML:</p> <pre>&lt;w:fldChar w:fldCharType="begin"&gt;   &lt;w:numberingChange w:id="0" ... w:original="1." /&gt; &lt;/w:fldChar&gt;</pre> <p>The original attribute specifies that the previous numbering value of the field was 1. <i>end example</i></p> <p>The possible values for this attribute are defined by the ST_String simple type (Part 1, §22.9.2.13).</p>

[*Note*: The W3C XML Schema definition of this element's content model ([CT\\_TrackChangeNumbering](#)) is located in §A.2. *end note*]

## 14.8 Settings

### 14.8.1 Legacy Password Hash Algorithm

When a password hash value is stored using the transitional hashing mechanism described in the following subclause, that process shall be done in two stages:

The following steps assume that all words are unsigned, the word size is two bytes, and that bit-level SHL/SHR operations shift in the direction of the highest-order and lowest-order bit, respectively. [*Example*: 0x61 SHR 1 is 0xC2, as 01100001 shifted one position in the direction of its highest-order bit is 11000010. *end example*]

The UTF-16LE encoded password shall be hashed using the following algorithm (if there is a leading BOM character (U+FEFF) in the encoded password it is removed before hash calculation):



- Passwords of 15 or fewer characters shall be used in the hash without further change; passwords longer than 15 characters shall be truncated to 15 characters.
- Construct a new NULL-terminated string consisting of single-byte values using the algorithm described by the following bullet. The input to this step should be the series of UTF-16 characters defined above:
  - Get the single-byte values by iterating through the Unicode characters of the truncated password. For each character, if the low byte is not equal to 0, take it. Otherwise, take the high byte.
- From now on, the single-byte character string is used.
- If the password is empty, return 0.
- Compute the high-order word of the new key:
  - Initialize from the initial code array (see below), depending on the password's length. For each character in the password:
    - For every bit in the character, starting with the least significant and progressing to (but excluding) the most significant, if the bit is set, XOR the key's high-order word with the corresponding word from the encryption matrix
- Compute the low-order word of the new key:
  - Initialize with 0
    - For each character in the password, going backwards, low-order word = (((low-order word SHR 14) AND 0x0001) OR (low-order word SHL 1) AND 0x7FFF) XOR character
    - Lastly, low-order word = (((low-order word SHR 14) AND 0x0001) OR (low-order word SHL 1) AND 0x7FFF) XOR password length XOR 0xCE4B.

#### Initial code array

The initial code array contains the initial values for the key's high-order word. The initial value depends on the length of the password, as follows:

Password length	Initial value for the key's high-order word
1	0xE1F0
2	0x1D0F
3	0xCC9C
4	0x84C0
5	0x110C
6	0x0E10
7	0xF1CE
8	0x313E
9	0x1872



Password length	Initial value for the key's high-order word
10	0xE139
11	0xD40F
12	0x84F9
13	0x280C
14	0xA96A
15	0x4EC3

### Encryption matrix

The encryption matrix contains codes used during the calculation of the key's high-order word. As described in the algorithm above, for every bit of the password's characters, if the bit is set, a corresponding value is taken from this encryption matrix and is used to XOR the key's high-order word with it. Each row in the encryption matrix corresponds to a single character from the password, and each of the seven columns corresponds to a particular bit (0-6) in this character.

The values are taken in such a way so that the last character of the password uses the last row in the encryption matrix. The next-to-last character uses the next-to-last row in the matrix, and so on. This means that the beginning of the matrix might be unused, depending on the length of the password.

	Bit 0	Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6
Last-14	0xAEFC	0x4DD9	0x9BB2	0x2745	0x4E8A	0x9D14	0x2A09
Last-13	0x7B61	0xF6C2	0xFDA5	0xEB6B	0xC6F7	0x9DCF	0x2BBF
Last-12	0x4563	0x8AC6	0x05AD	0x0B5A	0x16B4	0x2D68	0x5AD0
Last-11	0x0375	0x06EA	0x0DD4	0x1BA8	0x3750	0x6EA0	0xDD40
Last-10	0xD849	0xA0B3	0x5147	0xA28E	0x553D	0xAA7A	0x44D5
Last-9	0x6F45	0xDE8A	0xAD35	0x4A4B	0x9496	0x390D	0x721A
Last-8	0xEB23	0xC667	0x9CEF	0x29FF	0x53FE	0xA7FC	0x5FD9
Last-7	0x47D3	0x8FA6	0x0F6D	0x1EDA	0x3DB4	0x7B68	0xF6D0
Last-6	0xB861	0x60E3	0xC1C6	0x93AD	0x377B	0x6EF6	0xDDEC
Last-5	0x45A0	0x8B40	0x06A1	0x0D42	0x1A84	0x3508	0x6A10
Last-4	0xAA51	0x4483	0x8906	0x022D	0x045A	0x08B4	0x1168
Last-3	0x76B4	0xED68	0xCAF1	0x85C3	0x1BA7	0x374E	0x6E9C
Last-2	0x3730	0x6E60	0xDCC0	0xA9A1	0x4363	0x86C6	0x1DAD
Last-1	0x3331	0x6662	0xCCC4	0x89A9	0x0373	0x06E6	0x0DCC
Last	0x1021	0x2042	0x4084	0x8108	0x1231	0x2462	0x48C4

[Example: Consider a password which has been supplied - the string "Example". It is already under 15 characters, so truncation does not affect it. It is then converted to a string of single-byte characters.



- The password is 7 characters long, so, from the initial code array, the initial value for the key's high-order word is 0xF1CE.
- The key's high-order word is then computed further depending on the password's characters:
  - The first character is 'E' (0x45). This is the first character of a 7-character password, so its corresponding row in the encryption matrix is "Last-6".
    - Bit 0 is set, therefore the key's high-order word is combined (via XOR) with the corresponding value for Bit 0 on row "Last-6", which is 0xB861. The new result is  $0xF1CE \text{ XOR } 0xB861 = 0x49AF$ .
    - Bit 2 is set, so the key's high-order word is XOR-ed with the corresponding value for Bit 2 on row "Last-6", which is 0xC1C6. The new result is  $0x49AF \text{ XOR } 0xC1C6 = 0x8869$ .
    - This process is repeated for each bit.
  - The next character is 'x' (0x78). Its corresponding row in the encryption matrix is "Last-5".
    - Bit 3 is set. The value for Bit 3 on row "Last-5" in the encryption matrix is 0x0D42. The current value for the key's high-order byte is 0x5585, so the new one should be  $0x5585 \text{ XOR } 0x0D42 = 0x58C7$ .
    - This process is repeated for each bit.
  - This process is repeated for all characters.
- After the last character has been processed, the above step produced 0x64CE for the key's high-order word. Now the low-order word needs to be calculated:
  - The initial value is 0.
  - It is then calculated using the password:
    - The last character of the password is 'e' (0x65), so, by the formula, low-order word =  $((\text{low-order word SHR } 14) \text{ AND } 0x0001) \text{ OR } ((\text{low-order word SHL } 1) \text{ AND } 0x7FFF) \text{ XOR 'e'}$  =  $((0 \text{ SHR } 14) \text{ AND } 0x0001) \text{ OR } ((0 \text{ SHL } 1) \text{ AND } 0x7FFF) \text{ XOR } 0x65 = 0x0065$ .
    - The next to last character of the password is 'l' (0x6C). Again, by the formula,  $((0x0065 \text{ SHR } 14) \text{ AND } 0x0001) \text{ OR } ((0x0065 \text{ SHL } 1) \text{ AND } 0x7FFF) \text{ XOR } 0x6C = (0x0000 \text{ OR } 0x00CA) \text{ XOR } 0x6C = 0x00CA \text{ XOR } 0x6C = 0x00A6$ .
    - This process is repeated for each character.
  - After the password's first character has been processed, we have 0x1199 for the key's low-order word. Lastly, the password's length is combined into it: low-order word =  $((0x1199 \text{ SHR } 14) \text{ AND } 0x0001) \text{ OR } ((0x1199 \text{ SHL } 1) \text{ AND } 0x7FFF) \text{ XOR } 0x0007 \text{ XOR } 0xCE4B = 0x2332 \text{ XOR } 0x0007 \text{ XOR } 0xCE4B = 0x2335 \text{ XOR } 0xCE4B = 0xED7E$ .
- The end result for the key is 0x64CEED7E.

*end example]*



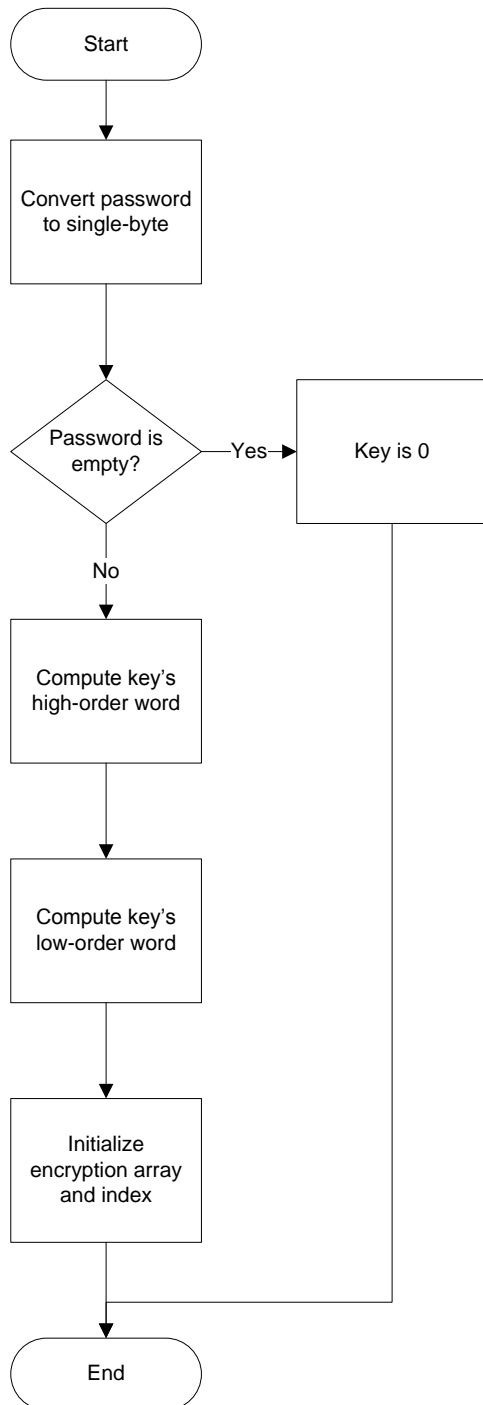
[*Rationale*: This pre-processing step is necessary for compatibility with legacy word processing applications which hashed their password solely using this mechanism. *end rationale*]

Second, the byte order of the result shall be reversed [*Example*: 0x64CEED7E becomes 7EEDCE64. *end example*], and that value shall be hashed as defined by the attribute values.

[*Note*: The algorithm above can be stated as follows using diagrams:

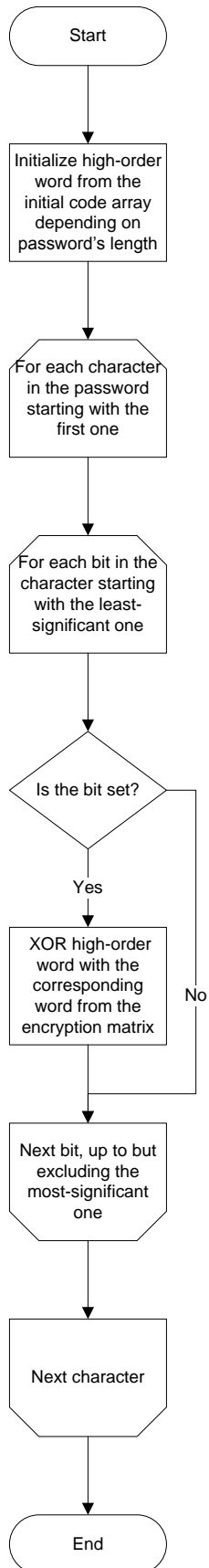


# Calculate Key



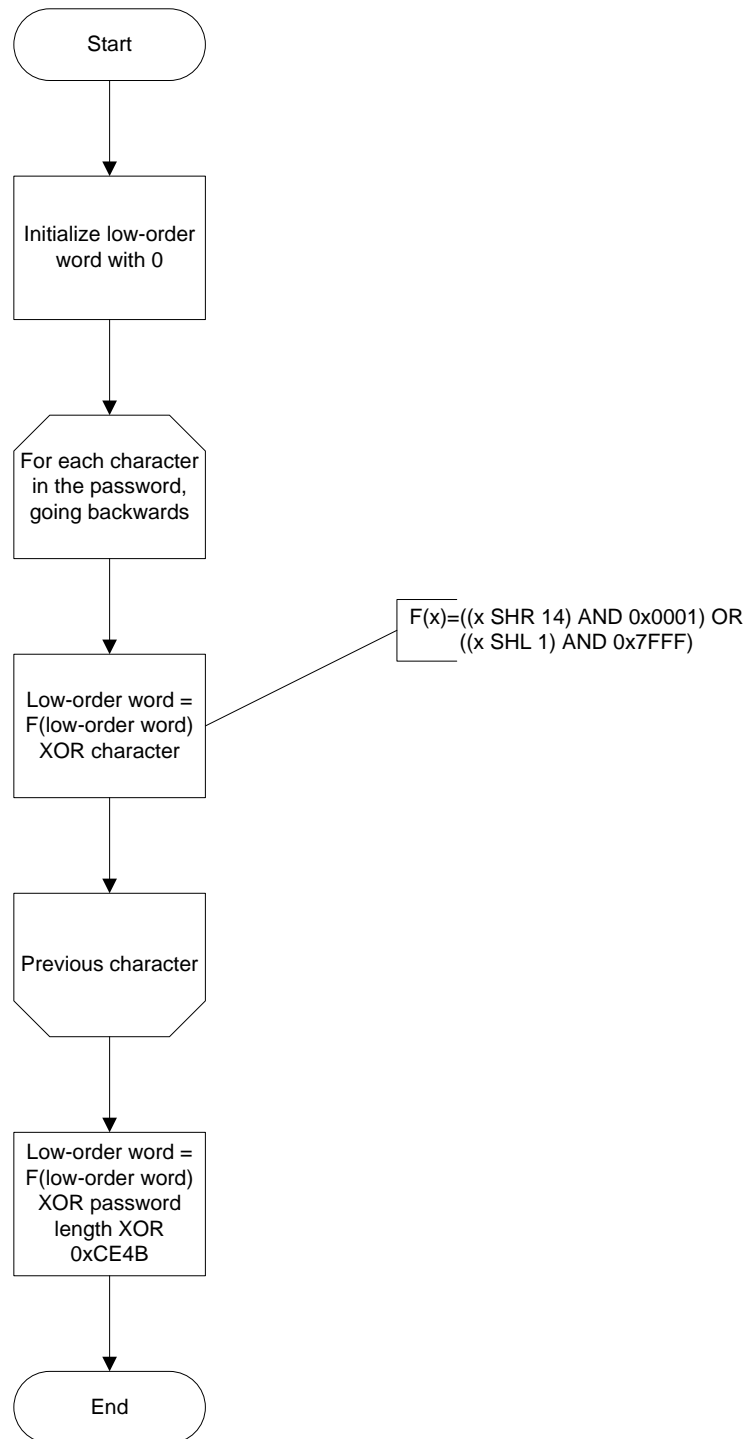


# Compute Key's High-Order Word





# Compute Key's Low-Order Word





*end note]*

[*Example:* Consider a WordprocessingML document which specifies that applications must not allow any modifications to this document other than the addition of comments. This requirement would be specified using the following WordprocessingML in the document settings:

```
<w:documentProtection w:edit="comments" w:enforcement="true" ...
  w:cryptAlgorithmClass="hash" w:cryptAlgorithmType="typeAny"
  w:cryptAlgorithmSid="1" w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" />
```

The documentProtection element has an edit attribute value of comments, specifying that the only modification allowed should be comments, the enforcement attribute has a value of true, specifying that the document protection specified is to be enforced on the given document. Finally, in order for the hosting application to stop enforcement of the document protection applied to the document, the hosting application would have to be provided with a password that the hosting application would then hash, compare to the value of the hash attribute (9oN7nWkCAyEZib1RomSJTjmPpCY=), and if the two values matched, halt enforcement of any document protection. *end example]*

## 14.8.2 Document Settings

### 14.8.2.1 hdrShapeDefaults (Default Properties for VML Objects in Header and Footer)

This element specifies the default parameters for object using the VML syntax (§19.1) inserted in the header and footer of a WordprocessingML document. The definition and semantics of these parameters is described in the VML - Office Drawing subclause (§19.2) of ECMA-376.

If this element is omitted, then no default properties are applied to VML objects in the header and footer of this document.

[*Example:* Consider a WordprocessingML document whose document settings contain the following markup:

```
<w:hdrShapeDefaults>
  <o:shapedefaults v:ext="edit" spidmax="2050" fillcolor="none [3207]"
strokecolor="none [3041]">
    <v:fill color="none [3207]" />
    <v:stroke color="none [3041]" weight="3pt" />
    <v:shadow on="t" type="perspective" color="none [1607]" opacity=".5"
offset="1pt" offset2="1pt" />
  </o:shapedefaults>
  <o:shapelayout v:ext="edit">
    <o:idmap v:ext="edit" data="2" />
  </o:shapelayout>
</w:hdrShapeDefaults>
```

The hdrShapeDefaults element specifies a set of shape defaults which must be applied to the set of all shapes present in the header and footer of this document. *end example]*



[*Note:* The W3C XML Schema definition of this element's content model ([CT\\_ShapeDefaults](#)) is located in §A.2. *end note*]

#### 14.8.2.2 [shapeDefaults \(Default Properties for VML Objects in Main Document\)](#)

This element specifies the default parameters for object using the VML syntax (§19.1) inserted in the body (the main document story, comments, footnotes, and endnotes) of the WordprocessingML document. The definition and semantics of these parameters is described in the VML - Office Drawing subclause (§19.2) of ECMA-376.

If this element is omitted, then no default properties are applied to VML objects in the body of this document.

[*Example:* Consider a WordprocessingML document whose document settings contain the following markup:

```
<w:shapeDefaults>
  <o:shapedefaults v:ext="edit" spidmax="1026" />
  <o:shapelayout v:ext="edit">
    <o:idmap v:ext="edit" data="1" />
  </o:shapelayout>
</w:shapeDefaults>
```

The shapeDefaults element specifies a set of shape defaults which must be applied to the set of all shapes present in the body document. *end example*]

[*Note:* The W3C XML Schema definition of this element's content model ([CT\\_ShapeDefaults](#)) is located in §A.2. *end note*]

#### 14.8.2.3 [Additional attributes for documentProtection element \(Part 1, §17.15.1.29\)](#)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
algIdExt (Cryptographic Algorithm Extensibility)	<p>Specifies that a cryptographic algorithm which was not defined by ECMA-376 has been used to generate the hash value stored with this document.</p> <p>This value, when present, shall be interpreted based on the value of the algIdExtSource attribute in order to determine the algorithm used, which shall be application-defined. [<i>Rationale:</i> This extensibility affords the fact that with exponentially increasing computing power, documents created in the future might need to utilize as yet undefined hashing algorithms in order to remain secure. <i>end rationale</i>]</p> <p>If this value is present, the cryptAlgorithmClass, cryptAlgorithmType, and cryptAlgorithmSid attribute values shall be ignored in favor of the algorithm defined by this attribute.</p> <p>[<i>Example:</i> Consider a WordprocessingML document with the following information stored in one of its protection elements:</p>



Attributes	Description
	<pre>&lt;... w:algIdExt="0000000A"       w:algIdExtSource="futureCryptography"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The algIdExt attribute value of 0000000A specifies that the algorithm with hex code A must be used as defined by the futureCryptography application. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_LongHexNumber simple type (Part 1, §17.18.50).</p>
algIdExtSource (Algorithm Extensibility Source)	<p>Specifies the application which defined the algorithm value specified by the algIdExt attribute.</p> <p>[<i>Example</i>: Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:algIdExt="0000000A"       w:algIdExtSource="futureCryptography"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The algIdExtSource attribute value of futureCryptography specifies that the algorithm used here was published by the futureCryptography application. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_String simple type (Part 1, §22.9.2.13).</p>
cryptAlgorithmClass (Cryptographic Algorithm Class)	<p>Specifies the class of cryptographic algorithm used by this protection. [<i>Note</i>: The initial version of ECMA-376 only supports a single version - hash - but future versions can expand this as necessary. <i>end note</i>]</p> <p>[<i>Example</i>: Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:cryptAlgorithmClass="hash"       w:cryptAlgorithmType="typeAny"       w:cryptAlgorithmSid="1"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The cryptAlgorithmClass attribute value of hash specifies that the algorithm used for the password is a hashing algorithm. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_AlgClass simple type (§20.1.2.1).</p>
cryptAlgorithmSid (Cryptographic Hashing Algorithm)	<p>Specifies the specific cryptographic hashing algorithm which shall be used along with the salt attribute and user-supplied password in order to compute a hash value for comparison.</p>



Attributes	Description																																
	<p>The possible values for this attribute shall be interpreted as follows:</p> <table border="1"> <thead> <tr> <th>Value</th><th>Algorithm</th></tr> </thead> <tbody> <tr><td>1</td><td>MD2</td></tr> <tr><td>2</td><td>MD4</td></tr> <tr><td>3</td><td>MD5</td></tr> <tr><td>4</td><td>SHA-1</td></tr> <tr><td>5</td><td>MAC</td></tr> <tr><td>6</td><td>RIPEMD</td></tr> <tr><td>7</td><td>RIPEMD-160</td></tr> <tr><td>8</td><td>Undefined. Shall not be used.</td></tr> <tr><td>9</td><td>HMAC</td></tr> <tr><td>10</td><td>Undefined. Shall not be used.</td></tr> <tr><td>11</td><td>Undefined. Shall not be used.</td></tr> <tr><td>12</td><td>SHA-256</td></tr> <tr><td>13</td><td>SHA-384</td></tr> <tr><td>14</td><td>SHA-512</td></tr> <tr><td>Any other value</td><td>Undefined. Shall not be used.</td></tr> </tbody> </table> <p>[<i>Example:</i> Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:cryptAlgorithmClass="hash"       w:cryptAlgorithmType="typeAny"       w:cryptAlgorithmSid="4"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The cryptAlgorithmSid attribute value of 4 specifies that the SHA-1 hashing algorithm must be used to generate a hash from the user-defined password. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_DecimalNumber simple type (Part 1, §17.18.10).</p>	Value	Algorithm	1	MD2	2	MD4	3	MD5	4	SHA-1	5	MAC	6	RIPEMD	7	RIPEMD-160	8	Undefined. Shall not be used.	9	HMAC	10	Undefined. Shall not be used.	11	Undefined. Shall not be used.	12	SHA-256	13	SHA-384	14	SHA-512	Any other value	Undefined. Shall not be used.
Value	Algorithm																																
1	MD2																																
2	MD4																																
3	MD5																																
4	SHA-1																																
5	MAC																																
6	RIPEMD																																
7	RIPEMD-160																																
8	Undefined. Shall not be used.																																
9	HMAC																																
10	Undefined. Shall not be used.																																
11	Undefined. Shall not be used.																																
12	SHA-256																																
13	SHA-384																																
14	SHA-512																																
Any other value	Undefined. Shall not be used.																																
cryptAlgorithmType (Cryptographic Algorithm Type)	<p>Specifies the type of cryptographic algorithm used by this protection. [<i>Note:</i> The initial version of ECMA-376 only supports a single algorithm type - typeAny - but future versions can expand this as necessary. <i>end note</i>]</p> <p>[<i>Example:</i> Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:cryptAlgorithmClass="hash"</pre>																																



Attributes	Description
	<pre>w:cryptAlgorithmType="typeAny" w:cryptAlgorithmSid="1" w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The cryptAlgorithmType attribute value of typeAny specifies that any type of algorithm might have been used for the password. <i>end example</i></p> <p>The possible values for this attribute are defined by the ST_AlgType simple type (§20.1.2.2).</p>
cryptProvider (Cryptographic Provider)	<p>Specifies the cryptographic provider which was used to generate the hash value stored in this document. If the user provided a cryptographic provider which was not the system's built-in provider, then that provider shall be stored here so it can subsequently be used if available.</p> <p>If this attribute is omitted, then the built-in cryptographic provider on the system shall be used.</p> <p>[<i>Example:</i> Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:cryptProvider="Krista'sProvider" w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The cryptProvider attribute value of Krista'sProvider specifies that the cryptographic provider with name "Krista's Provider" must be used if available. <i>end example</i></p> <p>The possible values for this attribute are defined by the ST_String simple type (Part 1, §22.9.2.13).</p>
cryptProviderType (Cryptographic Provider Type)	<p>Specifies the type of cryptographic provider to be used.</p> <p>[<i>Example:</i> Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:cryptProviderType="rsaAES" w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The cryptProviderType attribute value of rsaAES specifies that the cryptographic provider type must be an Advanced Encryption Standard provider. <i>end example</i></p> <p>The possible values for this attribute are defined by the ST_CryptProv simple type (§20.1.2.4).</p>
cryptProviderType Ext (Cryptographic Provider Type Extensibility)	<p>Specifies that a cryptographic provider type which was not defined by ECMA-376 has been used to generate the hash value stored with this document.</p> <p>This value, when present, shall be interpreted based on the value of the</p>



Attributes	Description
	<p>cryptProviderTypeExtSource attribute in order to determine the provider type used, which shall be application-defined. [<i>Rationale</i>: This extensibility affords the fact that with exponentially increasing computing power, documents created in the future might need to utilize as yet undefined cryptographic provider types in order to remain secure. <i>end rationale</i>]</p> <p>If this value is present, the cryptProviderType attribute value shall be ignored in favor of the provider type defined by this attribute.</p> <p>[<i>Example</i>: Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:cryptProviderTypeExt="00A5691D"       w:cryptProvideTypeExtSource="futureCryptography"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The cryptProviderTypeExt attribute value of 00A5691D specifies that the provider type associated with hex code A5691D must be used as defined by the futureCryptography application. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_LongHexNumber simple type (Part 1, §17.18.50).</p>
cryptProviderTypeExtSource (Provider Type Extensibility Source)	<p>Specifies the application which defined the provider type value specified by the cryptProviderTypeExt attribute.</p> <p>[<i>Example</i>: Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:cryptProviderTypeExt="00A5691D"       w:cryptProvideTypeExtSource="futureCryptography"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The cryptProvideTypeExtSource attribute value of futureCryptography specifies that the provider type used here was published by the futureCryptography application. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_String simple type (Part 1, §22.9.2.13).</p>
cryptSpinCount (Iterations to Run Hashing Algorithm)	<p>Specifies the number of times the hashing function shall be iteratively run (runs using each iteration's result plus a 4 byte value (0-based, little endian) containing the number of the iteration as the input for the next iteration) when attempting to compare a user-supplied password with the value stored in the hash attribute. [<i>Rationale</i>: Running the algorithm many times increases the cost of exhaustive search attacks correspondingly. Storing this value allows for the number of iterations to be increased over time to accommodate faster hardware (and hence the ability to run more iterations in less time).</p>



Attributes	Description
	<p><i>end rationale]</i></p> <p>[<i>Example:</i> Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:cryptSpinCount="100000"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The cryptSpinCount attribute value of 100000 specifies that the hashing function must be run one hundred thousand times to generate a hash value for comparison with the hash attribute. <i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DecimalNumber simple type (Part 1, §17.18.10).</p>
hash (Password Hash)	<p>Specifies the hash value for the password stored with this document. This value shall be compared with the resulting hash value after hashing the user-supplied password using the algorithm specified by the preceding attributes and parent XML element, and if the two values match, the protection shall no longer be enforced.</p> <p>If this value is omitted, then no password shall be associated with the protection, and it can be turned off without supplying any password.</p> <p>[<i>Example:</i> Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:cryptAlgorithmClass="hash"       w:cryptAlgorithmType="typeAny"       w:cryptAlgorithmSid="1"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The hash attribute value of 9oN7nWkCAyEZib1RomSJTjmPpCY= specifies that the user-supplied password must be hashed using the pre-processing defined by the parent element (if any) followed by the SHA-1 algorithm (specified via the cryptAlgorithmSid attribute value of 1) and that the resulting hash value must be 9oN7nWkCAyEZib1RomSJTjmPpCY= for the protection to be disabled. <i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema base64Binary datatype.</p>
salt (Salt for Password Verifier)	<p>Specifies the salt which was prepended to the user-supplied password before it was hashed using the hashing algorithm defined by the preceding attribute values to generate the hash attribute, and which shall also be prepended to the user-supplied password before attempting to generate a hash value for comparison. A <i>salt</i> is a random string which is added to a user-supplied password before it is hashed in order to prevent a malicious party from pre-calculating all possible password/hash combinations and simply using those precalculated values (often referred to as a "dictionary attack").</p>



Attributes	Description
	<p>If this attribute is omitted, then no salt shall be prepended to the user-supplied password before it is hashed for comparison with the stored hash value.</p> <p>[<i>Example:</i> Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:salt="ZUdHa+D8F/OAKP3I7ssUnQ=="       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The salt attribute value of ZUdHa+D8F/OAKP3I7ssUnQ== specifies that the user-supplied password must have this value prepended before it is run through the specified hashing algorithm to generate a resulting hash value for comparison. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema base64Binary datatype.</p>

#### 14.8.2.4 [Additional attribute for stylePaneFormatFilter element \(Part 1, §17.15.1.85\)](#)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description																				
val (Bitmask of Suggested Filtering Options)	<p>Specifies a bitmask of the following filtering options:</p> <table> <tr> <th>Value</th><th>Description</th></tr> <tr> <td>0x0001</td><td>Specifies that all styles present in the styles part should be displayed in the list of document styles.</td></tr> <tr> <td>0x0002</td><td>Specifies that only styles with the customStyle attribute should be displayed in the list of document styles.</td></tr> <tr> <td>0x0004</td><td>Specifies that all latent styles should be displayed in the list of document styles.</td></tr> <tr> <td>0x0008</td><td>Specifies that only styles used in the document should be displayed in the list of document styles.</td></tr> <tr> <td>0x0010</td><td>Undefined. Shall not be used.</td></tr> <tr> <td>0x0020</td><td>Specifies that heading styles (styles with a styleId of Heading1 to Heading9) should be displayed in the list of document styles when the previous style is used in the document and/or is present in the styles part.</td></tr> <tr> <td>0x0040</td><td>Specifies that numbering styles should be displayed in the list of document styles.</td></tr> <tr> <td>0x0080</td><td>Specifies that table styles should be displayed in the list of document styles.</td></tr> <tr> <td>0x0100</td><td>Specifies that all unique forms of run-level direct formatting should be displayed in the list of document styles as though they were each a unique style.</td></tr> </table>	Value	Description	0x0001	Specifies that all styles present in the styles part should be displayed in the list of document styles.	0x0002	Specifies that only styles with the customStyle attribute should be displayed in the list of document styles.	0x0004	Specifies that all latent styles should be displayed in the list of document styles.	0x0008	Specifies that only styles used in the document should be displayed in the list of document styles.	0x0010	Undefined. Shall not be used.	0x0020	Specifies that heading styles (styles with a styleId of Heading1 to Heading9) should be displayed in the list of document styles when the previous style is used in the document and/or is present in the styles part.	0x0040	Specifies that numbering styles should be displayed in the list of document styles.	0x0080	Specifies that table styles should be displayed in the list of document styles.	0x0100	Specifies that all unique forms of run-level direct formatting should be displayed in the list of document styles as though they were each a unique style.
Value	Description																				
0x0001	Specifies that all styles present in the styles part should be displayed in the list of document styles.																				
0x0002	Specifies that only styles with the customStyle attribute should be displayed in the list of document styles.																				
0x0004	Specifies that all latent styles should be displayed in the list of document styles.																				
0x0008	Specifies that only styles used in the document should be displayed in the list of document styles.																				
0x0010	Undefined. Shall not be used.																				
0x0020	Specifies that heading styles (styles with a styleId of Heading1 to Heading9) should be displayed in the list of document styles when the previous style is used in the document and/or is present in the styles part.																				
0x0040	Specifies that numbering styles should be displayed in the list of document styles.																				
0x0080	Specifies that table styles should be displayed in the list of document styles.																				
0x0100	Specifies that all unique forms of run-level direct formatting should be displayed in the list of document styles as though they were each a unique style.																				



Attributes	Description																
	<table border="1"> <tr> <td>0x0200</td><td>Specifies that all unique forms of paragraph-level direct formatting should be displayed in the list of document styles as though they were each a unique style.</td></tr> <tr> <td>0x0400</td><td>Specifies that all unique forms of direct formatting of numbering data should be displayed in the list of document styles as though they were each a unique style.</td></tr> <tr> <td>0x0800</td><td>Specifies that all unique forms of direct formatting of tables should be displayed in the list of document styles as though they were each a unique style.</td></tr> <tr> <td>0x1000</td><td>Specifies that a style should be present which removes all formatting and styles from text.</td></tr> <tr> <td>0x2000</td><td>Specifies that heading styles with a styleId of Heading1 to Heading3 should always be displayed in the list of document styles.</td></tr> <tr> <td>0x4000</td><td>Specifies that styles should only be shown the semiHidden element (Part 1, §17.7.4.16) is false and the hidden element (Part 1, §17.7.4.4) is false.</td></tr> <tr> <td>0x8000</td><td>Specifies that primary names for styles should not be shown if an alternate name using the name element (Part 1, §17.7.4.9) exists.</td></tr> <tr> <td>Any other value</td><td>Undefined. Shall not be used.</td></tr> </table>	0x0200	Specifies that all unique forms of paragraph-level direct formatting should be displayed in the list of document styles as though they were each a unique style.	0x0400	Specifies that all unique forms of direct formatting of numbering data should be displayed in the list of document styles as though they were each a unique style.	0x0800	Specifies that all unique forms of direct formatting of tables should be displayed in the list of document styles as though they were each a unique style.	0x1000	Specifies that a style should be present which removes all formatting and styles from text.	0x2000	Specifies that heading styles with a styleId of Heading1 to Heading3 should always be displayed in the list of document styles.	0x4000	Specifies that styles should only be shown the semiHidden element (Part 1, §17.7.4.16) is false and the hidden element (Part 1, §17.7.4.4) is false.	0x8000	Specifies that primary names for styles should not be shown if an alternate name using the name element (Part 1, §17.7.4.9) exists.	Any other value	Undefined. Shall not be used.
0x0200	Specifies that all unique forms of paragraph-level direct formatting should be displayed in the list of document styles as though they were each a unique style.																
0x0400	Specifies that all unique forms of direct formatting of numbering data should be displayed in the list of document styles as though they were each a unique style.																
0x0800	Specifies that all unique forms of direct formatting of tables should be displayed in the list of document styles as though they were each a unique style.																
0x1000	Specifies that a style should be present which removes all formatting and styles from text.																
0x2000	Specifies that heading styles with a styleId of Heading1 to Heading3 should always be displayed in the list of document styles.																
0x4000	Specifies that styles should only be shown the semiHidden element (Part 1, §17.7.4.16) is false and the hidden element (Part 1, §17.7.4.4) is false.																
0x8000	Specifies that primary names for styles should not be shown if an alternate name using the name element (Part 1, §17.7.4.9) exists.																
Any other value	Undefined. Shall not be used.																
<p>[Example: Consider a document with the following value in its document settings:</p> <pre>&lt;w:stylePaneFormatFilter w:val="2002" /&gt;</pre> <p>The val attribute specifies two suggested filter options for the list of document styles:</p> <ul style="list-style-type: none"> <li>• Only custom styles should be shown (0002)</li> <li>• Heading styles with a styleId of Heading1 to Heading3 should always be displayed in the list (2000)</li> </ul> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ShortHexNumber simple type (Part 1, §17.18.79).</p>																	

#### 14.8.2.5 Additional attributes for writeProtection element (Part 1, §17.15.1.93)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
algIdExt (Cryptographic)	Specifies that a cryptographic algorithm which was not defined by ECMA-376 has been used to generate the hash value stored with this document.



Attributes	Description
Algorithm Extensibility)	<p>This value, when present, shall be interpreted based on the value of the algIdExtSource attribute in order to determine the algorithm used, which shall be application-defined. [Rationale: This extensibility affords the fact that with exponentially increasing computing power, documents created in the future might need to utilize as yet undefined hashing algorithms in order to remain secure. <i>end rationale</i>]</p> <p>If this value is present, the cryptAlgorithmClass, cryptAlgorithmType, and cryptAlgorithmSid attribute values shall be ignored in favor of the algorithm defined by this attribute.</p> <p>[Example: Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:algIdExt="0000000A"       w:algIdExtSource="futureCryptography"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The algIdExt attribute value of 0000000A specifies that the algorithm with hex code A must be used as defined by the futureCryptography application. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_LongHexNumber simple type (Part 1, §17.18.50).</p>
algIdExtSource (Algorithm Extensibility Source)	<p>Specifies the application which defined the algorithm value specified by the algIdExt attribute.</p> <p>[Example: Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:algIdExt="0000000A"       w:algIdExtSource="futureCryptography"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The algIdExtSource attribute value of futureCryptography specifies that the algorithm used here was published by the futureCryptography application. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_String simple type (Part 1, §22.9.2.13).</p>
cryptAlgorithmClass (Cryptographic Algorithm Class)	<p>Specifies the class of cryptographic algorithm used by this protection. [Note: The initial version of ECMA-376 only supports a single version - hash - but future versions can expand this as necessary. <i>end note</i>]</p> <p>[Example: Consider a WordprocessingML document with the following information stored in one of its protection elements:</p>



Attributes	Description																																
	<pre>&lt;... w:cryptAlgorithmClass="hash"       w:cryptAlgorithmType="typeAny"       w:cryptAlgorithmSid="1"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The cryptAlgorithmClass attribute value of hash specifies that the algorithm used for the password is a hashing algorithm. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_AlgClass simple type (§20.1.2.1).</p>																																
cryptAlgorithmSid (Cryptographic Hashing Algorithm)	<p>Specifies the specific cryptographic hashing algorithm which shall be used along with the salt attribute and user-supplied password in order to compute a hash value for comparison.</p> <p>The possible values for this attribute shall be interpreted as follows:</p> <table> <tr> <th>Value</th><th>Algorithm</th></tr> <tr><td>1</td><td>MD2</td></tr> <tr><td>2</td><td>MD4</td></tr> <tr><td>3</td><td>MD5</td></tr> <tr><td>4</td><td>SHA-1</td></tr> <tr><td>5</td><td>MAC</td></tr> <tr><td>6</td><td>RIPEMD</td></tr> <tr><td>7</td><td>RIPEMD-160</td></tr> <tr><td>8</td><td>Undefined. Shall not be used.</td></tr> <tr><td>9</td><td>HMAC</td></tr> <tr><td>10</td><td>Undefined. Shall not be used.</td></tr> <tr><td>11</td><td>Undefined. Shall not be used.</td></tr> <tr><td>12</td><td>SHA-256</td></tr> <tr><td>13</td><td>SHA-384</td></tr> <tr><td>14</td><td>SHA-512</td></tr> <tr><td>Any other value</td><td>Undefined. Shall not be used.</td></tr> </table> <p>[<i>Example:</i> Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:cryptAlgorithmClass="hash"       w:cryptAlgorithmType="typeAny"       w:cryptAlgorithmSid="4"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre>	Value	Algorithm	1	MD2	2	MD4	3	MD5	4	SHA-1	5	MAC	6	RIPEMD	7	RIPEMD-160	8	Undefined. Shall not be used.	9	HMAC	10	Undefined. Shall not be used.	11	Undefined. Shall not be used.	12	SHA-256	13	SHA-384	14	SHA-512	Any other value	Undefined. Shall not be used.
Value	Algorithm																																
1	MD2																																
2	MD4																																
3	MD5																																
4	SHA-1																																
5	MAC																																
6	RIPEMD																																
7	RIPEMD-160																																
8	Undefined. Shall not be used.																																
9	HMAC																																
10	Undefined. Shall not be used.																																
11	Undefined. Shall not be used.																																
12	SHA-256																																
13	SHA-384																																
14	SHA-512																																
Any other value	Undefined. Shall not be used.																																



Attributes	Description
	<p>The cryptAlgorithmSid attribute value of 4 specifies that the SHA-1 hashing algorithm must be used to generate a hash from the user-defined password. <i>end example</i></p> <p>The possible values for this attribute are defined by the ST_DecimalNumber simple type (Part 1, §17.18.10).</p>
cryptAlgorithmType (Cryptographic Algorithm Type)	<p>Specifies the type of cryptographic algorithm used by this protection. [<i>Note</i>: The initial version of ECMA-376 only supports a single algorithm type - typeAny - but future versions can expand this as necessary. <i>end note</i>]</p> <p>[<i>Example</i>: Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:cryptAlgorithmClass="hash"       w:cryptAlgorithmType="typeAny"       w:cryptAlgorithmSid="1"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The cryptAlgorithmType attribute value of typeAny specifies that any type of algorithm might have been used for the password. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_AlgType simple type (§20.1.2.2).</p>
cryptProvider (Cryptographic Provider)	<p>Specifies the cryptographic provider which was used to generate the hash value stored in this document. If the user provided a cryptographic provider which was not the system's built-in provider, then that provider shall be stored here so it can subsequently be used if available.</p> <p>If this attribute is omitted, then the built-in cryptographic provider on the system shall be used.</p> <p>[<i>Example</i>: Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:cryptProvider="Krista'sProvider"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The cryptProvider attribute value of Krista'sProvider specifies that the cryptographic provider with name "Krista's Provider" must be used if available. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_String simple type (Part 1, §22.9.2.13).</p>
cryptProviderType (Cryptographic Provider Type)	<p>Specifies the type of cryptographic provider to be used.</p> <p>[<i>Example</i>: Consider a WordprocessingML document with the following information</p>



Attributes	Description
	<p>stored in one of its protection elements:</p> <pre>&lt;... w:cryptProviderType="rsaAES"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The cryptProviderType attribute value of rsaAES specifies that the cryptographic provider type must be an Advanced Encryption Standard provider. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_CryptProv simple type (§20.1.2.4).</p>
cryptProviderTypeExt (Cryptographic Provider Type Extensibility)	<p>Specifies that a cryptographic provider type which was not defined by ECMA-376 has been used to generate the hash value stored with this document.</p> <p>This value, when present, shall be interpreted based on the value of the cryptProviderTypeExtSource attribute in order to determine the provider type used, which shall be application-defined. [<i>Rationale</i>: This extensibility affords the fact that with exponentially increasing computing power, documents created in the future might need to utilize as yet undefined cryptographic provider types in order to remain secure. <i>end rationale</i>]</p> <p>If this value is present, the cryptProviderType attribute value shall be ignored in favor of the provider type defined by this attribute.</p> <p>[<i>Example</i>: Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:cryptProviderTypeExt="00A5691D"       w:cryptProvideTypeExtSource="futureCryptography"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The cryptProviderTypeExt attribute value of 00A5691D specifies that the provider type associated with hex code A5691D must be used as defined by the futureCryptography application. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_LongHexNumber simple type (Part 1, §17.18.50).</p>
cryptProviderTypeExtSource (Provider Type Extensibility Source)	<p>Specifies the application which defined the provider type value specified by the cryptProviderTypeExt attribute.</p> <p>[<i>Example</i>: Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:cryptProviderTypeExt="00A5691D"       w:cryptProvideTypeExtSource="futureCryptography"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre>



Attributes	Description
	<p>The cryptProvideTypeExtSource attribute value of futureCryptography specifies that the provider type used here was published by the futureCryptography application. <i>end example</i></p> <p>The possible values for this attribute are defined by the ST_String simple type (Part 1, §22.9.2.13).</p>
cryptSpinCount (Iterations to Run Hashing Algorithm)	<p>Specifies the number of times the hashing function shall be iteratively run (runs using each iteration's result plus a 4 byte value (0-based, little endian) containing the number of the iteration as the input for the next iteration) when attempting to compare a user-supplied password with the value stored in the hash attribute. [<i>Rationale</i>: Running the algorithm many times increases the cost of exhaustive search attacks correspondingly. Storing this value allows for the number of iterations to be increased over time to accommodate faster hardware (and hence the ability to run more iterations in less time). <i>end rationale</i>]</p> <p>[<i>Example</i>: Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:cryptSpinCount="100000"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The cryptSpinCount attribute value of 100000 specifies that the hashing function must be run one hundred thousand times to generate a hash value for comparison with the hash attribute. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_DecimalNumber simple type (Part 1, §17.18.10).</p>
hash (Password Hash)	<p>Specifies the hash value for the password stored with this document. This value shall be compared with the resulting hash value after hashing the user-supplied password using the algorithm specified by the preceding attributes and parent XML element, and if the two values match, the protection shall no longer be enforced.</p> <p>If this value is omitted, then no password shall be associated with the protection, and it can be turned off without supplying any password.</p> <p>[<i>Example</i>: Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:cryptAlgorithmClass="hash"       w:cryptAlgorithmType="typeAny"       w:cryptAlgorithmSid="1"       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The hash attribute value of 9oN7nWkCAyEZib1RomSJTjmPpCY= specifies that the user-supplied password must be hashed using the pre-processing defined by the parent</p>



Attributes	Description
	<p>element (if any) followed by the SHA-1 algorithm (specified via the <code>cryptAlgorithmSid</code> attribute value of 1) and that the resulting hash value must be <code>9oN7nWkCAyEZib1RomSJTjmPpCY=</code> for the protection to be disabled. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema <code>base64Binary</code> datatype.</p>
salt (Salt for Password Verifier)	<p>Specifies the salt which was prepended to the user-supplied password before it was hashed using the hashing algorithm defined by the preceding attribute values to generate the hash attribute, and which shall also be prepended to the user-supplied password before attempting to generate a hash value for comparison. A <i>salt</i> is a random string which is added to a user-supplied password before it is hashed in order to prevent a malicious party from pre-calculating all possible password/hash combinations and simply using those precalculated values (often referred to as a "dictionary attack").</p> <p>If this attribute is omitted, then no salt shall be prepended to the user-supplied password before it is hashed for comparison with the stored hash value.</p> <p>[<i>Example:</i> Consider a WordprocessingML document with the following information stored in one of its protection elements:</p> <pre>&lt;... w:salt="ZUdHa+D8F/OAKP3I7ssUnQ=="       w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The salt attribute value of <code>ZUdHa+D8F/OAKP3I7ssUnQ==</code> specifies that the user-supplied password must have this value prepended before it is run through the specified hashing algorithm to generate a resulting hash value for comparison. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema <code>base64Binary</code> datatype.</p>

### 14.8.3 Compatibility Settings

The last group of settings stored in WordprocessingML is compatibility settings. *Compatibility Settings* are optional settings used to preserve visual fidelity of documents created in earlier word processing applications. Some of these settings provide affordance for specific behaviors, described in detail below; and others simply instruct applications to mimic the behavior of an existing word processing application.

If compatibility settings are needed, they are stored in the Document Settings part.

It is important to note that all compatibility settings are optional in nature - applications can freely ignore all behaviors described within this section and these settings should not be added unless compatibility is specifically needed in one or more cases. The compatibility settings are provided for backward compatibility with documents created in legacy applications. As such, a number of the settings reference specific applications and specific versions of those applications. This is solely for backward compatibility reasons, and any of those settings are not intended for use by typical applications.



[*Note*: These settings can also be expressed using the generic compatSetting element defined in ECMA-376-1. *end note*]

[*Example*: Consider the following WordprocessingML fragment for the compatibility settings in a WordprocessingML document:

```
<w:settings>
...
<w:compat>
  <w:noTabHangInd />
</w:compat>
</w:settings>
```

The compat element contains all of the document settings for this document. In this case, the single setting applied is the suppression of a tab stop when using a hanging indent using the noTabHangInd element (§14.8.3.31). *end example*]

#### 14.8.3.1 alignTablesRowByRow (Align Table Rows Independently)

This element specifies whether applications shall align each row within a table independently based on the alignment setting of the jc element (Part 1, §17.4.28) when displaying the contents of a table in a WordprocessingML document.

When the justification of a table using the jc element is typically applied, that alignment is applied to the contents of the table (the table is centered, left justified, or right-aligned), and then individual rows are laid out based on the resulting table's position. This element, when present with a val attribute value of true (or equivalent), specifies that each table row shall be independently aligned based on the table alignment setting, ignoring the placement of all other rows.

[*Example*: Consider a WordprocessingML document with a single centered table, whose second row is defined such that one-half of an inch is left before the row begins, as follows:

```
<w:tbl>
  <w:tblPr>
    <w:jc w:val="center" />
  </w:tblPr>
  <w:tr>
    ...
  </w:tr>
  <w:tr>
    <w:trPr>
      <w:gridBefore w:val="1" />
```



```
<w:wBefore w:w="720" w:type="dxa" />
</w:trPr>
...
</w:tr>
<w:tr>
...
</w:tr>
</w:tbl>
```

The default presentation would have the entire table centered, then the second row indented beyond that by 720 points:


However, if this compatibility setting is turned on:

```
<w:compat>
  <w:alignTablesRowByRow />
</w:compat>
```

Then that second row would instead be centered on the page independently of the other table rows, resulting in the following output:


In this case, the wBefore element's value is ignored, since the row was centered on the line as a row, and there is no table to be indented relative to. *end example]*

This element’s content model is defined by the common boolean property definition in Part 1, §17.17.4.

14.8.3.2 allowSpaceOfSameStyleInTable (Allow Contextual Spacing of Paragraphs in Tables)

This element specifies whether the suppression of additional space (contextual spacing) defined using the contextualSpacing element (Part 1, §17.3.1.9) shall be applied to paragraphs contained within tables.

Typically, the rules for the removal of additional paragraph spacing via the contextualSpacing element are applied to all paragraphs in a WordprocessingML document. This element, when present with a val attribute value of true (or equivalent), specifies that this setting shall always be ignored for paragraphs in table cells (and additional spacing shall be allowed).



[Example: Consider a WordprocessingML document with a default paragraph style with additional spacing after and contextual spacing set, as follows:

```
<w:style w:name="Normal" w:default="1">
...
<w:pPr>
  <w:spacing w:after="200" />
  <w:contextualSpacing />
</w:pPr>
</w:style>
```

The default presentation would have the spacing suppressed between all paragraphs, since they are all of the default paragraph style defined above (contextual spacing applies):

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:allowSpaceOfSameStyleInTable />
</w:compat>
```

Then the paragraphs in the table never have their spacing suppressed, resulting in the following output:



On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.3 `autofitToFirstFixedWidthCell` (Allow Table Columns To Exceed Preferred Widths of Constituent Cells)

This element specifies that when performing an AutoFit on a table in a WordprocessingML document in order to display it, applications shall alter that logic slightly in order to mimic the behavior of a previous word processing application.

Normally, the AutoFit behavior of a table is as is described in the associated simple type. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that this logic shall be changed as follows:

- If the width of a grid column in a table has been set by a preferred table cell width, then that column's width can be enlarged by the content of cells which themselves do not have a preferred width (in contrast, the normal logic never allows the content of cells to override a preferred width on a grid column).

[*Example:* Consider a WordprocessingML table with only one preferred cell width, a width of 720 points on the second cell in the first column, as follows:

```
<w:tbl>
...
<w:tr>
  <w:tc>
    <w:p/>
```



```

</w:tc>
<w:tc>
  <w:p/>
</w:tc>
</w:tr>
<w:tr>
  <w:tc>
    <w:tcPr>
      <w:tcW w:w="720" w:type="dxa" />
    </w:tcPr>
    <w:p/>
  </w:tc>
  <w:tc>
    <w:p/>
  </w:tc>
</w:tr>
</w:tbl>

```

The default presentation would have the first column constrained to 720 points by the preferred width of the second cell in the first column:

This is an example of a cell with lots of content.	

However, if this compatibility setting is turned on:

```

<w:compat>
  <w:autoFitToFirstFixedWidthCell />
</w:compat>

```

Then the column would be resized proportionally based on the content (ignoring the preferred width in that row), resulting in the following output:

This is an example of a cell with lots of content.	

*end example]*



This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.4 autoSpaceLikeWord95 (Incorrectly Adjust Text Spacing for Specific Unicode Ranges)

This element specifies adjustments (detailed below) which should be applied to the spacing between adjoining regions of non-ideographic and ideographic text when the autoSpaceDE (Part 1, §17.3.1.2) and autoSpaceDN (Part 1, §17.3.1.3) elements have a value of true (or equivalent). This algorithm typically results in the following:

- An increase in the inter-character spacing added between non-ideographic and/or number characters and certain full-width characters
- No inter-character spacing between non-ideographic and/or number characters and certain half-width characters

Typically, applications apply additional spacing between ideographic and non-ideographic characters/numeric characters when the autoSpaceDE / autoSpaceDN properties are applied. This element, when present with a val attribute value of true (or equivalent), specifies that applications shall apply the following adjustments to this logic:

- Characters in the following Unicode ranges should be treated as ideographic, even though those characters are full-width forms of non-ideographic text: U+FF10–U+FF19, U+FF21–U+FF3A, and U+FF41–U+FF5A. [*Note: This results in the unnecessary addition of space. end note*]
- Characters in the following Unicode ranges should be treated as non-ideographic, even though those characters are ideographic: U+FF66–U+FF9F. [*Note: This results in the omission of the intended additional space. end note*]

[*Example: Consider a WordprocessingML document with two paragraphs containing a mix of East Asian and Latin characters:*

```
<w:p>
  <w:r>
    <w:t>ab</w:t>
  </w:r>
  <w:r>
    <w:t>ヲ</w:t>
  </w:r>
  <w:r>
    <w:t>ヲ</w:t>
  </w:r>
  <w:r>
    <w:t>cd</w:t>
  </w:r>
</w:p>
<w:p>
  <w:r>
```



```

    <w:t>ab</w:t>
  </w:r>
  <w:r>
    <w:t> 2 </w:t>
  </w:r>
  <w:r>
    <w:t> 2 </w:t>
  </w:r>
  <w:r>
    <w:t>cd</w:t>
  </w:r>
</w:p>

```

The first paragraph contains characters with Unicode value U+FF66 (㐦). The second paragraph contains characters with Unicode value U+FF12 ( 2 ). If autoSpaceDE is true, spacing is added in the first paragraph (between the ideographs and the non-ideographic characters), but not in the second (all four characters are not ideographs):

ab 㐦㐦 cd  
 ab 2 2 cd

If this compatibility setting is turned on:

```

  <w:compat>
    <w:autoSpaceLikeWord95 />
  </w:compat>

```

Then, although it appears incorrect, applications should not add space in the first paragraph and should apply it in the second:

ab㐦㐦cd  
 ab 2 2 cd

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.5 [cachedColBalance \(Use Cached Paragraph Information for Column Balancing\)](#)

This element specifies whether applications shall incorrectly calculate the height of a paragraph for the purposes of column balancing when rendering WordprocessingML documents. Specifically, this element specifies that



when a paragraph's lines have differing heights, an application shall treat this paragraph as though it had only one line equaling the full paragraph height, regardless of the actual number of lines in the paragraph.

[*Guidance*: It is recommended that applications not intentionally replicate this behavior; it is maintained only for compatibility with existing documents from a legacy application. *end guidance*]

Typically, lines are correctly measured for their height when balancing columns as part of a WordprocessingML document. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that applications shall perform the incorrect calculation in the conditions described above.

[*Example*: Consider a WordprocessingML document with two columns of text which shall be balanced.

If this compatibility setting is turned on:

```
<w:compat>
  <w:cachedColBalance />
</w:compat>
```

Then applications should perform the calculation described above to balance the columns, as needed. *end example*]

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.6 `convMailMergeEsc` (Treat Backslash Quotation Delimiter as Two Quotation Marks)

This element specifies whether applications should perform a conversion of the contents of a mail merge data source when reading those contents in order to perform a mail merge operation with their contents.

Typically, the contents of a mail merge data source are read in exactly as specified when performing a mail merge with the contents of a data source. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that applications shall interpret delimiters composed of a backslash and quotation mark (`\"`) as two quotation marks (`"`), within external data sources to be connected to via a mail merge.

[*Example*: Consider a WordprocessingML document with the following content in its data source:

```
This is a \"test\".
```

The default presentation would have the resulting merged data read in just as it appears:

```
This is a \"test\".
```

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:convMailMergeEsc />
</w:compat>
```

Then instances of a backslash and quotation mark would be converted, resulting in the following output:



This is a ""test"".

*end example]*


This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.7 `displayHangulFixedWidth` (Always Use Fixed Width for Hangul Characters)


This element specifies whether applications should assume that all characters in the Hangul Syllables Unicode sub range (character values between 0xAC00 and 0xD7FF) are of a single fixed width or shall use the characters widths defined by the font in use (typical for a proportional width font).

Typically, applications shall retrieve the character width for any character in a document from the associated font, allowing each character to be of its own width (a proportional width character). This element, when present with a `val` attribute value of `true` (or equivalent), specifies that applications shall instead assume a single fixed width for all characters in the Hangul Syllables sub range, by reading the width of Unicode character 0x4E00 from the associated font and using that width for all Hangul characters (or, if that character is not present, the next available character in the font).

[*Example:* Consider a WordprocessingML document with three Hangul characters:



The default presentation would have each of those characters using the widths defined by the font (the highlighting indicates that each character has its own width):

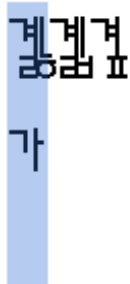


However, if this compatibility setting is turned on:

```
<w:compat>
  <w:displayHangulFixedWidth />
</w:compat>
```



Then all three characters are forced to the fixed width of character 0x4E00 from the font (or, in this case, the next available character), resulting in the characters in the font being forced to that fixed width, which results in the following output:



Notice from the highlighting that the characters have been compressed to the width of the single character and displayed at that fixed width. *end example*]

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.8 `doNotAutofitConstrainedTables` (Do Not AutoFit Tables To Fit Next To Wrapped Objects)

This element specifies whether applications shall allow tables to be resized to the remaining available line width when they are using the AutoFit algorithm and part of that line is filled by a shape with a wrapping type with a value of square or tight.

Typically, a table which is AutoFit and has a preferred width shall have its width reduced in order to allow a floating shape to wrap around its contents within the document, as that shape simply reduces the width of the line and the AutoFit algorithm applies to the remaining line width. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that tables shall never have any preferred width overridden to allow them to wrap around that floating object, and shall instead be pushed to the next full width line in the document to be displayed.

[*Example:* Consider a WordprocessingML document with a floating shape centered in the document, followed by a table with preferred cell widths of 2.22", as follows:



This is some text.

This is some text.




This is some text.

The default presentation of this document overrides the preferred cell widths to force the table to fit on the line next to the floating shape with tight wrapping.

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:doNotAutofitConstrainedTables />
</w:compat>
```

Then that table is not resized, so it cannot fit and must be pushed to the next full width line, resulting in the following output:

This is some text.

This is some text.




This is some text.

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.9 `doNotBreakConstrainedForcedTable` (Don't Break Table Rows Around Floating Tables)

This element specifies whether applications shall allow a table row to be split in two when its contents are displayed under the following circumstances:



- The table row exceeds one page in height (it shall be split into two pages)
- The table row would need to be split in order to accommodate a floating table also on the page (tables which have been set to floating using the `tblpPr` element (Part 1, §17.4.58))

Typically, assuming the `cantSplit` property (Part 1, §17.4.6) is not set, a table row which cannot fit on one single page shall be split as needed around any floating table on a page, in order to allow its contents to be fully displayed across two or more pages. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that table rows which exceed one page in height shall never be split around floating tables in the document, and shall instead be displayed on the first page below the floating table, even if that means that part of the table row is clipped by the edge of the page.

[*Example:* Consider a WordprocessingML document with a long single table row which must be split across two separate pages in the document, in order to accommodate a floating table anchored in the footer, as follows:

[illegible]

The default presentation of this document forces that row to be split as needed around that floating table.

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:doNotBreakConstrainedForcedTable />
</w:compat>
```

Then that table row is never split around the floating table, so it is always placed below that floating table on the page, and allowed to flow off the page as needed, resulting in the following output:



[1]	[2]																																			
<div>This is a single table cell in the footer</div> <table><tr><td>This is example text.</td><td></td><td></td><td></td><td></td></tr><tr><td>This is example text.</td><td></td><td></td><td></td><td></td></tr><tr><td>This is example text.</td><td></td><td></td><td></td><td></td></tr><tr><td>This is example text.</td><td></td><td></td><td></td><td></td></tr><tr><td>This is example text.</td><td></td><td></td><td></td><td></td></tr><tr><td>This is example text.</td><td></td><td></td><td></td><td></td></tr><tr><td>This is example text.</td><td></td><td></td><td></td><td></td></tr></table>	This is example text.					This is example text.					This is example text.					This is example text.					This is example text.					This is example text.					This is example text.					<div>This is a single table cell in the footer</div>
This is example text.																																				
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This is example text.																																				
This is example text.																																				
This is example text.																																				

This example, while extreme, shows how the row is placed below the floating table, rather than breaking around it. *end example*]

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

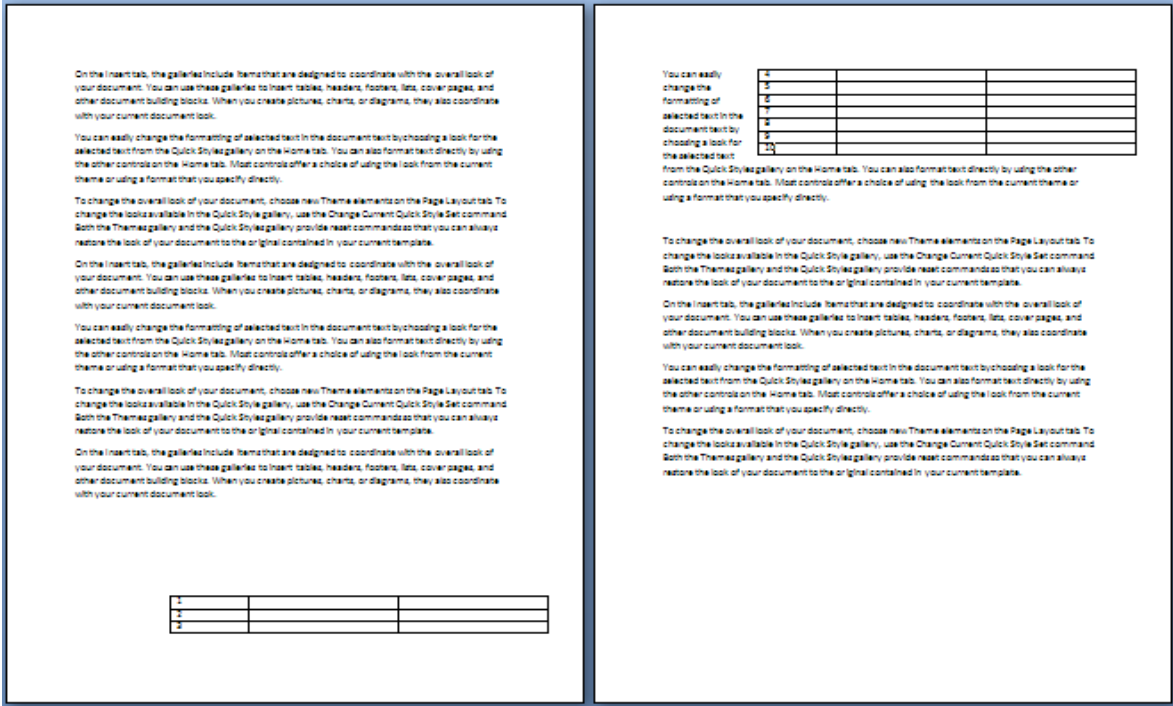
#### 14.8.3.10 doNotBreakWrappedTables (Do Not Allow Floating Tables To Break Across Pages)

This element specifies whether applications shall allow tables which have been set to floating using the `tblpPr` element (Part 1, §17.4.58) shall be allowed to break across multiple pages when needed.

Typically, a table whose contents cannot all be displayed on one page is broken as needed across multiple pages in order to preserve the location of the table (just as a paragraph of multiple lines is broken across pages as needed). This element, when present with a `val` attribute value of `true` (or equivalent), specifies that floating tables shall never be broken across pages, and shall instead be put on the first page by adjusting the starting position of the table as needed to fit on that single page.

[*Example:* Consider a WordprocessingML document with a floating table positioned at the bottom of a page , as follows:





The default presentation of this document results in that table being broken across two pages of content.

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:doNotBreakWrappedTables />
</w:compat>
```

Then that table is not broken across the page boundary, so it must be moved further up on the first page to accommodate its entire size, resulting in the following output:



On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.

To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.

To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.

To change the overall look of your document, choose

1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.

To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.

|

Notice that the table now flows into the page margins in order to keep it on one page. *end example*]

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.11 doNotSnapToGridInCell (Do Not Snap to Document Grid in Table Cells with Objects)

This element specifies whether a document grid defined using the docGrid element (Part 1, §17.6.5) shall be applied to the contents of table cells in that section which also contain floating objects. Note that the floating object shall be part of the cell, and simply not displayed over the cell due to its anchoring relative to another part of the document.

Typically, if a floating object is present in a table cell, then that setting shall have no impact on whether East Asian text in that cell is snapped to the document grid (as text is always snapped to the grid). This element, when present with a val attribute value of true (or equivalent), specifies that whenever a floating object is present in a table cell, that the cell's contents shall not be snapped to the document grid.

[*Example:* Consider a WordprocessingML document consisting of a single section, whose document grid settings specify that each page must be exactly 10 characters wide, as follows:

```
<w:sectPr>
  <w:docGrid w:type="snapToChars" w:charSpace="146636" />
</w:sectPr>
```



If this document contains a table with a single cell, containing some text and a single floating shape, the contents of the cell are still snapped to the 10 characters per line character grid, as follows:

ト	リ	ス	タ	ン	ト	リ	ス	タ	ン
ト	リ	ス	タ	ン					ン
リ	ス	タ	ン	ト					リ
ス	タ	ン	ト	リ					ス
タ	ン	ト	リ	ス	タ	ン	ト	リ	ス
タ	ン								

However, if this compatibility setting is turned on:

```
<w:compat>  
  <w:doNotSnapToGridInCell />  
</w:compat>
```

Then the presence of a floating object in each cell must result in the document grid setting being ignored, resulting in the following output:

ト	リ	ス	タ	ン	ト	リ	ス	タ	ン
ト	リ		ス	タ	ン				ン
リ	ス	ス	タ	ン	ト				リ
ス	タ	タ	ン	ト	リ				ス
タ	ン	ト	リ	ス	タ	ン	ト	リ	ス
タ	ン								

The additional character pitch was still added to each character on the line, but those characters are no longer snapped to the document grid. *end example*]

This element’s content model is defined by the common boolean property definition in Part 1, §17.17.4.

14.8.3.12 doNotSuppressIndentation (Do Not Ignore Floating Objects When Calculating Paragraph Indentation)

This element specifies whether applications should ignore the presence of floating objects when calculating the starting position of paragraphs which are wrapped around floating objects.

Typically, the presence of a floating object on the same line or lines as a paragraph shall only affect the text when the floating object occurs where that text would normally be presented. [*Example*: Text at a 1" indentation would only be displaced by a floating object that appears at that position and not one that appears from 0" to 0.5" on the same line. *end example*].

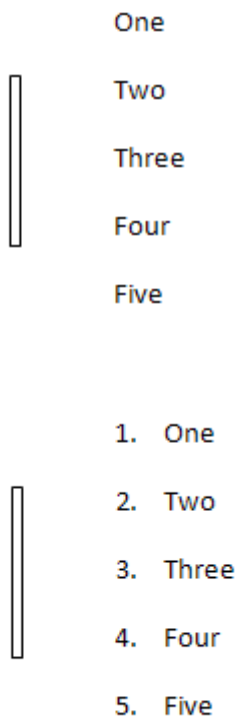
This element, when present with a val attribute value of true (or equivalent), specifies that floating objects shall always impact paragraphs on the same line in two ways:



- If the paragraph is not numbered, then it shall tightly wrap any floating object which precedes it on the same line, ignoring its own indentation settings. [*Example: A paragraph with a 1" left indent shall tightly wrap a floating object which appears at only 0.25" on the same line. end example*]
- If the paragraph is numbered using the numPr element (Part 1, §17.3.1.19), then it shall calculate and use its full indent relative to the edge of the floating object, not relative to the edge of the page. [*Example: A numbered paragraph with a 1" left indent must appear 1.5" into the page if it is preceded by a floating object which appears at 0.5" on the same line. end example*]

[*Example: Consider a WordprocessingML document with a narrow floating object at 0.5" on the page, surrounded by both numbered and unnumbered paragraphs.*

The default presentation would have no impact on the paragraphs based on that floating object, since the two do not intersect:

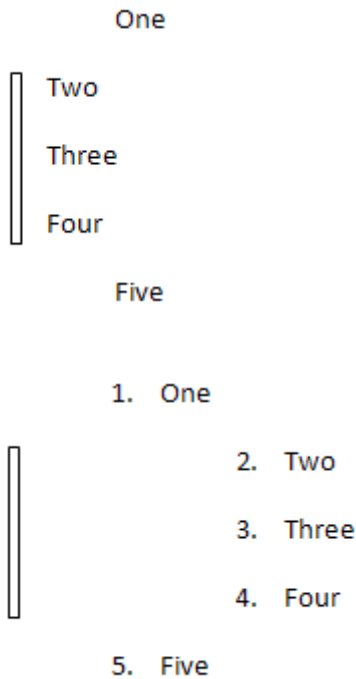


However, if this compatibility setting is turned on:

```
<w:compat>
  <w:doNotSuppressIndentation />
</w:compat>
```

Then the two alternate rules defined above would apply, resulting in the following output:





*end example]*

This element’s content model is defined by the common boolean property definition in Part 1, §17.17.4.

**14.8.3.13      doNotSuppressParagraphBorders (Do Not Suppress Paragraph Borders Next To Frames)**

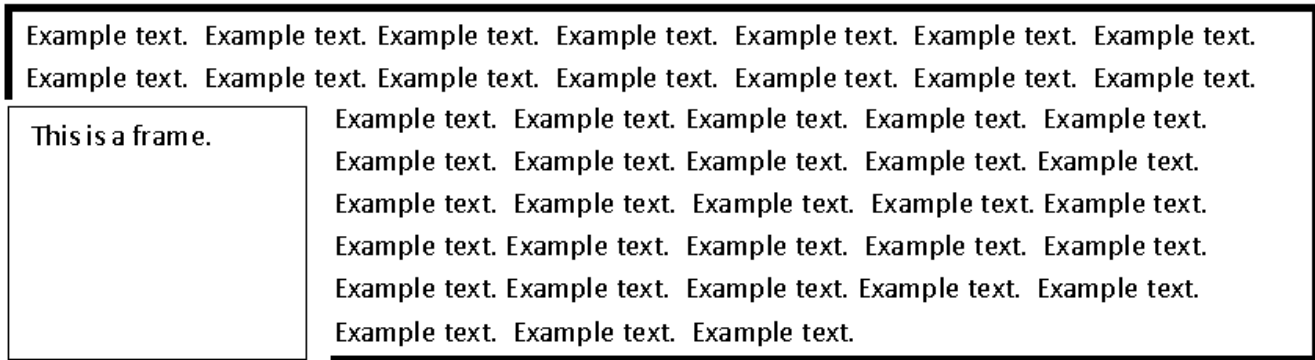
This element specifies whether applications should suppress paragraph borders defined using the pBdr element (Part 1, §17.3.1.24) when those borders would be displayed next to the contents of paragraphs which have been defined as frames using the framePr element (Part 1, §17.3.1.11).

Typically, when a paragraph's borders appear next to a frame, those borders are suppressed to avoid having two borders in close proximity. This element, when present with a val attribute value of true (or equivalent), specifies that those borders shall not be suppressed.

[*Example:* Consider a WordprocessingML document with a paragraph with a paragraph border that is bounded on its bottom left side by a text frame.

The default presentation would suppress the borders which intersect the frame (in this case, the right border of lines three through eight):

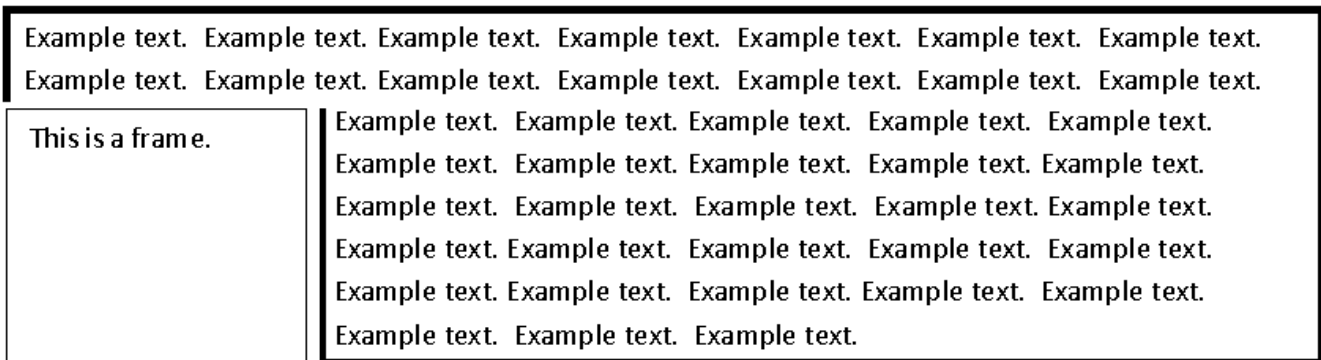




However, if this compatibility setting is turned on:

```
<w:compat>
  <w:doNotSuppressParagraphBorders />
</w:compat>
```

Then no border suppression must take place, resulting in the following output:



*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.14 [doNotUseEastAsianBreakRules \(Do Not Compress Compressible Characters When Using Document Grid\)](#)

This element specifies whether applications should compress characters with identical compression rules when the document grid has been defined using the docGrid element (Part 1, §17.6.5). *Compression rules* refer to the additional bearing on the left and/or right side of a typical character, which can be compressed as needed without modifying the actual width of the character (its breadth).

Typically, punctuation characters with an identical set of compression rules are compressed when the contents of a document are displayed. This element, when present with a val attribute value of true (or equivalent), specifies that if a document grid is defined for the current section, compression shall never be performed on any character - all compressible characters shall be individually snapped to the document grid.



[Example: Consider a WordprocessingML document with a document grid set to allow 10 characters per line:

```
<w:sectPr>
  <w:docGrid w:type="snapToChars" w:charSpace="146636" ... />
</w:sectPr>
```

The default presentation would allow characters with identical compression rules to compress and utilize a single slot on the document grid (notice that the four parenthesis on the first line are combined since they can be compressed identically, while the two parenthesis with different compression on line two are not):

```
あ あ あ あ ) ) ) ) v あ あ あ あ
あ あ あ あ a あ あ ) (
```

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:doNotUseEastAsianBreakRules />
</w:compat>
```

Then no character with compression is compressed and instead are snapped to the grid individually, resulting in the following output:

```
あ あ あ あ ) ) ) ) v あ
あ あ あ あ あ あ あ a あ あ )
(
```

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.15 doNotUseHTMLParagraphAutoSpacing (Use Fixed Paragraph Spacing for HTML Auto Setting)

This element specifies whether applications should use a fixed definition when interpreting automatic paragraph spacing defined by a value of true (or equivalent) on the beforeAutospadding and/or afterAutospadding attributes on the spacing element (Part 1, §17.3.1.33).

Typically, applications shall interpret these settings to match the behavior of most HTML user agents, mimicking the default spacing above and below an HTML p element without additional spacing information. This element, when present with a val attribute value of true (or equivalent), specifies that those two attributes shall result in the following settings for each value:



- beforeAutospacing = 5 points of spacing before
- afterAutospacing = 10 points of spacing after

[Example: Consider a WordprocessingML document with a three paragraphs using HTML autospacing, as follows:

```
<w:p>
  <w:pPr>
    <w:spacing w:beforeAutospacing="true" w:afterAutospacing="true" />
  </w:pPr>
  <w:r>
    <w:t>Paragraph One</w:t>
  </w:r>
</w:p>
<w:p>
  <w:pPr>
    <w:spacing w:beforeAutospacing="true" w:afterAutospacing="true" />
  </w:pPr>
  <w:r>
    <w:t>Paragraph Two</w:t>
  </w:r>
</w:p>
<w:p>
  <w:pPr>
    <w:spacing w:beforeAutospacing="true" w:afterAutospacing="true" />
  </w:pPr>
  <w:r>
    <w:t>Paragraph Three</w:t>
  </w:r>
</w:p>
```

The default presentation would result in output designed to match that of all common HTML user agents:

Paragraph One.

Paragraph Two.

Paragraph Three.

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:doNotUseHTMLParagraphAutoSpacing />
</w:compat>
```



Then the paragraphs has exact spacing of 5 points before and 10 points after, resulting in the following output:

Paragraph One.

Paragraph Two.

Paragraph Three.

Notice that the paragraphs are more condensed in the second example. *end example*]

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.16 doNotUseIndentAsNumberingTabStop (Ignore Hanging Indent When Creating Tab Stop After Numbering)

This element specifies whether applications shall use the custom tab stop generated by the hanging indent (if any) when advancing the text after the numbering for a numbered paragraph.

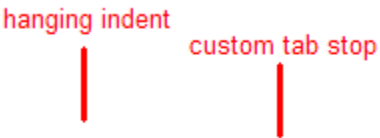
Typically, a hanging indent on a paragraph creates a virtual custom tab stop at that location, and therefore a tab added after the numbering on a numbered paragraph by the suff element (Part 1, §17.9.29) shall advance to that tab stop, so that the text of the numbered paragraph begins at that location. This element, when present with a val attribute value of true (or equivalent), specifies that a tab stop added as the suffix to the numbering of a numbered paragraph shall ignore that virtual custom tab stop and shall instead advance to the next real tab stop (custom or automatic) on the current line.

[*Example:* Consider a WordprocessingML document with numbering, whose first level of numbering specifies a tab stop suffix, a hanging indent at 1", and a custom tab stop at 2":

```
<w:abstractNum w:abstractNumId="0">
  ...
  <w:lvl w:ilvl="0">
    <w:suff w:val="tab" />
    <w:pPr>
      <w:ind w:left="1440" w:hanging="1440" />
      <w:tabs>
        <w:tab w:val="2880" />
      </w:tabs>
    </w:pPr>
  </w:lvl>
</w:abstractNum>
```

The default presentation of this document results in the tab stop generated by the numbering advancing to the virtual tab stop generated by the hanging indent at 1", as follows:




  
 1. This is numbered text. There is a hanging indent at 1" and a custom tab stop at 2"

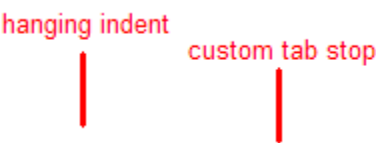
However, if this compatibility setting is turned on:

```

<w:compat>
  <w:doNotUseIndentAsNumberingTabStop />
</w:compat>

```

Then that tab suffix ignores the virtual tab stop of the hanging indent, so it must advance to the next custom tab stop on the line (at 2"), resulting in the following output:


  
 1. This is numbered text. There is a hanging indent at 1" and a custom tab stop at 2".

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.17 doNotVertAlignCellWithSp (Don't Vertically Align Cells Containing Floating Objects)

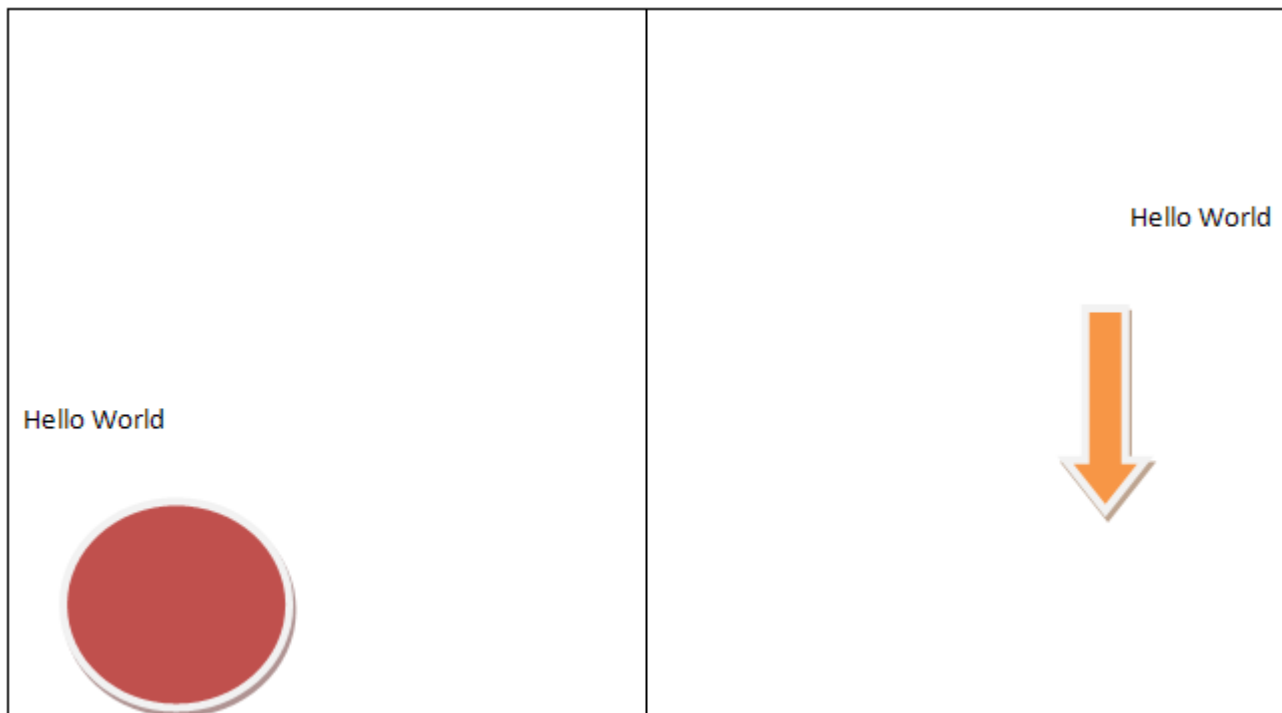
This element specifies whether applications shall vertically align the contents of a table cell, even when the contents of that table cell include one or more floating objects. Note that the floating object shall be part of the cell, and simply not displayed over the cell due to its anchoring relative to another part of the document.

Typically, if the alignment of a table cell in a WordprocessingML document is specified, then the entire contents of that cell are aligned as specified [*Example*: The entire contents of the cell are centered vertically and moved right-aligned horizontally at that point. *end example*]. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that whenever a floating object is present in a table cell, that no vertical alignment shall be applied to the contents of that cell, and the contents of the cell shall instead always be top aligned to the cell's contents.

[*Example*: Consider a WordprocessingML table with two cells, each containing some text and a single floating shape. The first cell is vertically aligned to the bottom of the cell, and the second cell is vertically aligned to the center of the cell.



The default presentation of this document results in each cell (including the extents of the floating objects) being vertically aligned as specified, as follows:

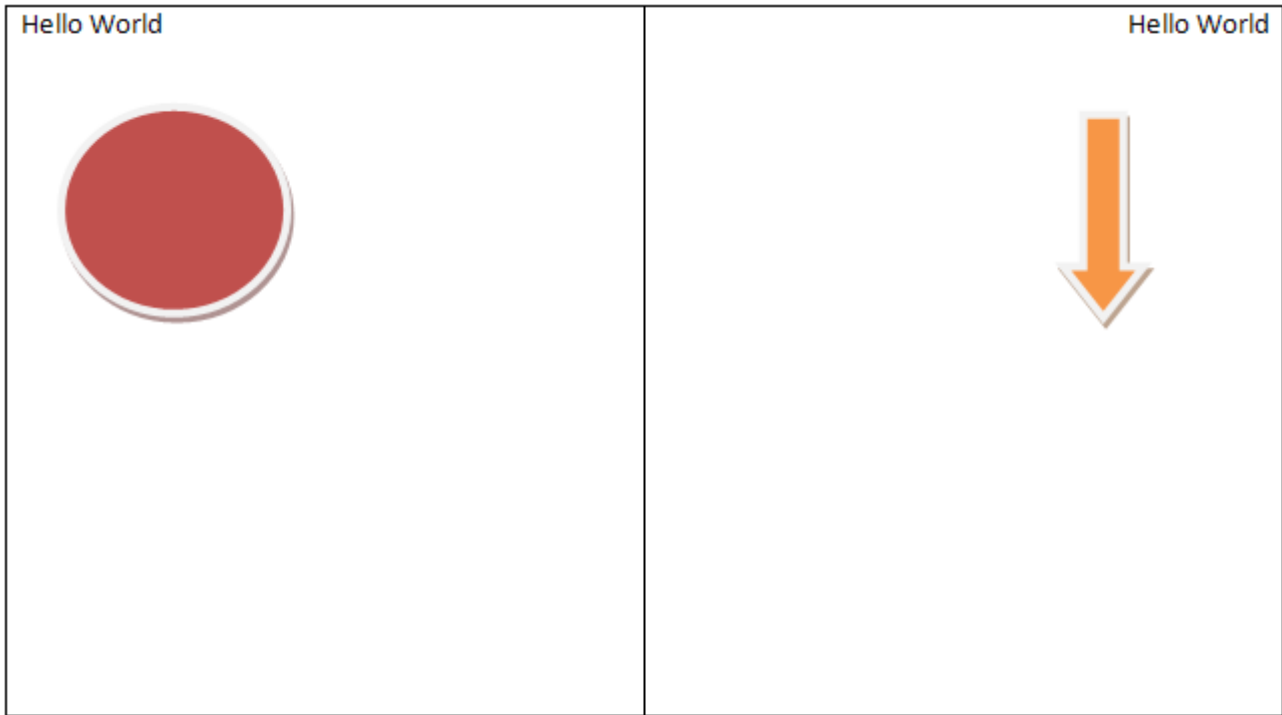


However, if this compatibility setting is turned on:

```
<w:compat>
  <w:doNotVertAlignCellWithSp />
</w:compat>
```

Then the presence of a floating object in each cell must result in the vertical alignment setting being ignored (each vertical alignment must be top-aligned relative to the cell), resulting in the following output:





*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.18 doNotVertAlignInTxbx (Ignore Vertical Alignment in Textboxes)

This element specifies whether applications shall allow text within text boxes to be vertically aligned when the `v-text-anchor` property is set within the parent VML shape.

Typically, if when the `v-text-anchor` property is set within the parent VML shape, then based on the value of that property, the text is top, center, or bottom aligned appropriately. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that the property shall be ignored, and instead the contents of the table shall always be top-aligned.

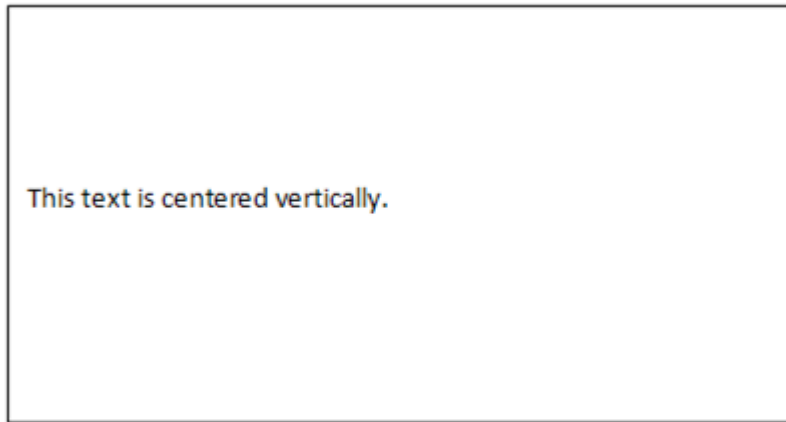
[*Example:* Consider a WordprocessingML table with a single center-aligned text box:

```
<v:shape id="_x0000_s1026" type="#_x0000_t202" style="v-text-anchor:middle">
  <v:textbox>
    <w:txbxContent>
      <w:p>
        <w:r>
          <w:t>This text is centered vertically.</w:t>
        </w:r>
      </w:p>
    </w:txbxContent>
  </v:textbox>
</v:shape>
```



```
</w:txbxContent>  
</v:textbox>  
</v:shape>
```

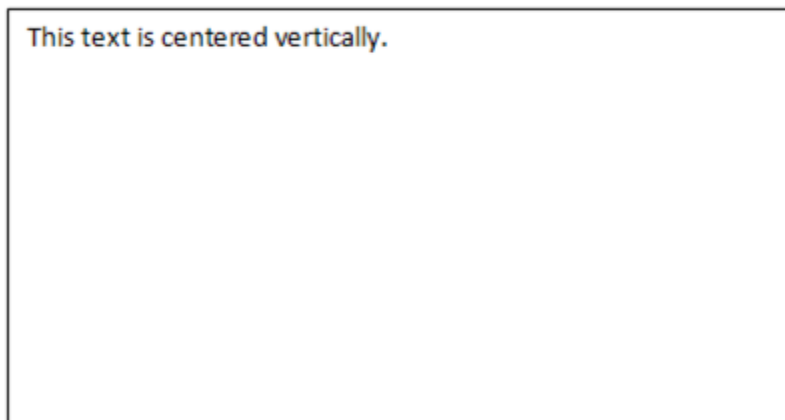
The default presentation of this document results in the contents of the text box being center aligned, as follows:



However, if this compatibility setting is turned on:

```
<w:compat>  
  <w:doNotVertAlignInTxbx />  
</w:compat>
```

Then the text must always be top aligned, regardless of the -text-anchor property, resulting in the following output:





*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.19 `doNotWrapTextWithPunct` (Do Not Allow Hanging Punctuation With Character Grid)

This element specifies whether applications shall allowing hanging punctuation when:

- The `overflowPunct` element (Part 1, §17.3.1.21) is turned on for a paragraph
- A document grid is defined using the `docGrid` element (Part 1, §17.6.5) which defines the number of characters per line

Typically, paragraphs which allow hanging punctuation shall allow the number of characters on a line as specified by the document grid to be exceeded by one in order to allow for hanging punctuation. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that the document grid shall never be exceeded for hanging punctuation.

[*Example:* Consider a WordprocessingML document with a document grid set to allow 10 characters per line:

```
<w:sectPr>
  <w:docGrid w:type="snapToChars" w:charSpace="146636" ... />
</w:sectPr>
```

If the eleventh character on the line was a punctuation characters, the default presentation would allow that character to behave as hanging punctuation on the first line:

```
“      言      葉      が      言      葉      が      言      葉      が      ”
言      葉      が      言      葉
```

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:doNotwrapTextWithPunct />
</w:compat>
```

Then the character grid cannot be exceeded even for the hanging punctuation, resulting in the following output:

```
“      言      葉      が      言      葉      が      言      葉
が      ”      言      葉      が      言      葉
```



The hanging punctuation was disallowed, moving it (and the character before it, since that character cannot begin a line) to the following line. *end example*]

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.20 footnoteLayoutLikeWW8 (Ignore Page Break from Continuous Section Break)

This element specifies that applications should override the default behaviour for a continuous section break when one or more footnotes are present on the page with the footnote. This override typically results in text being displayed on the same page as a continuous section break (after the break, which would normally move all following text to the next page).

Typically, applications render a continuous section break as a page break when one or more footnoteRef elements (Part 1, §17.11.13) occur on that page before the break, as described in Part 1, §17.18.77. This element, when present with a val attribute value of true (or equivalent), specifies that applications should allow any paragraph after the section break that contains no footnoteRef elements (Part 1, §17.11.13) to be displayed on the same page. If the resulting content reaches the page extents, the section's page break is ignored.

[*Example:* Consider a WordprocessingML document with two footnotes contained in two sections, separated by a continuous section break:

```
<w:p>
  <w:r>
    <w:t xml:space="preserve">Here is the first paragraph in the first
section.</w:t>
  </w:r>
</w:p>
<w:p>
  <w:r>
    <w:t>Here is the second paragraph in the first section.</w:t>
  </w:r>
  <w:r>
    <w:rPr>
      <w:rStyle w:val="FootnoteReference" />
    </w:rPr>
    <w:footnoteReference w:id="2" />
  </w:r>
</w:p>
<w:p/>
<w:p>
  <w:pPr>
    <w:sectPr>
      ...
    </w:sectPr>
  </w:pPr>
```



```

    </w:p>
<w:p>
  <w:r>
    <w:t>Here is the first paragraph in the second section.</w:t>
  </w:r>
</w:p>
<w:p>
  <w:r>
    <w:t xml:space="preserve">Here is the second paragraph in the second
section.</w:t>
  </w:r>
  <w:r>
    <w:rPr>
      <w:rStyle w:val="FootnoteReference" />
    </w:rPr>
    <w:footnoteReference w:id="3" />
  </w:r>
</w:p>
<w:p>
  <w:r>
    <w:t xml:space="preserve">Here is the third paragraph in the second section.
</w:t>
  </w:r>
</w:p>
<w:sectPr>
  <w:type w:val="continuous" />
  ...
</w:sectPr>

```

The default rendering of such a document results in the continuous section break as a page break, resulting in the following two page document:



Here is the first paragraph in the first section.

Here is the second paragraph in the first section.<sup>1</sup>

---

<sup>1</sup> Footnote in first section

Here is the first paragraph in the second section.

Here is the second paragraph in the second section.<sup>2</sup>

Here is the third paragraph in the second section.

---

<sup>2</sup> Footnote in second section

However, if this compatibility setting is turned on:

```
<w:compat>  
  <w:footnoteLayoutLikeWW8 />  
</w:compat>
```

Then the first paragraph following the section break (not having any footnote references) is displayed on the same page, despite the section break, resulting in the following output:

Here is the first paragraph in the first section.

Here is the second paragraph in the first section.<sup>1</sup>

.....Section Break (Continuous) .....

Here is the first paragraph in the second section.

---

<sup>1</sup> Footnote in first section

Here is the second paragraph in the second section.<sup>2</sup>

Here is the third paragraph in the second section.

---

<sup>2</sup> Footnote in second section

*end example]*



This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.21 `forgetLastTabAlignment` (Ignore Width of Last Tab Stop When Aligning Paragraph If It Is Not Left Aligned)

This element specifies how applications should handle the final tab stop on a line when aligning the contents of a paragraph as specified by the `jc` element (Part 1, §17.3.1.13) in the paragraph's properties.

Typically, aligning the contents of a paragraph involves the following:

- Determining the layout of that line before the alignment (including all tab stops)
- Aligning the resulting contents of the line

This is done to ensure that tab stops on a line do not change when the contents of the paragraph are aligned (i.e. the tab stops should not have to take into account the paragraph alignment).

This element, when present with a `val` attribute value of `true` (or equivalent), specifies that applications shall ignore the additional line width generated by the last tab stop (and only the last tab stop) when the alignment of the tab stop as defined by the `val` attribute on the `tab` element (Part 1, §17.3.1.37) is not `left` (or `bar`, which as defined by ECMA-376, is not a tab stop per se) when determining the width of the line. The resulting full line shall then be aligned at the position where the line would have been aligned without that tab stop.

[*Example:* Consider a WordprocessingML document with two center aligned paragraphs of text - the first also containing a centered tab stop positioned at 2":

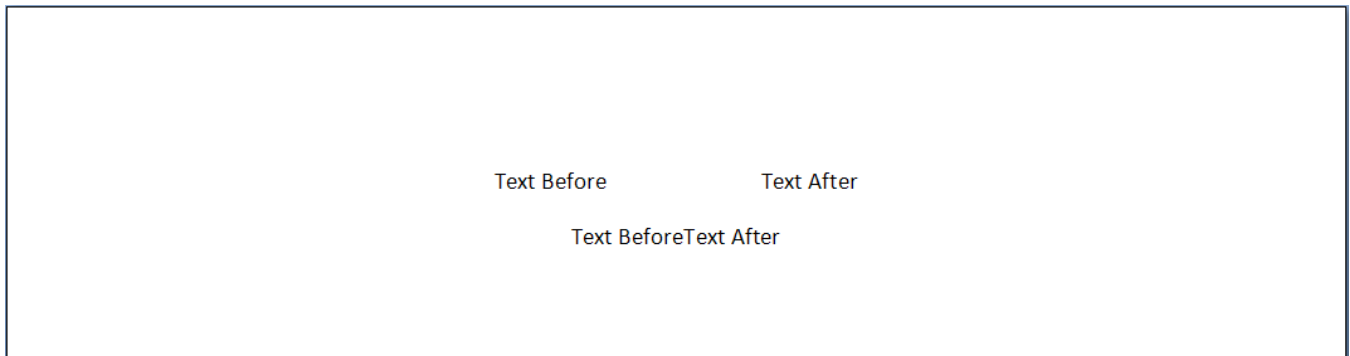


```

<w:p>
  <w:pPr>
    <w:tabs>
      <w:tab w:val="center" w:pos="2880" />
    </w:tabs>
    <w:jc w:val="center" />
  </w:pPr>
  <w:r>
    <w:t>Text Before</w:t>
    <w:tab/>
    <w:t>Text After</w:t>
  </w:r>
</w:p>
<w:p>
  <w:pPr>
    <w:jc w:val="center" />
  </w:pPr>
  <w:r>
    <w:t>Text BeforeText After</w:t>
  </w:r>
</w:p>

```

The default presentation would determine the full width of each line including the tab stops, finally aligning the resulting text to the center position as requested by the jc element:



However, if this compatibility setting is turned on:

```

<w:compat>
  <w:forgetLastTabAlignment />
</w:compat>

```

Then the width added to the line by the last tab is ignored when centering the paragraph because that tab is a center aligned tab stop, resulting in the following output:



Text Before	Text After
Text BeforeText After	

In the resulting output, the starting location of both lines is at the same place on the page, as the resulting width of both lines is identical when the tab stop is removed from the line width calculation. *end example*]

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.22 `growAutofit` (Allow Tables to AutoFit Into Page Margins)

This element specifies whether applications shall allow a table which is using the AutoFit table layout algorithm to extend beyond the margins of the page if the minimum width of each table cell would result in an overall table width which is wider than those page margins.

Typically, if a table is using the AutoFit layout algorithm, then based on the definition of that logic, each column in the table shall be increased to the minimum width of its contents (e.g. the longest non-breaking run of text contained within it and/or the width of an inline image contained in one of its cells) until the overall width of the table reaches that of the text extents on the page, at which point text shall be broken and images shall be clipped as needed to maintain the width of the table at the page width (i.e. the page width is an immutable maximum width for the table). This element, when present with a `val` attribute value of `true` (or equivalent), specifies that the minimum width of the cells shall not be constrained by the page width, and instead the table shall be allowed to extend into the page margins as needed in order to meet the minimum widths of each of its cells.

[*Example:* Consider a WordprocessingML table with three cells in each row. If the contents of each cell in that first row each contain a long non-breaking string (such that the minimum widths of each cell's contents exceed the page width), then the rules for table AutoFit specify that each cell must be broken proportionally when the overall width of the table reaches the page width.

The default presentation of this document results in each cell being broken as needed to maintain the table width, as follows:

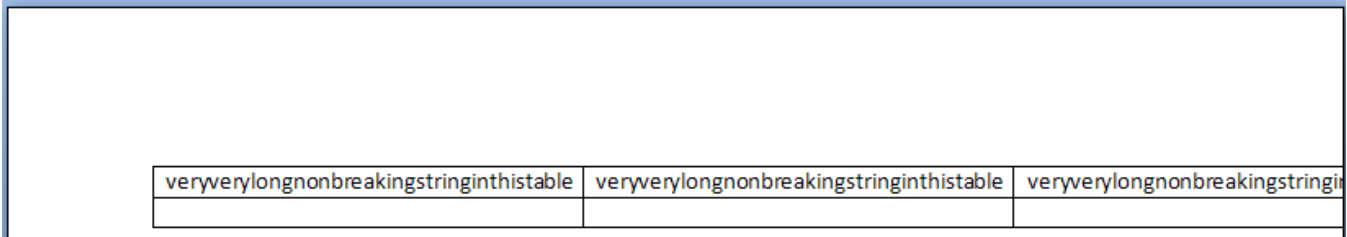
veryverylongnonbreakingstringin thistable	veryverylongnonbreakingstringin thistable	veryverylongnonbreakingstringin thistable



However, if this compatibility setting is turned on:

```
<w:compat>
  <w:growAutofit />
</w:compat>
```

Then the presence of those long non-breaking strings (and the resulting large minimum widths for each table cell) must result in a table width which is then allowed to override the page margins, resulting in the following output:



The resulting table is clipped by the edge of the page on its right side, but the minimum widths of each cell are maintained as defined by the long non-breaking string contents of each. *end example*]

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

14.8.3.23 [layoutRawTableWidth \(Ignore Space Before Table When Deciding If Table Should Wrap Floating Object\)](#)

This element specifies how tables which have been indented from the margin using the `tblInd` element (Part 1, §17.4.51) shall be wrapped around floating objects.

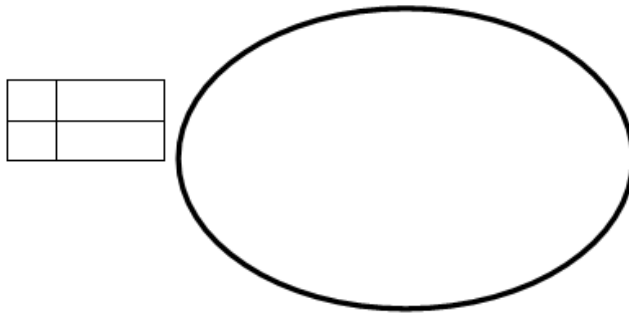
Typically, when a table is positioned next to a floating object, the table shall only remain next to the object if it can fit in the remaining space on the line when considering the full width needed for the table: the space before the table, plus the width of the table. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that the calculation determining whether the table shall fit next to the object shall not include the space before the table, even if that means that the table is actually clipped by the object.

[*Example*: Consider a WordprocessingML document with a floating shape using square wrapping, next to a table which has been indented one inch from the left margin:

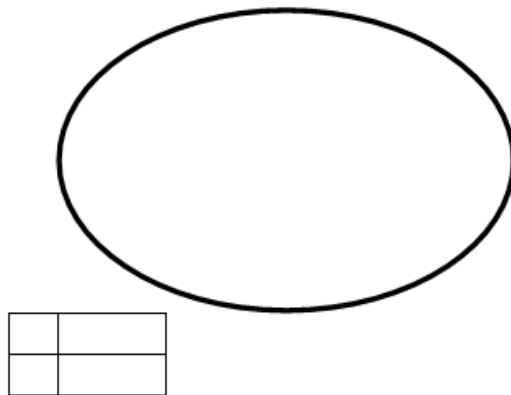
```
<w:tbl>
  <w:tblPr>
    <w:tblInd w:w="1440" w:type="dxa" />
  </w:tblPr>
  ...
</w:tbl>
```

The resulting presentation would place the table next to the object:





If this object is then moved to the left, such that it would clip the table, the default presentation would have the entire table moved below the shape, since it does not fit in the remaining space on the line:

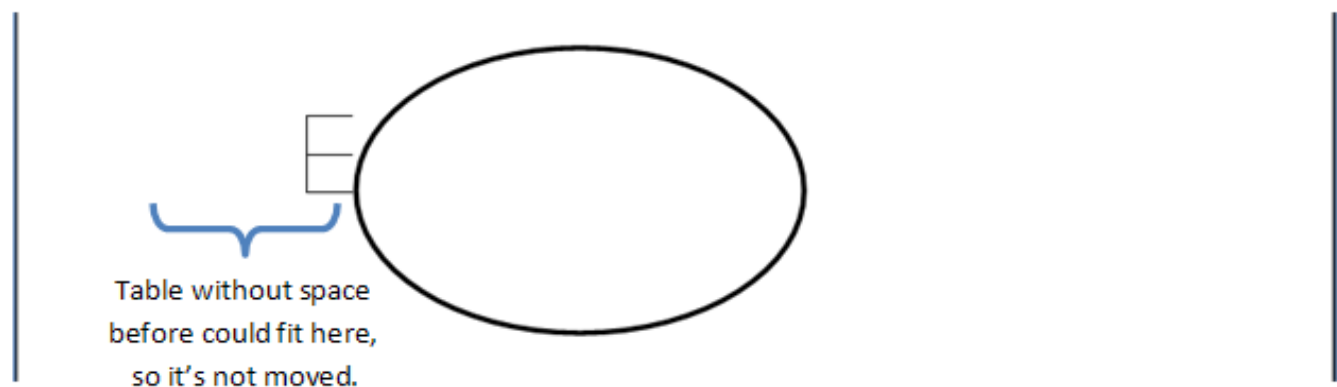


However, if this compatibility setting is turned on:

```
<w:compat>  
  <w:layoutRawTableWidth />  
</w:compat>
```

Then the determination to move the table is done ignoring the spaced needed before the table, resulting in the following output:





The resulting table is clipped behind the object, as the fit calculation ignores the space needed before the table.  
*end example]*

This element’s content model is defined by the common boolean property definition in Part 1, §17.17.4.

14.8.3.24      [layoutTableRowsApart \(Allow Table Rows to Wrap Inline Objects Independently\)](#)

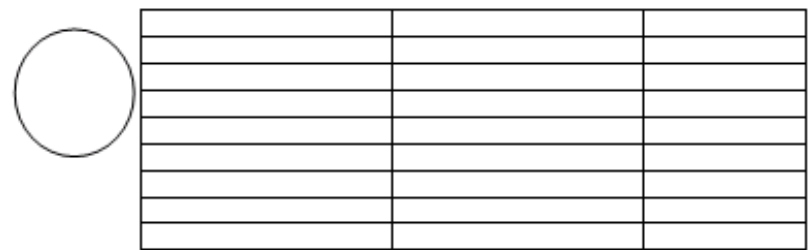
This element specifies whether tables which are wrapping around floating objects shall wrap around the object as a whole, or if each table row shall individually wrap the object as needed (causing a more stuttered, yet tighter, wrapping of the object).

Typically, when a table wraps around a floating object, the table shall wrap the object as a unit (i.e. the whole table square wraps the object). This element, when present with a `val` attribute value of `true` (or equivalent), specifies that wrapping is applied to each row in the table one by one, even if its means that each row has a different resulting position with respect to the table.

[*Example:* Consider a WordprocessingML document with a floating shape using square wrapping.

The default presentation would have the entire table wrapping around that shape:

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.



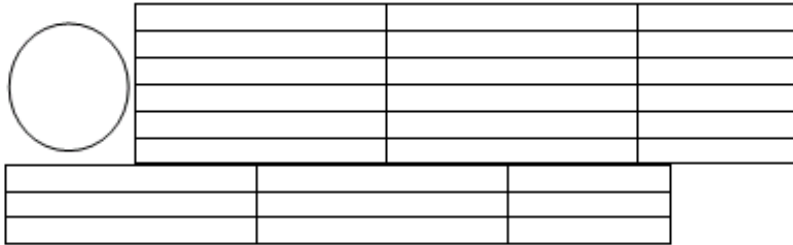
However, if this compatibility setting is turned on:



```
<w:compat>
  <w:layoutTableRowsApart />
</w:compat>
```

Then each row would wrap around the shape one by one, resulting in the following output:

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.



*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.25 [lineWrapLikeWord6 \(Ignore Compression of Full-Width Punctuation Ending a Line\)](#)

This element specifies that applications should ignore the character compression settings specified by the `characterSpacingControl` element (Part 1, §17.15.1.18) when determining if one more character fits within the text margins on each line of the document. This setting typically results in a character being pushed to the following line, ignoring the fact that the character compression settings would have allowed it to fit within the text boundaries.

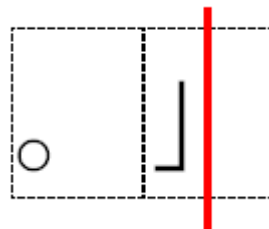
Typically, an application would check the character compression settings, and apply any character-level whitespace compression before attempting to fit the last character on the line. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that applications shall ignore that compression and fit the character as if it should be displayed at its full width, regardless of whether the compression settings are applied.

[*Example:* Consider a paragraph which ends with the following two characters (with each character's bounding box outlined for illustrative purposes:





If the document's character compression settings were not set to `doNotCompress` and text extent fell at the location identified by this red line:



The last character would have compression applied to its blank half, and would fit on the line.

If this compatibility setting is turned on:

```
<w:compat>
  <w:lineWrapLikeWord6 />
</w:compat>
```

Then applications should compress the character, but should treat the character as full width when determining if it fits on the line; in this case, the second character would be displayed on the following line. *end example*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.26 `mwSmallCaps` (Use Specific Small Caps Algorithm)

This element specifies that applications should use a specific algorithm to determine the font size of small caps (the formatting resulting from the use of the `smallCaps` element (Part 1, §17.3.2.33)). This emulation typically results in small caps which are smaller than typical small caps at most font sizes.

Typically, applications can utilize any algorithm that results in small caps formatting. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that applications should determine the font size for small caps using the following algorithm:

- If  $font \leq 7$ , then the font size for small caps is 7 points.
- Otherwise, sequentially iterate through *sequence* until  $sequence[i] \leq font \leq sequence[i + 1]$ , at which point the font size for small caps is  $sequence[i]$  points.

where



- *sequence* is an array defined as follows:  
 $\{7, 9, 10, 12, 14, 18, 24, 36, 48, 60, 72, 80, x_1, x_2, \dots, x_n\}$  where  $x_n = 80 + 10 * n$ .
- *font* is an integer calculated as follows:  
 The font size of the run to which small caps formatting is applied (in points).

[*Example*: Consider a WordprocessingML document with small caps on its text contents.

If this compatibility setting is turned on:

```
<w:compat>
  <w:mwSmallCaps />
</w:compat>
```

And the font size for a single run is 16 points, and performing the algorithm above would result in 14 points as the calculated font size for small caps. *end example*]

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.27 noColumnBalance (Do Not Balance Text Columns within a Section)

[*Note*: Typically, a continuous section break (Part 1, §17.18.77) balances the content of the previous section, unless the "noColumnBalance" compatibility option is given. *end note*]

This element specifies whether the contents of sections with multiple columns defined using the cols element (Part 1, §17.6.4) should automatically be balanced. In terms of column layout, *balancing* is the act of attempting to ensure that the number of lines in each column is equivalent (rather than completely filling one column before populating the next).

Typically, column balancing is automatically performed on the contents of sections with multiple columns. This element, when present with a val attribute value of true (or equivalent), specifies that column balancing shall not occur, and each column shall be filled individually until the end of the current page, until all text has been displayed, even if this means one or more columns are unused.

[*Example*: Consider a WordprocessingML document with an initial section with three columns, defined by the following section properties:

```
<w:sectPr>
  <w:cols w:num="3" w:space="720" />
</w:sectPr>
```

The default presentation would have the text in that section balanced between those three columns:



This is some text in a section  
of three columns. This is  
some text in a section of  
three columns. This is some  
text in a section of three  
columns. This is some text in  
a section of three columns.  
This is some text in a section  
of three columns. This is  
some text in a section of  
three columns. This is some  
text in a section of three  
columns. This is some text in  
a section of three columns.  
This is some text in a section  
of three columns. This is  
some text in a section of  
three columns. This is some  
text in a section of three  
columns. This is some text in

a section of three columns.  
This is some text in a section  
of three columns. This is  
some text in a section of  
three columns. This is some  
text in a section of three  
columns. This is some text in  
a section of three columns.

This is some text in a section  
of three columns. This is  
some text in a section of  
three columns. This is some  
text in a section of three  
columns. This is some text in  
a section of three columns.  
This is some text in a section  
of three columns. This is  
some text in a section of  
three columns. This is some  
text in a section of three  
columns. This is some text in  
a section of three columns.  
This is some text in a section  
of three columns. This is  
some text in a section of  
three columns. This is some  
text in a section of three

columns. This is some text in  
a section of three columns.

This is some text in a section  
of three columns. This is  
some text in a section of  
three columns. This is some  
text in a section of three  
columns. This is some text in  
a section of three columns.  
This is some text in a section  
of three columns. This is  
some text in a section of  
three columns. This is some  
text in a section of three  
columns. This is some text in  
a section of three columns.  
This is some text in a section  
of three columns. This is  
some text in a section of  
three columns.

This is text in a section with one column. This is text in a section with one column. This is text in a section with one column. This is text in a section with one column. This is text in a section with one column. This is text in a section with one column.

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:noColumnBalance />
</w:compat>
```

Then the columns are not balanced, and the contents of the section are used to fill each column to the bottom of the current page in succession, resulting in the following output:



[illegible]

The next section is now forced to begin on the next page, as the columns on page one extend to the bottom of that page. *end example*]

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.28 noExtraLineSpacing (Do Not Center Content on Lines With Exact Line Height)

This element specifies whether an exact line height using the spacing element (Part 1, §17.3.1.33) in the paragraph's properties, each line shall not be automatically centered within the given amount of line spacing.

Typically, if the exact amount of spacing allotted to a line via the paragraph properties exceeds the amount of space required by that line, then the line of text shall be automatically centered when the text of the document is displayed. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that all additional spacing shall instead be placed below the normal layout of the line of text.

[Example: Consider a WordprocessingML document with a line with an exact height of 32 points:

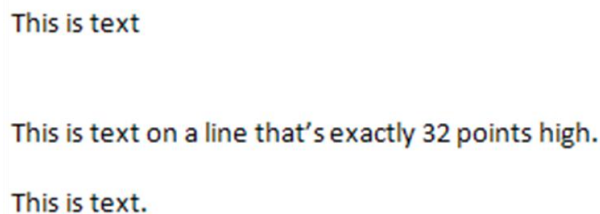


```

<w:p>
  <w:pPr>
    <w:spacing w:line="640" w:lineRule="exact" />
  </w:pPr>
  <w:r>
    <w:t>This is text on a line that's exactly 32 points high.</w:t>
  </w:r>
</w:p>

```

The default presentation would have the resulting text centered on that line:



This is text

This is text on a line that's exactly 32 points high.

This is text.

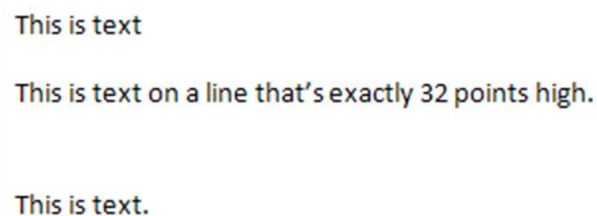
However, if this compatibility setting is turned on:

```

<w:compat>
  <w:noExtraLineSpacing />
</w:compat>

```

Then all line spacing is added after the text, resulting in the following output:



This is text

This is text on a line that's exactly 32 points high.

This is text.

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.29 noLeading (Do Not Add Leading Between Lines of Text)

This element specifies whether the additional leading specified by the current font face shall be added between each line of text when that text is displayed. *Leading* refers to the additional spacing requested by a particular font in order to ensure that letters on subsequent lines do not display in a fashion where they are positioned too closely together.



Typically, leading should be added as specified by the associated font. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that the additional leading specified by the font shall never be output when the text is displayed.

[*Example:* Consider a WordprocessingML document with three lines of text. The default presentation would have the text displayed as follows:

### EXAMPLE TEXT

Some text.  
Some text.  
Some text.

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:noLeading />
</w:compat>
```

Then no leading is added between lines, resulting in the following output:

### EXAMPLE TEXT

Some text.  
Some text.  
Some text.

This adjustment is usually very minute in nature; therefore the result is better illustrated by showing how the characters were pushed out due to the leading added to that text:

### EXAMPLE TEXT

Some text.  
Some text.  
Some text.

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.



#### 14.8.3.30 noSpaceRaiseLower (Do Not Increase Line Height for Raised/Lowered Text)

This element specifies whether the height which is allotted to any given line of text when the contents of this document are displayed shall include additional spacing in order to ensure that all raised and/or lowered text can be fully displayed.

Typically, any extra space needed is added to the line to prevent raised and lowered text from being truncated or hidden. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that the height of the line shall be determined solely by the spacing settings on the parent paragraph, and any raised/lowered text shall just be clipped if it exceeds that space.

[*Example:* Consider a WordprocessingML document with both raised and lowered text. The default presentation would have that text visible:

This is text.

This is text – a lowered word, a raised word.

This is text.

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:noSpaceRaiseLower />
</w:compat>
```

Then no additional space should be added to the line height, resulting in the following output:

This is text.

This is text – a lowered word, a raised word.

This is text.

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.31 noTabHangInd (Do Not Create Custom Tab Stop for Hanging Indent)

This element specifies whether applications should always create a hanging indent as a custom tab stop when handling tabs within the contents of a WordprocessingML paragraph. The `dontUseIndentAsNumberingTabStop` element (§14.8.3.16) specifies if this tab stop shall be used in the case of a tab added as the suffix to numbering in a numbered paragraph, while this element handles the same



functionality in the generic case (i.e. this element, when set, renders that setting irrelevant as the tab stop is never used).

Typically, the hanging indent on a paragraph shall be treated as a custom tab stop location within that paragraph, allowing the first tab on the first line in the paragraph to advance to the location of the hanging indent. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that no custom tab stop shall be created for a hanging indent on a line under any circumstances.

[*Example:* Consider a WordprocessingML document with two paragraphs (the second numbered, the first not), each with a 2" hanging indent defined as follows (assume the numbering suffix - not shown - is a tab character):

```
<w:p>
  <w:pPr>
    <w:ind w:left="2880" w:hanging="2880" />
  </w:pPr>
  <w:r>
    <w:t>A 2"</w:t>
    <w:tab/>
    <w:t>hanging indent</w:t>
  </w:r>
</w:p>
<w:p>
  <w:pPr>
    <w:numPr>
      <w:ilvl w:val="0" />
      <w:numId w:val="1" />
    </w:numPr>
    <w:ind w:left="2880" w:hanging="2880" />
  </w:pPr>
  <w:r>
    <w:t>Text in a numbered paragraph.</w:t>
  </w:r>
</w:p>
```

The default presentation would have both the numbering and the tab in the regular paragraph advancing to the 2" custom tab stop generated by the hanging indent:

A 2" hanging indent.

1. Text in a numbered paragraph.

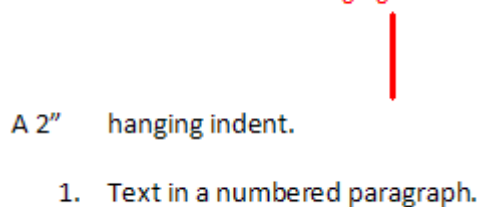


However, if this compatibility setting is turned on:

```
<w:compat>
  <w:noTabHangInd />
</w:compat>
```

Then no tab stop exists at 2", and therefore the tab stops must advance to the location of the next automatic tab stop for this document (which is set to occur every 0.5"), resulting in the following output:

Hanging indent



A 2" hanging indent.

1. Text in a numbered paragraph.

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.32 `printBodyTextBeforeHeader` (Print Body Text before Header/Footer Contents)

This element specifies the order in which the contents of the main document story and any headers and/or footers shall be sent to the printer.

Typically, the contents of a document are sent to the printer as follows:

- First, the contents of headers/footers are sent to the printer
- Finally, the contents of the main document story are sent to the printer

This element, when present with a `val` attribute value of `true` (or equivalent), specifies that this order shall be reversed, and that the body text shall be sent to the printer before any header/footer text. This reversal allows for the processing of PostScript codes in the text layer in the same order as afforded by some legacy word processing applications.

[*Example:* Consider a WordprocessingML document which is printed. The default resulting print order is the headers and footers for each page, followed by the page contents.

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:printBodyTextBeforeHeader />
</w:compat>
```

Then this order must be reversed, and the page contents must be printed before the corresponding header and/or footer for each page. *end example]*



This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.33 `printColBlack` (Print Colors as Black And White without Dithering)

This element specifies the way in which colored text and/or objects shall be handled when printed to a printer whose printer settings indicate that it can only handle black and white text.

Typically, the contents of a colored document are sent to a black and white printer using grayscale (different shades of gray) to represent each of the possible colors. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that colors are not printed as mapped shades of grey, but rather exclusively in solid black and white. This setting prevents the fuzzy look that can occur when gray or blue content is dithered. *Dithering* is the process by which colors are simulated using various patterns of black dots on a white background

[*Example:* Consider a WordprocessingML document which is printed to a black and white printer. The default resulting printed content is typically dithered to appear in the appropriate shade of grayscale text.

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:printColBlack />
</w:compat>
```

Then the page contents must be printed as exclusively black or exclusively white text as needed, and no grayscale output must occur. *end example*]

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.34 `selectFldWithFirstOrLastChar` (Select Field When First or Last Character Is Selected)

This element specifies whether applications should automatically select the entire contents of a field in a WordprocessingML document when the first or last character is selected.

Typically, users can select any character individually within the result of a field in the document. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that selecting the first or last character of that field result shall automatically result in the selection of the entire field.

[*Example:* Consider a WordprocessingML document which contains the following (with a field marked in gray shading):

Author Tristan Davis would like to welcome you.

The default presentation would allow the first character of that field to be selected:



Author **Tristan Davis** would like to welcome you.

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:selectFldWithFirstOrLastChar />
</w:compat>
```

Then that selection would automatically result in the entire field being selected, resulting in the following:

Author **Tristan Davis** would like to welcome you.

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.35 `shapeLayoutLikeWW8` (Ignore Text Wrapping around Objects at Bottom of Page)

This element specifies that applications should ignore the line wrapping setting specified by a floating object, instead allowing text to be displayed beneath it under the specific set of conditions identified below.

Typically, text wrapping around a floating object is dictated by the presence of one of the following as a child element of the object's anchor element (Part 1, §20.4.2.3):

- `wrapNone` (Part 1, §20.4.2.15) element, which specifies no text wrapping
- `wrapSquare` (Part 1, §20.4.2.17) element, which specifies square text wrapping
- `wrapThrough` (Part 1, §20.4.2.18) element, which specifies through text wrapping
- `wrapTight` (Part 1, §20.4.2.19) element, which specifies tight text wrapping
- `wrapTopAndBottom` (Part 1, §20.4.2.19) element, which specifies top and bottom text wrapping

This element, when present with a `val` attribute value of `true` (or equivalent), specifies that applications shall allow text to wrap beneath a floating object, ignoring the object's true wrapping setting, when the following conditions are met:

- The floating object has any of the following elements present as a child of the object's anchor element: `wrapSquare`, `wrapTight`, or `wrapTopAndBottom`.
- The floating object has a `positionV` element (Part 1, §20.4.2.11) with a `relativeFrom` attribute value of `line`.
- The floating object has a negative value for the child `posOffset` element (Part 1, §20.4.2.12) of the `positionV` element.
- The paragraph containing the anchor element would appear directly after the previous paragraph if the wrapping settings were ignored.



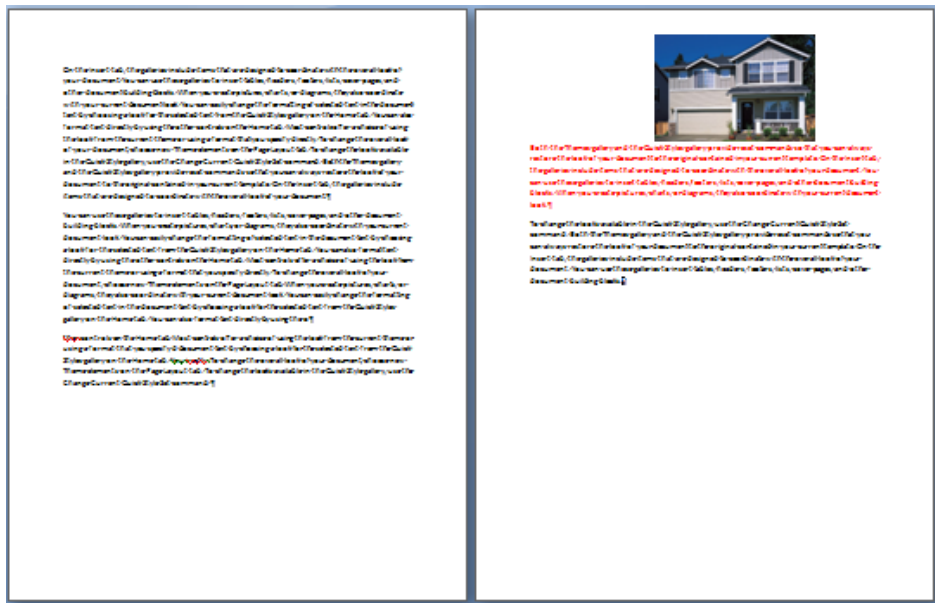
- The paragraph containing the anchor element would be pushed to the next page if the wrapping settings were respected.

[*Example:* Consider a WordprocessingML document containing a DrawingML object which meets the conditions outlined above:

```
<w:p>
  <w:r>
    <w:t>Sample text. Sample text. Sample text. Sample text. Sample text. Sample
text.</w:t>
  </w:r>
  <w:r>
    <w:drawing>
      <wp:anchor ... >
        <wp:positionV relativeFrom="line">
          <wp:posOffset>-428914</wp:posOffset>
        </wp:positionV>
        <wp:wrapTopAndBottom />
        ...
      </wp:anchor>
    </w:drawing>
  </w:r>
  <w:r>
    <w:t> Sample text. Sample text. Sample text. Sample text. Sample text.
Sample text.</w:t>
  </w:r>
  ...
</w:p>
```

When the wrapping settings are respected, the shape and its paragraph do not fit on the page, so they are moved to the next page (the paragraph containing the anchor has been highlighted for illustrative purposes):

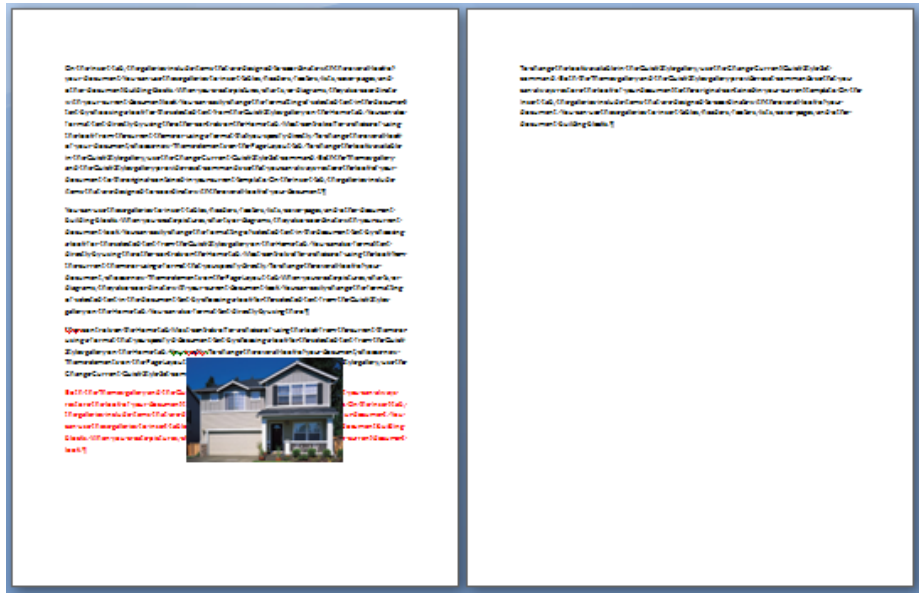




If this compatibility setting is turned on:

```
<w:compat>
  <w:shapeLayoutLikeWW8 />
</w:compat>
```

Then applications should ignore the wrapping setting and allow text to wrap below the object. This behaviour results in the following (again, the paragraph containing the anchor has been highlighted for illustrative purposes):



*end example]*

This element’s content model is defined by the common boolean property definition in Part 1, §17.17.4.

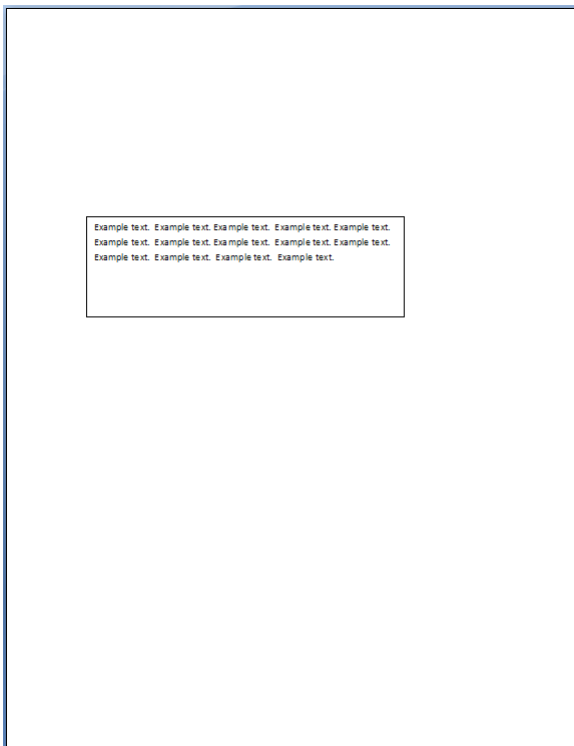


### 14.8.3.36 `showBreaksInFrames` (Display Page/Column Breaks Present in Frames)

This element specifies whether applications should honor the presence of page and/or column breaks which are present within the contents of paragraphs which have been defined as frames using the `framePr` element (Part 1, §17.3.1.11).

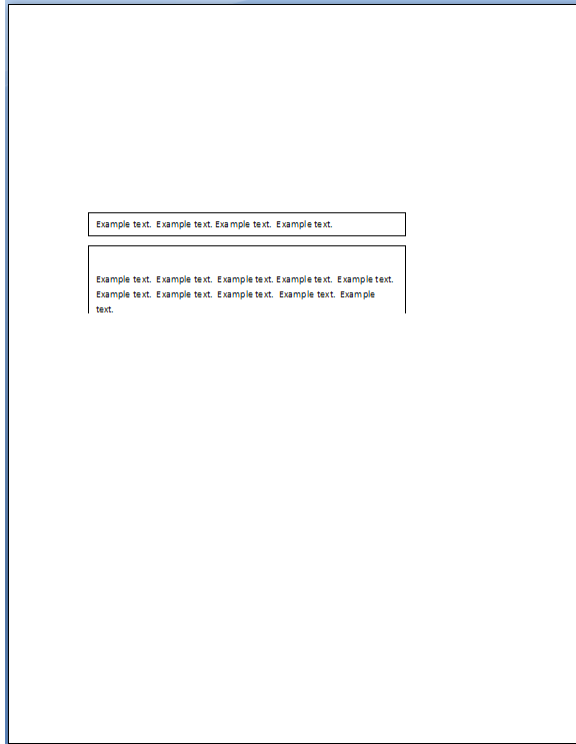
Typically, breaks within frames shall be ignored and shall have no effect on the display of the paragraph in which they are contained. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that rather than completely ignoring these breaks, applications should display the break and move the remaining frame content, and all subsequent text, to the next page and/or column, as needed.

[*Example:* Consider a WordprocessingML document with a paragraph contained within a text frame:



The default presentation would display the page break inline in the frame (breaking the frame into two) but would not actually break the page:



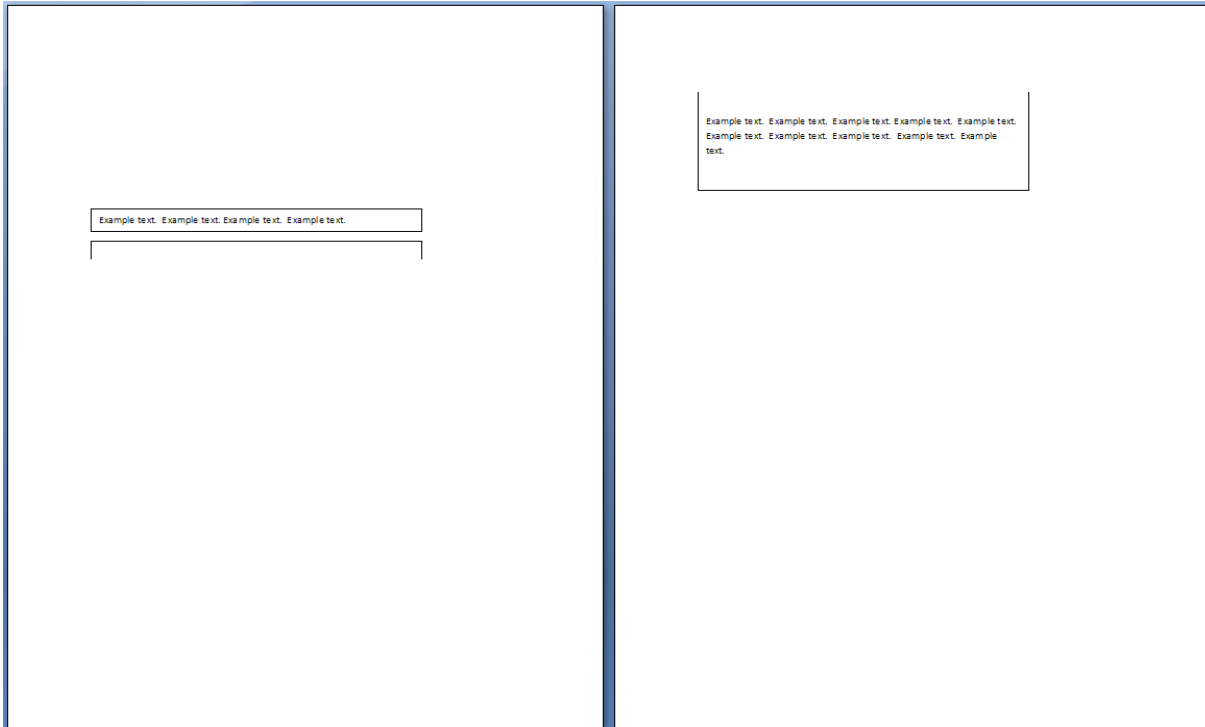


However, if this compatibility setting is turned on:

```
<w:compat>
  <w:showBreaksInFrames />
</w:compat>
```

Then the page breaks is used even though they are present in the frame, breaking the page and resulting in the following output:





*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.37 `spacingInWholePoints` (Only Expand/Condense Text By Whole Points)

This element specifies how applications should apply text expansion/compression defined using the `spacing` element (Part 1, §17.3.2.35) within a set of run properties.

Typically, as defined in the `spacing` element, text within runs in a WordprocessingML document can be expanded or compressed in increments of twentieths of a point. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that the expansion and compression of text shall only be performed in increments of points. Any value which is not equal to an expansion or compression of a whole point shall be rounded down to the nearest whole point when the text is expanded/compressed within the WordprocessingML document.

[*Example:* Consider a WordprocessingML document with three paragraphs of text, each expanded by a varying amount, as follows:

```
<w:p>
...
<w:r>
  <w:t>This is text.</w:t>
</w:r>
</w:p>
```



```

<w:p>
...
<w:r>
  <w:rPr>
    <w:spacing w:val="20" />
  </w:rPr>
  <w:t>This is text.</w:t>
</w:r>
</w:p>
<w:p>
...
<w:r>
  <w:rPr>
    <w:spacing w:val="36" />
  </w:rPr>
  <w:t>This is text.</w:t>
</w:r>
</w:p>

```

The default presentation would have each run of text expanded exactly as requested:

Regular Text:	This is text.
Text expanded by 1 point:	This is text.
Text expanded by 1.8 points:	This is text.

However, if this compatibility setting is turned on:

```

<w:compat>
  <w:spacingInWholePoints />
</w:compat>

```

Then the third line - with an expansion of 1.8 points - would instead be rounded down to the nearest whole number of points when expanded, resulting in the following output:

Regular Text:	This is text.
Text expanded by 1 point:	This is text.
Text expanded by 1.8 points:	This is text.

In the resulting output, the second and third lines are identical, as the third line has a next expansion of exactly one point. *end example*]



This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.38 `splitPgBreakAndParaMark` (Always Move Paragraph Mark to Page after a Page Break)

This element specifies whether a page break shall automatically complete the line on which it appears, moving the end of the paragraph to a new line on the next page, or if it shall behave as true run-level content within its current paragraph.

Typically, a page break defined using the `br` element (Part 1, §17.3.3.1) is treated as run-level content, which means that although it delimits the end of the page, if there is no content after it within the current paragraph, that the paragraph shall also end on that page. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that a page break shall always immediately end the current page, moving the paragraph mark which delimits the end of its parent paragraph to a new line on the next page.

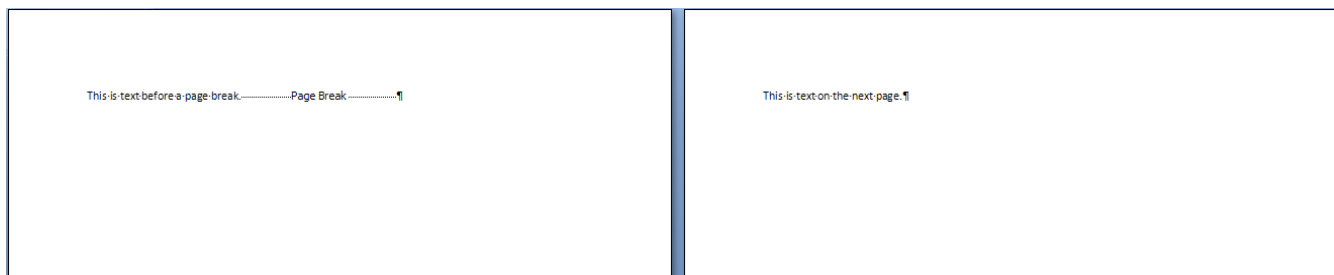
Note that this setting only affects the case where there is no run-level content after the page break within the paragraph - if any further run content appears in the paragraph it shall appear on subsequent lines on the next page.

[*Example:* Consider a WordprocessingML document with two paragraphs of content - the first ending with a page break:

```
<w:p>
  <w:r>
    <w:t>This is text before a page break.</w:t>
    <w:br w:type="page" />
  </w:r>
</w:p>
<w:p>
  <w:r>
    <w:t>This is text on the next page.</w:t>
  </w:r>
</w:p>
```

The default presentation would have the text content `This is text on the next page.` as the first line of the second page, as there is no run content after the page break in paragraph one, and therefore no need for a new line on page two (in this image, a graphical illustration of the pilcrow and the page break have been added for clarity):

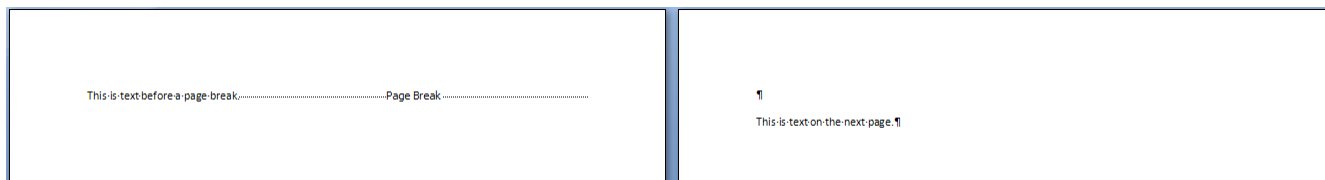




However, if this compatibility setting is turned on:

```
<w:compat>
  <w:splitPgBreakAndParaMark />
</w:compat>
```

Then even though it is followed by no additional content, the page break must immediately end the first page, pushing the end of the first paragraph onto the first line of the second page, resulting in the following output:



*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.39 `subFontBySize` (Require Exact Size During Font Substitution)

This element specifies whether applications shall accept fonts which cannot be rendered at the size specified by the `sz` (Part 1, §17.3.2.38) and/or `szCs` (Part 1, §17.3.2.39) elements on the parent run when performing font substitution.

Typically, applications can perform font substitution as defined in Part 1, §17.8.2, with no additional restrictions. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that when a potential substitute font has been located, an application shall check whether that font is capable of displaying characters at the specified point size. If it is not, that font is not considered as a substitute font (i.e. it is rejected, and the next closest match is considered).

[*Example:* Consider a WordprocessingML document with a series of characters in an unavailable font. The default presentation would use any method used by the application to perform that font substitution.

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:subFontBySize />
</w:compat>
```



For each run, the application determines if the substitute font produced by its font substitution algorithm can be displayed at the size specified by the run's `sz` and/or `szCs` elements. If it cannot, that font is not used and the next closest match as substitute font is considered. *end example*]

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.40 `suppressBottomSpacing` (Ignore Exact Line Height for Last Line on Page)

This element specifies whether an exact line height specified using the spacing element (Part 1, §17.3.1.33) with a `lineRule` attribute value of `exact` shall be ignored for the last line on each page.

Typically, if an exact line height has been specified using the spacing element, then all lines within that paragraph have the necessary line spacing added to them in order to meet this constraint. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that no additional spacing shall be added below the last line on each page as a result of these line spacing requirements - a line shall be placed on the bottom of the page if its characters fit on that page ignoring the necessary space after.

[*Example:* Consider a WordprocessingML document whose first paragraph has a line spacing setting requiring exactly 48 points of space per line:

```
<w:p>
  <w:pPr>
    <w:spacing w:line="960" w:lineRule="exact" />
  </w:pPr>
  ...
</w:p>
```

The default presentation would have the necessary amount of space added between each line such that all lines in the paragraph are centered within 48 points of spacing:



[illegible]

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:suppressBottomSpacing />
</w:compat>
```

Then that constraint must be lifted for the last line on the page (although all other lines are unaffected), resulting in the following output:



[illegible]

The first line from the following page was moved on the first page, as without being subjected to the line height constraint, it is possible to fit it at the bottom of the first page. *end example*]

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

14.8.3.41 suppressSpacingAtTopOfPage (Ignore Minimum Line Height for First Line on Page)

This element specifies whether the minimum line height specified using the spacing element (Part 1, §17.3.1.33) with a `lineRule` attribute value of `atLeast` shall be ignored for the first line on each page.

Typically, if a minimum line height has been specified using the spacing element, then all lines within that paragraph have the necessary line spacing added to them in order to meet this constraint. This element, when present with a val attribute value of true (or equivalent), specifies that no additional spacing shall be added above the first line on each page as a result of this line spacing requirements - the top of the text characters on the first line shall be at the top edge of the page.

[Example: Consider a WordprocessingML document whose first paragraph has a line spacing setting requiring at least 25 points of space per line:

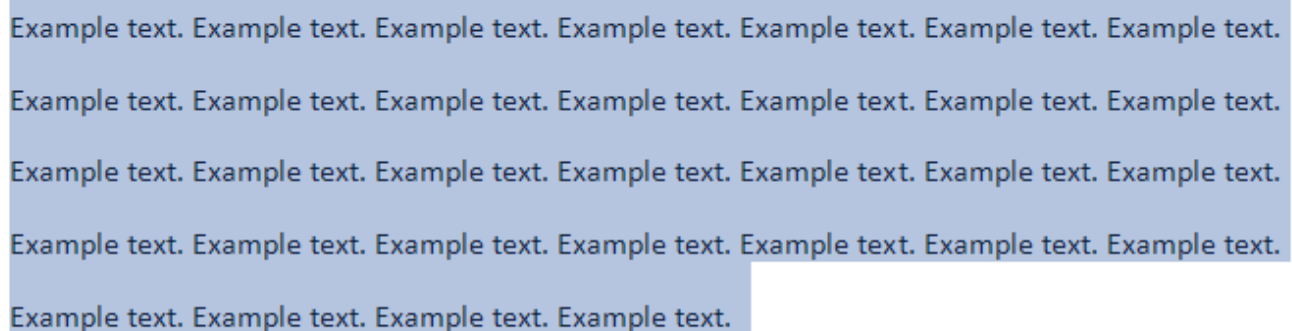


```

<w:p>
  <w:pPr>
    <w:spacing w:line="500" w:lineRule="atLeast" />
  </w:pPr>
  ...
</w:p>

```

The default presentation would have the necessary amount of space added between each line such that all lines in the paragraph are centered within 25 points of spacing (highlighting has been added to the image below in order to illustrate the additional spacing above the first line):



Example text. Example text. Example text. Example text. Example text. Example text. Example text.  
 Example text. Example text. Example text. Example text. Example text. Example text. Example text.  
 Example text. Example text. Example text. Example text. Example text. Example text. Example text.  
 Example text. Example text. Example text. Example text. Example text. Example text. Example text.  
 Example text. Example text. Example text. Example text.

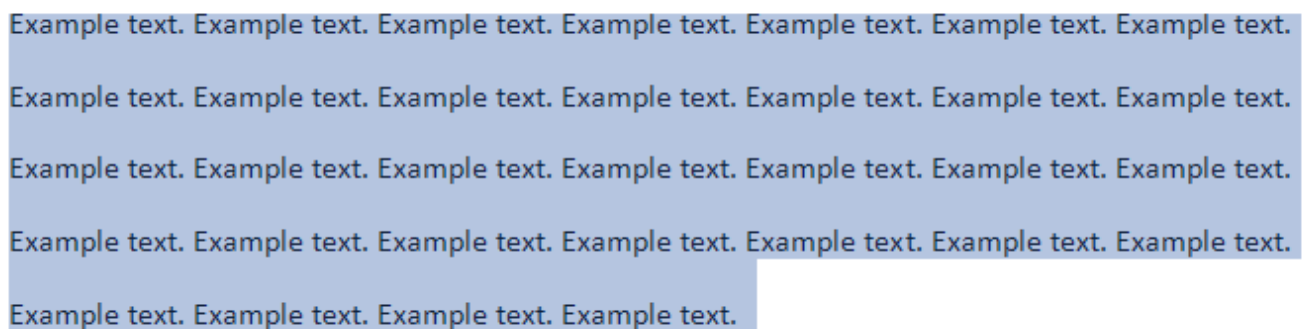
However, if this compatibility setting is turned on:

```

<w:compat>
  <w:suppressSpacingAtTopOfPage />
</w:compat>

```

Then no additional line spacing must be added above the first line on the page (although all other lines are unaffected), resulting in the following output:



Example text. Example text. Example text. Example text. Example text. Example text. Example text.  
 Example text. Example text. Example text. Example text. Example text. Example text. Example text.  
 Example text. Example text. Example text. Example text. Example text. Example text. Example text.  
 Example text. Example text. Example text. Example text. Example text. Example text. Example text.  
 Example text. Example text. Example text. Example text.

However, if this line spacing constraint was exactly 25 points, then this setting would have no effect:



Example text. Example text. Example text. Example text. Example text. Example text. Example text.  
 Example text. Example text. Example text. Example text. Example text. Example text. Example text.  
 Example text. Example text. Example text. Example text. Example text. Example text. Example text.  
 Example text. Example text. Example text. Example text. Example text. Example text. Example text.  
 Example text. Example text. Example text. Example text.

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.42 `suppressSpBfAfterPgBrk` (Do Not Use Space Before On First Line After a Page Break)

This element specifies that applications should not postpone any before paragraph spacing to the first line containing content after a page break.

Typically, a page break defined using the `br` element (Part 1, §17.3.3.1) is treated as run-level content, which means that although it delimits the end of the page, if there is no content after it within the current paragraph, that the paragraph shall also end on that page. However, in the case where there is additional run-level content within the same paragraph, that content, although part of the same paragraph as the page break, is displayed on the following page.

This leads to a situation where the only run content on the page with the page break is the break itself, with all subsequent content on the following page. In this case, applications shall apply the value specified by the spacing element's `before` attribute to the first line on the new page (since it is ostensibly the only page with content in that paragraph).

This element, when present with a `val` attribute value of `true` (or equivalent), specifies the paragraph before spacing shall not be 'postponed' in this way - if the line with the page break has no content, then the spacing element's `before` attribute is simply ignored.

[*Example:* Consider a WordprocessingML document whose first paragraph specifies that it must be preceded by 50 points of additional spacing:

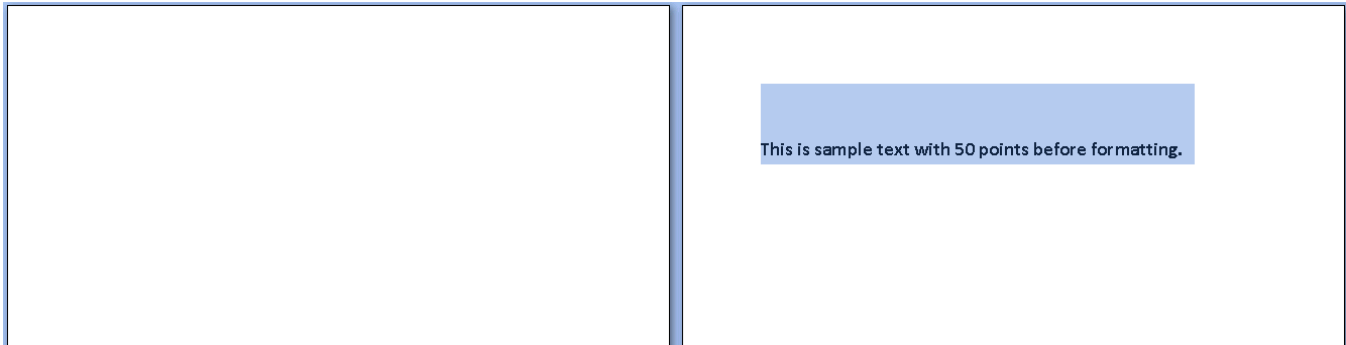


```

<w:p>
  <w:pPr>
    <w:spacing w:before="1000" />
  </w:pPr>
  <w:r>
    <w:br w:type="page" />
    <w:t>This is sample text with 50 points before formatting.</w:t>
  </w:r>
</w:p>

```

The default presentation would have the necessary amount of space added to the first line on the second page, as the page break was not preceded by any run content (highlighting has been added to the image below in order to illustrate the additional spacing above the first line):



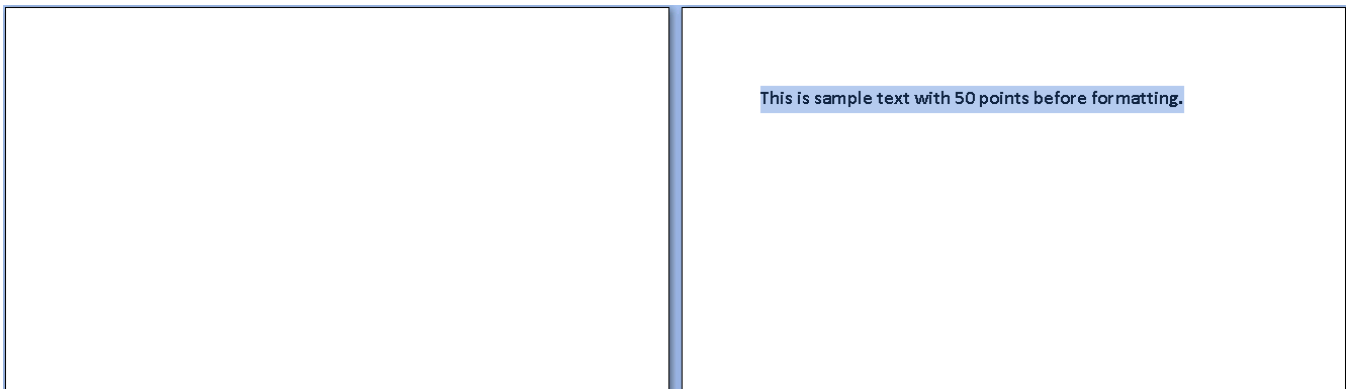
However, if this compatibility setting is turned on:

```

<w:compat>
  <w:suppressSpBfAfterPgBrk />
</w:compat>

```

Then the spacing must not be added above the first line on the page (it is essentially ignored), resulting in the following output:



*end example]*



This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.43 `suppressTopSpacing` (Ignore Minimum and Exact Line Height for First Line on Page)

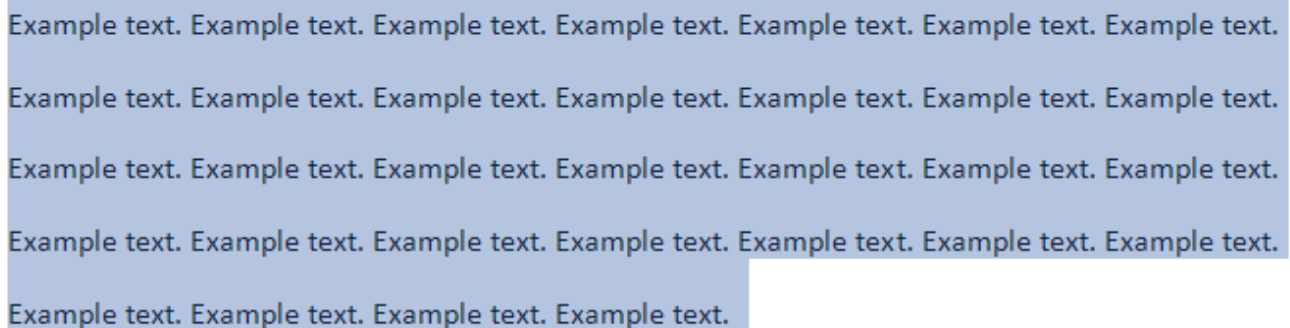
This element specifies whether the minimum line height specified using the spacing element (Part 1, §17.3.1.33) with a `lineRule` attribute value of `atLeast` or `exact` shall be ignored for the first line on each page.

Typically, if a minimum or exact line height has been specified using the spacing element, then all lines within that paragraph have the necessary line spacing added to them in order to meet this constraint. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that no additional spacing shall be added above the first line on each page as a result of these line spacing requirements - the top of the text characters on the first line shall be at the top edge of the page.

[*Example:* Consider a WordprocessingML document whose first paragraph has a line spacing setting requiring exactly 25 points of space per line:

```
<w:p>
  <w:pPr>
    <w:spacing w:line="500" w:lineRule="exact" />
  </w:pPr>
  ...
</w:p>
```

The default presentation would have the necessary amount of space added between each line such that all lines in the paragraph are centered within 25 points of spacing (highlighting has been added to the image below in order to illustrate the additional spacing above the first line):



Example text. Example text. Example text. Example text. Example text. Example text. Example text.  
 Example text. Example text. Example text. Example text. Example text. Example text. Example text.  
 Example text. Example text. Example text. Example text. Example text. Example text. Example text.  
 Example text. Example text. Example text. Example text. Example text. Example text. Example text.  
 Example text. Example text. Example text. Example text.

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:suppressTopSpacing />
</w:compat>
```



Then no additional line spacing must be added above the first line on the page (although all other lines are unaffected), resulting in the following output:

```
Example text. Example text. Example text. Example text. Example text. Example text. Example text.
Example text. Example text. Example text. Example text. Example text. Example text. Example text.
Example text. Example text. Example text. Example text. Example text. Example text. Example text.
Example text. Example text. Example text. Example text. Example text. Example text. Example text.
Example text. Example text. Example text. Example text.
```

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.44 `suppressTopSpacingWP` (Use Static Text Leading)

(The terms *baseline to baseline distance* and *unitsPerEm*, used below, are defined in ISO/IEC 14496-22.)

This element specifies that applications should use the values defined below to calculate the baseline to baseline distance (BTBD) in this document. This can result in lines appearing slightly condensed vertically.

Without this setting, applications calculate baseline to baseline distance using the metrics defined by ISO/IEC 14496-22. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that applications should calculate this as follows:

$$BTBD = \text{unitsPerEm} + 2\text{pt}$$

[*Example:* If this compatibility setting is turned on:

```
<w:compat>
  <w:suppressTopSpacingWP />
</w:compat>
```

Then applications use a baseline to baseline distance as calculated before. With a 16 point font, this would result in a baseline to baseline distance of 18 points. *end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.45 `swapBordersFacingPages` (Swap Paragraph Borders on Odd Numbered Pages)

This element specifies whether left and right paragraph borders defined under the `pBdr` element (Part 1, §17.3.1.24) shall be swapped under conditions where it is possible that the those pages are intended to be used to create a book-like publication.



Typically, no changes shall be made to the positions of paragraph borders defined under the pBdr element - a right border is always on the right, and a left border is always on the left. This element, when present with a val attribute value of true (or equivalent), specifies that under the two following conditions:

- The margins in this document are mirrored using the mirrorMargins element (Part 1, §17.15.1.57)
- The header/footers in this document are different on even and odd numbered pages using the evenAndOddHeaders element (Part 1, §17.10.1)

That paragraph borders on odd-numbered pages are swapped - that is, left borders shall be displayed on the right and right borders shall be displayed on the left.

[*Example:* Consider a WordprocessingML document for which the mirrorMargins element is present, and whose default paragraph style includes a paragraph border to be displayed on the right side of each paragraph:

```
<w:style w:type="paragraph" w:default="1" w:styleId="Normal" >
...
<w:pPr>
  <w:pBdr>
    <w:right w:val="single" w:color="auto" />
  </w:pBdr>
...
</w:pPr>
</w:style>
```

If a two-page document is created using this default paragraph style, then all paragraphs has a border on the right side, as follows:



<p>On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.</p> <p>You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.</p> <p>To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.</p> <p>On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.</p> <p>You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.</p> <p>To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.</p> <p>On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.</p> <p>You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.</p> <p>To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.</p>	<p>On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.</p> <p>You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.</p> <p>To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.</p> <p>On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.</p> <p>You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.</p> <p>To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.</p>
---	---

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:swapBordersFacingPages />
</w:compat>
```

Then the borders on the first page (being an odd-numbered page) must be swapped, resulting in the following output:



<p>On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.</p> <p>You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.</p> <p>To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.</p> <p>On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.</p> <p>You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.</p> <p>To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.</p> <p>On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.</p> <p>You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.</p> <p>To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.</p>	<p>On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.</p> <p>You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.</p> <p>To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.</p> <p>On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.</p> <p>You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.</p> <p>To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.</p>
---	---

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.46 `truncateFontHeightsLikeWP6` (Use Truncated Integer Division For Font Calculation)

This element specifies that applications should perform a specific method of calculation when converting font heights, specified in points using the `sz` (Part 1, §17.3.2.38) and `szCs` (Part 1, §17.3.2.39) elements, into pixels. This algorithm often results in a smaller than typical visual appearance of text for a given point size.

Typically, applications convert points to pixels using any approximate mathematical conversion mechanism (often, rounded integer division). This element, when present with a `val` attribute value of `true` (or equivalent), specifies that applications should use truncated integer division when performing this conversion (any non-integer value is truncated to determine the integer value resulting from the conversions).

[*Example:* If this compatibility setting is turned on:

```
<w:compat>
  <w:truncateFontHeightsLikeWP6 />
</w:compat>
```

Then applications shall use truncated integer division when calculating the height of characters.



For example, if the conversion is done as follows:

$$sz_{px} = sz_{pt} * N \frac{px}{inch} * \frac{1 inch}{72 pt}$$

where:

- $sz_{pt}$  = size in points
- $sz_{px}$  = size in pixels
- $N$  = resolution in pixels per inch

Converting a 14 point font on a 96 dpi device results in  $sz_{px} = 14 * 96 * \frac{1}{72} = 18\frac{2}{3}px$ . If this setting is on, the result is truncated and the font is displayed using 18 pixels, even though 19 would be closer to the actual value. *end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.47 underlineTabInNumList (Underline Following Character Following Numbering)

This element specifies whether applications shall underline the character following the numbering defined using the suff element (Part 1, §17.9.29) when both the numbering itself and the first letter of the corresponding numbered paragraph is underlined.

Typically, the tab or space character generated between numbering and the corresponding paragraph of text is never formatted, since it is automatically generated by the suff element. This element, when present with a val attribute value of true (or equivalent), specifies that the tab or space shall be underlined the same way as the numbering symbol itself in the following conditions:

- The numbering is underlined
- The first character of the paragraph is underlined

[*Example:* Consider a WordprocessingML document with two numbered paragraphs: one with underlined text and the other without. The default presentation would have the tab characters free of underlining in both cases:

1. Example Text

2. Example Text

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:underlineTabInNumList />
</w:compat>
```

Then the second paragraph meets the criteria defined above for having the suffix character underlined, resulting in the following output:



1. Example Text2. Example Text

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.48 `useAltKinsokuLineBreakRules` (Use Alternate Set of East Asian Line Breaking Rules)

This element specifies an alternate set of characters which can be used to determine which characters can begin and/or end a line when kinsoku line breaking rules are enabled using the kinsoku element (Part 1, §17.3.1.16).

Typically, the characters used to determine which characters shall not end a line are those listed by the kinsoku element in the paragraph properties subclause of this document. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that the following settings shall be used instead (for brevity, only those settings which are different are listed below):

Chinese (Simplified)

- Cannot start a line:

!),.,:;?]}~—“”‘’….:、。〃々>》」』【】!“' ), . : ; ? ] ` | } ~ ϕ

- Cannot end a line:

([{““ < 《 「 『 【 { ( . [ { £ ¥

Chinese (Traditional)

- Cannot start a line:

!),.,:;?]}ϕ—“”‘’….:、。〉》」』【】〕〃 : || { ~~~~~~?!) ! ) , . : ; ? | } 、

Korean

- Cannot end a line:

([{£¥““ < 《 「 『 【 { \$ ( [ { ₩

[*Example:* Consider a line of text in a WordprocessingML document within a paragraph marked as Chinese (Simplified) which begins with a % symbol, as follows:

%...

Typically, the kinsoku settings for Chinese (Simplified) do not allow this character to begin a line, so the character before that symbol would be moved down onto this line:



⌈%...

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:useAltKinsokuLineBreakRules />
</w:compat>
```

Then the alternate kinsoku rules are in place, which do not prevent the % character from beginning the new line, resulting in the following output:

%...

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.49 useAnsiKerningPairs (Use ANSI Kerning Pairs from Fonts)

This element specifies whether applications shall use the ANSI or Unicode kerning pair information from fonts stored in the document when displaying those characters within the document's contents.

Typically, applications shall use the Unicode kerning pair information in order to determine all possible kerning pairs in the fonts in use. This element, when present with a val attribute value of true (or equivalent), specifies that the ANSI kerning information shall be used instead.

[*Example:* Consider a WordprocessingML document with text that contains one or more kerning pairs.

If this compatibility setting is turned on:

```
<w:compat>
  <w:useAnsiKerningPairs />
</w:compat>
```

Then the ANSI kerning pairs are used in place of the Unicode kerning pairs, potentially resulting in different line breaks.

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.50 useFELayout (Do Not Bypass East Asian/Complex Script Layout Code)

This element specifies that applications shall not bypass code relating to the layout of East Asian and/or Complex Script characters when presenting this document.

[*Guidance:* Previous word processing applications relied on this flag to determine whether to perform functions which allow for the correct layout of East Asian and Complex Script text. Although current applications no longer rely on this flag (as they should correctly use the Unicode subranges and code pages of the text in use), this flag



should be output in order to ensure that files with this content can be viewed correctly in previous word processors. *end guidance*]

[*Example:* Consider a WordprocessingML document with East Asian text.

If this compatibility setting is turned on:

```
<w:compat>
  <w:useFELayout />
</w:compat>
```

Then the flag is set telling previous applications that East Asian content is present, and they should display the document accordingly. *end example*]

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.51 `useNormalStyleForList` (Do Not Automatically Apply List Paragraph Style To Bulleted/Numbered Text)

This element specifies whether applications shall automatically apply the paragraph style with the styleId attribute ListParagraph when numbering is applied to a paragraph currently formatted using the default paragraph style.

Typically, when a paragraph is formatted using the default paragraph style, and numbering is subsequently applied, the paragraph style with the styleId attribute ListParagraph when numbering is applied to ensure that paragraph properties are appropriate for a numbered paragraph. This element, when present with a val attribute value of true (or equivalent), specifies that no alternate paragraph style shall ever be applied

[*Example:* Consider a WordprocessingML document with five unnumbered paragraphs:

Example text.

Example text.

Example text.

Example text.

Example text.

If numbering is applied to the three center paragraphs, the default presentation would have the ListParagraph style applied as well:



Example text.

- Example text.
- Example text.
- Example text.

Example text.

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:useNormalStyleForList />
</w:compat>
```

Then the new paragraph style must not be applied, resulting in the following output:

Example text.

- Example text.
- Example text.
- Example text.

Example text.

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.52 `usePrinterMetrics` (Use Printer Metrics To Display Documents)

This element specifies whether applications shall use the printer metrics of the currently active printer when determining how to display the contents of a WordprocessingML document. *Printer metrics* are printer-specific settings which can be queried to tell an application how and where text shall be displayed on a printed page.

Typically, applications display the content of a document in a device independent manner - the application is therefore not changing the layout of a document based on the currently attached printer, and instead shall dictate to the printer where characters shall be presented on the page when printed. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that the metrics of the current printer shall be used to display the document instead.

Specifically, when this setting is enabled, the printer metrics are used to determine the number of pixels per logical inch along the screen width and height. This should then be used to compute the pixel height of the fonts requested when displaying the document, as well as to scale between any logical units within the document



(e.g. drawing object sizes) to the appropriate device units. Those units would then need to be scaled back into screen units for final display to a screen, but not scaled again when displayed to a printer.

[*Note:* On the Windows platform, you can use the `GetDeviceCaps` function to retrieve device-specific information for the specified printer. For this specific setting, you can use `GetDeviceCaps(hdc, LOGPIXELSX)` and `GetDeviceCaps(hdc, LOGPIXELSY)` with a printer DC to retrieve the number of pixels per logical inch along the screen width and height. With this, you can then use those DPI metrics to compute a pixel value for the font request in the `LOGFONT` structure (the `LOGFONT` structure defines the attributes of a font). A common formula to do this is  $S_{px} = S_{pts} * \frac{LOGPIXELSY}{72}$ . *end note*]

[*Example:* Consider a WordprocessingML document. The default must use device-independent layout to present the contents of the page.

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:usePrinterMetrics />
</w:compat>
```

Then the printer metrics of the current active printer must be used to determine the display of the contents of the document instead, as needed. *end example*]

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

#### 14.8.3.53 `useSingleBorderforContiguousCells` (Use Simplified Rules For Table Border Conflicts)

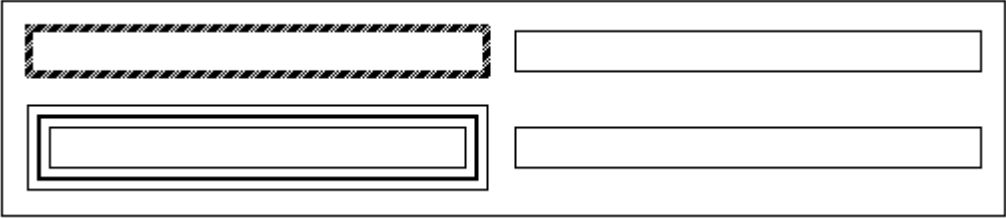
This element specifies whether applications should use an alternate simplified algorithm when handling conflicts between adjacent table borders within a table.

Typically, the conflicts between two adjacent table borders are handled using the conflict resolution algorithm defined in Part 1, §17.4.39 of ECMA-376. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that rather than using that algorithm to determine the outcome of the conflict to two adjacent borders, that the following logic shall be used instead:

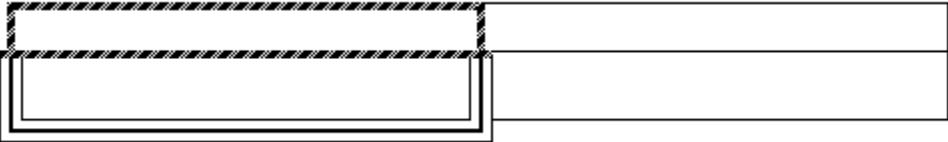
- Cell borders shall supersede table borders
- Cell borders to the right shall supersede cell borders to the left (i.e. the rightmost border wins in conflicts between vertical borders)
- Cell borders below shall supersede cell borders above (i.e. the bottommost border wins in conflicts between horizontal borders)

[*Example:* Consider a WordprocessingML document with cell and table borders defined as follows. In the image below, 0.1" of padding has been added between each cell temporarily to clearly illustrate the borders on each cell and on the table:





The default presentation would have the border conflicts resolved using the algorithm defined by ECMA-376, resulting in the following table:



However, if this compatibility setting is turned on:

```
<w:compat>
  <w:useSingleBorderforContiguousCells />
</w:compat>
```

Then the simplified table algorithm above shall be used instead (bottom and right cell borders always win), resulting in the following output:



*end example]*

This element’s content model is defined by the common boolean property definition in Part 1, §17.17.4.

14.8.3.54 useWord2002TableStyleRules (Incorrectly Display Top Border of Conditional Columns)

This element specifies whether applications should incorrectly calculate the top border of conditional columns (as specified by a tblStylePr element (Part 1, §17.7.6.6) with a type attribute value of firstCol, lastCol, band1Vert, or band2Vert) under the following conditions:

- A conditional formatting has also been defined for the first row (a tblStylePr element with a type attribute of firstRow)
- That conditional formatting as been applied to the table using the tblLook element (Part 1, §17.4.56)



Typically, table styles are applied according to the logic defined in Part 1, §17.7.2. This element, when present with a `val` attribute value of `true` (or equivalent), specifies that the top border of those conditionally formatted columns should instead be displayed as the top border of the following row.

[*Example:* Consider a WordprocessingML document with table style that defines two conditional formats:

The first column has a one point border

The first row has red shading

That style would be defined as follows:

```
<w:style w:type="table" w:customStyle="1" w:styleId="TableTest">
  <w:name w:val="CompatibilitySetting"/>
  <w:tblStylePr w:type="firstRow">
    <w:tcPr>
      <w:shd w:val="clear" w:color="auto" w:fill="FF0000"/>
    </w:tcPr>
  </w:tblStylePr>
  <w:tblStylePr w:type="firstCol">
    <w:tcPr>
      <w:tcBorders>
        <w:top w:val="single" w:sz="4" w:space="0" w:color="auto"/>
        <w:left w:val="single" w:sz="4" w:space="0" w:color="auto"/>
        <w:bottom w:val="single" w:sz="4" w:space="0" w:color="auto"/>
        <w:right w:val="single" w:sz="4" w:space="0" w:color="auto"/>
      </w:tcBorders>
    </w:tcPr>
  </w:tblStylePr>
</w:style>
```

If the first column and first row formatting is applied, the table would appear as follows:

1,1	1,2
2,1	2,2

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:useWord2002TableStyleRules />
</w:compat>
```

Then the condition described by this element causes the top border defined by the conditional format for the first column to be displayed as the top border for the second column, resulting in the following output:



1,1	1,2
2,1	2,2

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

**14.8.3.55 useWord97LineBreakRules (Use Incorrect Inter-Character Spacing Rules)**

This element specifies that applications should perform specific calculations (detailed below) when determining inter-character spacing under certain conditions. These calculations would not normally be considered correct.

Typically, the behaviors specified by the following elements are applied unconditionally:

- The autoSpaceDE (Part 1, §17.3.1.2) and autoSpaceDN (Part 1, §17.3.1.3) elements
- The topLinePunct (Part 1, §17.3.1.43) element

The compatibility element described in this subclause, when present with a val attribute value of true (or equivalent), specifies that applications should ignore the settings listed above in the following scenarios:

- 1) If an ideographic character and a non-ideographic/numeric character are logically adjacent (ignoring all content which is not within a t element), but separated by a field boundary, i.e.:
  - The first character is within a fldSimple element, but the second is not.
  - The characters are separated by a fldChar element with a fldCharType attribute value of end

Then any appropriate inter-character spacing should be omitted. [*Note*: Inter-character spacing should still be calculated correctly within the field result. *end note*]

- 2) If a full-width punctuation character appears at the start of a paragraph which also specifies numbering via the numPr element (Part 1, §17.3.1.19), the compression specified by the topLinePunct element is ignored.

[*Example*: Consider a paragraph which contains a field ending in an ideograph and another paragraph, with numbering, which contains a full-width punctuation character in the first character position:

```
<w:p>
  <w:r>
    <w:fldChar w:fldCharType="begin" />
  </w:r>
  ...
  <w:r>
    <w:t>日</w:t>
  </w:r>
  <w:r>
    <w:fldChar w:fldCharType="end" />
```



```

</w:r>
<w:r>
  <w:t>1</w:t>
</w:r>
</w:p>
<w:p>
  <w:pPr>
    <w:numPr>
      ...
    </w:numPr>
  </w:pPr>
  <w:r>
    <w:t> (</w:t>
  </w:r>
</w:p>

```

Typically, if both the `autoSpaceDN` and `topLinePunct` are true, additional spacing is added after the ideograph in the first paragraph and punctuation kerning is applied in the second paragraph (with gridlines added for visual reference):

平成	19	年	12	月	20	日	1
1.	(						

If this compatibility setting is turned on:

```

<w:compat>
  <w:useWord97LineBreakRules />
</w:compat>

```

Then applications should not add any inter-character spacing at the end of the field and should turn off punctuation kerning in the second paragraph:

平成	19	年	12	月	20	日	1
1.	(						

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.



### 14.8.3.56 wpJustification (Fit To Expanded Width When Performing Full Justification)

This element specifies that applications should perform a specific algorithm when determining the contents of each line in a fully justified paragraph (resulting from the use of the jc element (Part 1, §17.3.1.13)). This setting typically results in more words being fitted into lines (by reducing inter-word spacing as necessary).

Typically, applying full justification to a paragraph does not change the placement of line breaks, as inter-word spacing is expanded to ensure the resulting text is fully justified. This element, when present with a val attribute value of true (or equivalent), specifies that applications shall determine the contents of each line in a fully justified paragraph using the following algorithm:

For each line in the fully justified paragraph,

- Determine the actual line width,  $w$ , in pixels
- Calculate the “effective” line width by the following factor:

$$w_{\text{effective}} = w_{\text{actual}} + \left( w_{\text{actual}} * \frac{281}{7200} \right)$$

- Determine the text which can be displayed in a line of the “effective” line width
- Decrease the inter-word spacing as necessary to fit that text in the actual line width

[*Example:* Consider a WordprocessingML document with one or more paragraphs using full paragraph justification:

```
<w:p>
  <w:pPr>
    <w:jc w:val="both" />
  </w:pPr>
  ...
</w:p>
```

If this compatibility setting is turned on:

```
<w:compat>
  <w:wpJustification />
</w:compat>
```

Then, for a line 1000 pixels wide, an application would calculate the effective width as follows:

$$w_{\text{effective}} = 1000 + \left( 1000 * \frac{281}{7200} \right) = 1039 \text{ pixels}$$

This effective width is then used to determine how much text can be displayed on line. After calculating the text, the application can display the text on the actual line, fully justified. *end example*]

This element’s content model is defined by the common boolean property definition in Part 1, §17.17.4.



### 14.8.3.57 wpSpaceWidth (Use Specific Space Width)

(The terms *ascent* and *descent* are used as defined in ISO/IEC 14496-22.)

This element specifies that applications should perform determine the width of the space character for all proportional fonts used in this document using the calculation specified below.

Typically, applications calculate the width of a whitespace character dynamically to optimize for the output device. This element, when present with a *val* attribute value of *true* (or equivalent), specifies that applications should instead use the following algorithm to determine the width of a whitespace character:

$$w_{\text{space}} = \left( \frac{\textit{ascent} + \textit{descent}}{3} \right)$$

where

- $w_{\text{space}}$  is the width of a space character
- is the ascent for the font
- is the descent for the font

[*Example:* Consider a WordprocessingML document with this compatibility setting turned on:

```
<w:compat>
  <w:suppressTopSpacingWP />
</w:compat>
```

If the font applied to a run specified an ascent value of 8 points and a descent value of 2 points, each space in that run would have a width of three and one-third points. *end example*]

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

### 14.8.3.58 wrapTrailSpaces (Line Wrap Trailing Spaces)

This element specifies whether applications shall perform line wrapping on trailing spaces in the contents of a line when displaying in it a paragraph. *Trailing spaces* are all space characters which are not followed by non-space characters on the same line.

Typically, applications do not line wrap trailing spaces, instead allowing an unbounded number of trailing spaces on a line, with the next non-space character starting at the first character position on the next line. This element, when present with a *val* attribute value of *true* (or equivalent), specifies that all characters, including trailing spaces, shall be line wrapped normally.

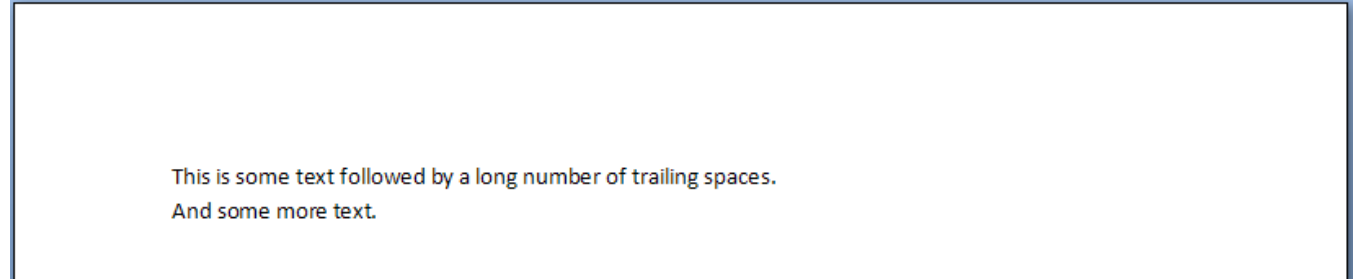
[*Example:* Consider a WordprocessingML document with the following paragraph of text, including a long interstitial of spaces which become trailing spaces when the paragraph is displayed:



```
<w:r>
  <w:t> This is some text followed by a long number of trailing spaces.
```

```
    And some more text.</w:t>
</w:r>
```

The default presentation would not wrap those trailing spaces, so the text at the end of the run would begin at the first character position on the second line:

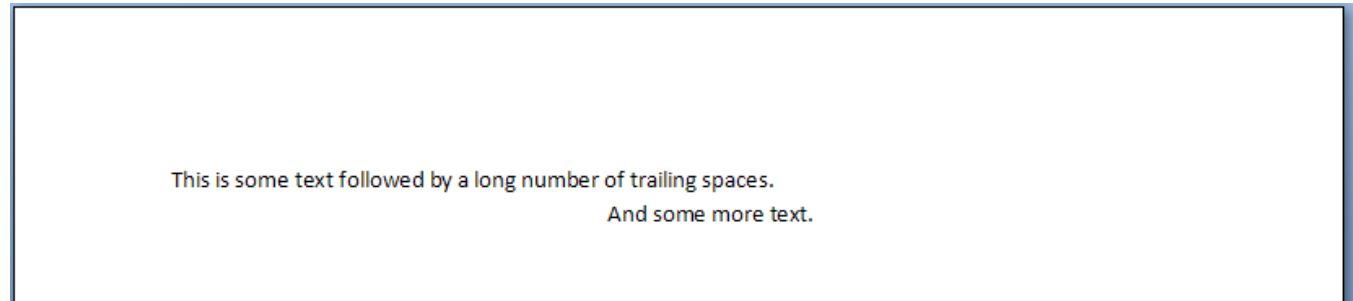


```
This is some text followed by a long number of trailing spaces.
And some more text.
```

However, if this compatibility setting is turned on:

```
<w:compat>
  <w:wrapTrailSpaces />
</w:compat>
```

Then all trailing spaces would be handled as regular characters when line wrapping, resulting in the following output:



```
This is some text followed by a long number of trailing spaces.
    And some more text.
```

*end example]*

This element's content model is defined by the common boolean property definition in Part 1, §17.17.4.

## 14.8.4 Web Page Settings

### 14.8.4.1 [relyOnVML \(Utilize VML When Saving as Web Page\)](#)

This element specifies whether applications can utilize the Vector Markup Language format when saving the content of this WordprocessingML document as a web page, when graphical elements that can leverage this format are present in the document.



If this element is omitted, then a graphic image format should be used either in place of or in concert with the Vector Markup Language output in order to specify the formatting and positioning for objects that are part of the resulting web page.

[*Note:* This setting is intended for applications to save web pages that can be supported by legacy web browsers that do not support Vector Markup Language when attempting to read and display the resulting web page. *end note*]

[*Example:* Consider a WordprocessingML document that contains the following content within the web settings part:

```
<w:webSettings>
  <w:relyOnVML w:val="false" />
</w:webSettings>
```

The relyOnVML element has a val attribute value of false, which specifies that applications should utilize a graphical image version of all objects that could utilize Vector Markup Language output. This does not preclude the use of the VML output, but does specify that a graphical element must be included as well. *end example*]

This element's content model is defined by the common boolean property definition in Part 1 §17.17.4.

## 14.9 Miscellaneous Topics

### 14.9.1 Text Box Content

All VML-based drawing objects (except for connectors) support the addition of rich WordprocessingML content within their extents. When WordprocessingML contents have been added to a VML drawing object, the resulting text is contained within a *text box*.

When WordprocessingML content is contained within a text box, it is allowed within the object by specifying the VML textbox element (§19.1.2.22), which contains within it a single txbxContent element that contains all of the desired WordprocessingML content.

#### 14.9.1.1 txbxContent (Rich Text Box Content Container)

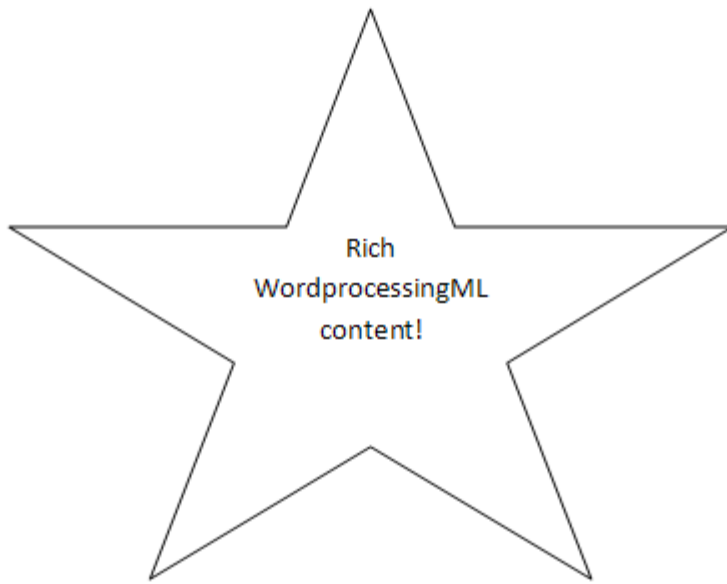
This element specifies that its contents shall be any rich WordprocessingML content, and that this content is the rich contents of a drawing object defined using the Vector Markup Language (VML) syntax (§19.1).

If this element contains within any of its contents any of the following content, then the document shall be considered non-conformant:

- References to other WordprocessingML document stories (comments, footnotes, endnotes)
- Additional txbxContent elements (as part of nested VML objects)

[*Example:* Consider a WordprocessingML document consisting of a single VML shape element (§19.1.2.19) (in this case, a star) that contains within it some WordprocessingML content:





That drawing object now contains a text box, and so uses the syntax for that text box:

```
<v:shape id="_x0000_s1026" type="#_x0000_t12" style="...">
  <v:textbox>
    <w:txbxContent>
      <w:p>
        <w:pPr>
          <w:jc w:val="center"/>
        </w:pPr>
        <w:r>
          <w:t>Rich WordprocessingML content!</w:t>
        </w:r>
      </w:p>
    </w:txbxContent>
  </v:textbox>
</v:shape>
```

*end example]*

[*Note:* The txbxContent element is the container for the WordprocessingML contained within the text box inside that shape - once inside this element any content (subject to the restrictions defined above) can be used. For compatibility with existing implementations, unqualified elements are used inside the txbxContent element to represent HTML fragments. *end note]*



[Note: The W3C XML Schema definition of this element's content model ([CT\\_TxbxContent](#)) is located in §A.2.  
end note]

## 14.10 Fields and Hyperlinks

### 14.10.1 Syntax

This subclause modifies the fields grammar defined in Part 1, §17.16.1 as necessary to support transitional use of fields.

The syntax rules in this subclause follow the system shown in ISO/IEC 14977: literal text is surrounded by double-quotes (or by apostrophes); the left-square-bracket and right-square-bracket designate the start and end of an option; the left-curly-bracket and right-curly-bracket designate the start and end of a sequence of one-or-more items; the vertical-line indicates an alternative; and each rule ends with a semicolon. Whenever hyphen is used as the exception-symbol (as per ISO/IEC 14977), it is surrounded by white space, and further clarified by a comment.

```
field-type=
    date-and-time |
    document-automation |
    document-information |
    document-property |
    equations-and-formulas |
    index-and-tables |
    links-and-references |
    mail-merge |
    numbering |
    user-information |
    form-field |
    user-defined-field |
    transitional-fields ;
transitional-fields=
    "AUTONUM" |
    "AUTONUMLGL" |
    "AUTONUMOUT" |
    "BARCODE", field-argument |
    "BIDIOUTLINE" |
    "EQ", [switches], "(", [eq-argument-list], ")" (* and see §14.10.4.6 *) |
    "INFO", info-category, [field-argument] ;
eq-argument-list=
    expression, {eq-list-separator, expression} ;
eq-list-separator=
    comma | semicolon ;          (* depending on the rules in §14.10.4.6 *)
```



```

info-category:
  "AUTHOR" | "COMMENTS" | "CREATEDATE" | "EDITTIME" |
  "FILENAME" | "FILESIZE" | "KEYWORDS" | "LASTSAVEDBY" |
  "NUMCHARS" | "NUMPAGES" | "NUMWORDS" | "PRINTDATE" |
  "REVNUM" | "SAVEDATE" | "SUBJECT" | "TEMPLATE" | "TITLE" ;

```

### 14.10.2 Legacy language references

Whenever a field requires a language identifier as one of its *field-switches*, that language identifier should be provided using the syntax defined by the ST\_Lang simple type (Part 1, §22.9.2.6). However, there exists a legacy mechanism by which language identifiers can be stored. For that mechanism, the following table lists those language codes and their corresponding languages.

This mechanism can be used within the following *field-switches*:

- ADDRESSBLOCK (Part 1, §17.16.5.1), \l switch
- BIBLIOGRAPHY (Part 1, §17.16.5.7), \l and \f switches
- CITATION (Part 1, §17.16.5.8), \l switch
- GREETINGLINE (Part 1, §17.16.5.24), \l switch
- INDEX (Part 1, §17.16.5.29), \z switch

[*Rationale*: This list is maintained for compatibility with documents containing these values. The use of these identifiers is discouraged. *end rationale*]

[*Note*: The second column "Description" is informative only, and is provided as an aid to implementers. Note also that the inclusion of country subtags in the BCP 47 codes makes no assertion about the relationship between nations and languages. Rather, it reflects the historical commercial process by which office software products were localized for some particular market. For example, the Swahili language is spoken in several Eastern African nations. However, the localization identified by the legacy language code 1089 reflected work done in Kenya to address the needs of Swahili users there and thus is mapped to the modern BCP 47 code sw-KE. *end note*]

Language Code	Description (informative)	BCP 47 Code
1025	Arabic - Saudi Arabia	ar-SA
1026	Bulgarian	bg-BG
1027	Catalan	ca-ES
1028	Chinese - Taiwan	zh-TW
1029	Czech	cs-CZ
1030	Danish	da-DK
1031	German - Germany	de-DE
1032	Greek	el-GR
1033	English - United States	en-US



Language Code	Description (informative)	BCP 47 Code
1034	Spanish - Spain (Traditional Sort)	es-ES
1035	Finnish	fi-FI
1036	French - France	fr-FR
1037	Hebrew	he-IL
1038	Hungarian	hu-HU
1039	Icelandic	is-IS
1040	Italian - Italy	it-IT
1041	Japanese	ja-JP
1042	Korean	ko-KR
1043	Dutch - Netherlands	nl-NL
1044	Norwegian (Bokmål)	nb-NO
1045	Polish	pl-PL
1046	Portuguese - Brazil	pt-BR
1047	Rhaeto-Romanic	rm-CH
1048	Romanian	ro-RO
1049	Russian	ru-RU
1050	Croatian	hr-HR
1051	Slovak	sk-SK
1052	Albanian - Albania	sq-AL
1053	Swedish	sv-SE
1054	Thai	th-TH
1055	Turkish	tr-TR
1056	Urdu - Pakistan	ur-PK
1057	Indonesian	id-ID
1058	Ukrainian	uk-UA
1059	Belarusian	be-BY
1060	Slovenian	sl-SI
1061	Estonian	et-EE
1062	Latvian	lv-LV
1063	Lithuanian	lt-LT
1064	Tajik	tg-Cyrl-TJ
1065	Farsi	fa-IR
1066	Vietnamese	vi-VN
1067	Armenian - Armenia	hy-AM



Language Code	Description (informative)	BCP 47 Code
1068	Azeri (Latin)	az-Latn-AZ
1069	Basque	eu-ES
1070	Sorbian	wen-DE
1071	FYRO Macedonian	mk-MK
1072	Sutu	st-ZA
1073	Tsonga	ts-ZA
1074	Tswana	tn-ZA
1075	Venda	ven-ZA
1076	Xhosa	xh-ZA
1077	Zulu	zu-ZA
1078	Afrikaans - South Africa	af-ZA
1079	Georgian	ka-GE
1080	Faroese	fo-FO
1081	Hindi	hi-IN
1082	Maltese	mt-MT
1083	Sami	se-NO
1084	Gaelic (Scotland)	gd-GB
1085	Yiddish	yi
1086	Malay - Malaysia	ms-MY
1087	Kazakh	kk-KZ
1088	Kyrgyz (Cyrillic)	ky-KG
1089	Swahili	sw-KE
1090	Turkmen	tk-TM
1091	Uzbek (Latin)	uz-Latn-UZ
1092	Tatar	tt-RU
1093	Bengali (India)	bn-IN
1094	Punjabi	pa-IN
1095	Gujarati	gu-IN
1096	Oriya	or-IN
1097	Tamil	ta-IN
1098	Telugu	te-IN
1099	Kannada	kn-IN
1100	Malayalam	ml-IN
1101	Assamese	as-IN



Language Code	Description (informative)	BCP 47 Code
1102	Marathi	mr-IN
1103	Sanskrit	sa-IN
1104	Mongolian (Cyrillic)	mn-MN
1105	Tibetan - People's Republic of China	bo-CN
1106	Welsh	cy-GB
1107	Khmer	km-KH
1108	Lao	lo-LA
1109	Burmese	my-MM
1110	Galician	gl-ES
1111	Konkani	kok-IN
1112	Manipuri	mni
1113	Sindhi - India	sd-IN
1114	Syriac	syr-SY
1115	Sinhalese - Sri Lanka	si-LK
1116	Cherokee - United States	chr-US
1117	Inuktitut	iu-Cans-CA
1118	Amharic - Ethiopia	am-ET
1119	Tamazight (Arabic)	tmz
1120	Kashmiri (Arabic)	ks-Arab-IN
1121	Nepali	ne-NP
1122	Frisian - Netherlands	fy-NL
1123	Pashto	ps-AF
1124	Filipino	fil-PH
1125	Divehi	dv-MV
1126	Edo	bin-NG
1127	Fulfulde - Nigeria	fuv-NG
1128	Hausa - Nigeria	ha-Latn-NG
1129	Ibibio - Nigeria	ibb-NG
1130	Yoruba	yo-NG
1131	Quecha - Bolivia	quz-BO
1132	Sepedi	nso-ZA
1136	Igbo - Nigeria	ig-NG
1137	Kanuri - Nigeria	kr-NG
1138	Oromo	gaz-ET



Language Code	Description (informative)	BCP 47 Code
1139	Tigrigna - Ethiopia	ti-ER
1140	Guarani - Paraguay	gn-PY
1141	Hawaiian - United States	haw-US
1142	Latin	la
1143	Somali	so-SO
1144	Yi	ii-CN
1145	Papiamentu	pap-AN
1152	Uighur - China	ug-Arab-CN
1153	Maori - New Zealand	mi-NZ
2049	Arabic - Iraq	ar-IQ
2052	Chinese - People's Republic of China	zh-CN
2055	German - Switzerland	de-CH
2057	English - United Kingdom	en-GB
2058	Spanish - Mexico	es-MX
2060	French - Belgium	fr-BE
2064	Italian - Switzerland	it-CH
2067	Dutch - Belgium	nl-BE
2068	Norwegian (Nynorsk)	nn-NO
2070	Portuguese - Portugal	pt-PT
2072	Romanian - Moldava	ro-MO
2073	Russian - Moldava	ru-MO
2074	Serbian (Latin)	sr-Latn-CS
2077	Swedish - Finland	sv-FI
2080	Urdu - India	ur-IN
2092	Azeri (Cyrillic)	az-Cyrl-AZ
2108	Gaelic (Ireland)	ga-IE
2110	Malay - Brunei Darussalam	ms-BN
2115	Uzbek (Cyrillic)	uz-Cyrl-UZ
2117	Bengali (Bangladesh)	bn-BD
2118	Punjabi (Pakistan)	pa-PK
2128	Mongolian (Mongolian)	mn-Mong-CN
2129	Tibetan - Bhutan	bo-BT
2137	Sindhi - Pakistan	sd-PK
2143	Tamazight (Latin)	tzm-Latn-DZ



Language Code	Description (informative)	BCP 47 Code
2144	Kashmiri (Devanagari)	ks-Deva-IN
2145	Nepali - India	ne-IN
2155	Quecha - Ecuador	quz-EC
2163	Tigrigna - Eritrea	ti-ET
3073	Arabic - Egypt	ar-EG
3076	Chinese - Hong Kong SAR	zh-HK
3079	German - Austria	de-AT
3081	English - Australia	en-AU
3082	Spanish - Spain (Modern Sort)	es-ES
3084	French - Canada	fr-CA
3098	Serbian (Cyrillic)	sr-Cyrl-CS
3179	Quecha - Peru	quz-PE
4097	Arabic - Libya	ar-LY
4100	Chinese - Singapore	zh-SG
4103	German - Luxembourg	de-LU
4105	English - Canada	en-CA
4106	Spanish - Guatemala	es-GT
4108	French - Switzerland	fr-CH
4122	Croatian (Bosnia/Herzegovina)	hr-BA
5121	Arabic - Algeria	ar-DZ
5124	Chinese - Macao SAR	zh-MO
5127	German - Liechtenstein	de-LI
5129	English - New Zealand	en-NZ
5130	Spanish - Costa Rica	es-CR
5132	French - Luxembourg	fr-LU
5146	Bosnian (Bosnia/Herzegovina)	bs-Latn-BA
6145	Arabic - Morocco	ar-MO
6153	English - Ireland	en-IE
6154	Spanish - Panama	es-PA
6156	French - Monaco	fr-MC
7169	Arabic - Tunisia	ar-TN
7177	English - South Africa	en-ZA
7178	Spanish - Dominican Republic	es-DO
7180	French - West Indies	fr-029



Language Code	Description (informative)	BCP 47 Code
8193	Arabic - Oman	ar-OM
8201	English - Jamaica	en-JM
8202	Spanish - Venezuela	es-VE
8204	French - Reunion	fr-RE
9217	Arabic - Yemen	ar-YE
9225	English - Caribbean	en-029
9226	Spanish - Colombia	es-CO
9228	French - Democratic Rep. of Congo	fr-CG
10241	Arabic - Syria	ar-SY
10249	English - Belize	en-BZ
10250	Spanish - Peru	es-PE
10252	French - Senegal	fr-SN
11265	Arabic - Jordan	ar-JO
11273	English - Trinidad	en-TT
11274	Spanish - Argentina	es-AR
11276	French - Cameroon	fr-CM
12289	Arabic - Lebanon	ar-LB
12297	English - Zimbabwe	en-ZW
12298	Spanish - Ecuador	es-EC
12300	French - Cote d'Ivoire	fr-CI
13313	Arabic - Kuwait	ar-KW
13321	English - Philippines	en-PH
13322	Spanish - Chile	es-CL
13324	French - Mali	fr-ML
14337	Arabic - U.A.E.	ar-AE
14345	English - Indonesia	en-ID
14346	Spanish - Uruguay	es-UY
14348	French - Morocco	fr-MA
15361	Arabic - Bahrain	ar-BH
15369	English - Hong Kong SAR	en-HK
15370	Spanish - Paraguay	es-PY
15372	French - Haiti	fr-HT
16385	Arabic - Qatar	ar-QA
16393	English - India	en-IN



Language Code	Description (informative)	BCP 47 Code
16394	Spanish - Bolivia	es-BO
17417	English - Malaysia	en-MY
17418	Spanish - El Salvador	es-SV
18441	English - Singapore	en-SG
18442	Spanish - Honduras	es-HN
19466	Spanish - Nicaragua	es-NI
20490	Spanish - Puerto Rico	es-PR
21514	Spanish - United States	es-US
58378	Spanish - Latin America	es-419
58380	French - North Africa	fr-015
Any other value	Undefined. Shall not be used.	

### 14.10.3 Use of DOS File Paths

The following fields allow the use of a DOS file path in place of the (preferred) IRI syntax:

- INCLUDEPICTURE (Part 1, §17.16.5.27)
- INCLUDETTEXT (Part 1, §17.16.5.28)

When a DOS file path is specified in a *field-argument*, each backslash character shall be preceded directly by another backslash character [*Example*: E:\\example.docx *end example*] If *field-argument* contains white space, it shall be enclosed in double quotes.

### 14.10.4 Field definitions

#### 14.10.4.1 AUTONUM

**Syntax:**

AUTONUM [ *switches* ]

**Description:** In paragraphs formatted with one of the nine built-in heading styles, paragraph numbering restarts at 1 in each successive heading level. If headings that contain AUTONUM fields are followed by body text paragraphs that also contain AUTONUM fields, the paragraph numbering of the body text is restarted at 1 after each heading. If the headings don't contain AUTONUM fields, body text paragraphs that contain AUTONUM fields are numbered in a continuous, sequential series throughout the document. [*Note*: This field is supported for legacy reasons, It is recommended that LISTNUM (Part 1, §17.16.5.33) be used instead. *end note*]

The XML generated for a complex field implementation shall not have the optional field value stored.

**Field Value:** A new paragraph number in ascending sequential order.



**Switches:** Zero or one of the *general-formatting-switches*, or zero or more of the following *field-specific-switches*.

<code>\s <i>field-argument</i></code>	<i>text</i> in this switch's <i>field-argument</i> specifies the separator character to be used. If \s is omitted, a period (.) is used.
---------------------------------------	--

[*Example:* When the following fields are updated:

```
AUTONUM
AUTONUM \* Arabic \s :
AUTONUM \* alphabetic \s " "xxx
AUTONUM \* ROMAN
AUTONUM \* OrdText
```

The results are:

```
1.
2:
c xxx
IV.
fifth.
```

*end example]*

#### 14.10.4.2 AUTONUMLGL

**Syntax:**

AUTONUMLGL [ *switches* ]

**Description:** For legal and technical publications, use the nine built-in heading styles to format headings in the document, and then insert an AUTONUMLGL field at the beginning of each heading paragraph. The numbers reflect the heading levels that correspond to the heading styles. If an AUTONUMLGL field is inserted in paragraphs of body text paragraphs not formatted with built-in heading styles, the number of the preceding heading is included in the paragraph number. [*Note:* This field is supported for legacy reasons, It is recommended that LISTNUM (Part 1, §17.16.5.33) be used instead. *end note*]

This field only makes sense in terms of multi-level headings. Given the following headings:

```
Heading 1
Heading 2
Heading 2
Heading 1
```



this field allows

- 1. Heading 1
- 1.1. Heading 2
- 1.2. Heading 2
- 2. Heading 1

At each level, the numbering sequence does two things—it increments specific to that level, and it includes the value from the previous level.

The XML generated for a complex field implementation shall not have the optional field value stored.

**Field Value:** A new paragraph number in ascending sequential order.

**Switches:** Zero or one of the *general-formatting-switches*, or zero or more of the following *field-specific-switches*.

<code>\e</code>	Removes the trailing separator (period).
<code>\s <i>field-argument</i></code>	<i>text</i> in this switch's <i>field-argument</i> specifies the separator character to be used. If <code>\s</code> is omitted, a period (.) is used.

[*Example:* When the following fields are updated:

```
AUTONUMGL
AUTONUMGL \* Arabic \s :
AUTONUMGL \* alphabetic \s " "xxx
AUTONUMGL \* ROMAN
AUTONUMGL \e xxx
```

The results are:

```
1.
2:
c xxx
IV.
5xxx
```

*end example]*

#### 14.10.4.3 AUTONUMOUT

**Syntax:**

```
AUTONUMOUT
```

**Description:** Use the nine built-in heading styles to format headings in the document, and then insert an AUTONUMOUT field at the beginning of each heading paragraph. The numbers reflect the heading levels that



correspond to the heading styles. [*Note: This field is supported for legacy reasons, It is recommended that LISTNUM (Part 1, §17.16.5.33) be used instead. end note*]

The XML generated for a complex field implementation shall not have the optional field value stored.

This field allows the numbering to be incremented based on the heading level. Given the following:

```
{AutoNumOut} Heading 1
{AutoNumOut} Heading 2
{AutoNumOut} Heading 2
{AutoNumOut} Heading 1
```

results in

```
I. Heading 1
A. Heading 2
B. Heading 2
II. Heading 1
```

**Field Value:** A paragraph number.

**Switches:** None.

[*Example: When the following fields are updated:*

```
AUTONUMOUT
AUTONUMOUT
```

The results are:

```
1.
2.
```

*end example*]

#### 14.10.4.4 BARCODE

**Syntax:**

```
BARCODE field-argument [ switches ]
```

**Description:** Produces a postal bar code in a machine-readable form of address used by the U.S. Postal Service. The barcode is in the form of either a POSTNET delivery-point bar code or a Facing Identification Mark (FIM). *text* in *field-argument* can be either a postal address or a bookmark name. In the case of a postal address, all that is needed is a 5-digit or 9-digit ZIP code; the rest of the address is superfluous.

**Field Value:** A postal bar code.



**Switches:** Zero or more of the following *field-specific-switches*.

<code>\b</code>	Indicates that <i>text</i> in <i>field-argument</i> is the name of a bookmark.
<code>\f <i>field-argument</i></code>	Inserts a Facing Identification Mark (FIM). <i>text</i> in this switch's <i>field-argument</i> shall be either "A" (courtesy reply mark) or "C" (business reply mark).
<code>\u</code>	Indicates that <i>text</i> in <i>field-argument</i> is a U.S. postal address.

[*Example:* Consider the case in which PostalAddress is the name of a bookmark for the text "2051 Swans Neck Way, Reston VA 20191". When the following fields are updated:

```

BARCODE 20191
BARCODE 20191 \u
BARCODE 20191-4023 \u
BARCODE "2051 Swans Neck Way, Reston VA 20191" \u
BARCODE "2051 Swans Neck Way, Reston VA 20191" \f A
BARCODE 20191 \f C
BARCODE PostalAddress \b \f A

```

The results are:

|||||

|||||

|||||

|||||

|||

|||

|||

*end example]*



#### 14.10.4.5 BIDIOUTLINE

##### Syntax:

BIDIOUTLINE

**Description:** This field is identical to the AUTONUMLGL field (§14.10.4.3), except for the separator that delimits each level of the paragraph numbering (this field uses a hyphen-minus (U+002D) instead of a full stop (U+002E) character as the default separator character).

**Field Value:** A new paragraph number in ascending sequential order, as defined by the description in §14.10.4.3.

**Switches:** None.

#### 14.10.4.6 EQ

##### Syntax:

EQ [ *switches* ] ( *eq-argument-list* ) [ *switches* ]

*eq-argument-list* is a list of arguments separated using a separator character. For implementations using a period (.) as the radix point, the separator character is a comma (,). For implementations using a comma (,) as the radix point, the separator character is a semicolon (;).

**Description:** Computes the specified mathematical equation.

**Field Value:** The result of the specified mathematical equation. [Note: The result of an EQ field can be used as an argument in another EQ field's *eq-argument-list*. end note]

**Switches:** The left-hand *switches* can only be one of the following: \a, \b, \d, \f, \i, \l, \o, \r, \s, and \x. Each of these switches has one or more subswitches, as shown below.

\a produces an array using the argument values in *eq-argument-list* (which are in row-major order) and the *field-specific-switches* below:

\ac	Alignment is centered in each array column.
\al	Alignment is left in each array column.
\ar	Alignment is right in each array column.
\co <i>field-argument</i>	The number of columns in the array is specified by <i>text</i> in this switch's <i>field-argument</i> . In the absence of this switch, the number is 1.
\hs <i>field-argument</i>	Adds the integral number of points of horizontal spacing specified by <i>text</i> in this switch's <i>field-argument</i> between columns.
\vs <i>field-argument</i>	Adds the integral number of points of vertical spacing specified by <i>text</i> in this switch's <i>field-argument</i> between lines.



`\b` brackets the single element in *eq-argument-list* in a size appropriate for that element. The default form of brackets is parentheses. The *field-specific-switches* below can be used:

<code>\bc \char</code>	Uses the character designated by <i>char</i> as both the left and right bracket character. However, if <i>char</i> is {, [, (, or <, that character is used for the left bracket, and }, ], ), or >, respectively, is used for right bracket.
<code>\lc \char</code>	Uses the character designated by <i>char</i> as the left bracket character.
<code>\rc \char</code>	Uses the character designated by <i>char</i> as the right bracket character.

`\d` Controls where the next character following the EQ field is drawn (that is, the displacement). *eq-argument-list* shall have no arguments. The *field-specific-switches* below can be used:

<code>\ba field-argument</code>	Draws to the left (backward) the integral number of points specified by <i>text</i> in this switch's <i>field-argument</i> .
<code>\fo field-argument</code>	Draws to the right (forward) the integral number of points specified by <i>text</i> in this switch's <i>field-argument</i> .
<code>\li</code>	Underlines the space up to the next character.

`\f` Creates a fraction with the first argument as numerator and the second argument as denominator, centered above and below the division line, respectively. *eq-argument-list* shall have exactly two arguments. There are no *field-specific-switches* for this switch.

`\i` Creates an integral using the specified or default symbol and three elements. The first argument is the lower limit, the second is the upper limit, and the third is the integrand. *eq-argument-list* shall have exactly three arguments. The *field-specific-switches* below can be used:

<code>\fc \char</code>	Uses the character designated by <i>char</i> as the fixed-height character for the symbol.
<code>\in</code>	Uses an inline format with the limits displayed to the right of the symbol instead of above and below it.
<code>\pr</code>	Uses the symbol Capital pi and creates a product.
<code>\su</code>	Uses the symbol Capital sigma and creates a summation.
<code>\vc \char</code>	Uses the character designated by <i>char</i> as the variable-height character for the symbol. The symbol matches the height of the third argument.

`\lf` Creates a list from an arbitrary number of arguments. There are no *field-specific-switches* for this switch.

`\o` Using an arbitrary number of arguments, displays each successive argument on top of the previous one. Each character is displayed within an invisible character box, with the switches being available to align the boxes on top of one another. The *field-specific-switches* below can be used:



<code>\ac</code>	Alignment character box center (the default).
<code>\al</code>	Alignment character box left.
<code>\ar</code>	Alignment character box right.

`\r` Creates a radical. *eq-argument-list* shall have either one or two arguments. If it has one argument, the result is the square root of that argument. If it has two arguments, the result is the *n*th root of the second argument, where *n* is the first argument. There are no *field-specific-switches* for this switch.

`\s` Creates a subscript or superscript. One or more arguments are permitted. If more than one element is specified, the elements are stacked and left-aligned. The *field-specific-switches* below can be used:

<code>\ai <i>field-argument</i></code>	Adds space above a line in a paragraph by the integral number of points specified by <i>text</i> in this switch's <i>field-argument</i> . The default is 2 points.
<code>\di <i>field-argument</i></code>	Adds space below a line in a paragraph by the integral number of points specified by <i>text</i> in this switch's <i>field-argument</i> .
<code>\do <i>field-argument</i></code>	Moves a single argument below the adjacent text by the integral number of points specified by <i>text</i> in this switch's <i>field-argument</i> . The default is 2 points.
<code>\up <i>field-argument</i></code>	Moves a single argument above the adjacent text by the integral number of points specified by <i>text</i> in this switch's <i>field-argument</i> .

`\x` Creates one or more border segments around a single argument. By default, all four borders are added. *eq-argument-list* shall have no arguments. The *field-specific-switches* below can be used:

<code>\bo</code>	Draws a horizontal border below the argument.
<code>\le</code>	Draws a vertical border to the left of the argument.
<code>\ri</code>	Draws a vertical border to the right of the argument.
<code>\to</code>	Draws a horizontal border above the argument.

[Example: When the following fields are updated:

```
EQ \a \co 2 \ac \hs 10 ( 1000, 20, A, Sunday )
EQ \b \bc \l ( -100 ) EQ \b \bc \l ( \r(3, a + b)
xx EQ \d \fo 20 ( ) xx EQ \d \fo 30 \li ( )xx
EQ \f ( 1, 32 ) EQ \f ( 7, 64 )
EQ \i ( 0, ∞, x ) EQ \i \su \in ( 0, 10, x ) EQ \i \pr \in ( 0, 5, x )
EQ \i \fc \{ ( 0, 5, \f (x, 0.34) ) EQ \i \vc \{ ( 0, 5, \f (x, 0.34) )

EQ \l ( 0, 10 )
EQ \b \lc \l ( \rc \l ( \l ( 0, 10) )
```



EQ \o ( 0, 0, 0 ) EQ \o ( 0, + ) EQ \o \ar ( 0, |, \_ )  
 EQ \r ( 2 ) EQ \r ( 2, x )  
 a EQ \s \up (2) + b EQ \s \up (2)  
 a EQ \x ( + ) b a EQ \x \to \le ( + ) b a EQ \x \bo \ri ( + ) b

The results are:

1000 20  
 A Sunday  
 | -100 | |  $\sqrt[3]{a+b}$  |

xx xx\_\_\_\_\_ xx

$\frac{1}{32} \frac{7}{64}$

$\int_0^{\infty} x \sum_0^{10x} \prod_0^5 x$

$\frac{x}{0.34}$   $\left\{ \frac{x}{0.34} \right\}$

0, 10  
 [0, 10)

0 0 0

$\sqrt{2}$   $\sqrt[2]{x}$

$a^2 + b^2$

a  $\boxed{+}$  b a  $\overline{+}$  b a  $\underline{+}$  b

*end example]*

14.10.4.7 INFO

**Syntax:**

INFO info-category [*field-argument*] [*switches*]



This field is documented for purposes of backwards compatibility. Each permitted value for *info-category* is also permitted as a *field-type*. Instances of the INFO field shall be treated as an instance of the *field-type* with the same value as *info-category*; that is, as if the INFO token was not present.

14.10.4.8 QUOTE

This field retrieves the text specified by *text* in *field-argument*. In strict conformance mode, this text may include any other fields except SYMBOL. However, in transitional conformance mode, this text may include any other fields except AUTONUM, AUTONUMLGL, AUTONUMOUT, and SYMBOL.

14.10.5 fldData (Custom Field Data)

This element specifies custom field data which shall be associated with the parent field. No information or semantics are applied to the contents of this data by ECMA-376, and therefore this field can be used as desired to store additional application-defined data with the field. However, applications should not lose the contents of this custom data if they do not understand or utilize it (i.e. the information should continue to be saved with the file).

If this element is omitted, then no custom field data is stored with the parent field. If the type attribute of the current field character is not start, then his setting can be ignored.

[Example: Consider the following WordprocessingML fragment for a complex field:

```
<w:r>
  <w:fldChar w:fldCharType="start">
    <w:fldData xml:space="preserve">///3645ERKJHE</w:fldData>
  </w:fldChar>
</w:r>
<w:r>
  <w:instrText>PRIVATE</w:instrText>
</w:r>
<w:r>
  <w:fldChar w:fldCharType="separate" />
</w:r>
...
```

The fldData element contains custom data stored with this PRIVATE field (Part 1, §17.16.5.48), the contents of which are determined by a hosting application. *end example]*

Attributes	Description
xml:space (Content Contains Significant Whitespace)  Namespace: http://www.w3.or	Specifies how white space should be handled for the contents of this element using the W3C space preservation rules.  [Example: Consider the following run contained within a WordprocessingML document:  <w:r>



Attributes	Description
g/XML/1998/namespaces	<p><code>&lt;w:t&gt;</code>    significant whitespace    <code>&lt;/w:t&gt;</code>  <code>&lt;/w:r&gt;</code></p> <p>Although there are three spaces on each side of the text content in the run, that whitespace has not been specifically marked as significant, therefore it is subject to the space preservation rules currently specified in that run's scope. <i>end example</i></p> <p>The possible values for this attribute are defined by §2.10 of the XML 1.0 specification.</p>

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Text](#)) is located in §A.2. *end note*]

### 14.10.6 fldData (Custom Field Data)

This element specifies custom field data which shall be associated with the parent field. No information or semantics are applied to the contents of this data by ECMA-376, and therefore this field can be used as desired to store additional application-defined data with the field. However, applications should not lose the contents of this custom data if they do not understand or utilize it (i.e. the information should continue to be saved with the file).

If this element is omitted, then no custom field data is stored with the parent field.

[Example: Consider the following WordprocessingML fragment for a simple field:

```
<w:fldSimple w:instr="PRIVATE">
  <w:fldData xml:space="preserve">///3645ERKJHE</w:fldData>
</w:fldSimple>
```

The fldData element contains custom data stored with this PRIVATE field (Part 1, §17.16.5.48), the contents of which are determined by a hosting application. *end example*]

Attributes	Description
<p>xml:space (Content Contains Significant Whitespace)</p> <p>Namespace: http://www.w3.org/XML/1998/namespaces</p>	<p>Specifies how white space should be handled for the contents of this element using the W3C space preservation rules.</p> <p>[Example: Consider the following run contained within a WordprocessingML document:</p> <pre>&lt;w:r&gt;   &lt;w:t&gt;    significant whitespace    &lt;/w:t&gt; &lt;/w:r&gt;</pre> <p>Although there are three spaces on each side of the text content in the run, that whitespace has not been specifically marked as significant, therefore it is subject to the space preservation rules currently specified in that run's scope. <i>end example</i>]</p>



Attributes	Description
	The possible values for this attribute are defined by §2.10 of the XML 1.0 specification.

[Note: The W3C XML Schema definition of this element's content model (CT\_Text) is located in §A.2. *end note*]

### 14.10.7 hyperlink (Hyperlink) (Part 1, §17.16.22)

Attributes	Description
id (Hyperlink Target) Namespace: .../officeDocument /2006/relationships	The same as the id attribute in Part 1, §17.16.22.

## 14.11 Simple Types

The following additional simple type information in the <http://schemas.openxmlformats.org/wordprocessingml/2006/main> namespace is used for documents of a transitional conformance class.

### 14.11.1 Additional member types for the union in ST\_DecimalNumberOrPercent (Part 1, §17.18.11)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST\_UnqualifiedPercentage simple type (§14.11.10).

### 14.11.2 Additional enumeration values for ST\_Jc (Part 1, §17.18.44)

The following additional enumeration values can be specified for a document of a transitional conformance class.

Enumeration Value	Description
left (Align to Leading Edge)	Semantically equivalent to start.
right (Align to Trailing Edge)	Semantically equivalent to end.

### 14.11.3 Additional enumeration values for ST\_JcTable (Part 1, §17.18.45)

The following additional enumeration values can be specified for a document of a transitional conformance class.

Enumeration Value	Description
left (Align to Starting Edge)	Specifies that the table shall be aligned to the leading edge of the text flow – the left text margin (for a left-



Enumeration Value	Description
	to-right table); or the right text margin (for a right-to-left table) in the document. (See Part 1, §17.4.1)
right (Align to Trailing Edge)	Specifies that the table shall be aligned to the trailing edge of the text flow – the right text margin (for a left-to-right table); or the left text margin (for a right-to-left table) in the document. (See Part 1, §17.4.1)

#### 14.11.4 Additional enumeration values for ST\_NumberFormat (Part 1, §17.18.59)

Enumeration Value	Description
decimalFullWidth2 (Full Width Arabic Numerals Alternate)	<p>Specifies that the sequence shall consist of a set of full-width Arabic numbering.</p> <p>To determine the text that is displayed for any value, this sequence specifies a set of characters that represent positions 1–9 and then those same characters are combined with each other and 0 (represents the number zero) to construct the remaining values.</p> <p>The set of characters used by this numbering format for values 0–9 is U+FF10–U+FF19, respectively.</p> <p>For values greater than the size of the set, the number is constructed by following these steps:</p> <ol style="list-style-type: none"> <li>1) Divide the value by 10 and write the symbol which represents the remainder.</li> <li>2) Divide the quotient of the previous division by 10 and write the symbol, which represents the remainder, to the left of the existing position.</li> <li>3) Repeat step 2 until the remaining value is equal to zero.</li> </ol> <p>[Example: The numbering for the items should be represented by the following pattern: 1, 2, 3, ..., 8, 9, 10, 11, 12, ..., 18, 19, 20, 21, ... end example]</p>

#### 14.11.5 Additional enumeration values for ST\_StyleSort (Part 1, §17.18.82)

The following additional enumeration values can be specified for a document of a transitional conformance class.

Enumeration Value	Description
0000 (Sort by Style Name)	Specifies that styles which are visible should be sorted by their names.
0001 (Sort by Style Priority)	Specifies that styles which are visible should be sorted



Enumeration Value	Description
	by their UI priority using the uiPriority element (Part 1, §17.7.4.19).
0002 (Sort by Default Method)	Specifies that styles which are visible should be sorted by the default sorting of the host application.
0003 (Sort by Font)	Specifies that styles which are visible should be sorted by the font which they apply.
0004 (Sort by Based On Style)	Specifies that styles which are visible should be sorted by the style on which they are based using the basedOn element (Part 1, §17.7.4.3).
0005 (Sort by Style Type)	Specifies that styles which are visible should be sorted by their style types (i.e. character, linked, paragraph).

#### 14.11.6 Additional enumeration values for ST\_TabJc (Part 1, §17.18.84)

The following additional enumeration values can be specified for a document of a transitional conformance class.

Enumeration Value	Description
left (Leading Tab)	Semantically equivalent to start.
right (Trailing Tab)	Semantically equivalent to end.

#### 14.11.7 Additional enumeration values for ST\_TextDirection (Part 1, §17.18.93)

The following additional enumeration values can be specified for a document of a transitional conformance class.

Enumeration Value	Description
btLr (Lines Flow From Left to Right)	Semantically equivalent to lr.
lrTb (Lines Flow From Top To Bottom)	Semantically equivalent to tb.
lrTbV (Lines Flow From Top to Bottom, Rotated)	Semantically equivalent to tbV.
tbLrV (Lines Flow From Left to Right, Rotated)	Semantically equivalent to lrV.
tbRl (Lines Flow From Right to Left)	Semantically equivalent to rl.
tbRlV (Lines Flow From Right to Left, Rotated)	Semantically equivalent to rlV.

#### 14.11.8 Additional member types for the union in ST\_TextScale (Part 1, §17.18.95)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

The ST\_TextScaleDecimal simple type (§14.11.11).



### 14.11.9 ST\_Cnf (Conditional Formatting Bitmask)

This simple type specifies the format for the set of conditional formatting properties that have been applied to this object.

These properties are expressed using a string serialization of a binary bitmask for each of the following properties (reading from the first character position right):

- First Row - Is this the first row of the table?
- Last Row - Is this the last row of the table?
- First Column - Does this belong to the first column of the table?
- Last Column - Does this belong to the last column of the table?
- Band 1 Vertical - Does this belong to a column which should receive band 1 formatting? This property specifies whether the cell should receive the formatting specified for odd-numbered columns (e.g. 1,3,5,...)
- Band 2 Vertical - Does this belong to a column which should receive band 2 formatting? This property specifies whether the cell should receive the formatting specified for even-numbered columns (e.g. 2,4,6...)
- Band 1 Horizontal - Does this receive band 1 formatting? This property specifies whether the cell should receive the formatting specified for odd-numbered rows (e.g. 1,3,5,...)
- Band 2 Horizontal - Does this receive band 2 formatting? This property specifies whether the cell should receive the formatting specified for even-numbered rows (e.g. 2,4,6...)
- NE Cell - Is this part of the top-right corner of the table?
- NW Cell - Is this part of the top-left corner of the table?
- SE Cell - Is this part of the bottom-right corner of the table?
- SW Cell - Is this part of the bottom-left corner of the table?

For each of these properties, a value of 1 in the specified character position in the string means that the value is true, a value of 0 means false. All values shall be specified.

[*Example:* Consider a paragraph in the top right corner of a table with a table style applied. This paragraph would need to specify the following WordprocessingML:

```
<w:p>
  <w:pPr>
    <w:cnfStyle w:val="101000000100" />
    ...
  </w:pPr>
  ...
</w:p>
```

This paragraph specifies that it has the conditional properties from the table style for the first column, first row, and the NW corner of the parent table by setting the appropriate bits in the val attribute. *end example]*



This simple type's contents are a restriction of the W3C XML Schema string datatype.

This simple type also specifies the following restrictions:

- This simple type's contents have a length of exactly 12 characters.
- This simple type's contents shall match the following regular expression pattern: `[01]*`.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_Cnf](#)) is located in §A.2. *end note*]

#### 14.11.10 ST\_UnqualifiedPercentage (Percentage Value Without Percent Sign)

This simple type specifies additional formats for percentage-based values which can only be used within the transitional conformance class.

Specifically, this value allows percentage-based values to be specified as follows:

- For the `w` attribute in `CT_TblWidth` (Part 1, §17.4.88), the value is stored in 50ths of a percent.
- For all other uses, the value is stored in whole percentage points.

[Example: Consider the following WordprocessingML fragment:

```
<w:tblW w:w="1000" w:type="pct" />
```

The `tblW` element is based on the `CT_TblWidth` complex type, and the `type` attribute's value is `pct`, which means that this value is measured in 50ths of a percent (i.e. 1000 is equal to 20%). *end example*]

This simple type's contents are a restriction of the W3C XML Schema integer datatype.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_UnqualifiedPercentage](#)) is located in §A.2. *end note*]

#### 14.11.11 ST\_TextScaleDecimal (Text Expansion/Compression Percentage)

This simple type specifies that the percentage by which the contents of a run shall be expanded or compressed with respect to its normal (100%) character width, with a minimum width of 1% and maximum width of 600%.

[Example: Consider a run of text which must be expanded to 300% when displaying each character within the contents of the run. This constraint is specified using the following WordprocessingML:

```
<w:rPr>
  <w:w w:val="300"/>
</w:rPr>
```

This run explicitly declares that the `w` value is 300, so the contents of this run appear at 300% of their normal character width by expanding the width of each character. *end example*]

This simple type's contents are a restriction of the W3C XML Schema integer datatype.

This simple type also specifies the following restrictions:



This simple type has a minimum value of greater than or equal to 0.

This simple type has a maximum value of less than or equal to 600.

### 14.11.12 Changed enumeration value for ST\_BrType (Part 1, §17.18.4)

The enumeration value row for this type is replaced by the following:

Enumeration Value	Description
page (Page Break)	Specifies that the current break shall restart itself on the next page of the document. [Note: For information on the interaction of page breaks in frames and the showBreaksInFrames element, see §14.8.3.36. <i>end note</i> ]

## 14.12 Changed attributes

### 14.12.1 General

The following attributes, which are defined in subclauses within Part 1, §17, “WordprocessingML”, have different source relationships when used in documents of the Transitional conformance class:

### 14.12.2 Changed attribute for contentPart element (Part 1, §17.3.3.2)

Attributes	Description
id (Relationship to Part)  Namespace: .../officeDocument/2006/relationships	Specifies the relationship ID to a specified part.  The specified relationship shall match the relationship type required by the parent element: <a href="http://schemas.openxmlformats.org/officeDocument/2006/customXml">http://schemas.openxmlformats.org/officeDocument/2006/customXml</a> for the contentPart element <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer">http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer</a> for the footerReference element <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/header">http://schemas.openxmlformats.org/officeDocument/2006/relationships/header</a> for the headerReference element <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/font">http://schemas.openxmlformats.org/officeDocument/2006/relationships/font</a> for the embedBold, embedBoldItalic, embedItalic, or embedRegular elements <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/printrSettings">http://schemas.openxmlformats.org/officeDocument/2006/relationships/printrSettings</a> for the printerSettings element <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink">http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink</a> for the longDesc or hyperlink element  [Example: Consider an XML element which has the following id attribute:  <pre>&lt;... r:id="rId1" /&gt;</pre> The markup specifies the associated relationship part with relationship ID rId1 contains the corresponding relationship information for the parent XML element. <i>end example</i> ]



Attributes	Description
	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).



### 14.12.3 Changed attribute for control element (Part 1, §17.3.3.3)

Attributes	Description
<b>id</b> (Embedded Control Properties Relationship Reference)  Namespace: .../officeDocument/2006/relationships	<p>Specifies the relationship ID for the relationship that contains the properties for this embedded control. This property bag is contained in a separate part within the Office Open XML package.</p> <p>The relationship explicitly targeted by this attribute shall be of type <code>http://schemas.openxmlformats.org/officeDocument/2006/relationships/control</code> or the document shall be considered non-conformant.</p> <p>If this attribute is omitted, then the embedded control shall be given no property bag when instantiated.</p> <p>[<i>Example:</i> Consider the following WordprocessingML markup for an embedded control in a document:</p> <pre>&lt;w:control r:id="rId5" w:name="CheckBox1" w:shapeid="_x0000_s1027" /&gt;</pre> <p>The <code>id</code> attribute in the relationship reference namespace specifies that the relationship with relationship ID <code>rId5</code> must contain the property data for this embedded control. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the <code>ST_RelationshipId</code> simple type (Part 1, §22.8.2.1).</p>

### 14.12.4 Changed attribute for movie element (Part 1, §17.3.3.17)

Attributes	Description
<b>id</b> (Relationship to Part)  Namespace: .../officeDocument/2006/relationships	<p>Specifies the relationship ID to a specified part.</p> <p>The specified relationship shall match the relationship type required by the parent element:</p> <ul style="list-style-type: none"> <li><code>http://schemas.openxmlformats.org/officeDocument/2006/customXml</code> for the <code>contentPart</code> element</li> <li><code>http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer</code> for the <code>footerReference</code> element</li> <li><code>http://schemas.openxmlformats.org/officeDocument/2006/relationships/header</code> for the <code>headerReference</code> element</li> <li><code>http://schemas.openxmlformats.org/officeDocument/2006/relationships/font</code> for the <code>embedBold</code>, <code>embedBoldItalic</code>, <code>embedItalic</code>, or <code>embedRegular</code> elements</li> <li><code>http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings</code> for the <code>printerSettings</code> element</li> <li><code>http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink</code> for the <code>longDesc</code> or <code>hyperlink</code> element</li> </ul> <p>[<i>Example:</i> Consider an XML element which has the following <code>id</code> attribute:</p>



Attributes	Description
	<p>&lt;... r:id="rId1" /&gt;</p> <p>The markup specifies the associated relationship part with relationship ID rId1 contains the corresponding relationship information for the parent XML element. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 14.12.5 Changed attribute for objectEmbed element (Part 1, §17.3.3.20)

Attributes	Description
<p>id (Relationship to Embedded Object Data)</p> <p>Namespace: .../officeDocument /2006/relationships</p>	<p>Specifies the relationship ID for the relationship that targets the Embedded Object Part containing the embedded object data.</p> <p>The specified relationship shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/oleObject">http://schemas.openxmlformats.org/officeDocument/2006/oleObject</a> or the document shall be considered non-conformant.</p> <p>[Example: Consider an XML element which has the following id attribute:</p> <p>&lt;... r:id="rId1" /&gt;</p> <p>The markup specifies the associated relationship part with relationship ID rId1 targets the part containing the corresponding embedded object information. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>



### 14.12.6 Changed attribute for objectLink element (Part 1, §17.3.3.21)

Attributes	Description
<b>id</b> (Relationship to Embedded Object Data)  Namespace: .../officeDocument/2006/relationships	<p>Specifies the relationship ID for the relationship that targets the Embedded Object Part containing the embedded object data.</p> <p>The specified relationship shall be of type <code>http://schemas.openxmlformats.org/officeDocument/2006/oleObject</code> or the document shall be considered non-conformant.</p> <p>[<i>Example</i>: Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID rId1 targets the part containing the corresponding embedded object information. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

### 14.12.7 Changed attribute for bottom element (Part 1, §17.6.2)

Attributes	Description
<b>bottomLeft</b> (Custom Defined Bottom Left Border Relationship Reference)  Namespace: .../officeDocument/2006/relationships	<p>Specifies the relationship ID for the relationship that contains the custom bottom left border image for the parent element. This custom border image is contained in a separate part within the WordprocessingML package.</p> <p>The relationship explicitly targeted by this attribute shall be of type <code>http://schemas.openxmlformats.org/officeDocument/2006/relationships/image</code> or the document shall be considered non-conformant.</p> <p>If this attribute is omitted, then no custom bottom left border shall be used.</p> <p>[<i>Example</i>: Consider the following WordprocessingML markup for a custom bottom left border in a document:</p> <pre>&lt;w:bottom w:val="custom" r:bottomLeft="rIdCustomBottomLeftBorder" .../&gt;</pre> <p>The id attribute in the relationship reference namespace specifies that the relationship with relationship ID rIdCustomBottomLeftBorder must contain the custom bottom left border image for the document. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>
<b>bottomRight</b> (Custom Defined	<p>Specifies the relationship ID for the relationship that contains the custom bottom right border image for the parent element. This custom border image is contained in a</p>



Attributes	Description
<p>Bottom Right Border Relationship Reference)</p> <p>Namespace: .../officeDocument/2006/relationships</p>	<p>separate part within the WordprocessingML package.</p> <p>The relationship explicitly targeted by this attribute shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/image">http://schemas.openxmlformats.org/officeDocument/2006/relationships/image</a> or the document shall be considered non-conformant.</p> <p>If this attribute is omitted, then no custom bottom right border shall be used.</p> <p>[<i>Example:</i> Consider the following WordprocessingML markup for a custom bottom right border in a document:</p> <pre>&lt;w:bottom w:val="custom" r:bottomRight="rIdCustomBottomRightBorder" .../&gt;</pre> <p>The id attribute in the relationship reference namespace specifies that the relationship with relationship ID rIdCustomBottomRightBorder must contain the custom bottom right border image for the document. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>
<p>id (Custom Defined Border Relationship Reference)</p> <p>Namespace: .../officeDocument/2006/relationships</p>	<p>Specifies the relationship ID for the relationship that contains the custom border image for the parent element. This custom border image is contained in a separate part within the WordprocessingML package.</p> <p>The relationship explicitly targeted by this attribute shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/image">http://schemas.openxmlformats.org/officeDocument/2006/relationships/image</a> or the document shall be considered non-conformant.</p> <p>If this attribute is omitted, then no custom border shall be used.</p> <p>[<i>Example:</i> Consider the following WordprocessingML markup for a custom bottom border in a document:</p> <pre>&lt;w:bottom w:val="custom" r:id="rIdCustomBottomBorder" .../&gt;</pre> <p>The id attribute in the relationship reference namespace specifies that the relationship with relationship ID rIdCustomBottomBorder must contain the custom bottom border image for the document. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 14.12.8 Changed attribute for left element (Part 1, §17.6.7)

Attributes	Description
id (Custom Defined	Specifies the relationship ID for the relationship that contains the custom border image



Attributes	Description
Border Relationship Reference)  Namespace: .../officeDocument/2006/relationships	<p>for the parent element. This custom border image is contained in a separate part within the WordprocessingML package.</p> <p>The relationship explicitly targeted by this attribute shall be of type <code>http://schemas.openxmlformats.org/officeDocument/2006/relationships/image</code> or the document shall be considered non-conformant.</p> <p>If this attribute is omitted, then no custom border shall be used.</p> <p>[<i>Example:</i> Consider the following WordprocessingML markup for a custom bottom border in a document:</p> <pre>&lt;w:bottom w:val="custom" r:id="rIdCustomBottomBorder" .../&gt;</pre> <p>The id attribute in the relationship reference namespace specifies that the relationship with relationship ID <code>rIdCustomBottomBorder</code> must contain the custom bottom border image for the document. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the <code>ST_RelationshipId</code> simple type (Part 1, §22.8.2.1).</p>

#### 14.12.9 Changed attribute for printerSettings element (Part 1, §17.6.14)

Attributes	Description
id (Relationship to Part)  Namespace: .../officeDocument/2006/relationships	<p>Specifies the relationship ID to a specified part.</p> <p>The specified relationship shall match the relationship type required by the parent element:</p> <ul style="list-style-type: none"> <li><code>http://schemas.openxmlformats.org/officeDocument/2006/customXml</code> for the <code>contentPart</code> element</li> <li><code>http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer</code> for the <code>footerReference</code> element</li> <li><code>http://schemas.openxmlformats.org/officeDocument/2006/relationships/header</code> for the <code>headerReference</code> element</li> <li><code>http://schemas.openxmlformats.org/officeDocument/2006/relationships/font</code> for the <code>embedBold</code>, <code>embedBoldItalic</code>, <code>embedItalic</code>, or <code>embedRegular</code> elements</li> <li><code>http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings</code> for the <code>printerSettings</code> element</li> <li><code>http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink</code> for the <code>longDesc</code> or <code>hyperlink</code> element</li> </ul> <p>[<i>Example:</i> Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID <code>rId1</code> contains</p>



Attributes	Description
	<p>the corresponding relationship information for the parent XML element. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 14.12.10 Changed attribute for right element (Part 1, §17.6.15)

Attributes	Description
<p>id (Custom Defined Border Relationship Reference)</p> <p>Namespace: .../officeDocument/2006/relationships</p>	<p>Specifies the relationship ID for the relationship that contains the custom border image for the parent element. This custom border image is contained in a separate part within the WordprocessingML package.</p> <p>The relationship explicitly targeted by this attribute shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/image">http://schemas.openxmlformats.org/officeDocument/2006/relationships/image</a> or the document shall be considered non-conformant.</p> <p>If this attribute is omitted, then no custom border shall be used.</p> <p>[<i>Example:</i> Consider the following WordprocessingML markup for a custom bottom border in a document:</p> <pre>&lt;w:bottom w:val="custom" r:id="rIdCustomBottomBorder" .../&gt;</pre> <p>The id attribute in the relationship reference namespace specifies that the relationship with relationship ID rIdCustomBottomBorder must contain the custom bottom border image for the document. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 14.12.11 Changed attribute for top element (Part 1, §17.6.21)

Attributes	Description
<p>id (Custom Defined Border Relationship Reference)</p> <p>Namespace: .../officeDocument/2006/relationships</p>	<p>Specifies the relationship ID for the relationship that contains the custom border image for the parent element. This custom border image is contained in a separate part within the WordprocessingML package.</p> <p>The relationship explicitly targeted by this attribute shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/image">http://schemas.openxmlformats.org/officeDocument/2006/relationships/image</a> or the document shall be considered non-conformant.</p> <p>If this attribute is omitted, then no custom border shall be used.</p> <p>[<i>Example:</i> Consider the following WordprocessingML markup for a custom bottom border in a document:</p>



Attributes	Description
	<p><code>&lt;w:bottom w:val="custom" r:id="rIdCustomBottomBorder" .../&gt;</code></p> <p>The id attribute in the relationship reference namespace specifies that the relationship with relationship ID <code>rIdCustomBottomBorder</code> must contain the custom bottom border image for the document. <i>end example</i></p> <p>The possible values for this attribute are defined by the <code>ST_RelationshipId</code> simple type (Part 1, §22.8.2.1).</p>
<p><code>topLeft</code> (Custom Defined Top Left Border Relationship Reference)</p> <p>Namespace: .../officeDocument/2006/relationships</p>	<p>Specifies the relationship ID for the relationship that contains the custom top left border image for the parent element. This custom border image is contained in a separate part within the WordprocessingML package.</p> <p>The relationship explicitly targeted by this attribute shall be of type <code>http://schemas.openxmlformats.org/officeDocument/2006/relationships/image</code> or the document shall be considered non-conformant.</p> <p>If this attribute is omitted, then no custom top left border shall be used.</p> <p>[<i>Example:</i> Consider the following WordprocessingML markup for a custom top left border in a document:</p> <p><code>&lt;w:top w:val="custom" r:topLeft="rIdCustomTopLeftBorder" .../&gt;</code></p> <p>The id attribute in the relationship reference namespace specifies that the relationship with relationship ID <code>rIdCustomTopLeftBorder</code> must contain the custom top left border image for the document. <i>end example</i></p> <p>The possible values for this attribute are defined by the <code>ST_RelationshipId</code> simple type (Part 1, §22.8.2.1).</p>
<p><code>topRight</code> (Custom Defined Top Right Border Relationship Reference)</p> <p>Namespace: .../officeDocument/2006/relationships</p>	<p>Specifies the relationship ID for the relationship that contains the custom top right border image for the parent element. This custom border image is contained in a separate part within the WordprocessingML package.</p> <p>The relationship explicitly targeted by this attribute shall be of type <code>http://schemas.openxmlformats.org/officeDocument/2006/relationships/image</code> or the document shall be considered non-conformant.</p> <p>If this attribute is omitted, then no custom top right border shall be used when the parent element is instantiated.</p> <p>[<i>Example:</i> Consider the following WordprocessingML markup for a custom top right border in a document:</p> <p><code>&lt;w:top w:val="custom" r:topRight="rIdCustomTopRightBorder" ... /&gt;</code></p>



Attributes	Description
	<p>The id attribute in the relationship reference namespace specifies that the relationship with relationship ID rIdCustomTopRightBorder must contain the custom top right border image for the document. <i>end example</i></p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 14.12.12 Changed attribute for embedBold element (Part 1, §17.8.3.3)

Attributes	Description
<p>id (Relationship to Part)</p> <p>Namespace: .../officeDocument/2006/relationships</p>	<p>Specifies the relationship ID to a specified part.</p> <p>The specified relationship shall match the relationship type required by the parent element:</p> <ul style="list-style-type: none"> <li>http://schemas.openxmlformats.org/officeDocument/2006/customXml for the contentPart element</li> <li>http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer for the footerReference element</li> <li>http://schemas.openxmlformats.org/officeDocument/2006/relationships/header for the headerReference element</li> <li>http://schemas.openxmlformats.org/officeDocument/2006/relationships/font for the embedBold, embedBoldItalic, embedItalic, or embedRegular elements</li> <li>http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings for the printerSettings element</li> <li>http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink for the longDesc or hyperlink element</li> </ul> <p>[Example: Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID rId1 contains the corresponding relationship information for the parent XML element. <i>end example</i></p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 14.12.13 Changed attribute for embedBoldItalic element (Part 1, §17.8.3.4)

Attributes	Description
<p>id (Relationship to Part)</p> <p>Namespace: .../officeDocument/2006/relationships</p>	<p>Specifies the relationship ID to a specified part.</p> <p>The specified relationship shall match the relationship type required by the parent element:</p> <ul style="list-style-type: none"> <li>http://schemas.openxmlformats.org/officeDocument/2006/customXml for the contentPart element</li> </ul>



Attributes	Description
ps	<p> <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer">http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer</a> for the footerReference element  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/header">http://schemas.openxmlformats.org/officeDocument/2006/relationships/header</a> for the headerReference element  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/font">http://schemas.openxmlformats.org/officeDocument/2006/relationships/font</a> for the embedBold, embedBoldItalic, embedItalic, or embedRegular elements  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings">http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings</a> for the printerSettings element  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink">http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink</a> for the longDesc or hyperlink element </p> <p>[Example: Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID rId1 contains the corresponding relationship information for the parent XML element. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 14.12.14 Changed attribute for embedItalic element (Part 1, §17.8.3.5)

Attributes	Description
id (Relationship to Part)  Namespace: .../officeDocument/2006/relationships ps	<p>Specifies the relationship ID to a specified part.</p> <p>The specified relationship shall match the relationship type required by the parent element:</p> <p> <a href="http://schemas.openxmlformats.org/officeDocument/2006/customXml">http://schemas.openxmlformats.org/officeDocument/2006/customXml</a> for the contentPart element  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer">http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer</a> for the footerReference element  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/header">http://schemas.openxmlformats.org/officeDocument/2006/relationships/header</a> for the headerReference element  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/font">http://schemas.openxmlformats.org/officeDocument/2006/relationships/font</a> for the embedBold, embedBoldItalic, embedItalic, or embedRegular elements  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings">http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings</a> for the printerSettings element  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink">http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink</a> for the longDesc or hyperlink element </p> <p>[Example: Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID rId1 contains</p>



Attributes	Description
	<p>the corresponding relationship information for the parent XML element. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 14.12.15 Changed attribute for embedRegular element (Part 1, §17.8.3.6)

Attributes	Description
<p>id (Relationship to Part)</p> <p>Namespace: .../officeDocument/2006/relationships</p>	<p>Specifies the relationship ID to a specified part.</p> <p>The specified relationship shall match the relationship type required by the parent element:</p> <p>http://schemas.openxmlformats.org/officeDocument/2006/customXml for the contentPart element</p> <p>http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer for the footerReference element</p> <p>http://schemas.openxmlformats.org/officeDocument/2006/relationships/header for the headerReference element</p> <p>http://schemas.openxmlformats.org/officeDocument/2006/relationships/font for the embedBold, embedBoldItalic, embedItalic, or embedRegular elements</p> <p>http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings for the printerSettings element</p> <p>http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink for the longDesc or hyperlink element</p> <p>[Example: Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID rId1 contains the corresponding relationship information for the parent XML element. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 14.12.16 Changed attribute for footerReference element (Part 1, §17.10.2)

Attributes	Description
<p>id (Relationship to Part)</p> <p>Namespace: .../officeDocument/2006/relationships</p>	<p>Specifies the relationship ID to a specified part.</p> <p>The specified relationship shall match the relationship type required by the parent element:</p> <p>http://schemas.openxmlformats.org/officeDocument/2006/customXml for the contentPart element</p> <p>http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer for the footerReference element</p>



Attributes	Description
	<p> <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/header">http://schemas.openxmlformats.org/officeDocument/2006/relationships/header</a> for the headerReference element  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/font">http://schemas.openxmlformats.org/officeDocument/2006/relationships/font</a> for the embedBold, embedBoldItalic, embedItalic, or embedRegular elements  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/printrSettings">http://schemas.openxmlformats.org/officeDocument/2006/relationships/printrSettings</a> for the printerSettings element  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink">http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink</a> for the longDesc or hyperlink element </p> <p>[Example: Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID rId1 contains the corresponding relationship information for the parent XML element. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 14.12.17 Changed attribute for headerReference element (Part 1, §17.10.5)

Attributes	Description
<p>id (Relationship to Part)</p> <p>Namespace: .../officeDocument/2006/relationships</p>	<p>Specifies the relationship ID to a specified part.</p> <p>The specified relationship shall match the relationship type required by the parent element:</p> <p> <a href="http://schemas.openxmlformats.org/officeDocument/2006/customXml">http://schemas.openxmlformats.org/officeDocument/2006/customXml</a> for the contentPart element  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer">http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer</a> for the footerReference element  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/header">http://schemas.openxmlformats.org/officeDocument/2006/relationships/header</a> for the headerReference element  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/font">http://schemas.openxmlformats.org/officeDocument/2006/relationships/font</a> for the embedBold, embedBoldItalic, embedItalic, or embedRegular elements  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/printrSettings">http://schemas.openxmlformats.org/officeDocument/2006/relationships/printrSettings</a> for the printerSettings element  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink">http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink</a> for the longDesc or hyperlink element </p> <p>[Example: Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID rId1 contains the corresponding relationship information for the parent XML element. <i>end example</i>]</p>



Attributes	Description
	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

#### 14.12.18 Changed attribute for dataSource element (Part 1, §17.14.9)

Attributes	Description
id (Relationship to Part)  Namespace: .../officeDocument/2006/relationships	<p>Specifies the relationship ID to a specified part.</p> <p>The specified relationship shall match the relationship type required by the parent element:</p> <ul style="list-style-type: none"> <li>http://schemas.openxmlformats.org/officeDocument/2006/customXml for the contentPart element</li> <li>http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer for the footerReference element</li> <li>http://schemas.openxmlformats.org/officeDocument/2006/relationships/header for the headerReference element</li> <li>http://schemas.openxmlformats.org/officeDocument/2006/relationships/font for the embedBold, embedBoldItalic, embedItalic, or embedRegular elements</li> <li>http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings for the printerSettings element</li> <li>http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink for the longDesc or hyperlink element</li> </ul> <p>[Example: Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID rId1 contains the corresponding relationship information for the parent XML element. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 14.12.19 Changed attribute for headerSource element (Part 1, §17.14.16)

Attributes	Description
id (Relationship to Part)  Namespace: .../officeDocument/2006/relationships	<p>Specifies the relationship ID to a specified part.</p> <p>The specified relationship shall match the relationship type required by the parent element:</p> <ul style="list-style-type: none"> <li>http://schemas.openxmlformats.org/officeDocument/2006/customXml for the contentPart element</li> <li>http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer for the footerReference element</li> <li>http://schemas.openxmlformats.org/officeDocument/2006/relationships/header for the headerReference element</li> </ul>



Attributes	Description
	<p>http://schemas.openxmlformats.org/officeDocument/2006/relationships/font for the embedBold, embedBoldItalic, embedItalic, or embedRegular elements  http://schemas.openxmlformats.org/officeDocument/2006/relationships/printrSettings for the printerSettings element  http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink for the longDesc or hyperlink element</p> <p>[Example: Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID rId1 contains the corresponding relationship information for the parent XML element. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 14.12.20 Changed attribute for recipientData element (Part 1, §17.14.28)

Attributes	Description
<p>id (Relationship to Part)</p> <p>Namespace:  .../officeDocument/2006/relationships</p>	<p>Specifies the relationship ID to a specified part.</p> <p>The specified relationship shall match the relationship type required by the parent element:</p> <p>http://schemas.openxmlformats.org/officeDocument/2006/customXml for the contentPart element  http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer for the footerReference element  http://schemas.openxmlformats.org/officeDocument/2006/relationships/header for the headerReference element  http://schemas.openxmlformats.org/officeDocument/2006/relationships/font for the embedBold, embedBoldItalic, embedItalic, or embedRegular elements  http://schemas.openxmlformats.org/officeDocument/2006/relationships/printrSettings for the printerSettings element  http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink for the longDesc or hyperlink element</p> <p>[Example: Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID rId1 contains the corresponding relationship information for the parent XML element. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>



### 14.12.21 Changed attribute for src element (Part 1, §17.14.30)

Attributes	Description
<b>id</b> (Relationship to Part)  Namespace: .../officeDocument/2006/relationships	<p>Specifies the relationship ID to a specified part.</p> <p>The specified relationship shall match the relationship type required by the parent element:</p> <ul style="list-style-type: none"> <li><a href="http://schemas.openxmlformats.org/officeDocument/2006/customXml">http://schemas.openxmlformats.org/officeDocument/2006/customXml</a> for the contentPart element</li> <li><a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer">http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer</a> for the footerReference element</li> <li><a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/header">http://schemas.openxmlformats.org/officeDocument/2006/relationships/header</a> for the headerReference element</li> <li><a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/font">http://schemas.openxmlformats.org/officeDocument/2006/relationships/font</a> for the embedBold, embedBoldItalic, embedItalic, or embedRegular elements</li> <li><a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings">http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings</a> for the printerSettings element</li> <li><a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink">http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink</a> for the longDesc or hyperlink element</li> </ul> <p>[Example: Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID rId1 contains the corresponding relationship information for the parent XML element. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

### 14.12.22 Changed attribute for attachedTemplate element (Part 1, §17.15.1.6)

Attributes	Description
<b>id</b> (Relationship to Part)  Namespace: .../officeDocument/2006/relationships	<p>Specifies the relationship ID to a specified part.</p> <p>The specified relationship shall match the relationship type required by the parent element:</p> <ul style="list-style-type: none"> <li><a href="http://schemas.openxmlformats.org/officeDocument/2006/customXml">http://schemas.openxmlformats.org/officeDocument/2006/customXml</a> for the contentPart element</li> <li><a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer">http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer</a> for the footerReference element</li> <li><a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/header">http://schemas.openxmlformats.org/officeDocument/2006/relationships/header</a> for the headerReference element</li> <li><a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/font">http://schemas.openxmlformats.org/officeDocument/2006/relationships/font</a> for the embedBold, embedBoldItalic, embedItalic, or embedRegular elements</li> <li><a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings">http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings</a> for the printerSettings element</li> <li><a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink">http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink</a></li> </ul>



Attributes	Description
	<p>link for the longDesc or hyperlink element</p> <p>[<i>Example:</i> Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID rId1 contains the corresponding relationship information for the parent XML element. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 14.12.23 Changed attribute for saveThroughXslt element (Part 1, §17.15.1.76)

Attributes	Description
<p>id (XSL Transformation Location)</p> <p>Namespace: .../officeDocument/2006/relationships</p>	<p>Specifies an explicit relationship to the location of the XSL Transformation which shall be applied.</p> <p>The relationship targeted by this element shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/transform">http://schemas.openxmlformats.org/officeDocument/2006/relationships/transform</a>, or this document shall be declared non-conformant.</p> <p>[<i>Example:</i> Consider a XML document that must have the XSL transform located at c:\Example Transform.xslt applied when the document is saved as a single XML file. This requirement would be specified using the following WordprocessingML in the document settings:</p> <pre>&lt;w:saveThroughXslt r:id="rId5" /&gt;</pre> <p>The saveThroughXslt element specifies that the relationship located at rId5 must be used when saving as a single XML file in this case, that relationship must target c:\Example Transform.xslt. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 14.12.24 Changed attribute for longDesc element (Part 1, §17.15.2.23)

Attributes	Description
<p>id (Relationship to Part)</p> <p>Namespace: .../officeDocument/2006/relationships</p>	<p>Specifies the relationship ID to a specified part.</p> <p>The specified relationship shall match the relationship type required by the parent element:</p> <p><a href="http://schemas.openxmlformats.org/officeDocument/2006/customXml">http://schemas.openxmlformats.org/officeDocument/2006/customXml</a> for the contentPart element</p> <p><a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer">http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer</a></p>



Attributes	Description
	<p>for the footerReference element  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/header">http://schemas.openxmlformats.org/officeDocument/2006/relationships/header</a> for the headerReference element  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/font">http://schemas.openxmlformats.org/officeDocument/2006/relationships/font</a> for the embedBold, embedBoldItalic, embedItalic, or embedRegular elements  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings">http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings</a> for the printerSettings element  <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink">http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink</a> for the longDesc or hyperlink element</p> <p>[<i>Example:</i> Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID rId1 contains the corresponding relationship information for the parent XML element. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 14.12.25 Changed attribute for sourceFileName element (Part 1, §17.15.2.39)

Attributes	Description
id (Relationship to Part)	Specifies the relationship ID to a specified part.
Namespace: .../officeDocument/2006/relationships	<p>The specified relationship shall match the relationship type required by the parent element:</p> <p>http://schemas.openxmlformats.org/officeDocument/2006/customXml for the contentPart element</p> <p>http://schemas.openxmlformats.org/officeDocument/2006/relationships/footer for the footerReference element</p> <p>http://schemas.openxmlformats.org/officeDocument/2006/relationships/header for the headerReference element</p> <p>http://schemas.openxmlformats.org/officeDocument/2006/relationships/font for the embedBold, embedBoldItalic, embedItalic, or embedRegular elements</p> <p>http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings for the printerSettings element</p> <p>http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink for the longDesc or hyperlink element</p> <p>[<i>Example:</i> Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID rId1 contains the corresponding relationship information for the parent XML element. <i>end example</i>]</p>



Attributes	Description
	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

#### 14.12.26 Changed attribute for subDoc element (Part 1, §17.17.1.1)

Attributes	Description
<b>id</b> (Relationship to Part)  Namespace: .../officeDocument/2006/relationships	<p>Specifies the relationship ID to a specified part.</p> <p>The specified relationship shall match the relationship type required by the parent element:</p> <ul style="list-style-type: none"> <li>http://schemas.openxmlformats.org/officeDocument/2006/customXml for the contentPart element</li> <li>http://schemas.openxmlformats.org/officeDocument/2006/relationships/ for the footerReference element</li> <li>http://schemas.openxmlformats.org/officeDocument/2006/relationships/header for the headerReference element</li> <li>http://schemas.openxmlformats.org/officeDocument/2006/relationships/font for the embedBold, embedBoldItalic, embedItalic, or embedRegular elements</li> <li>http://schemas.openxmlformats.org/officeDocument/2006/relationships/printerSettings for the printerSettings element</li> <li>http://schemas.openxmlformats.org/officeDocument/2006/relationships/hyperlink for the longDesc or hyperlink element</li> </ul> <p>[<i>Example</i>: Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID rId1 contains the corresponding relationship information for the parent XML element. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 14.12.27 Changed attribute for altChunk element (Part 1, §17.17.2.1)

Attributes	Description
<b>id</b> (Relationship to Part)  Namespace: .../officeDocument/2006/relationships	<p>Specifies the relationship ID to a specified part containing alternate content for import.</p> <p>If the specified relationship does not match the relationship type required by the parent element, then this document shall be considered to be non-conformant.</p> <p>[<i>Example</i>: Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre>



Attributes	Description
	<p>The markup specifies the associated relationship part with relationship ID rId1 contains the corresponding relationship information for the parent XML element. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (\$Part 1, §22.8.2.1).</p>



# 15. SpreadsheetML Reference Material

## 15.1 General

[Note: For further information on the mapping of elements and attributes to OPC parts, see the Bibliography entry, “Information on elements, attributes, and OPC parts in ISO/IEC 29500 (OOXML)” . *end note*]

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End of informative text.

**15.3 Workbook**

**15.3.1 Additional attribute for fileSharing element (Part 1, §18.2.12)**

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
reservationPassword (Write Reservation Password)	<p>Specifies the legacy hash of the password required for editing this workbook.</p> <p>The hash is generated using the logic defined in the revisionsPassword attribute of the workbookProtection element (Part 1, §18.2.29).</p> <p>The possible values for this attribute are defined by the ST_UnsignedShortHex simple type (§15.8.2).</p>

**15.3.2 Additional attribute for webPublishing element (Part 1, §18.2.24)**

The following additional attributes can be specified for a document of a transitional conformance class:



Attributes	Description
codePage (Code Page)	<p>This attribute is used only for compatibility with the existing corpus of binary documents, and is ignored if the characterSet attribute is present. Specifies the encoding the application uses when a Web page is saved. A code page is a table that relates the binary character codes used by a program to keys on the keyboard or to the appearance of characters on the display. Code pages are a means of providing support for the languages used in different countries.</p> <p>[<i>Note:</i> There are a number of code page technologies. One example of potential values can be found at: <a href="http://www.unicode.org/Public/MAPPINGS/">http://www.unicode.org/Public/MAPPINGS/</a> <i>end note</i>]</p> <p>The default value for this attribute is the workbook's encoding.</p> <p>The possible values for this attribute are defined by the W3C XML Schema unsignedInt datatype.</p>

### 15.3.3 Additional attributes for workbookProtection element (Part 1, §18.2.29)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
revisionsPassword (Legacy Revisions Password)	<p>Specifies the legacy hash of the password required for unlocking revisions in this workbook. The hash is generated from an 8-bit wide character. The input string shall be in UTF-16LE format (if there is a leading BOM character (U+FEFF) in the encoded password it is removed before hash calculation), and these 16-bit Unicode characters shall be converted down to 8 bits before the hash is computed, using the following logic:</p> <p>[<i>Note:</i> This legacy conversion attempts to fit UTF-16 encoded characters into a single-byte character set. As such, if the input string uses characters from multiple character sets, many characters are unmapped in the destination character set and take on the default value, 0x3F. For this reason, it is recommended that applications choose a character set which maps the maximum number of characters from the input string and explicitly declare the character set used in the revisionsCharacterSet attribute. Not doing so will inhibit interoperability. <i>end note</i>]</p> <p>For SpreadsheetML password hash purposes, Unicode UTF-16 input code points are converted to a single or double byte character set.</p> <p>Code points with no representation in the target character set are replaced with Unicode character 0x3f (?).</p> <p>The values permitted by this attribute are names and aliases listed in the IANA character set listing found at <a href="http://www.iana.org/assignments/character-sets">http://www.iana.org/assignments/character-sets</a>. For single byte character sets, each Unicode code point is replaced by a single byte or 0x3f if an appropriate character doesn't exist in the character set.</p> <p>For double byte character sets, each Unicode code point is replaced by either a single</p>



Attributes	Description
	<p>byte, or a two byte sequence, depending on the input character, or 0x3f if an appropriate character doesn't exist in the character set. In our tables the target is a single byte sequence if the most significant byte is 0x00, otherwise it is a double byte sequence, with the lead byte being the most significant byte.</p> <p>To convert, first check if conversion is being done to a single or double byte code page and load the appropriate WCTABLE code page table.</p> <p>For each input character, look up the code point in the WCTABLE. There are 3 possibilities: Not found, single byte, or double byte.</p> <ul style="list-style-type: none"> <li>• If the input character is not found, append 0x3f and continue to the next character.</li> <li>• If the result is a single byte, check to make sure the entry in the MBTABLE matches the input. If it matches, append the single byte to the output. If it does not match, append 0x3f to the output.</li> <li>• If the result is a double byte, check to make sure the entry in the DBCSEENTRY table for the appropriate lead byte matches the input character. If it matches, append the lead byte and trail byte to the output. If it does not match, append 0x3f to the output.</li> </ul> <p>The following pseudocode describes how this conversion should be done:</p> <pre> int WideCharToMultiByte(wchar_t* wszInput, byte* szOutput) {     // Remember output start so we can return length     byte* szOutputStart = szOutput;      // Load Character Set Tables and determine     // double/single byte nature.     // This will depend on how the character sets are     // represented on     // the target machine. TABLECLASS represents some abstract     // representation of this structure here.     TABLECLASS pTables = LoadCharacterSetTables();     Bool bDoubleByte = IsCharacterSetDoubleByte();      while (*wszInput != 0)     {         if (bDoubleByte)             szOutput = AppendDoubleByte(pTables, *wszInput, szOutput);         else             szOutput = AppendSingleByte(pTables, *wszInput, szOutput);     } </pre>



Attributes	Description
	<pre>         // Read next input wchar_t         wszInput++;     }      // Null terminate the output     *szOutput = 0;      // Return output length     return szOutput - szOutputStart; }  byte* AppendSingleByte(TABLECLASS pTables, wchar_t wcIn, byte* szOutput) {     // Look up byte that we want to append.     byte bOut = pTables-&gt;LookUpSingleByte(wcIn);      // Make sure that bOut matches the input, otherwise use ?     // (ie: no best fit behavior allowed)     if (wcIn != pTables-&gt;LookUpWideChar(bOut))         bOut = 0x3f;      *szOutput = bOut;     szOutput++;     return szOutput; }  byte* AppendDoubleByte(TABLECLASS pTables, wchar_t wcIn, byte* szOutput) {     // Look up bytes that we want to append.     UINT16 bytesOut = pTables-&gt;LookUpDoubleByte(wcIn);      // See if it is a single or double byte sequence     if (bytesOut &amp; 0xFF00)     {         // It is a double byte sequence         // Make sure that bytesOut matches the input, otherwise use ?         // (ie: no best fit behavior allowed)         if (wcIn != pTables-&gt;LookUpWideChar(bytesOut))         {             // Use ?, it will be added below             bytesOut = 0x003f;         }         else         { </pre>



Attributes	Description
	<pre> // It matched, use the lead byte we found // trail byte will be added below *szOutput = bytesOut &gt;&gt; 8; szOutput++; } else { // It is a single byte sequence // Make sure that bytesOut matches the input, otherwise use ? // (ie: no best fit behavior allowed) if (wcIn != pTables-&gt;LookUpWideChar(bytesOut &amp; 0xFF))     bytesOut = 0x003f; }  // Add the single or trail byte *szOutput = bytesOut &amp; 0xFF; szOutput++;  return szOutput; }  class pTables { // Construction depends on how you choose to store &amp; load the // table files  byte LookUpSingleByte(wchar_t wcIn) { // How you access the table depends on your storage mechanism. // Look up the line in WCTABLE where the first column matches wcIn, // and then return the byte value from the second column. if (exists WCTABLE{wcIn})     return WCTABLE{wcIn}.SecondColumn;  // If it doesn't exist, return ? return 0x3f; }  UINT16 LookUpDoubleByte(wchar_t wcIn) { // How you access the table depends on your storage mechanism. // Look up the line in WCTABLE where the first column </pre>



Attributes	Description
	<pre> matches wcIn,     // and then return the double byte value from the second column.     if (exists WCTABLE{wcIn})         return WCTABLE{wcIn}.SecondColumn;      // If it doesn't exist, return ?     return 0x003f; }  // Overload that looks up wide chars from single byte code points. wchar_t LookUpWideChar(byte bIn) {     // How you access the table depends on your storage mechanism.     // Look up the line in MBTABLE where the first column matches bIn,     // and then return the wchar_t value from the second column.     if (exists MBTABLE{bIn})         return MBTABLE{bIn}.SecondColumn;      // If it doesn't exist, return ?     return 0x003f; }  // Overload that looks up wide chars from double byte code points wchar_t LookUpWideChar(UINT16 bytesIn) {     // How you access the table depends on your storage mechanism.     // First find the DBCSTABLE where the LeadByte matches // the lead (most significant) input byte.     if (exists DBCSTABLE{bytesIn &gt;&gt; 8})     {         DbcTable = DBCSTABLE{bytesIn &gt;&gt; 8};          // Look up the line in DbcTable where the first column         // matches the input trail (least significant) byte,         // and then return the wchar_t value from the second column.         if (exists DbcTable{bytesIn &amp; 0xFF})             return DbcTable{bytesIn &amp; 0xFF}.SecondColumn;     } </pre>



Attributes	Description
	<pre>         // Either the lead byte table or specific trail byte         // doesn't exist in the table, return ?         return 0x003f;     } } </pre> <p>The resulting value is hashed using the low-order word algorithm defined in §14.8.1. This step assumes that all words are unsigned, the word size is two bytes, and that bit-level shift-left/shift-right operations shift in the direction of the highest-order and lowest-order bit, respectively. [Example: 0x61 SHR 1 is 0xC2, as 01100001 shifted one position in the direction of its highest-order bit is 11000010. end example]</p> <p>[Example: This algorithm can be represented by the following pseudocode:</p> <pre> // Function Input: //   szPassword: NULL terminated C-Style string //   cchPassword: The number of characters in szPassword (not //               including the NULL terminator) unsigned_short GetPasswordHash(const char *szPassword, int cchPassword) {     unsigned_short wPasswordHash;     const char *pch;      wPasswordHash = 0;      if (cchPassword &gt; 0)     {         pch = &amp;szPassword[cchPassword];         while (pch-- != szPassword)         {             wPasswordHash = ((wPasswordHash &gt;&gt; 14) &amp; 0x01)   ((wPasswordHash &lt;&lt; 1) &amp; 0x7fff);             wPasswordHash ^= *pch;         }         wPasswordHash = ((wPasswordHash &gt;&gt; 14) &amp; 0x01)   ((wPasswordHash &lt;&lt; 1) &amp; 0x7fff);         wPasswordHash ^= cchPassword;         wPasswordHash ^= (0x8000   ('N' &lt;&lt; 8)   'K');     }      return(wPasswordHash); } end example] </pre> <p>The possible values for this attribute are defined by the ST_UnsignedShortHex simple type (§15.8.2).</p>



Attributes	Description
revisionsPasswordCharacterSet (Revisions Password Character Set)	<p>Name of the character set associated with the legacy revisionsPassword hash. The values permitted by this attribute are names and aliases listed in the IANA CHARACTER SETS listing found at <a href="http://www.iana.org/assignments/character-sets">http://www.iana.org/assignments/character-sets</a>.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
workbookPassword (Legacy Workbook Password)	<p>Specifies the legacy hash of the password required for unlocking revisions in this workbook.</p> <p>The hash is generated using the logic defined in the preceding revisionsPassword attribute.</p> <p>The possible values for this attribute are defined by the ST_UnsignedShortHex simple type (§15.8.2).</p>
workbookPasswordCharacterSet (Workbook Password Character Set)	<p>Name of the character set associated with the workbookPassword hash. The values permitted by this attribute are the names and aliases listed in the IANA CHARACTER SETS listing found at <a href="http://www.iana.org/assignments/character-sets">http://www.iana.org/assignments/character-sets</a>.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

### 15.3.4 Modified content for Date Conversion for Serial Date-Times (Part 1, §18.17.4.1)

When interpreting a document of a transitional conformance class, Part 1, §18.17.4.1 is replaced by the following text:

A *serial date-time* is a number that represents a date and time. This signed value is in units of days relative to the base date for the selected date system. Serial date-times increase by 1 into each successive day, and decrease by 1 into each preceding day. Fractional portions of serial date-times represent fractions of a single day. [Example: When using the 1900 date system, which has a base date of 30<sup>th</sup> December 1899, a serial date-time of 1.5 represents midday on the 31<sup>st</sup> December 1899 (serial date-time day 1); that is, 1899-12-31T12:00. A serial date-time of -4.25 represents 6 pm on the 25<sup>th</sup> December 1899; that is, 1899-12-25T18:00. end example] The base dates and the related serial date-times represent local date and time.

Two different bases are used for converting dates to and from serial date-times:

- In the *1900 date system*, the lower limit is January 1, 1900, 00:00:00, which has a serial date-time of 1. The upper limit is December 31, 9999, 23:59:59, which has a serial date-time of 2,958,465.9999884. The base date for this date base system is December 31, 1899, which has a serial date-time of 0.
- In the *1904 date system*, the lower limit is January 1<sup>st</sup>, 0001, 00:00:00, which has a serial date-time of -695055. The upper limit is December 31<sup>st</sup>, 9999, 23:59:59.999, which has a serial date-time of



2,957,003.9999884. The base date for this system is midnight (00:00:00) on the morning of January 1<sup>st</sup>, 1904, which has a serial date-time of 0.

A serial date-time outside the temporal range for the selected date system is invalid.

The date system is specified by the value of the date1904 attribute of the workbookPr element. [Example:

1900 date system: <workbookPr showObjects="all"/>

1904 date system: <workbookPr date1904="1" showObjects="all"/>

end example]

## 15.4 Worksheets

### 15.4.1 Worksheets

#### 15.4.1.1 legacyDrawing (Legacy Drawing Reference)

This element is present when the sheet contains drawing shapes defined by VML. In this case, the element contains an explicit relationship whose ID points to the part containing the VML definitions.

[Example:

<drawing r:id="rId1"/>

end example]

Attributes	Description
id (Relationship Id)	This value references a relationship Id for the sheet. The relationship shall point to the part containing the VML definition.
Namespace: .../officeDocument /2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

[Note: The W3C XML Schema definition of this element's content model ([CT\\_LegacyDrawing](#)) is located in §A.3.  
end note]

#### 15.4.1.2 legacyDrawingHF (Legacy Drawing Reference in Header Footer)

This element specifies the explicit relationship to the part containing the VML defining pictures rendered in the header / footer of the sheet.

Attributes	Description
id (Relationship Id)	This value references a relationship Id for the sheet. The relationship shall point to the part containing the VML definition.
Namespace:	



Attributes	Description
.../officeDocument/2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

[Note: The W3C XML Schema definition of this element's content model ([CT\\_LegacyDrawing](#)) is located in §A.3.  
end note]

#### 15.4.1.3 Additional attribute for dataConsolidate element (Part 1, §18.3.1.29)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
leftLabels (Starting Column Labels)	Semantically equivalent to startLabels.  The possible values for this attribute are defined by the W3C XML Schema boolean datatype.

#### 15.4.1.4 Additional attributes for protectedRange element (Part 1, §18.3.1.71)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
password (Legacy Password)	Specifies the legacy hash of the password required for editing this range.  The hash is generated using the logic defined in the revisionsPassword attribute of the workbookProtection element (Part 1, §18.2.29).  The possible values for this attribute are defined by the ST_UnsignedShortHex simple type (§15.8.2).
securityDescriptor (Security Descriptor)	Optional setting to specify the relative security descriptor. The security descriptor defines user accounts who can edit this range without providing a password to access the range.  The format of a securityDescriptor is application defined; however, it is recommended that the following format be used for interoperability between implementations: <ul style="list-style-type: none"> <li><a href="#">username@domain</a></li> </ul> If multiple user accounts are specified in the securityDescriptor attribute, each account shall be delimited by parentheses.  [Example: This example demonstrates two user accounts in the security descriptor attribute: <pre>&lt;protectedRanges&gt;   &lt;protectedRange sqref="A1:C5" name="Range1"     securityDescriptor="(user1@iso.org)(user2@iso.org)"/&gt;</pre>



Attributes	Description
	<p><code>&lt;/protectedRanges&gt;</code></p> <p><i>end example]</i></p> <p>If an application is unable to resolve the meaning of the securityDescriptor, it shall treat the attribute as if it had been removed.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

#### 15.4.1.5 Additional attribute for sheetProtection element (Part 1, §18.3.1.84)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
password (Password)	<p>Specifies the hash of the password required for editing this chart sheet.</p> <p>The hash is generated using the logic defined in the revisionPassword attribute of the workbookProtection element (Part 1, §18.2.29).</p> <p>The possible values for this attribute are defined by the ST_UnsignedShortHex simple type (§15.8.2).</p>

#### 15.4.1.6 Additional attribute for sheetProtection element (Part 1, §18.3.1.85)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
password (Legacy Password)	<p>Specifies the legacy hash of the password required for editing this worksheet.</p> <p>The hash is generated using the logic defined in the revisionsPassword attribute of the workbookProtection element (Part 1, §18.2.29).</p> <p>The possible values for this attribute are defined by the ST_UnsignedShortHex simple type (§15.8.2).</p>

### 15.4.2 AutoFilter Settings

#### 15.4.2.1 Attributes with modified descriptions for dynamicFilter element (Part 1, §18.3.2.5)

The following attributes have modified descriptions when specified for a document of a transitional conformance class:

Attributes	Description
maxVal (Max Value)	A maximum value for dynamic filter. maxVal/maxValIso shall be required for today,



Attributes	Description
	<p>yesterday, tomorrow, nextWeek, thisWeek, lastWeek, nextMonth, thisMonth, lastMonth, nextQuarter, thisQuarter, lastQuarter, nextYear, thisYear, lastYear, and yearToDate.</p> <p>The above criteria are based on a value range. [<i>Example</i>: If today's date is September 22nd, then the range for thisWeek is the values greater than or equal to September 17 and less than September 24. <i>end example</i>] In the thisWeek range, the lower value is expressed using val or valIso. The higher value is expressed using maxVal or maxValIso.</p> <p>These dynamic filter shall not require val/valIso or maxVal/maxValIso: Q1, Q2, Q3, Q4, M1, M2, M3, M4, M5, M6, M7, M8, M9, M10, M11 and M12.</p> <p>The above criteria shall not specify the range using val/valIso and maxVal/maxValIso because Q1 always starts from M1 to M3, and M1 is always January.</p> <p>These types of dynamic filters shall use val and shall not use maxVal/maxValIso: aboveAverage and belowAverage.</p> <p>If maxValIso and maxVal are both present, maxValIso shall take precedence.</p> <p>The possible values for this attribute are defined by the W3C XML Schema double datatype.</p>
val (Value)	<p>A minimum numeric or serial date value for dynamic filter. (See description of ValIso to understand when val is required.)</p> <p>If valIso and val are both present, valIso shall take precedence.</p> <p>The possible values for this attribute are defined by the W3C XML Schema double datatype.</p>
valIso (ISO Value)	<p>A minimum date value for dynamic filter. (See description of maxVal/maxValIso to understand when val/valIso is required.)</p> <p>The possible values for this attribute are defined by the W3C XML Schema dateTime datatype.</p>

## 15.5 Styles

### 15.5.1 left (Leading Edge Border)

Semantically equivalent to start (Part 1, §18.8.37).

Attributes	Description
style (Line Style)	<p>The line style for this border.</p> <p>The possible values for this attribute are defined by the ST_BorderStyle simple type (Part</p>



Attributes	Description
	1, §18.18.3).

[Note: The W3C XML Schema definition of this element's content model ([CT\\_BorderPr](#)) is located in §A.3. *end note*]

## 15.5.2 right (Trailing Edge Border)

Semantically equivalent to end (Part 1, §18.8.16).

Attributes	Description
style (Line Style)	The line style for this border.  The possible values for this attribute are defined by the ST_BorderStyle simple type (Part 1, §18.18.3).

[Note: The W3C XML Schema definition of this element's content model ([CT\\_BorderPr](#)) is located in §A.3. *end note*]

## 15.6 Pivot Tables

### 15.6.1 Pivot Tables

#### 15.6.1.1 Additional attribute for pivotCacheDefinition element (Part 1, §18.10.1.67)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
refreshedDate (PivotCache Last Refreshed Date)	Specifies the date when the cache was last refreshed. This attribute depends on whether the application exposes mechanisms via the user interface whereby the end-user can refresh the cache.  If refreshedDateIso and refreshedDate are both present, refreshedDateIso shall take precedence.  The possible values for this attribute are defined by the W3C XML Schema double datatype.

## 15.7 External Data Connections

### 15.7.1 Additional attribute for textPr element (Part 1, §18.13.12)

The following additional attributes can be specified for a document of a transitional conformance class:



Attributes	Description
codePage (Code Page)	<p>Code page associated with the text file. This attribute is used only for backwards compatibility, and is ignored if the characterSet attribute is present.</p> <p>[Note: There are a number of code page technologies. One example of potential values can be found at: <a href="http://www.unicode.org/Public/MAPPINGS">http://www.unicode.org/Public/MAPPINGS</a> end note]</p> <p>The possible values for this attribute are defined by the W3C XML Schema unsignedInt datatype.</p>

## 15.8 Simple Types

The following additional simple type information in the <http://schemas.openxmlformats.org/spreadsheetml/2006/main> namespace is used for documents of a transitional conformance class.

### 15.8.1 Additional enumeration values for ST\_PivotAreaType (Part 1, §18.18.58)

The following additional enumeration values can be specified for a document of a transitional conformance class.

Enumeration Value	Description
topRight (Top Corner, Trailing Edge)	Semantically equivalent to topEnd.

### 15.8.2 ST\_UnsignedShortHex (Unsigned Short Hex)

This simple type defines the Hex representation of an unsigned short.

This simple type's contents are a restriction of the W3C XML Schema hexBinary datatype.

This simple type also specifies the following restrictions:

- This simple type's contents have a length of exactly 4 hexadecimal digit(s).

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_UnsignedShortHex](#)) is located in §A.3. end note]

### 15.8.3 Removed enumeration values for ST\_CellType (Part 1, §18.18.11)

For transitional documents, the restriction on the simple type ST\_CellType having the value "d" (ISO 8601 format) is removed.

## 15.9 Formulas

### 15.9.1 Attribute synonym for c element (Part 1, §18.6.1)

The following additional attribute can be specified for a document of a transitional conformance class:

Attributes	Description
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Attributes	Description
ref (Cell Reference)	An A-1 style reference to a cell. The possible values for this attribute are defined by the ST_CellRef simple type (Part 1, §18.18.7).

This attribute is semantically equivalent to r (Part 1, §18.6.1).

Only one or the other of r and ref can be defined in any given instance.

## 15.9.2 Additional representation for dates and times (Part 1, §18.17.4 )

For a document of a transitional conformance class, each unique instant in SpreadsheetML time shall be stored as an ISO 8601-formatted string or as a serial value.

## 15.10 Changed attributes

The following attributes, which are defined in subclauses within Part 1, §18, “SpreadsheetML”, have different source relationships when used in documents of the Transitional conformance class:

### 15.10.1 Changed attribute for externalReference element (Part 1, §18.2.8)

Attributes	Description
id (Relationship Id)  Namespace: .../officeDocument /2006/relationships	Specifies a unique identifier that is used to identify a relationship to another part in the file. Relationship identifiers link the element definition with the part where data for the element is stored.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 15.10.2 Changed attribute for pivotCache element (Part 1, §18.2.17)

Attributes	Description
id (Relationship Id)  Namespace: .../officeDocument /2006/relationships	Specifies the identifier to a pivot cache definition part where cached data is stored.  This attribute is required.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 15.10.3 Changed attribute for sheet element (Part 1, §18.2.19)

Attributes	Description
id (Relationship Id)  Namespace: .../officeDocument /2006/relationships	Specifies the identifier of the sheet part where the definition for this sheet is stored.  This attribute is required.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).



#### 15.10.4 Changed attribute for control element (Part 1, §18.3.1.19)

Attributes	Description
id (Relationship Id)  Namespace: .../officeDocument /2006/relationships	This relationship ID references an Embedded Control Data part that contains control-specific properties and state information about this particular embedded control.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

#### 15.10.5 Changed attribute for controlPr element (Part 1, §18.3.1.20)

Attributes	Description
id (Relationship ID for Embedded Control Properties)  Namespace: .../officeDocument /2006/relationships	<p>Specifies the relationship ID for the relationship which contains the properties for this embedded control. This property bag is contained in a separate part within the package.</p> <p>The relationship explicitly targeted by this attribute shall be of relationship type <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/control">http://schemas.openxmlformats.org/officeDocument/2006/relationships/control</a> or the document shall be considered non-conformant.</p> <p>If this attribute is omitted, then the embedded control shall be given no property bag when instantiated.</p> <p>[<i>Example:</i> Consider the following WordprocessingML markup for an embedded control in a document:</p> <pre>&lt;w:control r:id="rId5" w:id="CheckBox1" w:name="CheckBox1" w:shapeid="_x0000_s1027" w:class="shape" w:w="145" w:h="28" w:align="left" /&gt;</pre> <p>The id attribute in the relationship reference namespace specifies that the relationship with relationship ID rId5 must contain the property data for this embedded control. <i>end example</i></p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 15.10.6 Changed attribute for customPr element (Part 1, §18.3.1.22)

Attributes	Description
id (Relationship Id)  Namespace: .../officeDocument /2006/relationships	<p>This relationship references the binary part containing the specified custom properties.</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>



### 15.10.7 Changed attribute for dataRef element (Part 1, §18.3.1.30)

Attributes	Description
id (relationship Id)  Namespace: .../officeDocument /2006/relationships	Used only when the source range is external to this workbook.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 15.10.8 Changed attribute for drawing element (Part 1, §18.3.1.36)

Attributes	Description
id (Relationship id)  Namespace: .../officeDocument /2006/relationships	Relationship Id referencing a part containing DrawingML definitions for this worksheet.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 15.10.9 Changed attribute for drawingHF element (Part 1, §18.3.1.37)

Attributes	Description
id (Relationship ID for Embedded Control Properties)  Namespace: .../officeDocument /2006/relationships	Specifies the relationship ID for the relationship to the DrawingML part that contains the drawing objects used in the header and footer. This DrawingML part is a separate part within the package.  [Example:  <div style="text-align: center;"> <code>&lt;drawingHF r:id="rId2" lho="7" lhf="6"/&gt;</code> </div> The id attribute in the relationship reference namespace specifies that the relationship with relationship ID rId5 must contain the drawing objects used in the header and footer. <i>end example</i> ]  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 15.10.10 Changed attribute for hyperlink element (Part 1, §18.3.1.47)

Attributes	Description
id (Relationship Id)  Namespace: .../officeDocument /2006/relationships	Relationship Id in this sheet's relationships part, expressing the target location of the resource.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).



### 15.10.11 Changed attribute for objectPr element (Part 1, §18.3.1.56)

Attributes	Description
id (Relationship ID to Embedded Object Data)  Namespace: .../officeDocument/2006/relationships	<p>Specifies the relationship ID for the relationship that targets the Embedded Object Part containing the embedded object data.</p> <p>The specified relationship shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/oleObject">http://schemas.openxmlformats.org/officeDocument/2006/oleObject</a> or the document shall be considered non-conformant.</p> <p>[<i>Example:</i> Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID rId1 targets the part containing the corresponding embedded object information. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

### 15.10.12 Changed attribute for oleObject element (Part 1, §18.3.1.59)

Attributes	Description
id (Relationship Id)  Namespace: .../officeDocument/2006/relationships	<p>Relationship Id of the relationship pointing to the object persistence part.</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

### 15.10.13 Changed attribute for pageSetup element (Part 1, §18.3.1.63)

Attributes	Description
id (Id)  Namespace: .../officeDocument/2006/relationships	<p>Relationship Id of the devMode printer settings part.</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

### 15.10.14 Changed attribute for pageSetup element (Part 1, §18.3.1.64)

Attributes	Description
id (Id)  Namespace: .../officeDocument/2006/relationships	<p>Relationship Id of the devMode printer settings part.</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>



Attributes	Description
ps	

#### 15.10.15 Changed attribute for picture element (Part 1, §18.3.1.67)

Attributes	Description
id (Relationship Id)	Relationship Id pointing to the image part.
Namespace: .../officeDocument /2006/relationships ps	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

#### 15.10.16 Changed attribute for pivotSelection element (Part 1, §18.3.1.69)

Attributes	Description
id (Relationship Id)	Relationship Id pointing to the particular PivotTable Part corresponding to this selection.
Namespace: .../officeDocument /2006/relationships ps	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

#### 15.10.17 Changed attribute for tablePart element (Part 1, §18.3.1.94)

Attributes	Description
id (Relationship Id)	This relationship Id is used to locate a particular table definition part.
Namespace: .../officeDocument /2006/relationships ps	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

#### 15.10.18 Changed attribute for pivotCacheDefinition element (Part 1, §18.10.1.67)

Attributes	Description
id (Relationship Identifier)	Specifies the unique identifier that corresponds to the related pivotCacheRecords part. See (Part 1, §18.10.1.68) for more information.
Namespace: .../officeDocument /2006/relationships ps	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

#### 15.10.19 Changed attribute for rangeSet element (Part 1, §18.10.1.79)

Attributes	Description
id (Relationship Id)	Specifies the unique identifier of the Workbook part where the range set is stored. See



Attributes	Description
Namespace: .../officeDocument /2006/relationships	Workbook (Part 1, §18.2) for more information.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

#### 15.10.20 Changed attribute for worksheetSource element (Part 1, §18.10.1.95)

Attributes	Description
id (Relationship Id)  Namespace: .../officeDocument /2006/relationships	Specifies the identifier to the Sheet part whose data is stored in the cache. See the Sheet section (Part 1, §18.2) for more information.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

#### 15.10.21 Changed attribute for header element (Part 1, §18.11.1.1)

Attributes	Description
id (Relationship ID)  Namespace: .../officeDocument /2006/relationships	This is the ID that is used to find the corresponding log record of the changes made for this header.  Use the corresponding relationship expressed in the revisionHeaders part to locate the log record that lists the specific changes.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

#### 15.10.22 Changed attribute for externalBook element (Part 1, §18.14.7)

Attributes	Description
id (Relationship to supporting book file path)  Namespace: .../officeDocument /2006/relationships	Relationship ID that references a link in the relationships collection. The target attribute in the associated relationship will specify the worksheet XML file in the current SpreadsheetML document ZIP archive that makes use of this externalbook.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

#### 15.10.23 Changed attribute for oleLink element (Part 1, §18.14.11)

Attributes	Description
id (Object Link Relationship)	Relationship ID that references a link in the relationships collection. The target attribute in the associated relationship will specify the external file name used for this oleLink.



Attributes	Description
Namespace: .../officeDocument /2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).



# 16. PresentationML Reference Material

## 16.1 General

[Note: For further information on the mapping of elements and attributes to OPC parts, see the Bibliography entry, “Information on elements, attributes, and OPC parts in ISO/IEC 29500 (OOXML)”. *end note*]

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This subclause is informative.

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End of informative text.

16.3 Presentation

16.3.1 Presentation Properties

16.3.1.1 htmlPubPr (HTML Publishing Properties)

This element specifies the publishing properties to be used when publishing this presentation document to the HTML file format. The target output profile is identified by the contents of the target attribute.

Attributes	Description			
id (Publish Path)	Specifies the path that should be used when publishing.			
Namespace: .../officeDocument /2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).			
showSpeakerNotes (Show Speaker Notes)	Specifies whether to show speaker notes when publishing.  The possible values for this attribute are defined by the W3C XML Schema boolean datatype.			
target (Target Output Profile)	Specifies the version of HTML output targeted by the output of any web page produced by this document. This attribute shall only contain a string that represents an output profile defined by published standards and W3C recommendations. Product names shall not be used to define a profile.  The following reserved values and their targets are listed below:			
<table><tr><th>Value</th><th>Target</th></tr></table>			Value	Target
Value	Target			



Attributes	Description
	W3C XHTML+CSS1
	W3C HTML4+CSS1
	W3C XHTML+CSS2
	W3C HTML4+CSS2
	<p>[<i>Example:</i> For example, consider the following set of HTML publishing settings:</p> <pre>&lt;p:htmlPubPr ... target="W3C HTML4+CSS2"&gt; ... &lt;/p:htmlPubPr&gt;</pre> <p>The target attribute explicitly declares that any web page generated from this document should target the W3C HTML4+CSS2 profile. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
title (HTML Output Title)	<p>Specifies a title for the HTML output file.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[*Note:* The W3C XML Schema definition of this element's content model ([CT\\_HtmlPublishProperties](#)) is located in §A.4. *end note*]

### 16.3.1.2 webPr (Web Properties)

This element specifies all general output properties that pertain to generating a web format version of the presentation document.

Attributes	Description
allowPng (Allow PNG in HTML output)	<p>Specifies whether to allow the output of PNG format pictures in the HTML document.</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>
clr (Slide Navigation Colors for HTML output)	<p>Specifies the color constraints that are to be used when generating HTML output.</p> <p>The possible values for this attribute are defined by the ST_WebColorType simple type (§16.5.1).</p>
encoding (Encoding for HTML output)	<p>Specifies the particular HTML character set encoding that should be used when generating output.</p>



Attributes	Description
	The possible values for this attribute are defined by the ST_WebEncoding simple type (§16.5.2).
imgSz (Image size for HTML output)	Specifies the screen size for which the images in the HTML output should be optimized.  The possible values for this attribute are defined by the ST_WebScreenSize simple type (§16.5.3).
organizeInFolders (Organize HTML output in folders)	Specifies whether the supporting output files should be automatically organized into a folder.  The possible values for this attribute are defined by the W3C XML Schema boolean datatype.
relyOnVml (Rely on VML for HTML output)	Specifies whether graphics should be output in VML within the HTML.  The possible values for this attribute are defined by the W3C XML Schema boolean datatype.
resizeGraphics (Resize graphics in HTML output)	Specifies whether to resize graphics to fit within the browser window when generating the HTML output.  The possible values for this attribute are defined by the W3C XML Schema boolean datatype.
showAnimation (Show animation in HTML output)	Specifies whether to show presentation animation in the HTML output file.  The possible values for this attribute are defined by the W3C XML Schema boolean datatype.
useLongFilenames (Use long file names in HTML output)	Specifies whether to allow the use of long file names when generating the HTML output.  The possible values for this attribute are defined by the W3C XML Schema boolean datatype.

[Note: The W3C XML Schema definition of this element's content model ([CT\\_WebProperties](#)) is located in §A.4. end note]

### 16.3.1.3 Additional attributes for modifyVerifier element (Part 1, §19.2.1.19)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
algIdExt (Cryptographic Algorithm Extensibility)	Specifies that a cryptographic algorithm which was not defined by ECMA-376 has been used to generate the hash value stored with this document.  This value, when present, shall be interpreted based on the value of the algIdExtSource attribute in order to determine the algorithm used, which shall be application-defined. [Rationale: This extensibility affords the fact that with exponentially increasing



Attributes	Description
	<p>computing power, documents created in the future might need to utilize as yet undefined hashing algorithms in order to remain secure. <i>end rationale</i>]</p> <p>If this value is present, the cryptAlgorithmClass, cryptAlgorithmType, and cryptAlgorithmSid attribute values shall be ignored in favor of the algorithm defined by this attribute.</p> <p>[<i>Example</i>: Consider a PresentationML document with the following information stored in its protection element:</p> <pre>&lt;... p:algIdExt="0000000A"       p:algIdExtSource="futureCryptography"       p:hashData="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The algIdExt attribute value of 0000000A specifies that the algorithm with hex code A shall be used as defined by the futureCryptography application. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema unsignedInt datatype.</p>
algIdExtSource (Algorithm Extensibility Source)	<p>Specifies the application which defined the algorithm value specified by the algIdExt attribute.</p> <p>[<i>Example</i>: Consider a PresentationML document with the following information stored in one its protection element:</p> <pre>&lt;... p:algIdExt="0000000A"       p:algIdExtSource="futureCryptography"       p:hashData="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The algIdExtSource attribute value of futureCryptography specifies that the algorithm used here was published by the futureCryptography application. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
cryptAlgorithmClass (Cryptographic Algorithm Class)	<p>Specifies the class of cryptographic algorithm used by this protection. [<i>Note</i>: The initial version of ECMA-376 only supports a single version - hash - but future versions can expand this as necessary. <i>end note</i>]</p> <p>[<i>Example</i>: Consider a PresentationML document with the following information stored in its protection element:</p> <pre>&lt;... p:cryptAlgorithmClass="hash"       p:cryptAlgorithmType="typeAny"       p:cryptAlgorithmSid="1"       p:hashData="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre>



Attributes	Description																																
	<p>The cryptAlgorithmClass attribute value of hash specifies that the algorithm used for the password is a hashing algorithm. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_AlgClass simple type (§20.1.2.1).</p>																																
cryptAlgorithmSid (Cryptographic Hashing Algorithm)	<p>Specifies the specific cryptographic hashing algorithm which shall be used along with the saltData attribute and user-supplied password in order to compute a hash value for comparison.</p> <p>The possible values for this attribute shall be interpreted as follows:</p> <table> <tr> <th>Value</th><th>Algorithm</th></tr> <tr><td>1</td><td>MD2</td></tr> <tr><td>2</td><td>MD4</td></tr> <tr><td>3</td><td>MD5</td></tr> <tr><td>4</td><td>SHA-1</td></tr> <tr><td>5</td><td>MAC</td></tr> <tr><td>6</td><td>RIPEMD</td></tr> <tr><td>7</td><td>RIPEMD-160</td></tr> <tr><td>8</td><td>Undefined. Shall not be used.</td></tr> <tr><td>9</td><td>HMAC</td></tr> <tr><td>10</td><td>Undefined. Shall not be used.</td></tr> <tr><td>11</td><td>Undefined. Shall not be used.</td></tr> <tr><td>12</td><td>SHA-256</td></tr> <tr><td>13</td><td>SHA-384</td></tr> <tr><td>14</td><td>SHA-512</td></tr> <tr><td>Any other value</td><td>Undefined. Shall not be used.</td></tr> </table> <p>[Example: Consider a PresentationML document with the following information stored in its protection element:</p> <pre> &lt;... p:cryptAlgorithmClass="hash"       p:cryptAlgorithmType="typeAny"       p:cryptAlgorithmSid="1"       p:hashData="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt; </pre> <p>The cryptAlgorithmSid attribute value of 1 specifies that the SHA-1 hashing algorithm shall be used to generate a hash from the user-defined password. <i>end example</i>]</p>	Value	Algorithm	1	MD2	2	MD4	3	MD5	4	SHA-1	5	MAC	6	RIPEMD	7	RIPEMD-160	8	Undefined. Shall not be used.	9	HMAC	10	Undefined. Shall not be used.	11	Undefined. Shall not be used.	12	SHA-256	13	SHA-384	14	SHA-512	Any other value	Undefined. Shall not be used.
Value	Algorithm																																
1	MD2																																
2	MD4																																
3	MD5																																
4	SHA-1																																
5	MAC																																
6	RIPEMD																																
7	RIPEMD-160																																
8	Undefined. Shall not be used.																																
9	HMAC																																
10	Undefined. Shall not be used.																																
11	Undefined. Shall not be used.																																
12	SHA-256																																
13	SHA-384																																
14	SHA-512																																
Any other value	Undefined. Shall not be used.																																



Attributes	Description
<p>cryptAlgorithmType (Cryptographic Algorithm Type)</p>	<p>The possible values for this attribute are defined by the W3C XML Schema unsignedInt datatype.</p> <p>Specifies the kind of cryptographic algorithm used by this protection. [<i>Note</i>: The initial version of ECMA-376 only supports a single type - typeAny - but future versions can expand this as necessary. <i>end note</i>]</p> <p>[<i>Example</i>: Consider a PresentationML document with the following information stored in its protection element:</p> <pre>&lt;... p:cryptAlgorithmClass="hash"       p:cryptAlgorithmType="typeAny"       p:cryptAlgorithmSid="1"       p:hashData="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The cryptAlgorithmType attribute value of typeAny specifies that any algorithm type might have been used for the password. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_AlgType simple type (§20.1.2.2).</p>
<p>cryptProvider (Cryptographic Provider)</p>	<p>Specifies the cryptographic provider which was used to generate the hash value stored in this document. If the user provided a cryptographic provider which was not the system's built-in provider, then that provider shall be stored here so it can subsequently be used if available.</p> <p>If this attribute is omitted, then the built-in cryptographic provider on the system shall be used.</p> <p>[<i>Example</i>: Consider a PresentationML document with the following information stored in its protection element:</p> <pre>&lt;... p:cryptProvider="Krista'sProvider"       p:hashData="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The cryptProvider attribute value of Krista'sProvider specifies that the cryptographic provider with name "Krista's Provider" shall be used if available. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>cryptProviderType (Cryptographic Provider Type)</p>	<p>Specifies the kind of cryptographic provider to be used.</p> <p>[<i>Example</i>: Consider a PresentationML document with the following information stored in its protection element:</p> <pre>&lt;... p:cryptProviderType="rsaAES"       p:hashData="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre>



Attributes	Description
	<p>The cryptProviderType attribute value of rsaAES specifies that the cryptographic provider type shall be an Advanced Encryption Standard provider. <i>end example</i></p> <p>The possible values for this attribute are defined by the ST_CryptProv simple type (§20.1.2.4).</p>
cryptProviderType Ext (Cryptographic Provider Type Extensibility)	<p>Specifies that a cryptographic provider type which was not defined by ECMA-376 has been used to generate the hash value stored with this document.</p> <p>This value, when present, shall be interpreted based on the value of the cryptProviderTypeExtSource attribute in order to determine the provider type used, which shall be application-defined. [<i>Rationale</i>: This extensibility affords the fact that with exponentially increasing computing power, documents created in the future might need to utilize as yet undefined cryptographic provider types in order to remain secure. <i>end rationale</i>]</p> <p>If this value is present, the cryptProviderType attribute value shall be ignored in favor of the provider type defined by this attribute.</p> <p>[<i>Example</i>: Consider a PresentationML document with the following information stored in its protection element:</p> <pre>&lt;... p:cryptProviderTypeExt="00A5691D"       p:cryptProvideTypeExtSource="futureCryptography"       p:hashData="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The cryptProviderTypeExt attribute value of 00A5691D specifies that the provider type associated with hex code A5691D shall be used as defined by the futureCryptography application. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema unsignedInt datatype.</p>
cryptProviderType ExtSource (Provider Type Extensibility Source)	<p>Specifies the application which defined the provider type value specified by the cryptProviderTypeExt attribute.</p> <p>[<i>Example</i>: Consider a PresentationML document with the following information stored in its protection element:</p> <pre>&lt;... p:cryptProviderTypeExt="00A5691D"       p:cryptProvideTypeExtSource="futureCryptography"       p:hashData="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The cryptProvideTypeExtSource attribute value of futureCryptography specifies that the provider type used here was published by the futureCryptography application. <i>end example</i>]</p>



Attributes	Description
	<p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>hashData (Password Hash)</p>	<p>Specifies the hash value for the password stored with this document. This value shall be compared with the resulting hash value after hashing the user-supplied password using the algorithm specified by the preceding attributes and parent XML element, and if the two values match, the protection shall no longer be enforced.</p> <p>If this value is omitted, then no password shall be associated with the protection, and it can be turned off without supplying any password.</p> <p>[<i>Example:</i> Consider a PresentationML document with the following information stored in its protection element:</p> <pre>&lt;... p:cryptAlgorithmClass="hash"       p:cryptAlgorithmType="typeAny"       p:cryptAlgorithmSid="1"       p:hashData="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The hashData attribute value of 9oN7nWkCAyEZib1RomSJTjmPpCY= specifies that the user-supplied password shall be hashed using the pre-processing defined by the parent element (if any) followed by the SHA-1 algorithm (specified via the cryptAlgorithmSid attribute value of 1) and that the resulting has value must be 9oN7nWkCAyEZib1RomSJTjmPpCY= for the protection to be disabled. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema base64Binary datatype.</p>
<p>saltData (Salt for Password Verifier)</p>	<p>Specifies the salt which was prepended to the user-supplied password before it was hashed using the hashing algorithm defined by the preceding attribute values to generate the hashData attribute, and which shall also be prepended to the user-supplied password before attempting to generate a hash value for comparison. A <i>salt</i> is a random string which is added to a user-supplied password before it is hashed in order to prevent a malicious party from pre-calculating all possible password/hash combinations and simply using those precalculated values (often referred to as a "dictionary attack").</p> <p>If this attribute is omitted, then no salt shall be prepended to the user-supplied password before it is hashed for comparison with the stored hash value.</p> <p>[<i>Example:</i> Consider a PresentationML document with the following information stored in its protection element:</p> <pre>&lt;... p:saltData="ZUdHa+D8F/OAKP3I7ssUnQ=="       p:hashData="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The saltData attribute value of ZUdHa+D8F/OAKP3I7ssUnQ== specifies that the user-</p>



Attributes	Description
	<p>supplied password shall have this value prepended before it is run through the specified hashing algorithm to generate a resulting hash value for comparison. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema base64Binary datatype.</p>
spinCount (Iterations to Run Hashing Algorithm)	<p>Specifies the number of times the hashing function shall be iteratively run (runs using each iteration's result plus a 4 byte value (0-based, little endian) containing the number of the iteration as the input for the next iteration) when attempting to compare a user-supplied password with the value stored in the hashData attribute. [<i>Rationale</i>: Running the algorithm many times increases the cost of exhaustive search attacks correspondingly. Storing this value allows for the number of iterations to be increased over time to accommodate faster hardware (and hence the ability to run more iterations in less time). <i>end rationale</i>]</p> <p>[<i>Example</i>: Consider a PresentationML document with the following information stored in its protection element:</p> <pre>&lt;... p:spinCount="100000"       p:hashData="9oN7nWkCAyEZib1RomSJTjmPpCY=" /&gt;</pre> <p>The spinCount attribute value of 100000 specifies that the hashing function shall be run one hundred thousand times to generate a hash value for comparison with the hash attribute. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema unsignedInt datatype.</p>

## 16.4 Slides

### 16.4.1 Embedded Objects

#### 16.4.1.1 Additional attribute for control element (Part 1, §19.3.2.1)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
spid (Embedded object Shape ID)	<p>Specifies the identifier of the shape associated with this Embedded object. The shape contains all coordinate anchoring information.</p> <p>This optional attribute shall be present if the parent element does not contain a child pic element.</p> <p>The possible values for this attribute are defined by the ST_ShapeID simple type (Part 1, §20.1.10.55).</p>



#### 16.4.1.2 Additional attribute for oleObj element (Part 1, §19.3.2.4)

The following additional attributes can be specified for a document of a transitional conformance class:

Attributes	Description
spid (Embedded object Shape ID)	<p>Specifies the identifier of the shape associated with this Embedded object. The shape contains all coordinate anchoring information.</p> <p>This optional attribute shall be present if the parent element does not contain a child pic element.</p> <p>The possible values for this attribute are defined by the ST_ShapeID simple type (Part 1, §20.1.10.55).</p>

### 16.5 Simple Types

The following additional simple type information in the <http://schemas.openxmlformats.org/presentationml/2006/main> namespace is used for documents of a transitional conformance class.

#### 16.5.1 ST\_WebColorType (HTML Slide Navigation Control Colors)

This simple type specifies the coloring that should be used when outputting to web formats.

This simple type's contents are a restriction of the W3C XML Schema token datatype.

Enumeration Value	Description
blackTextOnWhite (Black Text on White Colors)	Black Text on White coloring should be used.
browser (Browser Colors)	Browser coloring should be used.
none (Non-specific Colors)	No specific coloring has been specified.
presentationAccent (Presentation Accent Colors)	Presentation accent coloring should be used.
presentationText (Presentation Text Colors)	Presentation text coloring should be used.
whiteTextOnBlack (White Text on Black Colors)	White text on black coloring should be used.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_WebColorType](#)) is located in §A.4. *end note*]

#### 16.5.2 ST\_WebEncoding (Web Encoding)

This simple type specifies a string representing the HTML character set used when outputting to web formats.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_WebEncoding](#)) is located in §A.4. *end note*]



### 16.5.3 ST\_WebScreenSize (HTML/Web Screen Size Target)

This simple type specifies the intended screen resolution for output to web formats.

This simple type's contents are a restriction of the W3C XML Schema token datatype.

Enumeration Value	Description
1024x768 (HTML/Web Size Enumeration 1024x768)	Screen size is 1024x768 pixels
1152x882 (HTML/Web Size Enumeration 1152x882)	Screen size is 1152x882 pixels
1152x900 (HTML/Web Size Enumeration 1152x900)	Screen size is 1152x900 pixels
1280x1024 (HTML/Web Size Enumeration 1280x1024)	Screen size is 1280x1024 pixels
1600x1200 (HTML/Web Size Enumeration 1600x1200)	Screen size is 1600x1200 pixels
1800x1400 (HTML/Web Size Enumeration 1800x1400)	Screen size is 1800x1400 pixels
1920x1200 (HTML/Web Size Enumeration 1920x1200)	Screen size is 1920x1200 pixels
544x376 (HTML/Web Size Enumeration 544x376)	Screen size is 544x376 pixels
640x480 (HTML/Web Size Enumeration 640x480)	Screen size is 640x480 pixels
720x512 (HTML/Web Size Enumeration 720x515)	Screen size is 720x512 pixels
800x600 (HTML/Web Size Enumeration 800x600)	Screen size is 800x600 pixels

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_WebScreenSize](#)) is located in §A.4. *end note*]

## 16.6 Changed attributes

The following attributes, which are defined in subclauses within Part 1, §19, "PresentationML", have different source relationships when used in documents of the Transitional conformance class:

### 16.6.1 Changed attribute for bold element (Part 1, §19.2.1.1)

Attributes	Description
id (Relationship Identifier)	Specifies the relationship identifier that is used in conjunction with a corresponding relationship file to resolve the location of this embedded font that is referenced in a presentation.
Namespace: .../officeDocument /2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).



### 16.6.2 Changed attribute for boldItalic element (Part 1, §19.2.1.2)

Attributes	Description
id (Relationship Identifier)  Namespace: .../officeDocument /2006/relationships	Specifies the relationship identifier that is used in conjunction with a corresponding relationship file to resolve the location of this embedded font that is referenced in a presentation.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 16.6.3 Changed attribute for handoutMasterId element (Part 1, §19.2.1.14)

Attributes	Description
id (Relationship Identifier)  Namespace: .../officeDocument /2006/relationships	Specifies the relationship identifier that is used in conjunction with a corresponding relationship file to resolve the location within a presentation of the handoutMaster element defining this handout master.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 16.6.4 Changed attribute for italic element (Part 1, §19.2.1.16)

Attributes	Description
id (Relationship Identifier)  Namespace: .../officeDocument /2006/relationships	Specifies the relationship identifier that is used in conjunction with a corresponding relationship file to resolve the location of this embedded font that is referenced in a presentation.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).



### 16.6.5 Changed attribute for notesMasterId element (Part 1, §19.2.1.20)

Attributes	Description
id (Relationship Identifier)  Namespace: .../officeDocument/2006/relationships	Specifies the relationship identifier that is used in conjunction with a corresponding relationship file to resolve the location within a presentation of the notesMaster element defining this notes master.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 16.6.6 Changed attribute for notesSz element (Part 1, §19.2.1.22)

Attributes	Description
cx (Extent Length)  Namespace: .../drawingml/2006/main	Specifies the length of the extents rectangle in EMUs. This rectangle shall dictate the size of the object as displayed (the result of any scaling to the original object).  [Example: Consider a DrawingML object specified as follows:  <code>&lt;... cx="1828800" cy="200000"/&gt;</code>  The cx attributes specifies that this object has a height of 1828800 EMUs (English Metric Units). <i>end example</i> ]  The possible values for this attribute are defined by the ST_PositiveCoordinate simple type (Part 1, §20.1.10.42).
cy (Extent Width)  Namespace: .../drawingml/2006/main	Specifies the width of the extents rectangle in EMUs. This rectangle shall dictate the size of the object as displayed (the result of any scaling to the original object).  [Example: Consider a DrawingML object specified as follows:  <code>&lt; ... cx="1828800" cy="200000"/&gt;</code>  The cy attribute specifies that this object has a width of 200000 EMUs (English Metric Units). <i>end example</i> ]  The possible values for this attribute are defined by the ST_PositiveCoordinate simple type (Part 1, §20.1.10.42).



### 16.6.7 Changed attribute for regular element (Part 1, §19.2.1.29)

Attributes	Description
id (Relationship Identifier)  Namespace: .../officeDocument/2006/relationships	Specifies the relationship identifier that is used in conjunction with a corresponding relationship file to resolve the location of this embedded font that is referenced in a presentation.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 16.6.8 Changed attribute for sld element (Part 1, §19.2.1.31)

Attributes	Description
id (Relationship ID)  Namespace: .../officeDocument/2006/relationships	This attribute specifies the relationship id that is used to reference to the actual slide XML file that contains all the information to the slide listed within the slide list.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 16.6.9 Changed attribute for sldId element (Part 1, §19.2.1.33)

Attributes	Description
id (Relationship Identifier)  Namespace: .../officeDocument/2006/relationships	Specifies the relationship identifier that is used in conjunction with a corresponding relationship file to resolve the location within a presentation of the sld element defining this slide.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 16.6.10 Changed attribute for sldMasterId element (Part 1, §19.2.1.36)

Attributes	Description
id (Relationship Identifier)  Namespace: .../officeDocument/2006/relationships	Specifies the relationship identifier that is used in conjunction with a corresponding relationship file to resolve the location within a presentation of the sldMaster element defining this slide master.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).



### 16.6.11 Changed attribute for SmartTags element (Part 1, §19.2.1.40)

Attributes	Description
id (Relationship Identifier)	Specifies the relationship identifier that is used in conjunction with a corresponding relationship file to resolve the location of this smart tag.
Namespace: .../officeDocument/2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 16.6.12 Changed attribute for gridSpacing element (Part 1, §19.2.2.3)

Attributes	Description
cx (Extent Length)  Namespace: .../drawingml/2006/main	<p>Specifies the length of the extents rectangle in EMUs. This rectangle shall dictate the size of the object as displayed (the result of any scaling to the original object).</p> <p>[<i>Example:</i> Consider a DrawingML object specified as follows:</p> <pre>&lt;... cx="1828800" cy="200000"/&gt;</pre> <p>The cx attributes specifies that this object has a height of 1828800 EMUs (English Metric Units). <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_PositiveCoordinate simple type (Part 1, §20.1.10.42).</p>
cy (Extent Width)  Namespace: .../drawingml/2006/main	<p>Specifies the width of the extents rectangle in EMUs. This rectangle shall dictate the size of the object as displayed (the result of any scaling to the original object).</p> <p>[<i>Example:</i> Consider a DrawingML object specified as follows:</p> <pre>&lt; ... cx="1828800" cy="200000"/&gt;</pre> <p>The cy attribute specifies that this object has a width of 200000 EMUs (English Metric Units). <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_PositiveCoordinate simple type (Part 1, §20.1.10.42).</p>



### 16.6.13 Changed attribute for origin element (Part 1, §19.2.2.9)

Attributes	Description
<p>x (X-Axis Coordinate)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies a coordinate on the x-axis. The origin point for this coordinate shall be specified by the parent XML element.</p> <p>[<i>Example:</i> Consider the following point on a basic wrapping polygon for a DrawingML object:</p> <pre>&lt;... x="0" y="100" /&gt;</pre> <p>The x attribute defines an x-coordinate of 0. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_Coordinate simple type (Part 1, §20.1.10.16).</p>
<p>y (Y-Axis Coordinate)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies a coordinate on the y-axis. The origin point for this coordinate shall be specified by the parent XML element.</p> <p>[<i>Example:</i> Consider the following point on a basic wrapping polygon for a DrawingML object:</p> <pre>&lt;... x="0" y="100" /&gt;</pre> <p>The y attribute defines a y-coordinate of 100. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_Coordinate simple type (Part 1, §20.1.10.16).</p>

### 16.6.14 Changed attribute for sld element (Part 1, §19.2.2.14)

Attributes	Description
<p>id (Relationship Identifier)</p> <p>Namespace: .../officeDocument/2006/relationships</p>	<p>Specifies the relationship identifier that is used in conjunction with a corresponding relationship file to resolve the location of this presentation slide within a presentation.</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>



### 16.6.15 Changed attribute for bgRef element (Part 1, §19.3.1.3)

Attributes	Description
idx (Style Matrix Index)  Namespace: .../drawingml/2006/main	Specifies the style matrix index of the style referred to.  The possible values for this attribute are defined by the ST_StyleMatrixColumnIndex simple type (Part 1, §20.1.10.57).

### 16.6.16 Changed attribute for blipFill element (Part 1, §19.3.1.4)

Attributes	Description
dpi (DPI Setting)  Namespace: .../drawingml/2006/main	Specifies the DPI (dots per inch) used to calculate the size of the blip. If not present or zero, the DPI in the blip is used.  [Note: This attribute is primarily used to keep track of the picture quality within a document. There are different levels of quality needed for print than on-screen viewing and thus a need to track this information. <i>end note</i> ]  The possible values for this attribute are defined by the W3C XML Schema unsignedInt datatype.
rotWithShape (Rotate With Shape)  Namespace: .../drawingml/2006/main	Specifies that the fill should rotate with the shape. That is, when the shape that has been filled with a picture and the containing shape (say a rectangle) is transformed with a rotation then the fill is transformed with the same rotation.  The possible values for this attribute are defined by the W3C XML Schema boolean datatype.

### 16.6.17 Changed attribute for clrMap element (Part 1, §19.3.1.6)

Attributes	Description
accent1 (Accent 1)  Namespace: .../drawingml/2006/main	Specifies a color defined which is associated as the accent 1 color.  The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).
accent2 (Accent 2)  Namespace: .../drawingml/2006/main	Specifies a color defined which is associated as the accent 2 color.  The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).
accent3 (Accent 3)  Namespace: .../drawingml/2006/main	Specifies a color defined which is associated as the accent 3 color.  The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).



Attributes	Description
accent4 (Accent 4)  Namespace: .../drawingml/2006/main	Specifies a color defined which is associated as the accent 4 color.  The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).
accent5 (Accent 5)  Namespace: .../drawingml/2006/main	Specifies a color defined which is associated as the accent 5 color.  The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).
accent6 (Accent 6)  Namespace: .../drawingml/2006/main	Specifies a color defined which is associated as the accent 6 color.  The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).
bg1 (Background 1)  Namespace: .../drawingml/2006/main	A color defined which is associated as the first background color.  The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).
bg2 (Background 2)  Namespace: .../drawingml/2006/main	Specifies a color defined which is associated as the second background color.  The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).
folHlink (Followed Hyperlink)  Namespace: .../drawingml/2006/main	Specifies a color defined which is associated as the color for a followed hyperlink.  The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).
hlink (Hyperlink)  Namespace: .../drawingml/2006/main	Specifies a color defined which is associated as the color for a hyperlink.  The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).
tx1 (Text 1)  Namespace: .../drawingml/2006/main	Specifies a color defined which is associated as the first text color.  The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).



Attributes	Description
tx2 (Text 2)	Specifies a color defined which is associated as the second text color.
Namespace: .../drawingml/2006/main	The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).

### 16.6.18 Changed attribute for cNvPicPr element (Part 1, §19.3.1.11)

Attributes	Description
preferRelativeResize (Relative Resize Preferred)	Specifies if the user interface should show the resizing of the picture based on the picture's current size or its original size. If this attribute is set to true, then scaling is relative to the original picture size as opposed to the current picture size.
Namespace: .../drawingml/2006/main	<p>[Example: Consider the case where a picture has been resized within a document and is now 50% of the originally inserted picture size. Now if the user chooses to make a later adjustment to the size of this picture within the generating application, then the value of this attribute should be checked.</p> <p>If this attribute is set to true then a value of 50% is shown. Similarly, if this attribute is set to false, then a value of 100% should be shown because the picture has not yet been resized from its current (smaller) size. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>

### 16.6.19 Changed attribute for cNvPr element (Part 1, §19.3.1.12)

Attributes	Description
descr (Alternative Text for Object)	Specifies alternative text for the current DrawingML object, for use by assistive technologies or applications that do not display the current object.
Namespace: .../drawingml/2006/main	<p>If this element is omitted, then no alternative text is present for the parent object.</p> <p>[Example: Consider a DrawingML object defined as follows:</p> <pre>&lt;... descr="A picture of a bowl of fruit"&gt;</pre> <p>The descr attribute contains alternative text that can be used in place of the actual DrawingML object. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>



Attributes	Description
<p>hidden (Hidden)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies whether this DrawingML object is displayed. When a DrawingML object is displayed within a document, that object can be hidden (i.e., present, but not visible). This attribute determines whether the object is rendered or made hidden. <i>[Note: An application can have settings which allow this object to be viewed. end note]</i></p> <p>If this attribute is omitted, then the parent DrawingML object shall be displayed (i.e., not hidden).</p> <p><i>[Example: Consider an inline DrawingML object that must be hidden within the document's content. This setting would be specified as follows:</i></p> <pre>&lt;... hidden="true" /&gt;</pre> <p>The hidden attribute has a value of true, which specifies that the DrawingML object is hidden and not displayed when the document is displayed. <i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>
<p>id (Unique Identifier)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies a unique identifier for the current DrawingML object within the current document. This ID can be used to assist in uniquely identifying this object so that it can be referred to by other parts of the document.</p> <p>If multiple objects within the same document share the same id attribute value, then the document shall be considered non-conformant.</p> <p><i>[Example: Consider a DrawingML object defined as follows:</i></p> <pre>&lt;... id="10" ... &gt;</pre> <p>The id attribute has a value of 10, which is the unique identifier for this DrawingML object. <i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DrawingElementId simple type (Part 1, §20.1.10.21).</p>
<p>name (Name)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies the name of the object. <i>[Note: Typically, this is used to store the original file name of a picture object. end note]</i></p> <p><i>[Example: Consider a DrawingML object defined as follows:</i></p> <pre>&lt; ... name="foo.jpg" &gt;</pre> <p>The name attribute has a value of foo.jpg, which is the name of this DrawingML object. <i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string</p>



Attributes	Description
	datatype.
title (Title)  Namespace: .../drawingml/2006/main	<p>Specifies the title (caption) of the current DrawingML object.</p> <p>If this attribute is omitted, then no title text is present for the parent object.</p> <p>[<i>Example</i>: Consider a DrawingML object defined as follows:</p> <pre>&lt;... title="Process Flow Diagram"&gt;</pre> <p><i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

### 16.6.20 Changed attribute for cNvSpPr element (Part 1, §19.3.1.13)

Attributes	Description
txBox (Text Box)  Namespace: .../drawingml/2006/main	<p>Specifies that the corresponding shape is a text box and thus should be treated as such by the generating application. If this attribute is omitted then it is assumed that the corresponding shape is not specifically a text box.</p> <p>[<i>Note</i>: Because a shape is not specified to be a text box does not mean that it cannot have text attached to it. A text box is merely a specialized shape with specific properties. <i>end note</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>

### 16.6.21 Changed attribute for contentPart element (Part 1, §19.3.1.14)

Attributes	Description
id (Relationship to Part)  Namespace: .../officeDocument/2006/relationships	<p>Specifies the relationship ID to a content part.</p> <p>[<i>Example</i>: Consider an XML element which has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID rId1 contains the corresponding relationship information for the parent XML element. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>



### 16.6.22 Changed attribute for `custData` element (Part 1, §19.3.1.17)

Attributes	Description
id (Relationship ID)  Namespace: .../officeDocument /2006/relationships	This attribute specifies the relationship id for referencing other resources outside the scope of the current PresentationML file.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 16.6.23 Changed attribute for `grpSpPr` element (Part 1, §19.3.1.23)

Attributes	Description
bwMode (Black and White Mode)  Namespace: .../drawingml/2006/main	Specifies that the group shape should be rendered using only black and white coloring. That is the coloring information for the group shape should be converted to either black or white when rendering the corresponding shapes.  No gray is to be used in rendering this image, only stark black and stark white.  [Note: This does not mean that the group shapes themselves are stored with only black and white color information. This attribute instead sets the rendering mode that the shapes use when rendering. <i>end note</i> ]  The possible values for this attribute are defined by the ST_BlackWhiteMode simple type (Part 1, §20.1.10.10).

### 16.6.24 Changed attribute for `sldLayoutId` element (Part 1, §19.3.1.40)

Attributes	Description
id (ID Tag)  Namespace: .../officeDocument /2006/relationships	Specifies the relationship id value that the generating application can use to resolve which slide layout is used in the creation of the slide. This relationship id is used within the relationship file for the master slide to expose the location of the corresponding layout file within the presentation.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 16.6.25 Changed attribute for `spPr` element (Part 1, §19.3.1.44)

Attributes	Description
bwMode (Black and White Mode)  Namespace: .../drawingml/2006/main	Specifies that the picture should be rendered using only black and white coloring. That is the coloring information for the picture should be converted to either black or white when rendering the picture.  No gray is to be used in rendering this image, only stark black and stark white.  [Note: This does not mean that the picture itself that is stored within the file is



Attributes	Description
	<p>necessarily a black and white picture. This attribute instead sets the rendering mode that the picture has applied to when rendering. <i>end note</i></p> <p>The possible values for this attribute are defined by the ST_BlackWhiteMode simple type (Part 1, §20.1.10.10).</p>


### 16.6.26 Changed attribute for tags element (Part 1, §19.3.1.47)

Attributes	Description
<p>id (Relationship ID)</p> <p>Namespace: .../officeDocument /2006/relationships</p>	<p>This attribute specifies the relationship identifier for the customer data tag. This allows for a link to a resource that is external from the current XML document but still contained within the presentation document.</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

### 16.6.27 Changed attribute for xfrm element (Part 1, §19.3.1.53)

Attributes	Description
<p>flipH (Horizontal Flip)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies a horizontal flip. When true, this attribute defines that the shape is flipped horizontally about the center of its bounding box.</p> <p>[<i>Example</i>: The following illustrates the effect of a horizontal flip.</p> <div> </div> <p><i>end example</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>



Attributes	Description
<b>flipV (Vertical Flip)</b>  Namespace: .../drawingml/2006/main	<p>Specifies a vertical flip. When true, this attribute defines that the group is flipped vertically about the center of its bounding box.</p> <p>[Example: The following illustrates the effect of a vertical flip.</p>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>
<b>rot (Rotation)</b>  Namespace: .../drawingml/2006/main	<p>Specifies the rotation of the Graphic Frame. The units for which this attribute is specified in reside within the simple type definition referenced below.</p> <p>The possible values for this attribute are defined by the ST_Angle simple type (Part 1, §20.1.10.3).</p>

#### 16.6.28 Changed attribute for control element (Part 1, §19.3.2.1)

Attributes	Description
<b>id (Relationship ID)</b>  Namespace: .../officeDocument/2006/relationships	<p>Specifies the relationship id that is used to identify this Embedded object from within a slide.</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 16.6.29 Changed attribute for oleObj element (Part 1, §19.3.2.4)

Attributes	Description
<b>id (Relationship ID)</b>  Namespace: .../officeDocument/2006/relationships	<p>Specifies the relationship id that is used to identify this Embedded object from within a slide.</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 16.6.30 Changed attribute for pos element (Part 1, §19.4.5)

Attributes	Description
<b>x (X-Axis Coordinate)</b>	<p>Specifies a coordinate on the x-axis. The origin point for this coordinate shall be specified by the parent XML element.</p>



Attributes	Description
Namespace: .../drawingml/2006/main	<p>[<i>Example</i>: Consider the following point on a basic wrapping polygon for a DrawingML object:</p> <pre>&lt;... x="0" y="100" /&gt;</pre> <p>The x attribute defines an x-coordinate of 0. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_Coordinate simple type (Part 1, §20.1.10.16).</p>
y (Y-Axis Coordinate)  Namespace: .../drawingml/2006/main	<p>Specifies a coordinate on the y-axis. The origin point for this coordinate shall be specified by the parent XML element.</p> <p>[<i>Example</i>: Consider the following point on a basic wrapping polygon for a DrawingML object:</p> <pre>&lt;... x="0" y="100" /&gt;</pre> <p>The y attribute defines a y-coordinate of 100. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_Coordinate simple type (Part 1, §20.1.10.16).</p>

### 16.6.31 Changed attribute for snd element (Part 1, §19.5.68)

Attributes	Description
embed (Embedded Audio File Relationship ID)  Namespace: .../officeDocument/2006/relationships	<p>Specifies the identification information for an embedded audio file. This attribute is used to specify the location of an object that resides locally within the file. [<i>Note</i>: A list of suggested audio types is provided in Part 1, §15.2.2. <i>end note</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>
name (Sound Name)  Namespace: .../drawingml/2006/main	<p>Specifies the original name or given short name for the corresponding sound. This is used to distinguish this sound from others by providing a human readable name for the attached sound should the user need to identify the sound among others within the UI.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

### 16.6.32 Changed attribute for sndTgt element (Part 1, §19.5.70)

Attributes	Description
embed (Embedded Audio File Relationship ID)	<p>Specifies the identification information for an embedded audio file. This attribute is used to specify the location of an object that resides locally within the file. [<i>Note</i>: A list of suggested audio types is provided in Part 1, §15.2.2. <i>end note</i>]</p>



Attributes	Description
Namespace: .../officeDocument /2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).
name (Sound Name)  Namespace: .../drawingml/2006/main	Specifies the original name or given short name for the corresponding sound. This is used to distinguish this sound from others by providing a human readable name for the attached sound should the user need to identify the sound among others within the UI.  The possible values for this attribute are defined by the W3C XML Schema string datatype.



# 17. DrawingML - Framework Reference Material

## 17.1 General

[Note: For further information on the mapping of elements and attributes to OPC parts, see the Bibliography entry, “Information on elements, attributes, and OPC parts in ISO/IEC 29500 (OOXML)”. *end note*]

## 17.2 DrawingML - Main

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End of informative text.

### 17.2.2 Simple Types

The following additional simple type information in the <http://schemas.openxmlformats.org/drawingml/2006/main> namespace is used for documents of a transitional conformance class.



#### 17.2.2.1 Additional member types for the union in ST\_FixedPercentage (Part 1, §20.1.10.24)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST\_FixedPercentageDecimal simple type (§17.2.2.7).

#### 17.2.2.2 Additional member types for the union in ST\_Percentage (Part 1, §20.1.10.40)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST\_PercentageDecimal simple type (Part 4, §12.1.2.12).

#### 17.2.2.3 Additional member types for the union in ST\_PositiveFixedPercentage (Part 1, §20.1.10.45)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST\_PositiveFixedPercentageDecimal simple type (§17.2.2.8).

#### 17.2.2.4 Additional member types for the union in ST\_PositivePercentage (Part 1, §20.1.10.46)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST\_PositivePercentageDecimal simple type (§17.2.2.9).

#### 17.2.2.5 Additional member types for the union in ST\_TextFontScalePercentOrPercentString (Part 1, §20.1.10.67)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST\_TextFontScalePercent simple type (§17.2.2.10).

#### 17.2.2.6 Additional member types for the union in ST\_TextSpacingPercentOrPercentString (Part 1, §20.1.10.77)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST\_TextSpacingPercent simple type (§17.2.2.11).

#### 17.2.2.7 ST\_FixedPercentageDecimal (Fixed Percentage)

This simple type represents a fixed percentage in 1000ths of a percent. Range from [-100%, 100%].



This simple type's contents are a restriction of the ST\_PercentageDecimal datatype (Part 1, §20.1.10.41).

This simple type also specifies the following restrictions:

- This simple type has a minimum value of greater than or equal to -100000.
- This simple type has a maximum value of less than or equal to 100000.

[Note: The W3C XML Schema definition of this simple type's content model (ST\_FixedPercentageDecimal) is located in §A.5.1. *end note*]

#### 17.2.2.8 ST\_PositiveFixedPercentageDecimal (Positive Fixed Percentage)

This simple type represents a positive fixed percentage in 1000ths of a percent. Range from [0%, 100%].

This simple type's contents are a restriction of the ST\_PercentageDecimal datatype (Part 1, §20.1.10.41).

This simple type also specifies the following restrictions:

- This simple type has a minimum value of greater than or equal to 0.
- This simple type has a maximum value of less than or equal to 100000.

[Note: The W3C XML Schema definition of this simple type's content model (ST\_PositiveFixedPercentageDecimal) is located in §A.5.1. *end note*]

#### 17.2.2.9 ST\_PositivePercentageDecimal (Positive Percentage as Decimal Number)

This simple type represents a positive percentage in 1000ths of a percent. Range from 0% up to and including infinity.

This simple type's contents are a restriction of the ST\_PercentageDecimal datatype (Part 1, §20.1.10.41).

This simple type also specifies the following restrictions:

- This simple type has a minimum value of greater than or equal to 0.

[Note: The W3C XML Schema definition of this simple type's content model (ST\_PositivePercentageDecimal) is located in §A.5.1. *end note*]

#### 17.2.2.10 ST\_TextFontScalePercent (Text Font Scale Percentage)

This simple type specifies the percentage range text can be scaled to in order to fit, in 1000ths of a percent.

This simple type's contents are a restriction of the ST\_PercentageDecimal datatype (Part 1, §20.1.10.41).

This simple type also specifies the following restrictions:

- This simple type has a minimum value of greater than or equal to 1000.
- This simple type has a maximum value of less than or equal to 100000.



[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_TextFontScalePercent](#)) is located in §A.5.1. *end note*]

#### 17.2.2.11 [ST\\_TextSpacingPercent \(Text Spacing Percent\)](#)

This type specifies the range of text spacing in thousandths of a percent, in terms of a line.

This simple type's contents are a restriction of the [ST\\_PercentageDecimal](#) datatype (Part 1, §20.1.10.41).

This simple type also specifies the following restrictions:

- This simple type has a minimum value of greater than or equal to 0.
- This simple type has a maximum value of less than or equal to 13200000.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_TextSpacingPercent](#)) is located in §A.5.1. *end note*]

#### 17.2.2.12 [ST\\_PercentageDecimal \(Percentage as Decimal Number\)](#)

This simple type represents a percentage in 1000ths of a percent, e.g., a value of 1 represents 0.001% == 0.00001; a value of 100000 is equal to 100%. Percentages have no intrinsic units, but are used to scale other values with units.

This simple type's contents are a restriction of the W3C XML Schema `int` datatype.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_PercentageDecimal](#)) is located in §A.4.1. *end note*]

#### 17.2.2.13 [Additional member types for the union in ST\\_PrSetCustVal \(Part 1, §21.4.7.66\)](#)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

The W3C XML Schema `int` datatype.

#### 17.2.2.14 [ST\\_TextBulletSizeDecimal \(Bullet Size Percentage\)](#)

This simple type specifies the range that the bullet percent can be. A bullet percent is the size of the bullet with respect to the text that should follow it. 25000 = 25%, 400000 = 400%

This simple type's contents are a restriction of the [ST\\_PercentageDecimal](#) datatype (Part 4, §12.1.2.12).

This simple type also specifies the following restrictions:

This simple type has a minimum value of greater than or equal to 25000.

This simple type has a maximum value of less than or equal to 400000.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_TextBulletSizeDecimal](#)) is located in §A.4.1. *end note*]



17.2.2.15 Additional member types for the union in ST\_TextBulletSize (Part 1, §20.1.10.86)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

The ST\_TextBulletSizeDecimal simple type (Part 4, §12.1.2.14).

17.3 DrawingML - Legacy Compatibility

Within the context of DrawingML, it shall be possible (for considerations to legacy compatibility) to be able to include explicit references to specific shapes within VML Drawing parts.

[Example: A VML Drawing part is used to define ink on a PresentationML slide, but the resulting ink is referenced from the slide by its shape ID using the elements of this namespace. end example]

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End of informative text.

## 17.3.2 Basics

Legacy Compatibility is part of the shape definitions and properties of the DrawingML framework.

### 17.3.2.1 legacyDrawing (Legacy Drawing Object)

This element specifies the shape ID for a legacy drawing object. These legacy drawing objects all have a shape ID associated with them that is unique across the entire document. In order to store these legacy shape IDs as well as new shape IDs this legacyDrawing element should be used.

Attributes	Description
spid (Shape ID)	<p>Legacy Shape ID that is unique throughout the entire document. Legacy shape IDs should be assigned based on which portion of the document the drawing resides on. The assignment of these ids is broken down into clusters of 1024 values. The first cluster is 1-1024, the second 1025-2048 and so on.</p> <p>This optional attribute shall be present if the parent element does not contain a child picture element.</p> <p><i>[Example: Within a word processing application the spid should be assigned based on the page that the drawing resides on. If the drawing resides on the second page then the assigned spid should be a value between 1025 and 2048. end example]</i></p> <p><i>[Example: Within a spreadsheet application the spid should be assigned based on the sheet that the drawing resides on. If the drawing resides on the second sheet then the assigned spid should be a value between 1025 and 2048. end example]</i></p> <p><i>[Example: Within a presentation application the spid should be assigned based on the slide that the drawing resides on. If the drawing resides on the second slide then the assigned spid should be a value between 1025 and 2048. end example]</i></p> <p>The possible values for this attribute are defined by the ST_ShapeID simple type (Part 1, §20.1.10.55).</p>

*[Note: The W3C XML Schema definition of this element's content model (CT\_Compat) is located in §A.1. end note]*

## 17.4 Changed attributes

The following attributes, which are defined in subclauses within Part 1, §20, "DrawingML - Framework Reference Material", have different source relationships when used in documents of the Transitional conformance class:



### 17.4.1 Changed attribute for hlinkHover element (Part 1, §20.1.2.2.23)

Attributes	Description
id (Drawing Object Hyperlink Target)	Specifies the relationship id that when looked up in this slides relationship file contains the target of this hyperlink. This attribute cannot be omitted.
Namespace: .../officeDocument /2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 17.4.2 Changed attribute for snd element (Part 1, §20.1.2.2.32)

Attributes	Description
embed (Embedded Audio File Relationship ID)	Specifies the identification information for an embedded audio file. This attribute is used to specify the location of an object that resides locally within the file. [ <i>Note</i> : A list of suggested audio types is provided in Part 1, §15.2.2. <i>end note</i> ]
Namespace: .../officeDocument /2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 17.4.3 Changed attribute for audioFile element (Part 1, §20.1.3.2)

Attributes	Description
link (Linked Relationship ID)	Specifies the identification information for a linked object. This attribute is used to specify the location of an object that does not reside within this file.
Namespace: .../officeDocument /2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).



#### 17.4.4 Changed attribute for quickTimeFile element (Part 1, §20.1.3.4)

Attributes	Description
link (Linked Relationship ID)	Specifies the identification information for a linked object. This attribute is used to specify the location of an object that does not reside within this file.
Namespace: .../officeDocument /2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

#### 17.4.5 Changed attribute for videoFile element (Part 1, §20.1.3.6)

Attributes	Description
link (Linked Relationship ID)	Specifies the identification information for a linked object. This attribute is used to specify the location of an object that does not reside within this file.
Namespace: .../officeDocument /2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

#### 17.4.6 Changed attribute for wavAudioFile element (Part 1, §20.1.3.7)

Attributes	Description
embed (Embedded Audio File Relationship ID)	Specifies the identification information for an embedded audio file. This attribute is used to specify the location of an object that resides locally within the file. [Note: A list of suggested audio types is provided in Part 1, §15.2.2. <i>end note</i> ]
Namespace: .../officeDocument /2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

#### 17.4.7 Changed attribute for blip element (Part 1, §20.1.8.13)

Attributes	Description
embed (Embedded Picture Reference)	Specifies the identification information for an embedded picture. This attribute is used to specify an image that resides locally within the file.
Namespace: .../officeDocument /2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).



Attributes	Description
link (Linked Picture Reference)	Specifies the identification information for a linked picture. This attribute is used to specify an image that does not reside within this file.
Namespace: .../officeDocument/2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

#### 17.4.8 Changed attribute for blipFill element (Part 1, §20.2.2.1)

Attributes	Description
dpi (DPI Setting)	Specifies the DPI (dots per inch) used to calculate the size of the blip. If not present or zero, the DPI in the blip is used.
Namespace: .../drawingml/2006/main	<p>[Note: This attribute is primarily used to keep track of the picture quality within a document. There are different levels of quality needed for print than on-screen viewing and thus a need to track this information. <i>end note</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema unsignedInt datatype.</p>
rotWithShape (Rotate With Shape)	Specifies that the fill should rotate with the shape. That is, when the shape that has been filled with a picture and the containing shape (say a rectangle) is transformed with a rotation then the fill is transformed with the same rotation.
Namespace: .../drawingml/2006/main	The possible values for this attribute are defined by the W3C XML Schema boolean datatype.

#### 17.4.9 Changed attribute for cNvPicPr element (Part 1, §20.2.2.2)

Attributes	Description
preferRelativeResize (Relative Resize Preferred)	Specifies if the user interface should show the resizing of the picture based on the picture's current size or its original size. If this attribute is set to true, then scaling is relative to the original picture size as opposed to the current picture size.
Namespace: .../drawingml/2006/main	<p>[Example: Consider the case where a picture has been resized within a document and is now 50% of the originally inserted picture size. Now if the user chooses to make a later adjustment to the size of this picture within the generating application, then the value of this attribute should be checked.</p> <p>If this attribute is set to true then a value of 50% is shown. Similarly, if this attribute is set to false, then a value of 100% should be shown because the picture has not yet been resized from its current (smaller) size. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>



### 17.4.10 Changed attribute for cNvPr element (Part 1, §20.2.2.3)

Attributes	Description
<p>descr (Alternative Text for Object)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies alternative text for the current DrawingML object, for use by assistive technologies or applications that do not display the current object.</p> <p>If this element is omitted, then no alternative text is present for the parent object.</p> <p>[Example: Consider a DrawingML object defined as follows:</p> <pre>&lt;... descr="A picture of a bowl of fruit"&gt;</pre> <p>The descr attribute contains alternative text that can be used in place of the actual DrawingML object. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>hidden (Hidden)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies whether this DrawingML object is displayed. When a DrawingML object is displayed within a document, that object can be hidden (i.e., present, but not visible). This attribute determines whether the object is rendered or made hidden. [Note: An application can have settings that allow this object to be viewed. <i>end note</i>]</p> <p>If this attribute is omitted, then the parent DrawingML object shall be displayed (i.e., not hidden).</p> <p>[Example: Consider an inline DrawingML object that must be hidden within the document's content. This setting would be specified as follows:</p> <pre>&lt;... hidden="true" /&gt;</pre> <p>The hidden attribute has a value of true, which specifies that the DrawingML object is hidden and not displayed when the document is displayed. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>
<p>id (Unique Identifier)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies a unique identifier for the current DrawingML object within the current document. This ID can be used to assist in uniquely identifying this object so that it can be referred to by other parts of the document.</p> <p>If multiple objects within the same document share the same id attribute value, then the document shall be considered non-conformant.</p> <p>[Example: Consider a DrawingML object defined as follows:</p> <pre>&lt;... id="10" ... &gt;</pre> <p>The id attribute has a value of 10, which is the unique identifier for this DrawingML</p>



Attributes	Description
	<p>object. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_DrawingElementId simple type (Part 1, §20.1.10.21).</p>
<p>name (Name)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies the name of the object. [<i>Note</i>: Typically, this is used to store the original file name of a picture object. <i>end note</i>]</p> <p>[<i>Example</i>: Consider a DrawingML object defined as follows:</p> <pre>&lt; ... name="foo.jpg" &gt;</pre> <p>The name attribute has a value of foo.jpg, which is the name of this DrawingML object. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>title (Title)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies the title (caption) of the current DrawingML object.</p> <p>If this attribute is omitted, then no title text is present for the parent object.</p> <p>[<i>Example</i>: Consider a DrawingML object defined as follows:</p> <pre>&lt;... title="Process Flow Diagram"&gt;</pre> <p><i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

#### 17.4.11 Changed attribute for spPr element (Part 1, §20.2.2.6)

Attributes	Description
<p>bwMode (Black and White Mode)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies that the picture should be rendered using only black and white coloring. That is the coloring information for the picture should be converted to either black or white when rendering the picture.</p> <p>No gray is to be used in rendering this image, only stark black and stark white.</p> <p>[<i>Note</i>: This does not mean that the picture itself that is stored within the file is necessarily a black and white picture. This attribute instead sets the rendering mode that the picture has applied to when rendering. <i>end note</i>]</p> <p>The possible values for this attribute are defined by the ST_BlackWhiteMode simple type (Part 1, §20.1.10.10).</p>



### 17.4.12 Changed attribute for docPr element (Part 1, §20.4.2.5)

Attributes	Description
<p>descr (Alternative Text for Object)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies alternative text for the current DrawingML object, for use by assistive technologies or applications that do not display the current object.</p> <p>If this element is omitted, then no alternative text is present for the parent object.</p> <p>[Example: Consider a DrawingML object defined as follows:</p> <pre>&lt;... descr="A picture of a bowl of fruit"&gt;</pre> <p>The descr attribute contains alternative text that can be used in place of the actual DrawingML object. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>hidden (Hidden)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies whether this DrawingML object is displayed. When a DrawingML object is displayed within a document, that object can be hidden (i.e., present, but not visible). This attribute determines whether the object is rendered or made hidden. [Note: An application can have settings that allow this object to be viewed. <i>end note</i>]</p> <p>If this attribute is omitted, then the parent DrawingML object shall be displayed (i.e., not hidden).</p> <p>[Example: Consider an inline DrawingML object that must be hidden within the document's content. This setting would be specified as follows:</p> <pre>&lt;... hidden="true" /&gt;</pre> <p>The hidden attribute has a value of true, which specifies that the DrawingML object is hidden and not displayed when the document is displayed. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>
<p>id (Unique Identifier)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies a unique identifier for the current DrawingML object within the current document. This ID can be used to assist in uniquely identifying this object so that it can be referred to by other parts of the document.</p> <p>If multiple objects within the same document share the same id attribute value, then the document shall be considered non-conformant.</p> <p>[Example: Consider a DrawingML object defined as follows:</p> <pre>&lt;... id="10" ... &gt;</pre> <p>The id attribute has a value of 10, which is the unique identifier for this DrawingML</p>



Attributes	Description
	<p>object. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_DrawingElementId simple type (Part 1, §20.1.10.21).</p>
<p>name (Name)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies the name of the object. [<i>Note</i>: Typically, this is used to store the original file name of a picture object. <i>end note</i>]</p> <p>[<i>Example</i>: Consider a DrawingML object defined as follows:</p> <pre>&lt; ... name="foo.jpg" &gt;</pre> <p>The name attribute has a value of foo.jpg, which is the name of this DrawingML object. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>title (Title)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies the title (caption) of the current DrawingML object.</p> <p>If this attribute is omitted, then no title text is present for the parent object.</p> <p>[<i>Example</i>: Consider a DrawingML object defined as follows:</p> <pre>&lt;... title="Process Flow Diagram"&gt;</pre> <p><i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

### 17.4.13 Changed attribute for extent element (Part 1, §20.4.2.7)

Attributes	Description
<p>cx (Extent Width)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies the width of the extents rectangle in EMUs. This rectangle shall dictate the size of the object as displayed (the result of any scaling to the original object).</p> <p>[<i>Example</i>: Consider a DrawingML object specified as follows:</p> <pre>&lt;... cx="1828800" cy="200000"/&gt;</pre> <p>The cx attribute specifies that this object has a width of 1828800 EMUs (English Metric Units). <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_PositiveCoordinate simple type (Part 1, §20.1.10.42).</p>



Attributes	Description
cy (Extent Height)  Namespace: .../drawingml/2006/main	<p>Specifies the height of the extents rectangle in EMUs. This rectangle shall dictate the size of the object as displayed (the result of any scaling to the original object).</p> <p>[<i>Example:</i> Consider a DrawingML object specified as follows:</p> <pre>&lt; ... cx="1828800" cy="200000" /&gt;</pre> <p>The cy attribute specifies that this object has a height of 200000 EMUs (English Metric Units). <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_PositiveCoordinate simple type (Part 1, §20.1.10.42).</p>

#### 17.4.14 Changed attribute for lineTo element (Part 1, §20.4.2.9)

Attributes	Description
x (X-Axis Coordinate)  Namespace: .../drawingml/2006/main	<p>Specifies a coordinate on the x-axis. The origin point for this coordinate shall be specified by the parent XML element.</p> <p>[<i>Example:</i> Consider the following point on a basic wrapping polygon for a DrawingML object:</p> <pre>&lt;... x="0" y="100" /&gt;</pre> <p>The x attribute defines an x-coordinate of 0. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_Coordinate simple type (Part 1, §20.1.10.16).</p>
y (Y-Axis Coordinate)  Namespace: .../drawingml/2006/main	<p>Specifies a coordinate on the y-axis. The origin point for this coordinate shall be specified by the parent XML element.</p> <p>[<i>Example:</i> Consider the following point on a basic wrapping polygon for a DrawingML object:</p> <pre>&lt;... x="0" y="100" /&gt;</pre> <p>The y attribute defines a y-coordinate of 100. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_Coordinate simple type (Part 1, §20.1.10.16).</p>

#### 17.4.15 Changed attribute for simplePos element (Part 1, §20.4.2.13)

Attributes	Description
x (X-Axis Coordinate)	<p>Specifies a coordinate on the x-axis. The origin point for this coordinate shall be specified by the parent XML element.</p>



Attributes	Description
Namespace: .../drawingml/2006/main	<p>[<i>Example</i>: Consider the following point on a basic wrapping polygon for a DrawingML object:</p> <pre>&lt;... x="0" y="100" /&gt;</pre> <p>The x attribute defines an x-coordinate of 0. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_Coordinate simple type (Part 1, §20.1.10.16).</p>
y (Y-Axis Coordinate)  Namespace: .../drawingml/2006/main	<p>Specifies a coordinate on the y-axis. The origin point for this coordinate shall be specified by the parent XML element.</p> <p>[<i>Example</i>: Consider the following point on a basic wrapping polygon for a DrawingML object:</p> <pre>&lt;... x="0" y="100" /&gt;</pre> <p>The y attribute defines a y-coordinate of 100. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_Coordinate simple type (Part 1, §20.1.10.16).</p>

#### 17.4.16 Changed attribute for start element (Part 1, §20.4.2.14)

Attributes	Description
x (X-Axis Coordinate)  Namespace: .../drawingml/2006/main	<p>Specifies a coordinate on the x-axis. The origin point for this coordinate shall be specified by the parent XML element.</p> <p>[<i>Example</i>: Consider the following point on a basic wrapping polygon for a DrawingML object:</p> <pre>&lt;... x="0" y="100" /&gt;</pre> <p>The x attribute defines an x-coordinate of 0. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_Coordinate simple type (Part 1, §20.1.10.16).</p>



Attributes	Description
y (Y-Axis Coordinate)  Namespace: .../drawingml/2006/main	<p>Specifies a coordinate on the y-axis. The origin point for this coordinate shall be specified by the parent XML element.</p> <p>[<i>Example:</i> Consider the following point on a basic wrapping polygon for a DrawingML object:</p> <pre>&lt;... x="0" y="100" /&gt;</pre> <p>The y attribute defines a y-coordinate of 100. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_Coordinate simple type (Part 1, §20.1.10.16).</p>

#### 17.4.17 Changed attribute for blipFill element (Part 1, §20.5.2.2)

Attributes	Description
dpi (DPI Setting)  Namespace: .../drawingml/2006/main	<p>Specifies the DPI (dots per inch) used to calculate the size of the blip. If not present or zero, the DPI in the blip is used.</p> <p>[<i>Note:</i> This attribute is primarily used to keep track of the picture quality within a document. There are different levels of quality needed for print than on-screen viewing and thus a need to track this information. <i>end note</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema unsignedInt datatype.</p>
rotWithShape (Rotate With Shape)  Namespace: .../drawingml/2006/main	<p>Specifies that the fill should rotate with the shape. That is, when the shape that has been filled with a picture and the containing shape (say a rectangle) is transformed with a rotation then the fill is transformed with the same rotation.</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>

#### 17.4.18 Changed attribute for cNvPicPr element (Part 1, §20.5.2.7)

Attributes	Description
preferRelativeResize (Relative Resize Preferred)  Namespace: .../drawingml/2006/main	<p>Specifies if the user interface should show the resizing of the picture based on the picture's current size or its original size. If this attribute is set to true, then scaling is relative to the original picture size as opposed to the current picture size.</p> <p>[<i>Example:</i> Consider the case where a picture has been resized within a document and is now 50% of the originally inserted picture size. Now if the user chooses to make a later adjustment to the size of this picture within the generating application, then the value of this attribute should be checked.</p> <p>If this attribute is set to true then a value of 50% is shown. Similarly, if this attribute is set to false, then a value of 100% should be shown because the picture has not yet been</p>



Attributes	Description
	<p>resized from its current (smaller) size. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>

#### 17.4.19 Changed attribute for cNvPr element (Part 1, §20.5.2.8)

Attributes	Description
<p>descr (Alternative Text for Object)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies alternative text for the current DrawingML object, for use by assistive technologies or applications that do not display the current object.</p> <p>If this element is omitted, then no alternative text is present for the parent object.</p> <p>[<i>Example</i>: Consider a DrawingML object defined as follows:</p> <pre>&lt;... descr="A picture of a bowl of fruit"&gt;</pre> <p>The descr attribute contains alternative text that can be used in place of the actual DrawingML object. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>hidden (Hidden)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies whether this DrawingML object is displayed. When a DrawingML object is displayed within a document, that object can be hidden (i.e., present, but not visible). This attribute determines whether the object is rendered or made hidden. [<i>Note</i>: An application can have settings that allow this object to be viewed. <i>end note</i>]</p> <p>If this attribute is omitted, then the parent DrawingML object shall be displayed (i.e., not hidden).</p> <p>[<i>Example</i>: Consider an inline DrawingML object that must be hidden within the document's content. This setting would be specified as follows:</p> <pre>&lt;... hidden="true" /&gt;</pre> <p>The hidden attribute has a value of true, which specifies that the DrawingML object is hidden and not displayed when the document is displayed. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>



Attributes	Description
<b>id (Unique Identifier)</b>  Namespace: .../drawingml/2006/main	<p>Specifies a unique identifier for the current DrawingML object within the current document. This ID can be used to assist in uniquely identifying this object so that it can be referred to by other parts of the document.</p> <p>If multiple objects within the same document share the same id attribute value, then the document shall be considered non-conformant.</p> <p>[<i>Example</i>: Consider a DrawingML object defined as follows:</p> <pre>&lt;... id="10" ... &gt;</pre> <p>The id attribute has a value of 10, which is the unique identifier for this DrawingML object. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_DrawingElementId simple type (Part 1, §20.1.10.21).</p>
<b>name (Name)</b>  Namespace: .../drawingml/2006/main	<p>Specifies the name of the object. [<i>Note</i>: Typically, this is used to store the original file name of a picture object. <i>end note</i>]</p> <p>[<i>Example</i>: Consider a DrawingML object defined as follows:</p> <pre>&lt; ... name="foo.jpg" &gt;</pre> <p>The name attribute has a value of foo.jpg, which is the name of this DrawingML object. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the type W3C XML Schema string.</p>
<b>title (Title)</b>  Namespace: .../drawingml/2006/main	<p>Specifies the title (caption) of the current DrawingML object.</p> <p>If this attribute is omitted, then no title text is present for the parent object.</p> <p>[<i>Example</i>: Consider a DrawingML object defined as follows:</p> <pre>&lt;... title="Process Flow Diagram"&gt;</pre> <p><i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

#### 17.4.20 Changed attribute for cNvSpPr element (Part 1, §20.5.2.9)

Attributes	Description
<b>txBox (Text Box)</b>	Specifies that the corresponding shape is a text box and thus should be treated as such by the generating application. If this attribute is omitted then it is assumed that the



Attributes	Description
Namespace: .../drawingml/2006/main	<p>corresponding shape is not specifically a text box.</p> <p>[<i>Note</i>: Because a shape is not specified to be a text box does not mean that it cannot have text attached to it. A text box is merely a specialized shape with specific properties. <i>end note</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>

#### 17.4.21 Changed attribute for contentPart element (Part 1, §20.5.2.12)

Attributes	Description
id (Relationship to Part)  Namespace: .../officeDocument/2006/relationships	<p>Specifies the relationship ID to a content part.</p> <p>[<i>Example</i>: Consider an XML element that has the following id attribute:</p> <pre>&lt;... r:id="rId1" /&gt;</pre> <p>The markup specifies the associated relationship part with relationship ID rId1 contains the corresponding relationship information for the parent XML element. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>

#### 17.4.22 Changed attribute for ext element (Part 1, §20.5.2.14)

Attributes	Description
cx (Extent Width)  Namespace: .../drawingml/2006/main	<p>Specifies the width of the extents rectangle in EMUs. This rectangle shall dictate the size of the object as displayed (the result of any scaling to the original object).</p> <p>[<i>Example</i>: Consider a DrawingML object specified as follows:</p> <pre>&lt;... cx="1828800" cy="200000"/&gt;</pre> <p>The cx attribute specifies that this object has a width of 1828800 EMUs (English Metric Units). <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_PositiveCoordinate simple type (Part 1, §20.1.10.42).</p>



Attributes	Description
cy (Extent Height)  Namespace: .../drawingml/2006/main	<p>Specifies the height of the extents rectangle in EMUs. This rectangle shall dictate the size of the object as displayed (the result of any scaling to the original object).</p> <p>[<i>Example:</i> Consider a DrawingML object specified as follows:</p> <pre>&lt; ... cx="1828800" cy="200000" /&gt;</pre> <p>The cy attribute specifies that this object has a height of 200000 EMUs (English Metric Units). <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_PositiveCoordinate simple type (Part 1, §20.1.10.42).</p>

#### 17.4.23 Changed attribute for grpSpPr element (Part 1, §20.5.2.18)

Attributes	Description
bwMode (Black and White Mode)  Namespace: .../drawingml/2006/main	<p>Specifies that the group shape should be rendered using only black and white coloring. That is the coloring information for the group shape should be converted to either black or white when rendering the corresponding shapes.</p> <p>No gray is to be used in rendering this image, only stark black and stark white.</p> <p>[<i>Note:</i> This does not mean that the group shapes themselves are stored with only black and white color information. This attribute instead sets the rendering mode that the shapes use when rendering. <i>end note</i>]</p> <p>The possible values for this attribute are defined by the ST_BlackWhiteMode simple type (Part 1, §20.1.10.10).</p>

#### 17.4.24 Changed attribute for pos element (Part 1, §20.5.2.26)

Attributes	Description
x (X-Axis Coordinate)  Namespace: .../drawingml/2006/main	<p>Specifies a coordinate on the x-axis. The origin point for this coordinate shall be specified by the parent XML element.</p> <p>[<i>Example:</i> Consider the following point on a basic wrapping polygon for a DrawingML object:</p> <pre>&lt;... x="0" y="100" /&gt;</pre> <p>The x attribute defines an x-coordinate of 0. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_Coordinate simple type (Part 1, §20.1.10.16).</p>



Attributes	Description
y (Y-Axis Coordinate)  Namespace: .../drawingml/2006/main	<p>Specifies a coordinate on the y-axis. The origin point for this coordinate shall be specified by the parent XML element.</p> <p>[<i>Example:</i> Consider the following point on a basic wrapping polygon for a DrawingML object:</p> <pre>&lt;... x="0" y="100" /&gt;</pre> <p>The y attribute defines a y-coordinate of 100. <i>end example</i></p> <p>The possible values for this attribute are defined by the ST_Coordinate simple type (Part 1, §20.1.10.16).</p>


#### 17.4.25 Changed attribute for spPr element (Part 1, §20.5.2.30)

Attributes	Description
bwMode (Black and White Mode)  Namespace: .../drawingml/2006/main	<p>Specifies that the picture should be rendered using only black and white coloring. That is the coloring information for the picture should be converted to either black or white when rendering the picture.</p> <p>No gray is to be used in rendering this image, only stark black and stark white.</p> <p>[<i>Note:</i> This does not mean that the picture itself that is stored within the file is necessarily a black and white picture. This attribute instead sets the rendering mode that the picture has applied to when rendering. <i>end note</i>]</p> <p>The possible values for this attribute are defined by the ST_BlackWhiteMode simple type (Part 1, §20.1.10.10).</p>

#### 17.4.26 Changed attribute for xfrm element (Part 1, §20.5.2.36)

Attributes	Description
flipH (Horizontal Flip)  Namespace: .../drawingml/2006/main	<p>Specifies a horizontal flip. When true, this attribute defines that the shape is flipped horizontally about the center of its bounding box.</p> <p>[<i>Example:</i> The following illustrates the effect of a horizontal flip.</p> <div> </div> <p><i>end example</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>



Attributes	Description
<p>flipV (Vertical Flip)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies a vertical flip. When true, this attribute defines that the group is flipped vertically about the center of its bounding box.</p> <p>[Example: The following illustrates the effect of a vertical flip.</p> <div>  </div> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>
<p>rot (Rotation)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies the rotation of the Graphic Frame. The units for that this attribute is specified in reside within the simple type definition referenced below.</p> <p>The possible values for this attribute are defined by the ST_Angle simple type (Part 1, §20.1.10.3).</p>



# 18. DrawingML - Components Reference Material

## 18.1 DrawingML - Charts

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**End of informative text.**

## 18.1.2 Elements

### 18.1.2.1 legacyDrawingHF (Legacy Drawing for Headers and Footers)

This element specifies the VML Drawing part that contains any pictures used in the header or footer of the chart.

Attributes	Description
id (Relationship Reference)	Specifies the relationship ID for the relationship for this Chart or Chart Drawing part. The type of relationship needed is specified by the parent element.
Namespace: .../officeDocument /2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

[Note: The W3C XML Schema definition of this element's content model (CT\_RelId) is located in §A.6.1. *end note*]

## 18.1.3 Simple Types

### 18.1.3.1 Additional member types for union in ST\_DepthPercent

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST\_DepthPercentUShort simple type (§13.1.3.2).

### 18.1.3.2 ST\_DepthPercentUShort (Depth Percent UnsignedShort) (Part 1, §21.2.3.9)

This simple type specifies that its contents contain a whole number between 20 and 2000, whose contents are a percentage. This simple type's contents are a restriction of the W3C XML Schema unsignedShort datatype.

This simple type also specifies the following restrictions:

This simple type has a minimum value of greater than or equal to 20.

This simple type has a maximum value of less than or equal to 2000.



### 18.1.3.3 Additional member types for union in ST\_HPercent (Part 1, §21.2.3.19)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST\_HPercentUShort simple type (§13.1.3.4).

### 18.1.3.4 ST\_HPercentUShort (Depth Percent UnsignedShort)

This simple type specifies that its contents contain a whole number between 5 and 500, whose contents are a percentage.

This simple type's contents are a restriction of the W3C XML Schema unsignedShort datatype.

This simple type also specifies the following restrictions:

This simple type has a minimum value of greater than or equal to 5.

This simple type has a maximum value of less than or equal to 500.

### 18.1.3.5 Additional member types for union in ST\_GapAmount (Part 1, §21.2.3.16)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST\_GapAmountUShort simple type (§13.1.3.6).

### 18.1.3.6 ST\_GapAmountUShort (Gap Amount UnsignedShort)

This simple type specifies that its contents contain a whole number between 0 and 500, whose contents are a percentage.

This simple type's contents are a restriction of the W3C XML Schema unsignedShort datatype.

This simple type also specifies the following restrictions:

This simple type has a minimum value of greater than or equal to 0.

This simple type has a maximum value of less than or equal to 500.

### 18.1.3.7 Additional member types for union in ST\_SecondPieSize (Part 1, §21.2.3.41)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST\_SecondPieSizeUShort simple type (§13.1.3.10).

### 18.1.3.8 ST\_SecondPieSizeUShort (Second Pie Size UnsignedShort)

This simple type specifies that its contents contain a whole number between 5 and 200, whose contents are a percentage.

This simple type's contents are a restriction of the W3C XML Schema unsignedShort datatype.



This simple type also specifies the following restrictions:

This simple type has a minimum value of greater than or equal to 5.

This simple type has a maximum value of less than or equal to 200.

#### 18.1.3.9 Additional member types for union in ST\_HoleSize (Part 1, §21.2.3.18)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST\_HoleSizeUByte simple type (§13.1.3.12).

#### 18.1.3.10 ST\_HoleSizeUByte (Hole Size UnsignedByte)

This simple type specifies that its contents contain a whole number between 10 and 90, whose contents are a percentage.

This simple type's contents are a restriction of the W3C XML Schema unsignedByte datatype.

This simple type also specifies the following restrictions:

This simple type has a minimum value of greater than or equal to 10.

This simple type has a maximum value of less than or equal to 90.

#### 18.1.3.11 Additional member types for union in ST\_LblOffset (Part 1, §21.2.3.23)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST\_LblOffsetUShort simple type (§13.1.3.14).

#### 18.1.3.12 ST\_LblOffsetUShort (Label Offset UnsignedShort)

This simple type specifies that its contents contain a whole number between 0 and 1000, whose contents are a percentage.

This simple type's contents are a restriction of the W3C XML Schema unsignedShort datatype.

This simple type also specifies the following restrictions:

This simple type has a minimum value of greater than or equal to 0.

This simple type has a maximum value of less than or equal to 1000.

#### 18.1.3.13 Additional member types for union in ST\_Overlap (Part 1, §21.2.3.31)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST\_OverlapByte simple type (§13.1.3.16).



### 18.1.3.14 ST\_OverlapByte (Overlap Byte)

This simple type specifies that its contents contain a whole number between -100 and 100, whose contents are a percentage.

This simple type's contents are a restriction of the W3C XML Schema byte datatype.

This simple type also specifies the following restrictions:

- This simple type has a minimum value of greater than or equal to -100.  
This simple type has a maximum value of less than or equal to 100.

### 18.1.3.15 Additional member types for union in ST\_BubbleScale (Part 1, §21.2.3.5)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST\_BubbleScaleUInt simple type (§13.1.3.18).

### 18.1.3.16 ST\_BubbleScaleUInt (Bubble Scale UnsignedInt)

This simple type specifies that its contents contain a whole number between 0 and 300, whose contents are a percentage.

This simple type's contents are a restriction of the W3C XML Schema unsignedInt datatype.

This simple type also specifies the following restrictions:

- This simple type has a minimum value of greater than or equal to 0.  
This simple type has a maximum value of less than or equal to 300.

### 18.1.3.17 Additional member types for union in ST\_Thickness (Part 1, §21.2.3.206)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The W3C XML Schema unsignedInt datatype.

## 18.2 Changed attributes

The following attributes, which are defined in subclauses within Part 1, §21, “DrawingML - Components Reference Material”, have different source relationships when used in documents of the Transitional conformance class:

### 18.2.1 Changed attribute for hlinkClick element (Part 1, §21.1.2.3.5)

Attributes	Description
id (Drawing Object Hyperlink Target)	Specifies the relationship id that when looked up in this slides relationship file contains the target of this hyperlink. This attribute cannot be omitted.



Attributes	Description
Namespace: .../officeDocument /2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 18.2.2 Changed attribute for hlinkMouseOver element (Part 1, §21.1.2.3.6)

Attributes	Description
id (Drawing Object Hyperlink Target)	Specifies the relationship id that when looked up in this slides relationship file contains the target of this hyperlink. This attribute cannot be omitted.
Namespace: .../officeDocument /2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 18.2.3 Changed attribute for chart element (Part 1, §21.2.2.26)

Attributes	Description
id (Relationship Reference)	Specifies the relationship ID for the relationship for this Chart or Chart Drawing part. The type of relationship needed is specified by the parent element.
Namespace: .../officeDocument /2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 18.2.4 Changed attribute for clrMapOvr element (Part 1, §21.2.2.30)

Attributes	Description
accent1 (Accent 1)	Specifies a color defined that is associated as the accent 1 color.
Namespace: .../drawingml/2006/main	The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).
accent2 (Accent 2)	Specifies a color defined that is associated as the accent 2 color.
Namespace: .../drawingml/2006/main	The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).
accent3 (Accent 3)	Specifies a color defined that is associated as the accent 3 color.
Namespace: .../drawingml/2006/main	The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).



Attributes	Description
<p>accent4 (Accent 4)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies a color defined that is associated as the accent 4 color.</p> <p>The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).</p>
<p>accent5 (Accent 5)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies a color defined that is associated as the accent 5 color.</p> <p>The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).</p>
<p>accent6 (Accent 6)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies a color defined that is associated as the accent 6 color.</p> <p>The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).</p>
<p>bg1 (Background 1)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>A color defined that is associated as the first background color.</p> <p>The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).</p>
<p>bg2 (Background 2)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies a color defined that is associated as the second background color.</p> <p>The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).</p>
<p>folHlink (Followed Hyperlink)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies a color defined that is associated as the color for a followed hyperlink.</p> <p>The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).</p>
<p>hlink (Hyperlink)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies a color defined that is associated as the color for a hyperlink.</p> <p>The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).</p>
<p>tx1 (Text 1)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies a color defined that is associated as the first text color.</p> <p>The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).</p>



Attributes	Description
tx2 (Text 2)  Namespace: .../drawingml/2006/main	Specifies a color defined that is associated as the second text color.  The possible values for this attribute are defined by the ST_ColorSchemeIndex simple type (Part 1, §20.1.10.14).

### 18.2.5 Changed attribute for externalData element (Part 1, §21.2.2.63)

Attributes	Description
id (Relationship Reference)  Namespace: .../officeDocument/2006/relationships	Specifies the relationship ID for the relationship for this chart. The relationship explicitly targeted by this attribute shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/package">http://schemas.openxmlformats.org/officeDocument/2006/relationships/package</a> .  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 18.2.6 Changed attribute for spPr element (Part 1, §21.2.2.197)

Attributes	Description
bwMode (Black and White Mode)  Namespace: .../drawingml/2006/main	Specifies that the picture should be rendered using only black and white coloring. That is the coloring information for the picture should be converted to either black or white when rendering the picture.  No gray is to be used in rendering this image, only stark black and stark white.  [Note: This does not mean that the picture itself that is stored within the file is necessarily a black and white picture. This attribute instead sets the rendering mode that the picture has applied to when rendering. <i>end note</i> ]  The possible values for this attribute are defined by the ST_BlackWhiteMode simple type (Part 1, §20.1.10.10).



### 18.2.7 Changed attribute for userShapes element (Part 1, §21.2.2.221)

Attributes	Description
id (Relationship Reference)	Specifies the relationship ID for the relationship for this Chart or Chart Drawing part. The type of relationship needed is specified by the parent element.
Namespace: .../officeDocument/2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 18.2.8 Changed attribute for blipFill element (Part 1, §21.3.2.2)

Attributes	Description
dpi (DPI Setting)	Specifies the DPI (dots per inch) used to calculate the size of the blip. If not present or zero, the DPI in the blip is used.
Namespace: .../drawingml/2006/main	<p>[<i>Note:</i> This attribute is primarily used to keep track of the picture quality within a document. There are different levels of quality needed for print than on-screen viewing and thus a need to track this information. <i>end note</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema unsignedInt datatype.</p>
rotWithShape (Rotate With Shape)	Specifies that the fill should rotate with the shape. That is, when the shape that has been filled with a picture and the containing shape (say a rectangle) is transformed with a rotation then the fill is transformed with the same rotation.
Namespace: .../drawingml/2006/main	The possible values for this attribute are defined by the W3C XML Schema boolean datatype.

### 18.2.9 Changed attribute for cNvPicPr element (Part 1, §21.3.2.6)

Attributes	Description
preferRelativeResize (Relative Resize Preferred)	Specifies if the user interface should show the resizing of the picture based on the picture's current size or its original size. If this attribute is set to true, then scaling is relative to the original picture size as opposed to the current picture size.
Namespace: .../drawingml/2006/main	<p>[<i>Example:</i> Consider the case where a picture has been resized within a document and is now 50% of the originally inserted picture size. Now if the user chooses to make a later adjustment to the size of this picture within the generating application, then the value of this attribute should be checked.</p> <p>If this attribute is set to true then a value of 50% is shown. Similarly, if this attribute is set to false, then a value of 100% should be shown because the picture has not yet been resized from its current (smaller) size. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean</p>



Attributes	Description
	datatype.

### 18.2.10 Changed attribute for cNvPr element (Part 1, §21.3.2.7)

Attributes	Description
<p>descr (Alternative Text for Object)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies alternative text for the current DrawingML object, for use by assistive technologies or applications that do not display the current object.</p> <p>If this element is omitted, then no alternative text is present for the parent object.</p> <p>[<i>Example</i>: Consider a DrawingML object defined as follows:</p> <pre>&lt;... descr="A picture of a bowl of fruit"&gt;</pre> <p>The descr attribute contains alternative text that can be used in place of the actual DrawingML object. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>hidden (Hidden)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies whether this DrawingML object is displayed. When a DrawingML object is displayed within a document, that object can be hidden (i.e., present, but not visible). This attribute determines whether the object is rendered or made hidden. [<i>Note</i>: An application can have settings that allow this object to be viewed. <i>end note</i>]</p> <p>If this attribute is omitted, then the parent DrawingML object shall be displayed (i.e., not hidden).</p> <p>[<i>Example</i>: Consider an inline DrawingML object that must be hidden within the document's content. This setting would be specified as follows:</p> <pre>&lt;... hidden="true" /&gt;</pre> <p>The hidden attribute has a value of true, which specifies that the DrawingML object is hidden and not displayed when the document is displayed. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>
<p>id (Unique Identifier)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies a unique identifier for the current DrawingML object within the current document. This ID can be used to assist in uniquely identifying this object so that it can be referred to by other parts of the document.</p> <p>If multiple objects within the same document share the same id attribute value, then the document shall be considered non-conformant.</p> <p>[<i>Example</i>: Consider a DrawingML object defined as follows:</p>



Attributes	Description
	<p>&lt;... id="10" ... &gt;</p> <p>The id attribute has a value of 10, which is the unique identifier for this DrawingML object. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_DrawingElementId simple type (Part 1, §20.1.10.21).</p>
<p>name (Name)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies the name of the object. [<i>Note</i>: Typically, this is used to store the original file name of a picture object. <i>end note</i>]</p> <p>[<i>Example</i>: Consider a DrawingML object defined as follows:</p> <p>&lt; ... name="foo.jpg" &gt;</p> <p>The name attribute has a value of foo.jpg, which is the name of this DrawingML object. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>title (Title)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Specifies the title (caption) of the current DrawingML object.</p> <p>If this attribute is omitted, then no title text is present for the parent object.</p> <p>[<i>Example</i>: Consider a DrawingML object defined as follows:</p> <p>&lt;... title="Process Flow Diagram"&gt;</p> <p><i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>



### 18.2.11 Changed attribute for cNvSpPr element (Part 1, §21.3.2.8)

Attributes	Description
<b>txBox (Text Box)</b>  Namespace: .../drawingml/2006/main	<p>Specifies that the corresponding shape is a text box and thus should be treated as such by the generating application. If this attribute is omitted then it is assumed that the corresponding shape is not specifically a text box.</p> <p>[<i>Note</i>: Because a shape is not specified to be a text box does not mean that it cannot have text attached to it. A text box is merely a specialized shape with specific properties. <i>end note</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>

### 18.2.12 Changed attribute for ext element (Part 1, §21.3.2.10)

Attributes	Description
<b>cx (Extent Width)</b>  Namespace: .../drawingml/2006/main	<p>Specifies the width of the extents rectangle in EMUs. This rectangle shall dictate the size of the object as displayed (the result of any scaling to the original object).</p> <p>[<i>Example</i>: Consider a DrawingML object specified as follows:</p> <pre>&lt;... cx="1828800" cy="200000"/&gt;</pre> <p>The cx attribute specifies that this object has a width of 1828800 EMUs (English Metric Units). <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_PositiveCoordinate simple type (Part 1, §20.1.10.42).</p>
<b>cy (Extent Height)</b>  Namespace: .../drawingml/2006/main	<p>Specifies the height of the extents rectangle in EMUs. This rectangle shall dictate the size of the object as displayed (the result of any scaling to the original object).</p> <p>[<i>Example</i>: Consider a DrawingML object specified as follows:</p> <pre>&lt; ... cx="1828800" cy="200000"/&gt;</pre> <p>The cy attribute specifies that this object has a height of 200000 EMUs (English Metric Units). <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_PositiveCoordinate simple type (Part 1, §20.1.10.42).</p>



### 18.2.13 Changed attribute for grpSpPr element (Part 1, §21.3.2.14)



Attributes	Description
bwMode (Black and White Mode)  Namespace: .../drawingml/2006/main	<p>Specifies that the group shape should be rendered using only black and white coloring. That is the coloring information for the group shape should be converted to either black or white when rendering the corresponding shapes.</p> <p>No gray is to be used in rendering this image, only stark black and stark white.</p> <p>[<i>Note</i>: This does not mean that the group shapes themselves are stored with only black and white color information. This attribute instead sets the rendering mode that the shapes use when rendering. <i>end note</i>]</p> <p>The possible values for this attribute are defined by the ST_BlackWhiteMode simple type (Part 1, §20.1.10.10).</p>

### 18.2.14 Changed attribute for spPr element (Part 1, §21.3.2.23)

Attributes	Description
bwMode (Black and White Mode)  Namespace: .../drawingml/2006/main	<p>Specifies that the picture should be rendered using only black and white coloring. That is the coloring information for the picture should be converted to either black or white when rendering the picture.</p> <p>No gray is to be used in rendering this image, only stark black and stark white.</p> <p>[<i>Note</i>: This does not mean that the picture itself that is stored within the file is necessarily a black and white picture. This attribute instead sets the rendering mode that the picture has applied to when rendering. <i>end note</i>]</p> <p>The possible values for this attribute are defined by the ST_BlackWhiteMode simple type (Part 1, §20.1.10.10).</p>



### 18.2.15 Changed attribute for xfrm element (Part 1, §21.3.2.28)

Attributes	Description
<b>flipH (Horizontal Flip)</b>  Namespace: .../drawingml/2006/main	<p>Specifies a horizontal flip. When true, this attribute defines that the shape is flipped horizontally about the center of its bounding box.</p> <p>[Example: The following illustrates the effect of a horizontal flip.</p>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>
<b>flipV (Vertical Flip)</b>  Namespace: .../drawingml/2006/main	<p>Specifies a vertical flip. When true, this attribute defines that the group is flipped vertically about the center of its bounding box.</p> <p>[Example: The following illustrates the effect of a vertical flip.</p>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema boolean datatype.</p>
<b>rot (Rotation)</b>  Namespace: .../drawingml/2006/main	<p>Specifies the rotation of the Graphic Frame. The units for which this attribute is specified in reside within the simple type definition referenced below.</p> <p>The possible values for this attribute are defined by the ST_Angle simple type (Part 1, §20.1.10.3).</p>

### 18.2.16 Changed attribute for relIds element (Part 1, §21.4.2.22)

Attributes	Description
<b>cs (Explicit Relationship to Diagram Colors Part)</b>  Namespace: .../officeDocument	<p>Specifies the relationship ID for the explicit relationship to the Diagram Colors part used by this diagram.</p> <p>This relationship shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/diagramColors">http://schemas.openxmlformats.org/officeDocument/2006/relationships/diagramColors</a> or the document shall be considered non-conformant.</p>



Attributes	Description
/2006/relationships	The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).
dm (Explicit Relationship to Diagram Data Part)  Namespace: .../officeDocument/2006/relationships	Specifies the relationship ID for the explicit relationship to the Diagram Data part used by this diagram.  This relationship shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/diagramData">http://schemas.openxmlformats.org/officeDocument/2006/relationships/diagramData</a> or the document shall be considered non-conformant.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).
lo (Explicit Relationship to Diagram Layout Definition Part)  Namespace: .../officeDocument/2006/relationships	Specifies the relationship ID for the explicit relationship to the Diagram Layout Definition part used by this diagram.  This relationship shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/diagramLayout">http://schemas.openxmlformats.org/officeDocument/2006/relationships/diagramLayout</a> or the document shall be considered non-conformant.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).
qs (Explicit Relationship to Style Definition Part)  Namespace: .../officeDocument/2006/relationships	Specifies the relationship ID for the explicit relationship to the Diagram Style part used by this diagram.  This relationship shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/diagramQuickStyle">http://schemas.openxmlformats.org/officeDocument/2006/relationships/diagramQuickStyle</a> or the document shall be considered non-conformant.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).

### 18.2.17 Changed attribute for shape element (Part 1, §21.4.2.27)

Attributes	Description
blip (Relationship to Image Part)  Namespace: .../officeDocument/2006/relationships	Specifies the relationship ID of the explicit relationship to an image that shall be used as the image for the contents of this shape.  This relationship shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/image">http://schemas.openxmlformats.org/officeDocument/2006/relationships/image</a> or the document shall be considered non-conformant.  The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).



### 18.2.18 Changed attribute for spPr element (Part 1, §21.4.3.7)

Attributes	Description
<b>bwMode</b> (Black and White Mode)  Namespace: .../drawingml/2006/main	<p>Specifies that the picture should be rendered using only black and white coloring. That is the coloring information for the picture should be converted to either black or white when rendering the picture.</p> <p>No gray is to be used in rendering this image, only stark black and stark white.</p> <p>[<i>Note</i>: This does not mean that the picture itself that is stored within the file is necessarily a black and white picture. This attribute instead sets the rendering mode that the picture has applied to when rendering. <i>end note</i>]</p> <p>The possible values for this attribute are defined by the ST_BlackWhiteMode simple type (Part 1, §20.1.10.10).</p>

### 18.2.19 Changed attribute for sp3d element (Part 1, §21.4.5.6)

Attributes	Description
<b>contourW</b> (Contour Width)  Namespace: .../drawingml/2006/main	<p>Defines the width of the contour on the shape.</p> <p>[<i>Example</i>: Consider the following example of a contourW in use within the sp3d element:</p> <pre>&lt;a:sp3d extrusionH="165100" contourW="50800"   prstMaterial="plastic"&gt;   &lt;a:bevelT w="254000" h="254000"/&gt;   &lt;a:bevelB w="254000" h="254000"/&gt;   &lt;a:extrusionClr&gt;     &lt;a:srgbClr val="FF0000"/&gt;   &lt;/a:extrusionClr&gt;   &lt;a:contourClr&gt;     &lt;a:schemeClr val="accent3"/&gt;   &lt;/a:contourClr&gt; &lt;/a:sp3d&gt;</pre> <p>In this example, we see a countourW defined as 50800. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_PositiveCoordinate simple type (Part 1, §20.1.10.42).</p>



Attributes	Description
<p>extrusionH (Extrusion Height)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Defines the height of the extrusion applied to the shape.</p> <p>[<i>Example:</i> Consider the following example of an extrusionH in use within the sp3d element:</p> <pre>&lt;a:sp3d extrusionH="165100" contourW="50800" prstMaterial="plastic"&gt;   &lt;a:bevelT w="254000" h="254000"/&gt;   &lt;a:bevelB w="254000" h="254000"/&gt;   &lt;a:extrusionClr&gt;     &lt;a:srgbClr val="FF0000"/&gt;   &lt;/a:extrusionClr&gt;   &lt;a:contourClr&gt;     &lt;a:schemeClr val="accent3"/&gt;   &lt;/a:contourClr&gt; &lt;/a:sp3d&gt;</pre> <p>In this example, we see a extrusionH defined as 165100. <i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_PositiveCoordinate simple type (Part 1, §20.1.10.42).</p>
<p>prstMaterial (Preset Material Type)</p> <p>Namespace: .../drawingml/2006/main</p>	<p>Defines the preset material that is combined with the lighting properties to give the final look and feel of a shape.</p> <p>[<i>Example:</i> Consider the following example of a prstMaterial in use within the sp3d element:</p> <pre>&lt;a:sp3d extrusionH="165100" contourW="50800" prstMaterial="plastic"&gt;   &lt;a:bevelT w="254000" h="254000"/&gt;   &lt;a:bevelB w="254000" h="254000"/&gt;   &lt;a:extrusionClr&gt;     &lt;a:srgbClr val="FF0000"/&gt;   &lt;/a:extrusionClr&gt;   &lt;a:contourClr&gt;     &lt;a:schemeClr val="accent3"/&gt;   &lt;/a:contourClr&gt; &lt;/a:sp3d&gt;</pre> <p>In this example, we see a prstMaterial defined as plastic. <i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_PresetMaterialType simple type (Part 1, §20.1.10.50).</p>



Attributes	Description
z (Shape Depth)  Namespace: .../drawingml/2006/main	Defines the z coordinate for the 3D shape.  The possible values for this attribute are defined by the ST_Coordinate simple type (Part 1, §20.1.10.16).



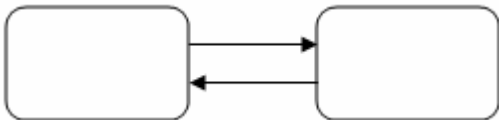
# 19. VML Reference Material

## 19.1 VML

VML is a language for defining graphical objects in cases where DrawingML does not apply, such as text boxes and shapes in WordprocessingML documents and comments and controls in SpreadsheetML documents. The `urn:schemas-microsoft-com:vml` namespace provides the base elements and attributes for defining shape primitives. The `urn:schemas-microsoft-com:office:office`, `urn:schemas-microsoft-com:office:word`, `urn:schemas-microsoft-com:office:excel` and `urn:schemas-microsoft-com:office:powerpoint` namespaces define elements that layer on information beyond the baseline graphical definition. To maintain backward compatibility, all VML namespaces defined in ECMA-376 maintain the legacy namespace structure used by the existing corpus of binary documents.

[*Note:* The VML format is a legacy format used in an existing corpus of binary documents and is included and fully defined in ECMA-376 for backwards compatibility reasons. The DrawingML format is a newer and richer format created with the goal of eventually replacing any uses of VML in the Office Open XML formats. VML should be considered a transitional format included in Office Open XML for legacy reasons only and new applications that need a file format for drawings are strongly encouraged to use preferentially DrawingML *.end note*]

[*Example:* Assume the following shapes exist in a WordprocessingML document:



The drawing consists of four shapes. The arrows are specified by extending the shape type base definition in the `shapetype` element. Each shape representing an arrow references the `shapetype` it is extending via its `type` attribute.

```
<v:shapetype id="_x0000_t32" coordsize="21600,21600" o:spt="32" o:oned="t"
  path="m,121600,21600e" filled="f">
  <v:path arrowok="t" fillok="f" o:connecttype="none"/>
  <o:lock v:ext="edit" shapetype="t"/>
</v:shapetype>

<v:shape id="_x0000_s1030" type="#_x0000_t32" style="position:absolute;left:0;
  text-align:left;margin-left:105pt;margin-top:36pt;width:48pt;height:0;flip:x;
  z-index:251661312" o:connectortype="straight">
  <v:stroke endarrow="block"/>
</v:shape>
```



```
<v:shape id="_x0000_s1029" type="#_x0000_t32" style="position:absolute;left:0;
text-align:left;margin-left:105pt;margin-top:21.75pt;width:48pt;height:0;
z-index:251660288" o:connectortype="straight">
  <v:stroke endarrow="block"/>
</v:shape>
```

The rounded rectangles use the VML roundrect element.

```
<v:roundrect id="_x0000_s1028" style="position:absolute;left:0;
text-align:left;margin-left:153pt;margin-top:8.25pt;width:68.25pt;height:42pt;
z-index:251659264" arcsize="10923f"/>
```

```
<v:roundrect id="_x0000_s1027" style="position:absolute;left:0;
text-align:left;margin-left:36.75pt;margin-top:8.25pt;width:68.25pt;
height:42pt;z-index:251658240" arcsize="10923f"/>
```

*end example]*

Throughout VML, numeric values that are allowed to take units can be specified in: cm (centimeters), mm (millimeters), in (inches), pt (points), pc (picas), px (pixels).

## 19.1.1 Table of Contents

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**End of informative text.**

## 19.1.2 Elements

The following elements comprise the contents of the urn:schemas-microsoft-com:vml namespace:

[*Note:* As the VML format is a format provided for backward compatibility, many VML elements are defined in the same urn:schemas-microsoft-com:vml namespace that is already used by millions of documents already using VML. *end note*]

### 19.1.2.1 arc (Arc Segment)

This element specifies an arc defined as a segment of an oval. The CSS2 style content width and height define the width and height of that oval. The arc is defined by the intersection of the oval with the start and end radius vectors given by the angles. The angles are calculated on the basis of a circle (width equal to height) which is then scaled anisotropically to the desired width and height.

[*Example:* The following specifies a simple half-circle arc open at the top:

```
<v:arc
  style="position:relative;top:120;left:20;width:200;height:200"
  startangle="90" endangle="270">
</v:arc>
```

The shape looks like this:





*end example]*

Attributes	Description
<p>allowincell (Allow in Table Cell)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a shape can be placed in a table. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:allowincell="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>allowoverlap (Allow Shape Overlap)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a shape can overlap another shape. Default is true. If false, the shape shifts left or right so as not to overlap another shape, similar to the behavior of the HTML float attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:allowoverlap="false" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>alt (Alternate Text)</p>	<p>Specifies alternative text describing the graphical object. This text should provide a brief description of the shape for use by accessibility tools. Default is no value.</p> <p>[Example: The alt text describes the basic shape:</p> <pre>&lt;v:shape ... fillcolor="red"   alt="Red rectangle"&gt; &lt;/v:shape&gt;</pre> <p>The alt text describes the contents of a shape displaying an image:</p> <pre>&lt;v:shape ... alt="Picture of a sunset"&gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p><b>borderbottomcolor</b> (Bottom Border Color)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the bottom border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderbottomcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p><b>borderleftcolor</b> (Border Left Color)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the left border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderleftcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p><b>borderrightcolor</b> (Border Right Color)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the right border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderrightcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p><b>bordertopcolor</b> (Border Top Color)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the top border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:bordertopcolor="red" ... &gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>bullet (Graphical Bullet)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the shape is a graphical bullet. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:bullet="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>button (Button Behavior Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a shape exhibits button press behavior on click. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:button="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>bwmode (Black-and-White Mode)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies how a shape renders for black-and-white output devices. When a shape is printed on a black-and-white printer or displayed in a black-and-white view in an application, several options are possible. Default is <code>auto</code>, which uses <code>o:bwnormal</code> for normal black-and-white rendering and <code>o:bwpure</code> for pure black-and-white rendering.</p> <p><code>bwnormal</code> and <code>bwpure</code> are subordinate to <code>bwmode</code>. If <code>bwmode</code> is "auto" then the value for <code>bwnormal</code> or <code>bwpure</code> is used depending on what the output format is. An application can define for itself what, if any, difference there is between normal B&amp;W and pure B&amp;W. [Example: Normal B&amp;W might allow grayscale and pure B&amp;W might not. <i>end example]</i></p> <p>[Example: This shape renders in grayscale in a black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="grayscale" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>




Attributes	Description
<b>bwnormal</b> (Normal Black-and-White Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the black-and-white mode for normal black-and-white output devices. Default is auto.</p> <p><i>[Example: This shape renders in a pale grayscale in a normal black-and-white environment:</i></p> <pre>&lt;v:shape ... o:bwmode="auto" o:bwnormal="lightgrayscale" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
<b>bwpure</b> (Pure Black-and-White Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the black-and-white mode for pure black-and-white output devices. Default is auto.</p> <p><i>[Example: This shape renders in high contrast when in a pure black-and-white environment:</i></p> <pre>&lt;v:shape ... o:bwmode="auto" o:bwpure="highcontrast" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
<b>chromakey</b> (Image Transparency Color)	<p>Specifies a color value that is transparent and show anything behind the shape. Default is no value.</p> <p><i>[Example:</i></p> <pre>&lt;v:image ... chromakey="white" ...&gt; &lt;/v:image&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<b>class</b> (CSS Reference)	<p>Specifies a reference to the definition of a CSS style. Default is no value.</p> <p><i>[Example: The snippets below are equivalent:</i></p> <pre>... .narrowstyle {width:50;height:100} ...</pre>




Attributes	Description
	<pre>&lt;v:shape ... class="narrowstyle"   style="top:1;left:1"&gt; &lt;/v:shape&gt;</pre> <pre>&lt;v:shape ... style="top:1;left:1;   width:50;height:100"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>clip (Clipping Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the clipping region is active. This is used in conjunction with the clippath (§19.2.2.3) element to create a clipping region.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:clip="true"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>cliptowrap (Clip to Wrapping Polygon)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the clipping region for the shape aligns with the wrapping polygon that tightly surrounds the entire shape (essentially, that the shape shall not be drawn beyond its wrapping polygon's extents – if it does, the shape shall be clipped). Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:cliptowrap="true"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>connectortype (Shape Connector Type)</p> <p>Namespace: urn:schemas-microsoft-</p>	<p>Specifies the kind of connector used for joining shapes. Default is straight.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:connectortype="elbow" ... &gt; &lt;/v:shape&gt;</pre>



Attributes	Description
com:office:office	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ConnectorType simple type (§19.2.3.7).</p>
coordorigin (Coordinate Space Origin)	<p>Specifies the coordinate of the top left corner of the shape's coordinate space. This determines the position of the (0,0) coordinate space origin within the shape's bounding box. Default is "0,0", which places the (0,0) origin at the top left corner of the bounding box.</p> <p>This affects shape properties that specify coordinate positions, such as the path attribute. Thus a path can be defined against a generic (0,0) origin and the coordorigin value translates the entire path within the shape's bounding space.</p> <p>[<i>Example:</i> The horizontal and vertical coordinate space ranges from -100 to +100 because the coordinate space (coordsize) is 200 by 200 and the top left coordinate is (-100,-100). The (0,0) origin lies at the center of the shape's bounding box, as evidenced by the position of the shape's path within the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200"   coordorigin="-100,-100"   path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
coordsize (Coordinate Space Size)	<p>Specifies the size of the shape's coordinate space in coordinate units. Default is "1000,1000".</p> <p>The physical size of a coordinate unit length is determined by both the size of the coordinate space (coordsize) and the size of the shape (style width and height). The coordsize attribute defines the number of horizontal and vertical subdivisions into which the shape's bounding box is divided. The combination of coordsize and style width/height effective scales the shape anisotropically.</p> <p>[<i>Example:</i> The path is 50 units wide and tall, which is 25% of the size of the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200"   coordorigin="-100,-100"   path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt;</pre>




Attributes	Description
	<p>&lt;/v:shape&gt;</p>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>dgmlayout (Diagram Node Layout Identifier)</p> <p>Namespace: urn:schemas- microsoft- com:office:office</p>	<p>Specifies the kind of automatic layout to apply to the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.</p> <p><i>[Example:</i></p> <pre>&lt;v:shape ... dgmlayout="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).</p>
<p>dgmlayoutmru (Diagram Node Recent Layout Identifier)</p> <p>Namespace: urn:schemas- microsoft- com:office:office</p>	<p>Specifies the kind of automatic layout most recently used on the child elements of the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.</p> <p><i>[Example:</i></p> <pre>&lt;v:shape ... dgmlayout="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).</p>
<p>dgmnodekind (Diagram Node Identifier)</p> <p>Namespace: urn:schemas- microsoft- com:office:office</p>	<p>Specifies an optional, application-defined parameter that is intended to be used by the application to tag different types of nodes in a diagram.</p> <p><i>[Example:</i></p> <pre>&lt;v:shape ... dgmnodekind="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p>



Attributes	Description
	<p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
<p>doubleclicknotify (Double-click Notification Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that an event message is sent when a shape is double-clicked. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:doubleclicknotify="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>endAngle (Ending Angle)</p>	<p>Specifies the angle that defines the endpoint of the arc. The angle is measured in degrees clockwise from the vertical. Default is 90.</p> <p>[Example: This arc ends at the bottom center of the shape's region:</p> <pre>&lt;v:arc ... endangle="180" ... &gt; &lt;/v:arc&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema decimal datatype.</p>
<p>fillcolor (Fill Color)</p>	<p>Specifies the color to use for the fill. Default is white. If the fill element (§19.1.2.5) is present, its color attribute takes precedence. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example: This shape is red if its fill is visible:</p> <pre>&lt;v:shape ... fillcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p>This is equivalent to:</p> <pre>&lt;v:shape ... fillcolor="#ff0000" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_ColorType simple type</p>



Attributes	Description
filled (Shape Fill Toggle)	<p>(§20.1.2.3).</p> <p>Specifies whether the closed path is filled. Default is <code>true</code>. This attribute is overridden by the <code>fill on</code> attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... filled="f"   fillcolor="red" ...&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the <code>ST_TrueFalse</code> simple type (§20.1.2.5).</p>
forcedash (Force Dashed Outline)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether a dashed outline is used to draw a shape when a shape has no line or fill. Default is <code>false</code>.</p> <p>Used by PresentationML placeholders to draw a dashed outline when there is no line and no fill for a shape.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:forcedash="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the <code>ST_TrueFalse</code> simple type (§20.1.2.5).</p>
hr (Horizontal Rule Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies that a shape is a horizontal rule. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hr="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the <code>ST_TrueFalse</code> simple type (§20.1.2.5).</p>
hralign (Horizontal	<p>Specifies the alignment of a horizontal rule. Default is <code>left</code>.</p>



Attributes	Description
<p>Rule Alignment)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>[Example:</p> <pre>&lt;v:shape ... o:hralign="center" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_HrAlign simple type (§19.2.3.16).</p>
<p>href (Hyperlink Target)</p>	<p>Specifies a hyperlink URL target for the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... href="http://www.openxmlformats.org" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>hrnoshade (Horizontal Rule 3D Shading Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the horizontal rule does not have 3-D shading. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrnoshade="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>hrpct (Horizontal Rule Length Percentage)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the length of a horizontal rule as a percentage of page width. Default is 0.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrpct="85" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
<p>hrstd (Horizontal Rule Standard Display Toggle)</p>	<p>Specifies whether a shape is displayed as a standard horizontal rule. Only applies if hr is true. Default is false.</p>

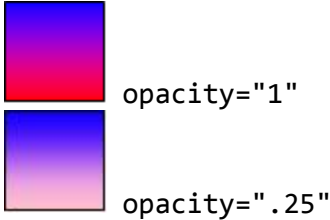


Attributes	Description
<p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>[Example:</p> <pre>&lt;v:shape ... o:hrstd="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>id (Unique Identifier)</p>	<p>Specifies a unique identifier that can be used to reference a VML object.</p> <p>Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>insetmode (Text Inset Mode)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the application calculates the internal text margin instead of using the inset attribute. Default is custom. This attribute is only meaningful for text boxes.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:insetmode="auto" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_InsetMode simple type (§19.2.3.17).</p>
<p>insetpen (Inset Border From Path)</p>	<p>Specifies that the border shall be displayed inside of the path defining the shape, rather than along the path (the default border placement), or outside of the path as might be done with an image.</p> <p>[Example:</p> <pre>&lt;v:shape ... insetpen="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p>



Attributes	Description
	The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).
<p>ole (Embedded Object Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the shape is an embedded object. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:ole="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalseBlank simple type (§20.1.2.6).</p>
<p>oleicon (Embedded Object Icon Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether an embedded object is displayed as an icon. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oleicon="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>oned (Shape Handle Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the extra handles of a shape are hidden. If true, hides all shape handles except the top left and bottom right; that is, the same handles that are used for a straight line segment. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oned="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>opacity (Fill Color Opacity)</p>	<p>Specifies the opacity of the primary fill color. Default is 1.0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. [Example: A value of "52429f" represents 52429/65536 or 0.8. end example]</p> <p>[Example: The red color is 25% opaque:</p> <pre>&lt;v:fill type="gradient" color="red" color2="blue" opacity=".25"&gt;</pre>






Attributes	Description
	<p><code>&lt;/v:fill&gt;</code></p>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>preferrelative (Relative Resize Toggle)</p> <p>Namespace: urn:schemas- microsoft- com:office:office</p>	<p>Specifies whether the original size of an object is saved after reformatting. Default is false. If true, the original size of the object is stored and all resizing is based on a percentage of that original size. Otherwise, each resizing resets the scale to 100%.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:preferrelative="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>print (Print Toggle)</p>	<p>Specifies whether the shape is printed. Default is true.</p> <p>[Example:</p> <pre>&lt;v:shape ... print="false" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>regroupid (Regroup ID)</p> <p>Namespace: urn:schemas- microsoft- com:office:office</p>	<p>Specifies a previous group for a shape. An ID number is used to identify groups of shapes that are no longer grouped. This allows shapes to be regrouped programmatically.</p> <p>[Example: The shape was part of a group identified by the ID 040754:</p> <pre>&lt;v:shape ... o:regroupid="040754" ... &gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
<p>spid (Optional String)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies an optional string that an application can use to Identify the particular shape. Default is no value.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>spt (Optional Number)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies an optional number that an application can use to associate the particular shape with a defined shape type. Default is 0.</p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
<p>startAngle (Starting Angle)</p>	<p>Specifies an angle that defines the starting point of the arc. The angle is measured in degrees clockwise from the vertical.</p> <p>Default is 0.</p> <p>[Example: This arc begins in the upper-right quadrant:</p> <pre>&lt;v:arc ... startangle="45" ... &gt; &lt;/v:arc&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema decimal datatype.</p>
<p>strokecolor (Shape Stroke Color)</p>	<p>Specifies the primary color of the brush to use to stroke the path of the shape. Default is black. The color attribute of the stroke element (§19.1.2.21) overrides this. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example:</p> <pre>&lt;v:shape ... strokecolor="red" ...&gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
stroked (Shape Stroke Toggle)	<p>Specifies whether the path defining the shape is stroked with a solid line. The stroke element (§19.1.2.21) defines other strokes. The on attribute of the stroke element overrides this attribute. Default is true.</p> <p>[Example:</p> <pre>&lt;v:shape ... fillcolor="red"   stroked="false" strokecolor="blue"...&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
strokeweight (Shape Stroke Weight)	<p>Specifies the width of the brush to use to stroke the path. Default is 1 point. If a number is given without units, the emu is used. The weight attribute of the stroke element (§19.1.2.21) overrides this attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... strokeweight="3pt" ... &gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
style (Shape Styling Properties)	<p>Specifies the CSS2 styling properties of the shape. The CSS2 (Cascading Style Sheets, Level 2) specification, a Recommendation of the World Wide Web Consortium, is available</p>



Attributes	Description								
	<p>here: <a href="http://www.w3.org/TR/REC-CSS2">http://www.w3.org/TR/REC-CSS2</a>.</p> <p>This attribute uses a semi-colon delimited list of “name:value” pairs, the syntax defined by section 4.1.8 of the CSS2 specification for grouped declarations (without the surrounding braces). The following tables define the allowed properties and the VML treatment of each.</p> <p>[Example:  <code>&lt;v:shape ... style='position:absolute;width:100pt;height:50pt' ...</code>  <code>&gt;</code>  <code>&lt;/v:shape&gt;</code>  <i>end example]</i></p> <table border="1"> <thead> <tr> <th>Property</th><th>Description</th></tr> </thead> <tbody> <tr> <td>flip</td><td> <p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul> </td></tr> <tr> <td>height</td><td> <p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul> </td></tr> <tr> <td>left</td><td> <p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the</li> </ul> </td></tr> </tbody> </table>	Property	Description	flip	<p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul>	height	<p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>	left	<p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the</li> </ul>
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Attributes	Description	
		parent object's width.
	margin-bottom	<p>Specifies the position of the bottom of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	margin-left	<p>Specifies the position of the left of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-right	<p>Specifies the position of the right of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-top	<p>Specifies the position of the top of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> </ul>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	mso-position-horizontal	<p>Specifies the horizontal positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• left</li> <li>• center</li> <li>• right</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-horizontal-relative	<p>Specifies relative horizontal position data for objects in WordprocessingML documents. This modifies the mso-position-horizontal property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• char</li> </ul>
	mso-position-vertical	<p>Specifies the vertical positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• top</li> <li>• center</li> <li>• bottom</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-vertical-relative	<p>Specifies relative vertical position data for objects in WordprocessingML documents. This modifies the mso-position-vertical property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> </ul>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• text</li> <li>• line</li> </ul>
	mso-wrap-distance-bottom	Specifies the distance from the bottom of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-left	Specifies the distance from the left side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-right	Specifies the distance from the right side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-top	Specifies the distance from the top of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-edited	Specifies whether the wrap coordinates were customized by the user. If the wrap coordinates are generated by an editor, this property is true; otherwise they were customized by a user. Default is false.
	mso-wrap-style	<p>Specifies the wrapping mode for text in shapes in WordprocessingML documents. Default is square. Allowed values are:</p> <ul style="list-style-type: none"> <li>• square - Wraps text inside the shape in a square.</li> <li>• none - Text does not wrap.</li> </ul>
	position	<p>Specifies the kind of positioning used to place an element. Default is static. When the element is contained inside a group, this property shall be absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• static - The element is positioned according to the normal flow of the page. The top and left properties are ignored. If the object is anchored inline, this value is used.</li> <li>• absolute - The element is positioned relative to the parent, using the top and left properties.</li> <li>• relative - The element is positioned according to the</li> </ul>



Attributes	Description	
		normal flow of the page, but the top and left properties are used. The overlap of overlapping elements is governed by the z-index property.
	rotation	Specifies the angle that a shape is rotated, in degrees. Default is 0. Positive angles are clockwise.
	top	<p>Specifies the position of the top of the containing block of the shape relative to the element above it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	visibility	<p>Specifies whether a shape is displayed. Only inherit and hidden are used; any other values are mapped to inherit. Default is inherit. Allowed values are:</p> <ul style="list-style-type: none"> <li>• hidden - The shape is not visible, but is still part of the flow of the objects in the browser. Mouse events are not processed.</li> <li>• inherit - The visibility state is inherited from the parent of the shape.</li> </ul>
	width	<p>Specifies the width of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	z-index	<p>Specifies the display order of overlapping shapes. Default is 0. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Uses the order that the shapes appear in the page,</li> </ul>



Attributes	Description	
		<p>bottom to top.</p> <ul style="list-style-type: none"><li>• <code>&lt;order&gt;</code>- A number that represents the stacking precedence. Shapes with higher numbers are placed on top of those with lower numbers. Negative numbers are allowed.</li></ul>
	The following properties are only used by the textbox element (§19.1.2.22):	
	Property	Description
	direction	<p>Specifies the direction of the text in the textbox. Default is <code>ltr</code>. This property is superceded by the <code>mso-direction-alt</code> property if that is specified. Allowed values are:</p> <ul style="list-style-type: none"><li>• <code>ltr</code> - Text is displayed left-to-right.</li><li>• <code>rtl</code> - Text is displayed right-to-left.</li></ul>
	layout-flow	<p>Determines the flow of the text layout in a textbox. Default is <code>horizontal</code>. Allowed values are:</p> <ul style="list-style-type: none"><li>• <code>horizontal</code> - Text is displayed horizontally.</li><li>• <code>vertical</code> - Text is displayed vertically.</li><li>• <code>vertical-ideographic</code> - Ideographic text is displayed vertically.</li><li>• <code>horizontal-ideographic</code> - Ideographic text is displayed horizontally.</li></ul>
	mso-direction-alt	<p>Specifies an alternate direction for text in textboxes. Overrides the <code>direction</code> property. The only allowed value is <code>context</code>.</p>
	mso-fit-shape-to-text	<p>Specifies whether the shape stretches to fit the text in the textbox. Default is <code>false</code>.</p>
	mso-fit-text-to-shape	<p>Specifies whether the text stretches to fit the textbox. Default is <code>false</code>.</p>
	mso-layout-flow-alt	<p>Specifies the alternate layout flow for text in textboxes. This property is used instead of <code>layout-flow</code> when the layout flow is from bottom to top for non-ideographic languages. Its only value is <code>bottom-to-top</code>.</p>
mso-next-textbox	<p>Specifies the ID of the next textbox in a series. Used to keep track of a set of linked textboxes. Default is no value.</p>	



Attributes	Description											
	mso-rotate	Specifies a specific rotation value for text in a textbox. Default is 0. Allowed values are: <ul style="list-style-type: none"><li>0</li><li>90</li><li>180</li><li>-90</li></ul>										
	mso-text-scale	Specifies the scaling factor for fitting text to shapes. Default is 0. This property is only used if mso-fit-text-to-shape is true.										
	v-text-anchor	Specifies the vertical anchoring of text in a textbox. Default is top. The alignment of a text anchor only becomes evident if mso-fit-text-to-shape is false. This property is different from the vertical-align CSS property, which is used for ideographic languages. Allowed values are: <ul style="list-style-type: none"><li>top</li><li>middle</li><li>bottom</li><li>top-center</li><li>middle-center</li><li>bottom-center</li><li>top-baseline</li><li>bottom-baseline</li><li>top-center-baseline</li><li>bottom-center-baseline</li></ul>										
The following properties are only used by the textpath element (§19.1.2.23):												
<table><tr><th>Property</th><th>Description</th></tr><tr><td>font</td><td>Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.</td></tr><tr><td>font-family</td><td>Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.</td></tr><tr><td>font-size</td><td>Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.</td></tr><tr><td>font-style</td><td>Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are:</td></tr></table>			Property	Description	font	Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.	font-family	Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.	font-size	Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.	font-style	Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are:
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Attributes	Description																		
		<ul style="list-style-type: none"><li>normal</li><li>italic</li><li>oblique - Treated the same as italic.</li></ul>																	
	font-variant	<p>Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are:</p> <ul style="list-style-type: none"><li>normal</li><li>small-caps</li></ul>																	
	font-weight	<p>Specifies the thickness of the letters of the font. Default is normal. The values are the same as those of the CSS font-weight property. Allowed values are:</p> <table><tr><th>Value</th><th>Description</th></tr><tr><td>normal</td><td rowspan="6">Treated as non-bold.</td></tr><tr><td>lighter</td></tr><tr><td>100</td></tr><tr><td>200</td></tr><tr><td>300</td></tr><tr><td>400</td></tr><tr><td>bold</td><td rowspan="7">Treated as bold.</td></tr><tr><td>bolder</td></tr><tr><td>500</td></tr><tr><td>600</td></tr><tr><td>700</td></tr><tr><td>800</td></tr><tr><td>900</td></tr></table>	Value	Description	normal	Treated as non-bold.	lighter	100	200	300	400	bold	Treated as bold.	bolder	500	600	700	800	900
	Value	Description																	
	normal	Treated as non-bold.																	
lighter																			
100																			
200																			
300																			
400																			
bold	Treated as bold.																		
bolder																			
500																			
600																			
700																			
800																			
900																			
mso-text-shadow	<p>Specifies whether a shadow is applied to the text on a text path. Default is false.</p>																		
text-decoration	<p>Specifies the style of text decoration. Default is none. The values are the same as those of the CSS text-decoration property. Allowed values are:</p> <ul style="list-style-type: none"><li>none</li></ul>																		



Attributes	Description	
		<ul style="list-style-type: none"> <li>• underline</li> <li>• overline</li> <li>• line-through</li> <li>• blink</li> </ul>
	v-rotate-letters	Specifies whether the letters of the text are rotated counterclockwise by 90 degrees. Default is false.
	v-same-letter-heights	Specifies whether all letters are the same height regardless of initial case. If true, the lowercase letters are stretched to the height of the uppercase letters. Default is false.
	v-text-align	Specifies the alignment of text. Default is left. Allowed values are: <ul style="list-style-type: none"> <li>• left</li> <li>• right</li> <li>• center</li> <li>• justify</li> <li>• letter-justify - Distributes the extra space between the letters.</li> <li>• stretch-justify - Stretches the letters to fill in the space.</li> </ul>
	v-text-kern	Specifies whether kerning is turned on. Default is false.
	v-text-reverse	Specifies whether the layout order of rows is reversed. Default is false. This is used for vertical text layout.
	v-text-spacing-mode	Specifies the mode for letter spacing. Default is tightening. This property determines whether space is removed between each letter (tightening) or added between each letter (tracking). The amount of letter spacing change is defined by the v-text-spacing property. Allowed values are: <ul style="list-style-type: none"> <li>• tightening</li> <li>• tracking</li> </ul>
	v-text-spacing	Specifies the amount of spacing for text in 100ths of single line spacing. Default is 100.
	<p>The line (§19.1.2.12), polyline (§19.1.2.15) and curve (§19.1.2.3) elements ignore the following properties:</p> <ul style="list-style-type: none"> <li>• top</li> <li>• left</li> <li>• width</li> <li>• height</li> </ul>	



Attributes	Description																
	<p>The following properties are not inherited by an element that references a shapetype element (§19.1.2.20) via the id attribute:</p> <ul style="list-style-type: none"> <li>• flip</li> <li>• height</li> <li>• left</li> <li>• margin-left</li> <li>• margin-top</li> <li>• position</li> <li>• rotation</li> <li>• top</li> <li>• visibility</li> <li>• width</li> <li>• z-index</li> </ul> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>																
target (Hyperlink Display Target)	<p>Specifies a frame or window that a URL is displayed in. Default is no value. Allowed values are:</p> <table border="1"> <thead> <tr> <th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>&lt;targetname&gt;</td><td>String containing the name of the frame or window in which to load the document.</td></tr> <tr> <td>_blank</td><td>Specifies that the linked document is loaded into a new blank window. This window is not named.</td></tr> <tr> <td>_media</td><td>Specifies that the linked document is loaded into the browser's multimedia pane.</td></tr> <tr> <td>_parent</td><td>Specifies that the linked document is loaded into the immediate parent of the document containing the link.</td></tr> <tr> <td>_search</td><td>Specifies that the linked document is loaded into the browser's search pane.</td></tr> <tr> <td>_self</td><td>Specifies that the linked document is loaded into the window in which the link was clicked (the active window).</td></tr> <tr> <td>_top</td><td>Specifies that the linked document is loaded into the topmost window.</td></tr> </tbody> </table> <p>[Example:</p> <pre> &lt;v:shape ...   href="http://www.openxmlformats.org"   target="_self" ... &gt; </pre>	Value	Description	<targetname>	String containing the name of the frame or window in which to load the document.	_blank	Specifies that the linked document is loaded into a new blank window. This window is not named.	_media	Specifies that the linked document is loaded into the browser's multimedia pane.	_parent	Specifies that the linked document is loaded into the immediate parent of the document containing the link.	_search	Specifies that the linked document is loaded into the browser's search pane.	_self	Specifies that the linked document is loaded into the window in which the link was clicked (the active window).	_top	Specifies that the linked document is loaded into the topmost window.
Value	Description																
<targetname>	String containing the name of the frame or window in which to load the document.																
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_top	Specifies that the linked document is loaded into the topmost window.																



Attributes	Description
	<p><code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>title (Shape Title)</p>	<p>Specifies the text displayed when the mouse pointer moves over the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... title="tooltip" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>userdrawn (Exists In Master Slide)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the user has added the shape to a master slide. Default is false. Used by PresentationML.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userdrawn="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>userhidden (Hide Script Anchors)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a script anchor is hidden. Default is false. If true, script anchors stay hidden even if the shape is otherwise visible. A script anchor is the visual representation of a script that when displayed in an application.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userhidden="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>wrapcoords (Shape Bounding Polygon)</p>	<p>Specifies the bounding polygon that surrounds a shape. This is specified using a comma-delimited list of x and y coordinates: "x1,y1,x2,y2,x3,y3,..." This is used when text is</p>



Attributes	Description
	<p>tightly wrapped around a shape. Default is no value until the mso-wrap-mode style attribute is set to tight or through.</p> <p>[Example:</p> <pre>&lt;v:shape ...   wrapcoords="0,0 0,200, 200,200, 200,0" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Arc](#)) is located in §A.7.1. end note]

#### 19.1.2.2 background (Document Background)

This element describes the fill of the background of a page using vector graphics fills. Fills consist of simple colors, more advanced effects defined through the fill element (§19.1.2.5), or images.

[Example: The following shades the page background a pale red:

```
<v:background fillColor="#c0504d">
</v:background>
```

This uses the fill element (§19.1.2.5) to create a gradient background fill:

```
<v:background>
  <v:fill type="gradient" color="#c0504d" color2="#f0504d" angle="45"/>
</v:background>
```


end example]

Attributes	Description
<b>bwmode (Black-and-White Mode)</b>  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies how a shape renders for black-and-white output devices. When a shape is printed on a black-and-white printer or displayed in a black-and-white view in an application, several options are possible. Default is auto, which uses o:bwnormal for normal black-and-white rendering and o:bwpure for pure black-and-white rendering</p> <p>[Example: This shape renders in grayscale in a black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="grayscale" ... &gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
<p>bwnormal (Normal Black-and-White Mode)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the black-and-white mode for normal black-and-white output devices. Default is auto.</p> <p>[<i>Example:</i> This shape renders in a pale grayscale in a normal black-and-white environment:</p> <pre>&lt;v:shape ...   o:bwmode="lightgrayscale" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
<p>bwpure (Pure Black-and-White Mode)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the black-and-white mode for pure black-and-white output devices. Default is auto.</p> <p>[<i>Example:</i> This shape renders in high contrast when in a pure black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="highcontrast" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
<p>fillcolor (Fill Color)</p>	<p>Specifies the color to use for the fill. Default is white. If the fill element (§19.1.2.5) is present, its color attribute takes precedence. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[<i>Example:</i> This shape is red if its fill is visible:</p> <pre>&lt;v:shape ... fillcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p>This is equivalent to:</p> <pre>&lt;v:shape ... fillcolor="#ff0000" ... &gt;</pre>



Attributes	Description
	<p><code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<p>filled (Shape Fill Toggle)</p>	<p>Specifies whether the closed path is filled. Default is true. This attribute is overridden by the fill on attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... filled="f"   fillcolor="red" ...&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>id (Unique Identifier)</p>	<p>Specifies a unique identifier that can be used to reference a VML object.</p> <p>Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>targetscreensize (Target Screen Size)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the target resolution used for WordprocessingML documents with a gradient or picture filled background. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• 544,376</li> <li>• 640,480</li> <li>• 720,512</li> <li>• 800,600</li> <li>• 1024,768</li> <li>• 1152,862</li> </ul>



Attributes	Description
	The possible values for this attribute are defined by the ST_ScreenSize simple type (§19.2.3.23).

[Note: The W3C XML Schema definition of this element’s content model ([CT\\_Background](#)) is located in §A.7.1.  
*end note*]

19.1.2.3      **curve (Bezier Curve)**

This element is used to draw a cubic bézier curve.

The following properties of the style attribute are ignored:

- top
- margin-top
- center-y
- left
- margin-left
- center-x
- width
- height

[Example: The following specifies a simple curve that opens upward:

```
<v:curve id="mycurve"
from="10pt,10pt" to="100pt,10pt"
control1="40pt,30pt" control2="85pt,30pt">
</v:curve>
```

This shape is created:



*end example*]

Attributes	Description
allowincell (Allow in Table Cell)  Namespace: urn:schemas-microsoft-com:office:office	Specifies whether a shape can be placed in a table. Default is false.  [Example:  <v:shape ... o:allowincell="true" ... > </v:shape>  end example]



Attributes	Description
<p>allowoverlap (Allow Shape Overlap)</p> <p>Namespace: urn:schemas- microsoft- com:office:office</p>	<p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p> <p>Specifies whether a shape can overlap another shape. Default is true. If false, the shape shifts left or right so as not to overlap another shape, similar to the behavior of the HTML float attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:allowoverlap="false" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>alt (Alternate Text)</p>	<p>Specifies alternative text describing the graphical object. This text should provide a brief description of the shape for use by accessibility tools. Default is no value.</p> <p>[Example: The alt text describes the basic shape:</p> <pre>&lt;v:shape ... fillcolor="red" alt="Red rectangle"&gt; &lt;/v:shape&gt;</pre> <p>The alt text describes the contents of a shape displaying an image:</p> <pre>&lt;v:shape ... alt="Picture of a sunset"&gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>borderbottomcolor (Bottom Border Color)</p> <p>Namespace: urn:schemas- microsoft- com:office:office</p>	<p>Specifies the bottom border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderbottomcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>borderleftcolor</p>	<p>Specifies the left border color of an inline shape. Default is no value.</p>



Attributes	Description
<p>(Border Left Color)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>[Example:</p> <pre>&lt;v:shape ... o:borderleftcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>borderrightcolor (Border Right Color)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the right border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderrightcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>bordertopcolor (Border Top Color)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the top border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:bordertopcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>bullet (Graphical Bullet)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the shape is a graphical bullet. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:bullet="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>button (Button Behavior Toggle)</p>	<p>Specifies whether a shape exhibits button press behavior on click. Default is false.</p>



Attributes	Description
Namespace: urn:schemas-microsoft-com:office:office	<p>[<i>Example:</i></p> <pre>&lt;v:shape ... o:button="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
bwmode (Black-and-White Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies how a shape renders for black-and-white output devices. When a shape is printed on a black-and-white printer or displayed in a black-and-white view in an application, several options are possible. Default is auto, which uses o:bwnormal for normal black-and-white rendering and o:bwpure for pure black-and-white rendering.</p> <p>bwnormal and bwpure are subordinate to bwmode. If bwmode is "auto" then the value for bwnormal or bwpure is used depending on what the output format is. An application can define for itself what, if any, difference there is between normal B&amp;W and pure B&amp;W. [<i>Example:</i> Normal B&amp;W might allow grayscale and pure B&amp;W might not. <i>end example]</i></p> <p>[<i>Example:</i> This shape renders in grayscale in a black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="grayscale" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
bwnormal (Normal Black-and-White Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the black-and-white mode for normal black-and-white output devices. Default is auto.</p> <p>[<i>Example:</i> This shape renders in a pale grayscale in a normal black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="auto" o:bwnormal="lightgrayscale" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
bwpure (Pure Black-and-White Mode)	<p>Specifies the black-and-white mode for pure black-and-white output devices. Default is auto.</p> <p>[<i>Example:</i> This shape renders in high contrast when in a pure black-and-white</p>




Attributes	Description
Namespace: urn:schemas-microsoft-com:office:office	environment:  <pre>&lt;v:shape ... o:bwmode="auto" o:bwpure="highcontrast" ... &gt; &lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).
chromakey (Image Transparency Color)	Specifies a color value that is transparent and show anything behind the shape. Default is no value.  <i>[Example:</i>  <pre>&lt;v:image ... chromakey="white" ...&gt; &lt;/v:image&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).
class (CSS Reference)	Specifies a reference to the definition of a CSS style. Default is no value.  <i>[Example:</i> The snippets below are equivalent:  <pre>... .narrowstyle {width:50;height:100} ... &lt;v:shape ... class="narrowstyle"   style="top:1;left:1"&gt; &lt;/v:shape&gt;</pre> <pre>&lt;v:shape ... style="top:1;left:1;   width:50;height:100"&gt; &lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the W3C XML Schema string datatype.
clip (Clipping Toggle)  Namespace: urn:schemas-	Specifies that the clipping region is active. This is used in conjunction with the clippath (§19.2.2.3) element to create a clipping region.  <i>[Example:</i>




Attributes	Description
<p>microsoft-com:office:office</p>	<pre>&lt;v:shape ... o:clip="true"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>cliptowrap (Clip to Wrapping Polygon)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the clipping region for the shape aligns with the wrapping polygon that tightly surrounds the entire shape (essentially, that the shape shall not be drawn beyond its wrapping polygon's extents – if it does, the shape shall be clipped). Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:cliptowrap="true"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>connectortype (Shape Connector Type)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the kind of connector used for joining shapes. Default is straight.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:connectortype="elbow" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ConnectorType simple type (§19.2.3.7).</p>
<p>control1 (First Curve Control Point)</p>	<p>Specifies the first control point for the curve, given in the coordinate space of the parent element. Default is "10,10". If the parent is not a VML element, the default unit is a pixel. Allowed units are in, cm, mm, pt, pc and px.</p> <p>[Example:</p> <pre>&lt;v:curve ... control1="20,30" ... &gt; &lt;/v:curve&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>



Attributes	Description
control2 (Second Curve Control Point)	<p>Specifies the second control point for the curve, given in the coordinate space of the parent element. Default is "20,0". If the parent is not a VML element, the default unit is a pixel. Allowed units are in, cm, mm, pt, pc and px.</p> <p>[Example:</p> <pre>&lt;v:curve ... control2="50,20" ... &gt; &lt;/v:curve&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
coordorigin (Coordinate Space Origin)	<p>Specifies the coordinate of the top left corner of the shape's coordinate space. This determines the position of the (0,0) coordinate space origin within the shape's bounding box. Default is "0,0", which places the (0,0) origin at the top left corner of the bounding box.</p> <p>This affects shape properties that specify coordinate positions, such as the path attribute. Thus a path can be defined against a generic (0,0) origin and the coordorigin value translates the entire path within the shape's bounding space.</p> <p>[Example: The horizontal and vertical coordinate space ranges from -100 to +100 because the coordinate space (coordsize) is 200 by 200 and the top left coordinate is (-100,-100). The (0,0) origin lies at the center of the shape's bounding box, as evidenced by the position of the shape's path within the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200" coordorigin="-100,-100" path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
coordsize (Coordinate Space Size)	<p>Specifies the size of the shape's coordinate space in coordinate units. Default is "1000,1000".</p> <p>The physical size of a coordinate unit length is determined by both the size of the coordinate space (coordsize) and the size of the shape (style width and height). The coordsize attribute defines the number of horizontal and vertical subdivisions into which</p>




Attributes	Description
	<p>the shape's bounding box is divided. The combination of coordsize and style width/height effective scales the shape anisotropically.</p> <p>[Example: The path is 50 units wide and tall, which is 25% of the size of the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200"   coordorigin="-100,-100"   path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>dgmlayout (Diagram Node Layout Identifier)</p> <p>Namespace: urn:schemas- microsoft- com:office:office</p>	<p>Specifies the kind of automatic layout to apply to the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmlayout="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).</p>
<p>dgmlayoutmru (Diagram Node Recent Layout Identifier)</p> <p>Namespace: urn:schemas- microsoft- com:office:office</p>	<p>Specifies the kind of automatic layout most recently used on the child elements of the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmlayout="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).</p>



Attributes	Description
<b>dgmnodekind</b> (Diagram Node Identifier)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies an optional, application-defined parameter that is intended to be used by the application to tag different types of nodes in a diagram.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmnodekind="1"&gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
<b>doubleclicknotify</b> (Double-click Notification Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies that an event message is sent when a shape is double-clicked. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:doubleclicknotify="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<b>fillcolor</b> (Fill Color)	<p>Specifies the color to use for the fill. Default is white. If the fill element (§19.1.2.5) is present, its color attribute takes precedence. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example: This shape is red if its fill is visible:</p> <pre>&lt;v:shape ... fillcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p>This is equivalent to:</p> <pre>&lt;v:shape ... fillcolor="#ff0000" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<b>filled</b> (Shape Fill Toggle)	<p>Specifies whether the closed path is filled. Default is true. This attribute is overridden by the fill on attribute.</p>



Attributes	Description
	<p>[Example:</p> <pre>&lt;v:shape ... filled="f"   fillcolor="red" ...&gt; &lt;/v:shape&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>forcedash (Force Dashed Outline)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a dashed outline is used to draw a shape when a shape has no line or fill. Default is false.</p> <p>Used by PresentationML placeholders to draw a dashed outline when there is no line and no fill for a shape.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:forcedash="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>from (Curve Starting Point)</p>	<p>Specifies the starting point of the line in the coordinate space of the parent element. Default is "0,0". If the parent is not a VML element, the default unit is a pixel. Allowed units are in, cm, mm, pt, pc and px.</p> <p>[Example:</p> <pre>&lt;v:curve ... from="10,10" ... &gt; &lt;/v:curve&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>hr (Horizontal Rule Toggle)</p>	<p>Specifies that a shape is a horizontal rule. Default is false.</p>



Attributes	Description
Namespace: urn:schemas-microsoft-com:office:office	<p>[Example:</p> <pre>&lt;v:shape ... o:hr="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
hralign (Horizontal Rule Alignment)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the alignment of a horizontal rule. Default is left.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hralign="center" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_HrAlign simple type (§19.2.3.16).</p>
href (Hyperlink Target)	<p>Specifies a hyperlink URL target for the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... href="http://www.openxmlformats.org" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
hrnoshade (Horizontal Rule 3D Shading Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies that the horizontal rule does not have 3-D shading. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrnoshade="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
hrpct (Horizontal Rule Length Percentage)	<p>Specifies the length of a horizontal rule as a percentage of page width. Default is 0.</p> <p>[Example:</p>

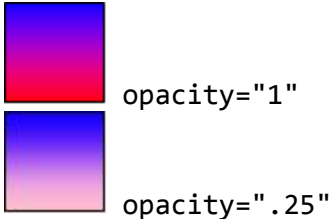


Attributes	Description
Namespace: urn:schemas-microsoft-com:office:office	<pre>&lt;v:shape ... o:hrpct="85" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
hrstd (Horizontal Rule Standard Display Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether a shape is displayed as a standard horizontal rule. Only applies if hr is true. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrstd="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
id (Unique Identifier)	<p>Specifies a unique identifier that can be used to reference a VML object.</p> <p>Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
insetmode (Text Inset Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the application calculates the internal text margin instead of using the inset attribute. Default is custom. This attribute is only meaningful for text boxes.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:insetmode="auto" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_InsetMode simple type (§19.2.3.17).</p>
insetpen (Inset	<p>Specifies that the border shall be displayed inside of the path defining the shape, rather</p>




Attributes	Description
Border From Path)	<p>than along the path (the default border placement), or outside of the path as might be done with an image.</p> <p>[Example:</p> <pre>&lt;v:shape ... insetpen="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
ole (Embedded Object Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the shape is an embedded object. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:ole="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalseBlank simple type (§20.1.2.6).</p>
oleicon (Embedded Object Icon Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether an embedded object is displayed as an icon. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oleicon="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
oned (Shape Handle Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the extra handles of a shape are hidden. If true, hides all shape handles except the top left and bottom right; that is, the same handles that are used for a straight line segment. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oned="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p>





Attributes	Description
<p>opacity (Fill Color Opacity)</p>	<p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p> <p>Specifies the opacity of the primary fill color. Default is 1.0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. [Example: A value of "52429f" represents 52429/65536 or 0.8. end example]</p> <p>[Example: The red color is 25% opaque:</p> <pre>&lt;v:fill type="gradient" color="red"   color2="blue" opacity=".25"&gt; &lt;/v:fill&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>preferrelative (Relative Resize Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the original size of an object is saved after reformatting. Default is false. If true, the original size of the object is stored and all resizing is based on a percentage of that original size. Otherwise, each resizing resets the scale to 100%.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:preferrelative="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>print (Print Toggle)</p>	<p>Specifies whether the shape is printed. Default is true.</p> <p>[Example:</p> <pre>&lt;v:shape ... print="false" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p>



Attributes	Description
	The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).
regroupid (Regroup ID)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies a previous group for a shape. An ID number is used to identify groups of shapes that are no longer grouped. This allows shapes to be regrouped programmatically.</p> <p>[Example: The shape was part of a group identified by the ID 040754:</p> <pre>&lt;v:shape ... o:regroupid="040754" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
spid (Optional String)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies an optional string that an application can use to identify the particular shape. Default is no value.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
spt (Optional Number)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies an optional number that an application can use to associate the particular shape with a defined shape type. Default is 0.</p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
strokecolor (Shape Stroke Color)	<p>Specifies the primary color of the brush to use to stroke the path of the shape. Default is black. The color attribute of the stroke element (§19.1.2.21) overrides this. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example:</p> <pre>&lt;v:shape ... strokecolor="red" ...&gt; &lt;/v:shape&gt;</pre>  <p>end example]</p>



Attributes	Description
stroked (Shape Stroke Toggle)	<p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p> <p>Specifies whether the path defining the shape is stroked with a solid line. The stroke element (§19.1.2.21) defines other strokes. The on attribute of the stroke element overrides this attribute. Default is true.</p> <p>[Example:</p> <pre>&lt;v:shape ... fillcolor="red"   stroked="false" strokecolor="blue"...&gt; &lt;/v:shape&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
strokeweight (Shape Stroke Weight)	<p>Specifies the width of the brush to use to stroke the path. Default is 1 point. If a number is given without units, the emu is used. The weight attribute of the stroke element (§19.1.2.21) overrides this attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... strokeweight="3pt" ... &gt; &lt;/v:shape&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
style (Shape Styling Properties)	<p>Specifies the CSS2 styling properties of the shape. The CSS2 (Cascading Style Sheets, Level 2) specification, a Recommendation of the World Wide Web Consortium, is available here: <a href="http://www.w3.org/TR/REC-CSS2">http://www.w3.org/TR/REC-CSS2</a>.</p> <p>This attribute uses a semi-colon delimited list of “name:value” pairs, the syntax defined by section 4.1.8 of the CSS2 specification for grouped declarations (without the surrounding braces). The following tables define the allowed properties and the VML treatment of each.</p>



Attributes	Description										
	<p> <i>[Example:</i>  <code>&lt;v:shape ... style='position:absolute;width:100pt;height:50pt' ...</code>  <code>&gt;</code>  <code>&lt;/v:shape&gt;</code>  <i>end example]</i> </p> <table border="1"> <thead> <tr> <th>Property</th><th>Description</th></tr> </thead> <tbody> <tr> <td>flip</td><td> <p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul> </td></tr> <tr> <td>height</td><td> <p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul> </td></tr> <tr> <td>left</td><td> <p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul> </td></tr> <tr> <td>margin-bottom</td><td> <p>Specifies the position of the bottom of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> </td></tr> </tbody> </table>	Property	Description	flip	<p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul>	height	<p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>	left	<p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>	margin-bottom	<p>Specifies the position of the bottom of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p>
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Attributes	Description	
		<ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	margin-left	<p>Specifies the position of the left of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-right	<p>Specifies the position of the right of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-top	<p>Specifies the position of the top of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>



Attributes	Description	
	mso-position-horizontal	<p>Specifies the horizontal positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• left</li> <li>• center</li> <li>• right</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-horizontal-relative	<p>Specifies relative horizontal position data for objects in WordprocessingML documents. This modifies the mso-position-horizontal property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• char</li> </ul>
	mso-position-vertical	<p>Specifies the vertical positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• top</li> <li>• center</li> <li>• bottom</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-vertical-relative	<p>Specifies relative vertical position data for objects in WordprocessingML documents. This modifies the mso-position-vertical property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• line</li> </ul>
	mso-wrap-distance-bottom	<p>Specifies the distance from the bottom of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the</p>



Attributes	Description	
		shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-left	Specifies the distance from the left side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-right	Specifies the distance from the right side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-top	Specifies the distance from the top of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-edited	Specifies whether the wrap coordinates were customized by the user. If the wrap coordinates are generated by an editor, this property is true; otherwise they were customized by a user. Default is false.
	mso-wrap-style	<p>Specifies the wrapping mode for text in shapes in WordprocessingML documents. Default is square. Allowed values are:</p> <ul style="list-style-type: none"> <li>• square - Wraps text inside the shape in a square.</li> <li>• none - Text does not wrap.</li> </ul>
	position	<p>Specifies the kind of positioning used to place an element. Default is static. When the element is contained inside a group, this property shall be absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• static - The element is positioned according to the normal flow of the page. The top and left properties are ignored. If the object is anchored inline, this value is used.</li> <li>• absolute - The element is positioned relative to the parent, using the top and left properties.</li> <li>• relative - The element is positioned according to the normal flow of the page, but the top and left properties are used. The overlap of overlapping elements is governed by the z-index property.</li> </ul>
	rotation	Specifies the angle that a shape is rotated, in degrees. Default is 0. Positive angles are clockwise.



Attributes	Description	
	top	<p>Specifies the position of the top of the containing block of the shape relative to the element above it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	visibility	<p>Specifies whether a shape is displayed. Only <code>inherit</code> and <code>hidden</code> are used; any other values are mapped to <code>inherit</code>. Default is <code>inherit</code>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• hidden - The shape is not visible, but is still part of the flow of the objects in the browser. Mouse events are not processed.</li> <li>• inherit - The visibility state is inherited from the parent of the shape.</li> </ul>
	width	<p>Specifies the width of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	z-index	<p>Specifies the display order of overlapping shapes. Default is 0. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Uses the order that the shapes appear in the page, bottom to top.</li> <li>• &lt;order&gt;- A number that represents the stacking precedence. Shapes with higher numbers are placed on top of those with lower numbers. Negative numbers are allowed.</li> </ul>



Attributes	Description																		
	<p>The following properties are only used by the textbox element (§19.1.2.22):</p> <table> <tr> <th>Property</th><th>Description</th></tr> <tr> <td>direction</td><td> <p>Specifies the direction of the text in the textbox. Default is ltr. This property is superceded by the mso-direction-alt property if that is specified. Allowed values are:</p> <ul style="list-style-type: none"> <li>• ltr - Text is displayed left-to-right.</li> <li>• rtl - Text is displayed right-to-left.</li> </ul> </td></tr> <tr> <td>layout-flow</td><td> <p>Determines the flow of the text layout in a textbox. Default is horizontal. Allowed values are:</p> <ul style="list-style-type: none"> <li>• horizontal - Text is displayed horizontally.</li> <li>• vertical - Text is displayed vertically.</li> <li>• vertical-ideographic - Ideographic text is displayed vertically.</li> <li>• horizontal-ideographic - Ideographic text is displayed horizontally.</li> </ul> </td></tr> <tr> <td>mso-direction-alt</td><td> <p>Specifies an alternate direction for text in textboxes. Overrides the direction property. The only allowed value is context.</p> </td></tr> <tr> <td>mso-fit-shape-to-text</td><td> <p>Specifies whether the shape stretches to fit the text in the textbox. Default is false.</p> </td></tr> <tr> <td>mso-fit-text-to-shape</td><td> <p>Specifies whether the text stretches to fit the textbox. Default is false.</p> </td></tr> <tr> <td>mso-layout-flow-alt</td><td> <p>Specifies the alternate layout flow for text in textboxes. This property is used instead of layout-flow when the layout flow is from bottom to top for non-ideographic languages. Its only value is bottom-to-top.</p> </td></tr> <tr> <td>mso-next-textbox</td><td> <p>Specifies the ID of the next textbox in a series. Used to keep track of a set of linked textboxes. Default is no value.</p> </td></tr> <tr> <td>mso-rotate</td><td> <p>Specifies a specific rotation value for text in a textbox. Default is 0. Allowed values are:</p> <ul style="list-style-type: none"> <li>• 0</li> <li>• 90</li> <li>• 180</li> </ul> </td></tr> </table>	Property	Description	direction	<p>Specifies the direction of the text in the textbox. Default is ltr. This property is superceded by the mso-direction-alt property if that is specified. Allowed values are:</p> <ul style="list-style-type: none"> <li>• ltr - Text is displayed left-to-right.</li> <li>• rtl - Text is displayed right-to-left.</li> </ul>	layout-flow	<p>Determines the flow of the text layout in a textbox. Default is horizontal. Allowed values are:</p> <ul style="list-style-type: none"> <li>• horizontal - Text is displayed horizontally.</li> <li>• vertical - Text is displayed vertically.</li> <li>• vertical-ideographic - Ideographic text is displayed vertically.</li> <li>• horizontal-ideographic - Ideographic text is displayed horizontally.</li> </ul>	mso-direction-alt	<p>Specifies an alternate direction for text in textboxes. Overrides the direction property. The only allowed value is context.</p>	mso-fit-shape-to-text	<p>Specifies whether the shape stretches to fit the text in the textbox. Default is false.</p>	mso-fit-text-to-shape	<p>Specifies whether the text stretches to fit the textbox. Default is false.</p>	mso-layout-flow-alt	<p>Specifies the alternate layout flow for text in textboxes. This property is used instead of layout-flow when the layout flow is from bottom to top for non-ideographic languages. Its only value is bottom-to-top.</p>	mso-next-textbox	<p>Specifies the ID of the next textbox in a series. Used to keep track of a set of linked textboxes. Default is no value.</p>	mso-rotate	<p>Specifies a specific rotation value for text in a textbox. Default is 0. Allowed values are:</p> <ul style="list-style-type: none"> <li>• 0</li> <li>• 90</li> <li>• 180</li> </ul>
Property	Description																		
direction	<p>Specifies the direction of the text in the textbox. Default is ltr. This property is superceded by the mso-direction-alt property if that is specified. Allowed values are:</p> <ul style="list-style-type: none"> <li>• ltr - Text is displayed left-to-right.</li> <li>• rtl - Text is displayed right-to-left.</li> </ul>																		
layout-flow	<p>Determines the flow of the text layout in a textbox. Default is horizontal. Allowed values are:</p> <ul style="list-style-type: none"> <li>• horizontal - Text is displayed horizontally.</li> <li>• vertical - Text is displayed vertically.</li> <li>• vertical-ideographic - Ideographic text is displayed vertically.</li> <li>• horizontal-ideographic - Ideographic text is displayed horizontally.</li> </ul>																		
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Attributes	Description												
		<ul style="list-style-type: none"><li>-90</li></ul>											
	mso-text-scale	Specifies the scaling factor for fitting text to shapes. Default is 0. This property is only used if mso-fit-text-to-shape is true.											
	v-text-anchor	Specifies the vertical anchoring of text in a textbox. Default is top. The alignment of a text anchor only becomes evident if mso-fit-text-to-shape is false. This property is different from the vertical-align CSS property, which is used for ideographic languages. Allowed values are: <ul style="list-style-type: none"><li>top</li><li>middle</li><li>bottom</li><li>top-center</li><li>middle-center</li><li>bottom-center</li><li>top-baseline</li><li>bottom-baseline</li><li>top-center-baseline</li><li>bottom-center-baseline</li></ul>											
	The following properties are only used by the textpath element (§19.1.2.23):												
	<table><tr><th>Property</th><th>Description</th></tr><tr><td>font</td><td>Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.</td></tr><tr><td>font-family</td><td>Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.</td></tr><tr><td>font-size</td><td>Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.</td></tr><tr><td>font-style</td><td>Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are:<ul style="list-style-type: none"><li>normal</li><li>italic</li><li>oblique - Treated the same as italic.</li></ul></td></tr><tr><td>font-variant</td><td>Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are:</td></tr></table>	Property	Description	font	Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.	font-family	Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.	font-size	Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.	font-style	Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are: <ul style="list-style-type: none"><li>normal</li><li>italic</li><li>oblique - Treated the same as italic.</li></ul>	font-variant	Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are:
Property	Description												
font	Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.												
font-family	Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.												
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font-style	Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are: <ul style="list-style-type: none"><li>normal</li><li>italic</li><li>oblique - Treated the same as italic.</li></ul>												
font-variant	Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are:												



Attributes	Description																		
		<ul style="list-style-type: none"><li>normal</li><li>small-caps</li></ul>																	
	font-weight	<p>Specifies the thickness of the letters of the font. Default is normal. The values are the same as those of the CSS font-weight property. Allowed values are:</p> <table><tr><th>Value</th><th>Description</th></tr><tr><td>normal</td><td rowspan="6">Treated as non-bold.</td></tr><tr><td>lighter</td></tr><tr><td>100</td></tr><tr><td>200</td></tr><tr><td>300</td></tr><tr><td>400</td></tr><tr><td>bold</td><td rowspan="7">Treated as bold.</td></tr><tr><td>bolder</td></tr><tr><td>500</td></tr><tr><td>600</td></tr><tr><td>700</td></tr><tr><td>800</td></tr><tr><td>900</td></tr></table>	Value	Description	normal	Treated as non-bold.	lighter	100	200	300	400	bold	Treated as bold.	bolder	500	600	700	800	900
	Value	Description																	
	normal	Treated as non-bold.																	
	lighter																		
	100																		
200																			
300																			
400																			
bold	Treated as bold.																		
bolder																			
500																			
600																			
700																			
800																			
900																			
mso-text-shadow	Specifies whether a shadow is applied to the text on a text path. Default is false.																		
text-decoration	<p>Specifies the style of text decoration. Default is none. The values are the same as those of the CSS text-decoration property. Allowed values are:</p> <ul style="list-style-type: none"><li>none</li><li>underline</li><li>overline</li><li>line-through</li><li>blink</li></ul>																		
v-rotate-	Specifies whether the letters of the text are rotated counterclockwise by 90 degrees. Default is false.																		



Attributes	Description	
	letters	
	v-same-letter-heights	Specifies whether all letters are the same height regardless of initial case. If true, the lowercase letters are stretched to the height of the uppercase letters. Default is false.
	v-text-align	<p>Specifies the alignment of text. Default is left. Allowed values are:</p> <ul style="list-style-type: none"> <li>• left</li> <li>• right</li> <li>• center</li> <li>• justify</li> <li>• letter-justify - Distributes the extra space between the letters.</li> <li>• stretch-justify - Stretches the letters to fill in the space.</li> </ul>
	v-text-kern	Specifies whether kerning is turned on. Default is false.
	v-text-reverse	Specifies whether the layout order of rows is reversed. Default is false. This is used for vertical text layout.
	v-text-spacing-mode	<p>Specifies the mode for letter spacing. Default is tightening. This property determines whether space is removed between each letter (tightening) or added between each letter (tracking). The amount of letter spacing change is defined by the v-text-spacing property. Allowed values are:</p> <ul style="list-style-type: none"> <li>• tightening</li> <li>• tracking</li> </ul>
	v-text-spacing	Specifies the amount of spacing for text in 100ths of single line spacing. Default is 100.
<p>The line (§19.1.2.12), polyline (§19.1.2.15) and curve (§19.1.2.3) elements ignore the following properties:</p> <ul style="list-style-type: none"> <li>• top</li> <li>• left</li> <li>• width</li> <li>• height</li> </ul> <p>The following properties are not inherited by an element that references a shapetype element (§19.1.2.20) via the id attribute:</p> <ul style="list-style-type: none"> <li>• flip</li> </ul>		



Attributes	Description																
	<ul style="list-style-type: none"> <li>• height</li> <li>• left</li> <li>• margin-left</li> <li>• margin-top</li> <li>• position</li> <li>• rotation</li> <li>• top</li> <li>• visibility</li> <li>• width</li> <li>• z-index</li> </ul> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>																
target (Hyperlink Display Target)	<p>Specifies a frame or window that a URL is displayed in. Default is no value. Allowed values are:</p> <table border="1"> <thead> <tr> <th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>&lt;targetname&gt;</td><td>String containing the name of the frame or window in which to load the document.</td></tr> <tr> <td>_blank</td><td>Specifies that the linked document is loaded into a new blank window. This window is not named.</td></tr> <tr> <td>_media</td><td>Specifies that the linked document is loaded into the browser's multimedia pane.</td></tr> <tr> <td>_parent</td><td>Specifies that the linked document is loaded into the immediate parent of the document containing the link.</td></tr> <tr> <td>_search</td><td>Specifies that the linked document is loaded into the browser's search pane.</td></tr> <tr> <td>_self</td><td>Specifies that the linked document is loaded into the window in which the link was clicked (the active window).</td></tr> <tr> <td>_top</td><td>Specifies that the linked document is loaded into the topmost window.</td></tr> </tbody> </table> <p>[Example:</p> <pre> &lt;v:shape ...   href="http://www.openxmlformats.org"   target="_self" ... &gt; &lt;/v:shape&gt; </pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string</p>	Value	Description	<targetname>	String containing the name of the frame or window in which to load the document.	_blank	Specifies that the linked document is loaded into a new blank window. This window is not named.	_media	Specifies that the linked document is loaded into the browser's multimedia pane.	_parent	Specifies that the linked document is loaded into the immediate parent of the document containing the link.	_search	Specifies that the linked document is loaded into the browser's search pane.	_self	Specifies that the linked document is loaded into the window in which the link was clicked (the active window).	_top	Specifies that the linked document is loaded into the topmost window.
Value	Description																
<targetname>	String containing the name of the frame or window in which to load the document.																
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_self	Specifies that the linked document is loaded into the window in which the link was clicked (the active window).																
_top	Specifies that the linked document is loaded into the topmost window.																



Attributes	Description
	datatype.
title (Shape Title)	<p>Specifies the text displayed when the mouse pointer moves over the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... title="tooltip" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
to (Curve Ending Point)	<p>Specifies the ending point of the line in the coordinate space of the parent element. Default is "30,20". If the parent is not a VML element, the default unit is a pixel. Allowed units are in, cm, mm, pt, pc and px.</p> <p>[Example:</p> <pre>&lt;v:curve ... to="40,40" ... &gt; &lt;/v:curve&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
userdrawn (Exists In Master Slide)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the user has added the shape to a master slide. Default is false. Used by PresentationML.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userdrawn="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
userhidden (Hide Script Anchors)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether a script anchor is hidden. Default is false. If true, script anchors stay hidden even if the shape is otherwise visible. A script anchor is the visual representation of a script that when displayed in an application.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userhidden="true" ... &gt;</pre>



Attributes	Description
	<p><code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
wrapcoords (Shape Bounding Polygon)	<p>Specifies the bounding polygon that surrounds a shape. This is specified using a comma-delimited list of x and y coordinates: "x1,y1,x2,y2,x3,y3,..." This is used when text is tightly wrapped around a shape. Default is no value until the mso-wrap-mode style attribute is set to tight or through.</p> <p>[Example:</p> <pre> &lt;v:shape ...   wrapcoords="0,0 0,200, 200,200, 200,0" ... &gt; &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Curve](#)) is located in §A.7.1. *end note]*

#### 19.1.2.4 f (Single Formula)

This element defines a single value as the result of the evaluation of an expression. The expression is defined by the eqn attribute and has the general form of an operation followed by up to three arguments, which consist of adjustment values (see the adj attribute of the shape element (§19.1.2.19)), the results of earlier formulas, fixed numbers or pre-defined values. Each f value is referenced using "@" followed by a number corresponding to the zero-based index for that value in the list of f elements. [Example: For example, the value of the second f element is referenced as "@2". *end example]*

[Example: The following defines a blue arrow pointing to the right:

```

<v:shape coordsize="21600,21600" adj="18000,5400,10800"
  path="m @0,0 l @0,@1 0,@1 0,@3 @0,@3 @0,21600 21600,10800 x e"
  style='left:50pt;top:50pt;width:90pt;height:30pt'
  fillcolor="#4f81bd" strokecolor="#4f81bd" strokeweight="2pt">
<v:formulas>
  <v:f eqn="val #0"/>
  <v:f eqn="val #1"/>
  <v:f eqn="val #2"/>

```



```

<v:f eqn="sum height 0 #1"/>
<v:f eqn="sum #2 0 #1"/>
<v:f eqn="sum width 0 #0"/>
<v:f eqn="prod @5 @4 #2"/>
<v:f eqn="sum width 0 @6"/>
</v:formulas>
</v:shape>

```

The shape looks like this:



*end example]*

Attributes	Description																						
eqn (Equation)	<p>Specifies a single formula, which consists of a named operation followed by up to three parameters, typically described as v, P1 and P2. Up to 128 formulas can be specified. These operations are defined (calculation accuracy is discussed below):</p> <table> <tr> <th>Operation</th><th>Description</th></tr> <tr> <td>val</td><td>v Returns the supplied value. Exact.</td></tr> <tr> <td>sum</td><td><math>v + P1 - P2</math> Addition and subtraction. Exact.</td></tr> <tr> <td>product</td><td><math>v \times P1 / P2</math> Multiplication and division. Rounds up.</td></tr> <tr> <td>mid</td><td><math>(v + P1) / 2</math> Simple average. Rounds toward zero.</td></tr> <tr> <td>abs</td><td> v  Absolute value. Exact.</td></tr> <tr> <td>min</td><td>min(v, P1) The lesser of two values. Exact.</td></tr> <tr> <td>max</td><td>max(v, P1) The greater of two values. Exact.</td></tr> <tr> <td>if</td><td><math>v &gt; 0 ? P1 : P2</math> Conditional selection. Exact.</td></tr> <tr> <td>mod</td><td><math>\sqrt{v^2 + P1^2 + P1^2}</math> Modulus. Inexact.</td></tr> <tr> <td>atan2</td><td>atan2(P1, v) Trigonometric arc tangent of a quotient. Result is in "fd" units or fractional degrees - degrees <math>\times 2^{16}</math>.</td></tr> </table>	Operation	Description	val	v Returns the supplied value. Exact.	sum	$v + P1 - P2$ Addition and subtraction. Exact.	product	$v \times P1 / P2$ Multiplication and division. Rounds up.	mid	$(v + P1) / 2$ Simple average. Rounds toward zero.	abs	v  Absolute value. Exact.	min	min(v, P1) The lesser of two values. Exact.	max	max(v, P1) The greater of two values. Exact.	if	$v > 0 ? P1 : P2$ Conditional selection. Exact.	mod	$\sqrt{v^2 + P1^2 + P1^2}$ Modulus. Inexact.	atan2	atan2(P1, v) Trigonometric arc tangent of a quotient. Result is in "fd" units or fractional degrees - degrees $\times 2^{16}$ .
Operation	Description																						
val	v Returns the supplied value. Exact.																						
sum	$v + P1 - P2$ Addition and subtraction. Exact.																						
product	$v \times P1 / P2$ Multiplication and division. Rounds up.																						
mid	$(v + P1) / 2$ Simple average. Rounds toward zero.																						
abs	v  Absolute value. Exact.																						
min	min(v, P1) The lesser of two values. Exact.																						
max	max(v, P1) The greater of two values. Exact.																						
if	$v > 0 ? P1 : P2$ Conditional selection. Exact.																						
mod	$\sqrt{v^2 + P1^2 + P1^2}$ Modulus. Inexact.																						
atan2	atan2(P1, v) Trigonometric arc tangent of a quotient. Result is in "fd" units or fractional degrees - degrees $\times 2^{16}$ .																						



Attributes	Description	
		Inexact.
	sin	$v \times \sin(P1)$ Sine. Argument is in "fd" units or fractional degrees - degrees $\times 2^{16}$ . Inexact.
	cos	$v \times \cos(P1)$ Cosine. Argument is in "fd" units or fractional degrees - degrees $\times 2^{16}$ . Inexact.
	cosatan2	$v \times \cos(\text{atan2}(P2, P1))$ Preserves full accuracy in the intermediate calculation. Inexact.
	sinatan2	$v \times \sin(\text{atan2}(P2, P1))$ Preserves full accuracy in the intermediate calculation. Inexact.
	sqrt	$\sqrt{v}$ Square root. Result is positive and rounds down. Inexact.
	sumangle	$v + P1 \times 2^{16} - P2 \times 2^{16}$ Adds an existing angle in fd units (v) to two other angles specified in degrees. P1 and P2 are scaled by $2^{16}$ . Exact.
	ellipse	$P2 \sqrt{1 - \left(\frac{v}{P1}\right)^2}$ The eccentricity formula for an ellipse, where v is length of the semiminor axis and P1 is the length of the semimajor axis. Inexact.
	tan	$v \times \tan(P1)$ Tangent. Argument is in "fd" units or fractional degrees - degrees $\times 2^{16}$ . Inexact.
<p>Formulas are evaluated to full precision, but the result is always a 32-bit integer. Formula authors should avoid formulas which are discontinuous - not only are many of the trigonometric operations inexact, the transformations within the coordinate spaces are also inexact. This can mean that a set of formulas which is discontinuous evaluates to give very different path values with the same input on two different systems.</p> <p>When an operation is marked as exact then a conforming implementation shall always generate the correct arithmetic answer (unless the calculations overflow internally). The product operation is required to round to the nearest integer. If the result is exactly 0.5 then it shall be rounded up to the next numerically greater integer. The mid operation is required to round towards 0.</p> <p>All other operations are inexact, but the implementation shall round non-integral values</p>		



Attributes	Description																										
	<p>down (towards -infinity) and should perform internal calculations with this form of rounding.</p> <p>The arguments used in the evaluation of a formula are normally either fixed numbers, the result of the evaluation of a previous formula or an adjust value - the value of the corresponding entry in the shape adj attribute. Fixed numbers shall be positive integral values in the range 0 to 65535 (unsigned 16-bit numbers). The following named values are defined:</p> <table border="1"> <thead> <tr> <th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>@n</td><td>The value of formula n, where n is the zero-based index of the formula in the list of formulas. n shall be less than the current formula index.</td></tr> <tr> <td>#n</td><td>Adjustment (adj) value n. n shall be in the range 0 to 7.</td></tr> <tr> <td>width</td><td>The width defined by the coordsize attribute.</td></tr> <tr> <td>height</td><td>The height defined by the coordsize attribute.</td></tr> <tr> <td>xcenter</td><td>The x ordinate of the center of the coordinate space defined by coordorigin and coordsize.</td></tr> <tr> <td>ycenter</td><td>The y ordinate of the center of the coordinate space defined by coordorigin and coordsize.</td></tr> <tr> <td>xlimo</td><td>The x value of the limo attribute (see also the path element (§19.1.2.14)).</td></tr> <tr> <td>ylimo</td><td>The y value of the limo attribute (see also the path element (§19.1.2.14)).</td></tr> <tr> <td>hasstroke</td><td>1 if the shape has a stroke operation, 0 if it does not, as determined by the on attribute of the stroke element (§19.1.2.21).</td></tr> <tr> <td>hasfill</td><td>1 if the shape has a fill operation, 0 if it does not, as determined by the on attribute of the fill element (§19.1.2.5).</td></tr> <tr> <td>pixellinewidth</td><td>The line width in output device pixels. This is used to outset lines from the edge of a rectangle on the assumption that the implementation draws to lower right pixel in preference to the upper left pixel when a line is on a pixel boundary.</td></tr> <tr> <td>pixelwidth</td><td>The width of the shape in device pixels (i.e., the coordsize width transformed into device</td></tr> </tbody> </table>	Value	Description	@n	The value of formula n, where n is the zero-based index of the formula in the list of formulas. n shall be less than the current formula index.	#n	Adjustment (adj) value n. n shall be in the range 0 to 7.	width	The width defined by the coordsize attribute.	height	The height defined by the coordsize attribute.	xcenter	The x ordinate of the center of the coordinate space defined by coordorigin and coordsize.	ycenter	The y ordinate of the center of the coordinate space defined by coordorigin and coordsize.	xlimo	The x value of the limo attribute (see also the path element (§19.1.2.14)).	ylimo	The y value of the limo attribute (see also the path element (§19.1.2.14)).	hasstroke	1 if the shape has a stroke operation, 0 if it does not, as determined by the on attribute of the stroke element (§19.1.2.21).	hasfill	1 if the shape has a fill operation, 0 if it does not, as determined by the on attribute of the fill element (§19.1.2.5).	pixellinewidth	The line width in output device pixels. This is used to outset lines from the edge of a rectangle on the assumption that the implementation draws to lower right pixel in preference to the upper left pixel when a line is on a pixel boundary.	pixelwidth	The width of the shape in device pixels (i.e., the coordsize width transformed into device
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Attributes	Description	
		space).
	pixelheight	The height of the coordsize in device pixels.
	emuwidth	The width of the coordsize in EMUs.
	emuheight	The height of the coordsize in EMUs.
	emuwidth2	Half the width of the coordsize in EMUs.
	emuheight2	Half the height of the coordsize in EMUs.
<p>The EMU, or English Metric Unit, is the smallest unit of measure in VML and corresponds to 914400 EMU per inch or 12700 EMU per point.</p> <p>See above for an example.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>		



[Note: The W3C XML Schema definition of this element's content model ([CT\\_F](#)) is located in §A.7.1. *end note*]

#### 19.1.2.5 fill (Shape Fill Properties)


This element specifies how the path should be filled if something beyond a solid color fill is desired. The attributes of the fill element can be used to describe a powerful set of image- or gradient-based fill patterns. Extensions to the VML fill definition are encoded as sub-elements of fill.

Attributes	Description
alignshape (Align Image With Shape)	<p>Specifies whether an image aligns with the shape. Default is true.</p> <p>[Example: The image displayed in the shape is not rotated even though the shape is rotated 30 degrees:</p> <pre> &lt;v:shape coordorigin="0,0"   coordsize="200,200"   style="top:1;left:1;width:50;   height:50;rotation:30"   path="m 1,1 l 1,200, 200,200, 200,1 x e"&gt;   &lt;v:fill alignshape="false" type="frame"     src="myimage.gif"&gt;   &lt;/v:fill&gt; &lt;/v:shape&gt; </pre>




Attributes	Description
	<p>Applied to a simple square the fill looks like this:</p>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>althref (Alternate Image Reference Location)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Defines an alternate reference for an image in Macintosh PICT format.</p> <p>[Example:</p> <pre>&lt;v:fill ... althref="myimage.pcz" ... &gt; &lt;/v:fill&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>angle (Gradient Angle)</p>	<p>Specifies the direction of a gradient. The vector of a gradient is perpendicular to the vector of the blend direction from one color to another. The default value is zero degrees, which is a horizontal vector from left to right. Positive angles rotate the gradient in a counter-clockwise direction.</p> <p>[Example: The fill is composed of a 45-degree gradient of two colors. Blue is in the top left corner and red is in the bottom right corner.</p> <pre>&lt;v:fill type="gradient" color="red" color2="blue" angle="45"&gt; &lt;/v:fill&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema decimal datatype.</p>
<p>aspect (Image Aspect Ratio)</p>	<p>Specifies how the fill image aspect ratio is preserved. Default is ignore. Allowed values are:</p>

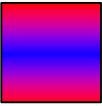
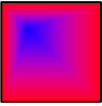


Attributes	Description
	<ul style="list-style-type: none"> <li>• ignore - Ignore aspect ratio.</li> <li>• atleast - At least as large as defined by the size attribute.</li> <li>• atmost - No larger than that defined by the size attribute.</li> </ul> <p>In each case, the size attribute is adjusted to preserve the aspect ratio of the image.</p> <p>[Example: The image that makes up the fill is no larger than 20 points by 20 points, limiting the size of the tiles inside the shape.</p> <pre>&lt;v:fill type="tile" aspect="atmost"   size="20pt,20pt" src="myimage.gif"&gt; &lt;/v:fill&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ImageAspect simple type (§19.1.3.5).</p>
color (Primary Color)	<p>Specifies the main fill color; functions the same as the fillcolor attribute of the shape element (§19.1.2.19). This attribute overrides the shape's fillcolor. Default is white. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example: The shape is blue:</p> <pre>&lt;v:shape ... fillcolor="red" ... &gt;   &lt;v:fill color="blue"/&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
color2 (Secondary Color)	<p>Specifies the secondary fill color, used when a fill type is a pattern or a gradient. Default is white. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example: The shape is filled with a horizontal gradient with red at the bottom and blue on top:</p>

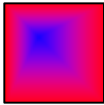


Attributes	Description
	<pre>&lt;v:fill type="gradient"   color="red" color2="blue"&gt; &lt;/v:fill&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<p>colors (Intermediate Colors)</p>	<p>Specifies an array of comma-separated percentage-color pairs that define intermediate colors and their positions in a gradient fill. The primary color, specified either by the fillcolor attribute of the shape element (§19.1.2.19) or the color attribute of the fill element (§19.1.2.5), is used at the 0% endpoint. The secondary color, specified by the color2 attribute of the fill element (§19.1.2.5), is used at the 100% endpoint. The numeric values can also be specified in 1/65536ths if a trailing "f" is supplied. <i>[Example: For example, a value of "52429f" represents 52429/65536 or 0.8. end example]</i></p> <p><i>[Example: The shape is filled with a horizontal gradient colored, from bottom to top, red, yellow, green, blue:</i></p> <pre>&lt;v:fill type="gradient"   color="red" color2="blue"   colors="30% yellow,70% green"&gt; &lt;/v:fill&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>detectmouseclick (Detect Mouse Click)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a mouse click is detected on the fill of a shape.</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>focus (Gradient Center)</p>	<p>Specifies the center starting position of a gradient. Values <a href="#">are in the</a> range 100% to -100%. Default is 0.</p> <p>A value of 100% or -100% reverses the direction of the gradient (in effect swapping color and color2). A value of 50% changes the gradient so that color is at both ends and</p>




Attributes	Description
	<p>color2 is in the middle. A value of -50% changes the gradient so that color2 is at both ends and color is in the middle.</p> <p>[Example: The shape is filled with a horizontal gradient with red at both ends and blue in the middle:</p> <pre>&lt;v:fill type="gradient"   color="red" color2="blue"   focus="50%"&gt; &lt;/v:fill&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>focusposition (Radial Gradient Center)</p>	<p>Specifies the position of the center rectangle of a radial gradient. The vector is a fraction of the width and height of the shape. The first is a percentage of the fill to the left edge; the second is a percentage of the fill to the top. Default is 0,0. To position a radial fill at the center of a shape, use a value of 50%,50%.</p> <p>[Example: The shape is filled with a rectangular gradient positioned in the top-left quadrant of the shape. The interior of the gradient is blue and the exterior is red:</p> <pre>&lt;v:fill type="gradientradial"   color="red" color2="blue"   focusposition="25%,25%"&gt; &lt;/v:fill&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>focussize (Radial Gradient Size)</p>	<p>Specifies the size of the center rectangle of a radial gradient. The vector is a fraction of the width and height of the shape. The first is a percentage of the fill to the right edge; the second is a percentage of the fill to the bottom. Default is 0,0.</p> <p>A focussize value of 100%,100% and a focusposition of 0,0 makes color2 dominate the gradient completely. Small values of around 10%,10% are recommended for balanced</p>

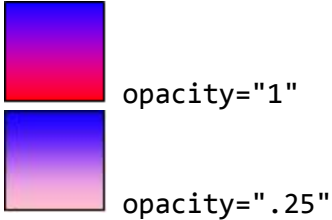
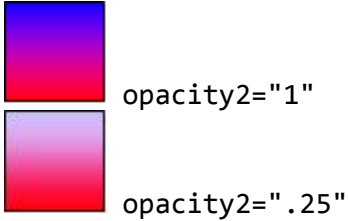


Attributes	Description
	<p>gradients.</p> <p>[<i>Example:</i> The shape is filled with a rectangular gradient positioned in the top-left quadrant of the shape. The interior of the gradient is blue and the exterior is red. The red portion is wider on the bottom and right sides of the blue region. The pure blue region is 25% the width and 25% the height of the shape:</p> <pre>&lt;v:fill type="gradientradial"   color="red" color2="blue"   focussize="25%,25%"   focusposition="25%,25%"&gt; &lt;/v:fill&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>href (Hyperlink Target)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the URL to the original image file. Used only if the picture has been linked and embedded. Default is no value.</p> <p>[<i>Example:</i></p> <pre>&lt;v:fill ... o:href="myimage.gif" ... &gt; &lt;/v:fill&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>id (Relationship to Part)</p> <p>Namespace: .../officeDocument/2006/relationships</p>	<p>Specifies the relationship ID of the relationship to the image used for this fill. The specified relationship shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/image">http://schemas.openxmlformats.org/officeDocument/2006/relationships/image</a> or the document shall be considered non-conformant.</p> <p>[<i>Example:</i> The markup specifies the associated relationship part with relationship ID rId10 contains the corresponding relationship information for the fill:</p> <pre>&lt; ... r:id="rId10" /&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type</p>





Attributes	Description
id (Unique Identifier)	<p>(Part 1, §22.8.2.1).</p> <p>Specifies a unique identifier that can be used to reference a VML object.</p> <p>Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
method (Gradient Fill Method)	<p>Specifies the method used to generate the transition from color to color2 in a gradient fill. Default is <code>sigma</code>.</p> <p>[Example:</p> <pre>&lt;v:fill type="gradient"   color="red" color2="blue" method="any"&gt; &lt;/v:fill&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_FillMethod simple type (§19.1.3.3).</p>
on (Fill Toggle)	<p>Specifies whether to fill the shape. Default is <code>true</code>. This attribute overrides the shape's fill attribute.</p> <p>[Example: The shape has a transparent fill:</p> <pre>&lt;v:shape ... fill="true" ... &gt;   &lt;v:fill color="red" on="false"&gt;   &lt;/v:fill&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>

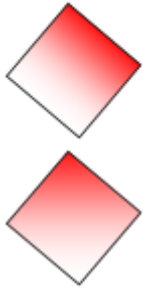


Attributes	Description
<p>opacity (Primary Color Opacity)</p>	<p>Specifies the opacity of the primary fill color. Default is 1.0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. For example, a value of "52429f" represents 52429/65536 or 0.8.</p> <p>[<i>Example:</i> The red color is 25% opaque:</p> <pre>&lt;v:fill type="gradient" color="red"   color2="blue" opacity=".25"&gt; &lt;/v:fill&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>opacity2 (Secondary Color Opacity)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the opacity of the secondary fill color. Default is 1.0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. [<i>Example:</i> For example, a value of "52429f" represents 52429/65536 or 0.8. <i>end example]</i></p> <p>[<i>Example:</i> The blue color is 25% opaque:</p> <pre>&lt;v:fill type="gradient" color="red"   color2="blue" o:opacity2=".25"&gt; &lt;/v:fill&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>origin (Fill Image Origin)</p>	<p>Specifies the position of the origin of a fill image as a point relative to the top left corner of the image. The vector is a fraction of the width and height of the image. Default is the center of the image. These numeric values can also be specified in 1/65536-ths if a</p>




Attributes	Description
	<p>trailing "f" is supplied. [Example: For example, a value of "52429f" represents 52429/65536 or 0.8. end example]</p> <p>[Example: The origin of the image is 25% to the right and 25% above the image's top left corner:</p> <pre>&lt;v:fill type="tile" src="myimage.gif"   origin="0.25,-0.25"&gt; &lt;/v:fill&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
position (Fill Image Position)	<p>Specifies the position of the origin of a fill image as a point within its containing shape. The vector is a fraction of the width and height of the shape. These numeric values can also be specified in 1/65536-ths if a trailing "f" is supplied. For example, a value of "52429f" represents 52429/65536 or 0.8.</p> <p>[Example: The origin of the image is positioned 25% to the right of the left edge of the shape and 25% down from the shape's top:</p> <pre>&lt;v:fill type="tile" src="myimage.gif"   position="0.25,0.25"&gt; &lt;/v:fill&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
recolor (Recolor Fill as Picture)	<p>Specifies that the fill uses an image. Default is false.</p> <p>[Example:</p> <pre>&lt;v:fill r:id="rId4" o:title="MyPic" recolor="true"   type="frame"&gt; &lt;/v:fill&gt;</pre>

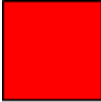

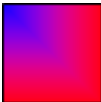











Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>relid (Relationship to Part)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the relationship ID of the relationship to the image. The specified relationship shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/image">http://schemas.openxmlformats.org/officeDocument/2006/relationships/image</a> or the document shall be considered non-conformant.</p> <p>[Example: The markup specifies the associated relationship part with relationship ID rId10 contains the corresponding relationship information:</p> <pre>&lt;v:fill ... o:relid="rId10" ...&gt; &lt;/v:fill&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>
<p>rotate (Rotate Fill with Shape)</p>	<p>Specifies whether the fill is rotated with the shape. Default is false.</p> <p>[Example: The gradient is rotated with the shape:</p> <pre>&lt;v:fill color2="white" focus="100%" rotate="true" type="gradient"&gt; &lt;/v:fill&gt;</pre> <div>  <p>rotate="true"</p> <p>rotate="false"</p> </div> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>size (Fill Image Size)</p>	<p>Specifies the size of the fill image. Default is the native image pixel size.</p> <p>[Example: The image is reduced in size disproportionately:</p> <pre>&lt;v:fill type="tile" src="myimage.gif"</pre>



Attributes	Description
	<pre>size="25pt,15pt"&gt; &lt;/v:fill&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
src (Fill Image Source)	<p>Specifies the URL specifying the fill image to use.</p> <p>[Example:</p> <pre>&lt;v:fill ... src="myimage.gif" ... &gt; &lt;/v:fill&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>title (Title)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the title of an embedded fill image. This is typically set to the comment property of the image, which is often blank.</p> <p>[Example:</p> <pre>&lt;v:fill ... o:title="alt text" ... &gt; &lt;/v:fill&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
type (Fill Type)	<p>Specifies the kind of fill. Default is solid. Allowed values are:</p> <ul style="list-style-type: none"> <li>• solid</li> <li>• gradient</li> <li>• gradientradial</li> <li>• tile</li> <li>• pattern</li> <li>• frame</li> </ul> <p>[Example: Applied to a simple square using the following fill element, the three gradient</p>



Attributes	Description						
	<p>types look like this:</p> <pre>&lt;v:fill color="red" color2="blue"   type="solid"&gt; &lt;/v:fill&gt;</pre> <div> type="solid"</div> <div> type="gradient"</div> <div> type="gradientradial"</div> <p>Applied to a simple square using the following fill elements, the three image types look like this:</p> <table><tr><td></td><td><pre>&lt;v:fill src="myimage.gif"   type="tile" size="50%,50%"&gt; &lt;/v:fill&gt;</pre></td></tr><tr><td></td><td><pre>&lt;v:fill src="myimage.gif"   type="frame" size="50%,50%"&gt; &lt;/v:fill&gt;</pre></td></tr><tr><td></td><td><pre>&lt;v:fill src="myimage.gif"   color="red" color2="blue"   type="pattern"&gt; &lt;/v:fill&gt;</pre></td></tr></table> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_FillType simple type (§19.1.3.4).</p>		<pre>&lt;v:fill src="myimage.gif"   type="tile" size="50%,50%"&gt; &lt;/v:fill&gt;</pre>		<pre>&lt;v:fill src="myimage.gif"   type="frame" size="50%,50%"&gt; &lt;/v:fill&gt;</pre>		<pre>&lt;v:fill src="myimage.gif"   color="red" color2="blue"   type="pattern"&gt; &lt;/v:fill&gt;</pre>
	<pre>&lt;v:fill src="myimage.gif"   type="tile" size="50%,50%"&gt; &lt;/v:fill&gt;</pre>						
	<pre>&lt;v:fill src="myimage.gif"   type="frame" size="50%,50%"&gt; &lt;/v:fill&gt;</pre>						
	<pre>&lt;v:fill src="myimage.gif"   color="red" color2="blue"   type="pattern"&gt; &lt;/v:fill&gt;</pre>						

[Note: The W3C XML Schema definition of this element’s content model (CT\_Fill) is located in §A.7.1. *end note*]

19.1.2.6 formulas (Set of Formulas)

This element defines a set of formulas whose calculated values are referenced by other attributes. Each formula is contained in a child *f* element (§19.1.2.4).



[*Note:* The W3C XML Schema definition of this element's content model ([CT Formulas](#)) is located in §A.7.1. *end note*]

### 19.1.2.7 group (Shape Group)

This element is used to collect shapes and groups so they can be positioned and transformed as a single unit. A group contains group, shapetype, shape, pre-defined shape - arc, curve, image, line, oval, polyline, rect, roundrect - and lock elements.

[*Example:* The following example defines a few basic parts of a flying saucer graphic. The group consists of five shapes. Each shape's position is determined within the coordinate space of the group, which is defined by the group's attributes.

```
<v:group id="saucer"
  style='position:relative;left:200;top:200;width:50;height:50'
  coordorigin="0,0" coordsize="6000,6000">
  <v:shape id="body"
    style='position:relative;left:234.75pt;top:208.875pt;
    width:235.25pt;height:128.875pt' coordsize="3765,2060"
    path="m1285,2511126,469,580,1009,,1285,25,1412,93,1547,194,1673,
    1017,2026,2312,2060,3209,1756,3765,1388,3278,680,3059,319,2976,,
    1285,251,1285,251xe"
    fillcolor="#bcbcd6" stroked="f">
    <v:path arrowok="t"/>
  </v:shape>
  <v:shape id="canopy"
    style='position:relative;left:314.625pt;top:140.5pt;
    width:104pt;height:102pt' coordsize="1663,1633"
    path="m0,13551177,1498,353,1582,840,1633,1378,1498,1663,1295,
    1545,456,1260,10,1025,,656,260,253,874,,1355,,1355xe"
    fillcolor="#99ebff" stroked="f">
    <v:path arrowok="t"/>
  </v:shape>
  <v:shape id="light1"
    style='position:relative;left:408.625pt;top:268.75pt;
    width:24.25pt;height:27.375pt' coordsize="388,437"
    path="m209,0134,101,,302,125,437,329,327,388,152,209,,209,0xe"
    fillcolor="#ffff27f" stroked="f">
    <v:path arrowok="t"/>
  </v:shape>
  <v:shape id="light2"
    style='position:relative;left:356.625pt;top:279.25pt;
    width:28.875pt;height:30pt' coordsize="462,479"
    path="m135,010,186,59,422,344,479,462,228,135,,135,0xe"
```



```
        fillcolor="#fff27f" stroked="f">
        <v:path arrowok="t"/>
    </v:shape>
    <v:shape id="light3"
        style='position:relative;left:302.625pt;top:274pt;
        width:23pt;height:23.625pt' coordsize="369,378"
        path="m0,59l226,,369,186,243,378,32,363,,59,,59xe"
        fillcolor="#fff27f" stroked="f">
        <v:path arrowok="t"/>
    </v:shape>
</v:group>
```



*end example]*

Attributes	Description
allowincell (Allow in Table Cell)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether a shape can be placed in a table. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:allowincell="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
allowoverlap (Allow Shape Overlap)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether a shape can overlap another shape. Default is true. If false, the shape shifts left or right so as not to overlap another shape, similar to the behavior of the HTML float attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:allowoverlap="false" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
alt (Alternate Text)	<p>Specifies alternative text describing the graphical object. This text should provide a brief description of the shape for use by accessibility tools. Default is no value.</p>




Attributes	Description
	<p>[Example: The alt text describes the basic shape:</p> <pre>&lt;v:shape ... fillcolor="red"   alt="Red rectangle"&gt; &lt;/v:shape&gt;</pre> <p>The alt text describes the contents of a shape displaying an image:</p> <pre>&lt;v:shape ... alt="Picture of a sunset"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
borderbottomcolor (Bottom Border Color)  Namespace: urn:schemas- microsoft- com:office:office	<p>Specifies the bottom border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderbottomcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
borderleftcolor (Border Left Color)  Namespace: urn:schemas- microsoft- com:office:office	<p>Specifies the left border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderleftcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
borderrightcolor (Border Right Color)  Namespace: urn:schemas- microsoft- com:office:office	<p>Specifies the right border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderrightcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p>




Attributes	Description
	<p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p><b>bordertopcolor</b> (Border Top Color)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the top border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:bordertopcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p><b>bullet</b> (Graphical Bullet)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the shape is a graphical bullet. Default is <i>false</i>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:bullet="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p><b>button</b> (Button Behavior Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a shape exhibits button press behavior on click. Default is <i>false</i>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:button="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p><b>class</b> (CSS Reference)</p>	<p>Specifies a reference to the definition of a CSS style. Default is no value.</p> <p>[Example: The snippets below are equivalent:</p> <pre>... .narrowstyle {width:50;height:100} ... &lt;v:shape ... class="narrowstyle" style="top:1;left:1"&gt;</pre>



Attributes	Description
	<pre>&lt;/v:shape&gt;</pre> <pre>&lt;v:shape ... style="top:1;left:1; width:50;height:100"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>coordorigin</b> (Coordinate Space Origin)	<p>Specifies the coordinate of the top left corner of the shape's coordinate space. This determines the position of the (0,0) coordinate space origin within the shape's bounding box. Default is "0,0", which places the (0,0) origin at the top left corner of the bounding box.</p> <p>This affects shape properties that specify coordinate positions, such as the path attribute. Thus a path can be defined against a generic (0,0) origin and the coordorigin value translates the entire path within the shape's bounding space.</p> <p>[<i>Example:</i> The horizontal and vertical coordinate space ranges from -100 to +100 because the coordinate space (coordsize) is 200 by 200 and the top left coordinate is (-100,-100). The (0,0) origin lies at the center of the shape's bounding box, as evidenced by the position of the shape's path within the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200" coordorigin="-100,-100" path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>coordsize</b> (Coordinate Space Size)	<p>Specifies the size of the shape's coordinate space in coordinate units. Default is "1000,1000".</p> <p>The physical size of a coordinate unit length is determined by both the size of the coordinate space (coordsize) and the size of the shape (style width and height). The coordsize attribute defines the number of horizontal and vertical subdivisions into which the shape's bounding box is divided. The combination of coordsize and style width/height effective scales the shape anisotropically.</p>




Attributes	Description
	<p>[Example: The path is 50 units wide and tall, which is 25% of the size of the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200"   coordorigin="-100,-100"   path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>dgmlayout (Diagram Node Layout Identifier)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the kind of automatic layout to apply to the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmlayout="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).</p>
<p>dgmlayoutmru (Diagram Node Recent Layout Identifier)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the kind of automatic layout most recently used on the child elements of the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmlayout="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).</p>
<p>dgmnodekind (Diagram Node</p>	<p>Specifies an optional, application-defined parameter that is intended to be used by the application to tag different types of nodes in a diagram.</p>



Attributes	Description
<p>Identifier)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>[Example:</p> <pre>&lt;v:shape ... dgmnodekind="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
<p>doubleclicknotify (Double-click Notification Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that an event message is sent when a shape is double-clicked. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:doubleclicknotify="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>editas (Group Diagram Type)</p>	<p>Specifies which diagram type the contained shapes represent. This is used in conjunction with the diagram element (§19.2.2.8). A value of canvas indicates that the group is a regular group of shapes and does not represent a diagram. Other values indicate that the diagram element and its children contain semantic information relevant to that type of diagram, which is represented by the shapes in the group.</p> <p>[Example:</p> <pre>&lt;v:group ... editas="orgchart"&gt; &lt;/v:group&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_EditAs simple type (§19.1.3.1).</p>
<p>fillcolor (Fill Color)</p>	<p>Specifies the color to use for the fill. Default is white. If the fill element (§19.1.2.5) is present, its color attribute takes precedence. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example: This shape is red if its fill is visible:</p> <pre>&lt;v:shape ... fillcolor="red" ... &gt;</pre>



Attributes	Description
	<p><code>&lt;/v:shape&gt;</code></p> <p>This is equivalent to:</p> <pre>&lt;v:shape ... fillcolor="#ff0000" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<p>filled (Shape Fill Toggle)</p>	<p>Specifies whether the closed path is filled. Default is true. This attribute is overridden by the fill on attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... filled="f"   fillcolor="red" ...&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>hr (Horizontal Rule Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that a shape is a horizontal rule. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hr="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>hralign (Horizontal Rule Alignment)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the alignment of a horizontal rule. Default is left.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hralign="center" ... &gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_HrAlign simple type (§19.2.3.16).</p>
<p>href (Hyperlink Target)</p>	<p>Specifies a hyperlink URL target for the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... href="http://www.openxmlformats.org" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>hrnoshade (Horizontal Rule 3D Shading Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the horizontal rule does not have 3-D shading. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrnoshade="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>hrpct (Horizontal Rule Length Percentage)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the length of a horizontal rule as a percentage of page width. Default is 0.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrpct="85" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
<p>hrstd (Horizontal Rule Standard Display Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a shape is displayed as a standard horizontal rule. Only applies if hr is true. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrstd="true" ... &gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>id (Unique Identifier)</p>	<p>Specifies a unique identifier that can be used to reference a VML object.</p> <p>Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>insetmode (Text Inset Mode)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the application calculates the internal text margin instead of using the inset attribute. Default is custom. This attribute is only meaningful for text boxes.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:insetmode="auto" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_InsetMode simple type (§19.2.3.17).</p>
<p>oned (Shape Handle Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the extra handles of a shape are hidden. If true, hides all shape handles except the top left and bottom right; that is, the same handles that are used for a straight line segment. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oned="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>print (Print Toggle)</p>	<p>Specifies whether the shape is printed. Default is true.</p> <p>[Example:</p>



Attributes	Description				
	<pre>&lt;v:shape ... print="false" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>				
regroupid (Regroup ID)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies a previous group for a shape. An ID number is used to identify groups of shapes that are no longer grouped. This allows shapes to be regrouped programmatically.</p> <p>[Example: The shape was part of a group identified by the ID 040754:</p> <pre>&lt;v:shape ... o:regroupid="040754" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>				
spid (Optional String)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies an optional string that an application can use to identify the particular shape. Default is no value.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>				
style (Shape Styling Properties)	<p>Specifies the CSS2 styling properties of the shape. The CSS2 (Cascading Style Sheets, Level 2) specification, a Recommendation of the World Wide Web Consortium, is available here: <a href="http://www.w3.org/TR/REC-CSS2">http://www.w3.org/TR/REC-CSS2</a>.</p> <p>This attribute uses a semi-colon delimited list of “name:value” pairs, the syntax defined by section 4.1.8 of the CSS2 specification for grouped declarations (without the surrounding braces). The following tables define the allowed properties and the VML treatment of each.</p> <p>[Example:</p> <pre>&lt;v:shape ... style='position:absolute;width:100pt;height:50pt' ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <table> <tr> <th>Property</th><th>Description</th></tr> <tr> <td>flip</td><td>Specifies that the orientation of a shape is flipped. Default is no</td></tr> </table>	Property	Description	flip	Specifies that the orientation of a shape is flipped. Default is no
Property	Description				
flip	Specifies that the orientation of a shape is flipped. Default is no				



Attributes	Description	
		<p>value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul>
	height	<p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	left	<p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-bottom	<p>Specifies the position of the bottom of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	margin-left	<p>Specifies the position of the left of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in</p>



Attributes	Description	
		<p>CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-right	<p>Specifies the position of the right of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-top	<p>Specifies the position of the top of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	mso-position-horizontal	<p>Specifies the horizontal positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• left</li> <li>• center</li> <li>• right</li> <li>• inside</li> </ul>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• outside</li> </ul>
	mso-position-horizontal-relative	<p>Specifies relative horizontal position data for objects in WordprocessingML documents. This modifies the mso-position-horizontal property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• char</li> </ul>
	mso-position-vertical	<p>Specifies the vertical positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• top</li> <li>• center</li> <li>• bottom</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-vertical-relative	<p>Specifies relative vertical position data for objects in WordprocessingML documents. This modifies the mso-position-vertical property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• line</li> </ul>
	mso-wrap-distance-bottom	<p>Specifies the distance from the bottom of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-distance-left	<p>Specifies the distance from the left side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-	<p>Specifies the distance from the right side of the shape to the text that wraps around it. Default is 0 pt. This property is different</p>



Attributes	Description	
	distance-right	from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-top	Specifies the distance from the top of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-edited	Specifies whether the wrap coordinates were customized by the user. If the wrap coordinates are generated by an editor, this property is true; otherwise they were customized by a user. Default is false.
	mso-wrap-style	<p>Specifies the wrapping mode for text in shapes in WordprocessingML documents. Default is square. Allowed values are:</p> <ul style="list-style-type: none"> <li>• square - Wraps text inside the shape in a square.</li> <li>• none - Text does not wrap.</li> </ul>
	position	<p>Specifies the kind of positioning used to place an element. Default is static. When the element is contained inside a group, this property shall be absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• static - The element is positioned according to the normal flow of the page. The top and left properties are ignored. If the object is anchored inline, this value is used.</li> <li>• absolute - The element is positioned relative to the parent, using the top and left properties.</li> <li>• relative - The element is positioned according to the normal flow of the page, but the top and left properties are used. The overlap of overlapping elements is governed by the z-index property.</li> </ul>
	rotation	Specifies the angle that a shape is rotated, in degrees. Default is 0. Positive angles are clockwise.
	top	<p>Specifies the position of the top of the containing block of the shape relative to the element above it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm,</li> </ul>



Attributes	Description					
		<p>mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</p> <ul style="list-style-type: none"><li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li></ul>				
	visibility	<p>Specifies whether a shape is displayed. Only inherit and hidden are used; any other values are mapped to inherit. Default is inherit. Allowed values are:</p> <ul style="list-style-type: none"><li>• hidden - The shape is not visible, but is still part of the flow of the objects in the browser. Mouse events are not processed.</li><li>• inherit - The visibility state is inherited from the parent of the shape.</li></ul>				
	width	<p>Specifies the width of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"><li>• auto - Default position of an element in the flow of the page.</li><li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li><li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li></ul>				
	z-index	<p>Specifies the display order of overlapping shapes. Default is 0. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"><li>• auto - Uses the order that the shapes appear in the page, bottom to top.</li><li>• &lt;order&gt;- A number that represents the stacking precedence. Shapes with higher numbers are placed on top of those with lower numbers. Negative numbers are allowed.</li></ul>				
	The following properties are only used by the textbox element (§19.1.2.22):					
<table><tr><th>Property</th><th>Description</th></tr><tr><td>direction</td><td><p>Specifies the direction of the text in the textbox. Default is ltr. This property is superceded by the mso-direction-alt property if that is specified. Allowed values are:</p><ul style="list-style-type: none"><li>• ltr - Text is displayed left-to-right.</li></ul></td></tr></table>			Property	Description	direction	<p>Specifies the direction of the text in the textbox. Default is ltr. This property is superceded by the mso-direction-alt property if that is specified. Allowed values are:</p> <ul style="list-style-type: none"><li>• ltr - Text is displayed left-to-right.</li></ul>
Property	Description					
direction	<p>Specifies the direction of the text in the textbox. Default is ltr. This property is superceded by the mso-direction-alt property if that is specified. Allowed values are:</p> <ul style="list-style-type: none"><li>• ltr - Text is displayed left-to-right.</li></ul>					



Attributes	Description	
		<ul style="list-style-type: none"> <li>• <code>rtl</code> - Text is displayed right-to-left.</li> </ul>
	<code>layout-flow</code>	<p>Determines the flow of the text layout in a textbox. Default is <code>horizontal</code>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <code>horizontal</code> - Text is displayed horizontally.</li> <li>• <code>vertical</code> - Text is displayed vertically.</li> <li>• <code>vertical-ideographic</code> - Ideographic text is displayed vertically.</li> <li>• <code>horizontal-ideographic</code> - Ideographic text is displayed horizontally.</li> </ul>
	<code>mso-direction-alt</code>	Specifies an alternate direction for text in textboxes. Overrides the <code>direction</code> property. The only allowed value is <code>context</code> .
	<code>mso-fit-shape-to-text</code>	Specifies whether the shape stretches to fit the text in the textbox. Default is <code>false</code> .
	<code>mso-fit-text-to-shape</code>	Specifies whether the text stretches to fit the textbox. Default is <code>false</code> .
	<code>mso-layout-flow-alt</code>	Specifies the alternate layout flow for text in textboxes. This property is used instead of <code>layout-flow</code> when the layout flow is from bottom to top for non-ideographic languages. Its only value is <code>bottom-to-top</code> .
	<code>mso-next-textbox</code>	Specifies the ID of the next textbox in a series. Used to keep track of a set of linked textboxes. Default is no value.
	<code>mso-rotate</code>	<p>Specifies a specific rotation value for text in a textbox. Default is 0. Allowed values are:</p> <ul style="list-style-type: none"> <li>• 0</li> <li>• 90</li> <li>• 180</li> <li>• -90</li> </ul>
	<code>mso-text-scale</code>	Specifies the scaling factor for fitting text to shapes. Default is 0. This property is only used if <code>mso-fit-text-to-shape</code> is <code>true</code> .
	<code>v-text-anchor</code>	Specifies the vertical anchoring of text in a textbox. Default is <code>top</code> . The alignment of a text anchor only becomes evident if <code>mso-fit-text-to-shape</code> is <code>false</code> . This property is different from the <code>vertical-align</code> CSS property, which is used for ideographic languages. Allowed values are:



Attributes	Description	
		<ul style="list-style-type: none"><li>• top</li><li>• middle</li><li>• bottom</li><li>• top-center</li><li>• middle-center</li><li>• bottom-center</li><li>• top-baseline</li><li>• bottom-baseline</li><li>• top-center-baseline</li><li>• bottom-center-baseline</li></ul>
	The following properties are only used by the textpath element (§19.1.2.23):	



Attributes	Description	
		<p>normal</p> <p>lighter</p> <p>100</p> <p>200</p> <p>300</p> <p>400</p> <p>Treated as non-bold.</p>
		<p>bold</p> <p>bolder</p> <p>500</p> <p>600</p> <p>700</p> <p>800</p> <p>900</p> <p>Treated as bold.</p>
	mso-text-shadow	Specifies whether a shadow is applied to the text on a text path. Default is false.
	text-decoration	<p>Specifies the style of text decoration. Default is none. The values are the same as those of the CSS text-decoration property. Allowed values are:</p> <ul style="list-style-type: none"> <li>• none</li> <li>• underline</li> <li>• overline</li> <li>• line-through</li> <li>• blink</li> </ul>
	v-rotate-letters	Specifies whether the letters of the text are rotated counterclockwise by 90 degrees. Default is false.
	v-same-letter-heights	Specifies whether all letters are the same height regardless of initial case. If true, the lowercase letters are stretched to the height of the uppercase letters. Default is false.
	v-text-align	<p>Specifies the alignment of text. Default is left. Allowed values are:</p> <ul style="list-style-type: none"> <li>• left</li> </ul>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• right</li> <li>• center</li> <li>• justify</li> <li>• letter-justify - Distributes the extra space between the letters.</li> <li>• stretch-justify - Stretches the letters to fill in the space.</li> </ul>
	v-text-kern	Specifies whether kerning is turned on. Default is false.
	v-text-reverse	Specifies whether the layout order of rows is reversed. Default is false. This is used for vertical text layout.
	v-text-spacing-mode	<p>Specifies the mode for letter spacing. Default is tightening. This property determines whether space is removed between each letter (tightening) or added between each letter (tracking). The amount of letter spacing change is defined by the v-text-spacing property. Allowed values are:</p> <ul style="list-style-type: none"> <li>• tightening</li> <li>• tracking</li> </ul>
	v-text-spacing	Specifies the amount of spacing for text in 100ths of single line spacing. Default is 100.
<p>The line (§19.1.2.12), polyline (§19.1.2.15) and curve (§19.1.2.3) elements ignore the following properties:</p> <ul style="list-style-type: none"> <li>• top</li> <li>• left</li> <li>• width</li> <li>• height</li> </ul> <p>The following properties are not inherited by an element that references a shapetype element (§19.1.2.20) via the id attribute:</p> <ul style="list-style-type: none"> <li>• flip</li> <li>• height</li> <li>• left</li> <li>• margin-left</li> <li>• margin-top</li> <li>• position</li> <li>• rotation</li> <li>• top</li> <li>• visibility</li> <li>• width</li> </ul>		



Attributes	Description								
	<ul style="list-style-type: none"> <li>• z-index</li> </ul> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>								
<p>tablelimits (Table Row Height Limits)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies a list of minimum height values for each row in a table. Default is no value.</p> <p>Used by PresentationML for native tables. This attribute is only useful when the table is made up of shapes that are grouped. When text is added to table cells, the row height can increase. The tablelimits attribute stores the original row height so that if text is deleted, the row height does not fall below the original value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:tablelimits="30pt 20pt" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>								
<p>tableproperties (Table Properties)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies a bitmask, represented as an integer, that determines table properties. Only the first three bits of this integer are used. Default is 0.</p> <p>Used by PresentationML for native tables. This attribute is only useful when the table is made up of shapes that are grouped. Allowed values are:</p> <table border="1"> <thead> <tr> <th>Bit</th><th>Description</th></tr> </thead> <tbody> <tr> <td>1</td><td>Set if the group of shapes is a table.</td></tr> <tr> <td>2</td><td>Set if the shape is a placeholder.</td></tr> <tr> <td>3</td><td>Set if the table text is bi-directional.</td></tr> </tbody> </table> <p>[Example: Decimal 3 means that bits 1 and 2 are set.</p> <pre>&lt;v:shape ... o:tableproperties="3" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>	Bit	Description	1	Set if the group of shapes is a table.	2	Set if the shape is a placeholder.	3	Set if the table text is bi-directional.
Bit	Description								
1	Set if the group of shapes is a table.								
2	Set if the shape is a placeholder.								
3	Set if the table text is bi-directional.								
<p>target (Hyperlink Display Target)</p>	<p>Specifies a frame or window that a URL is displayed in. Default is no value. Allowed values are:</p>								



Attributes	Description																
	<table border="1"> <thead> <tr> <th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>&lt;targetname&gt;</td><td>String containing the name of the frame or window in which to load the document.</td></tr> <tr> <td>_blank</td><td>Specifies that the linked document is loaded into a new blank window. This window is not named.</td></tr> <tr> <td>_media</td><td>Specifies that the linked document is loaded into the browser's multimedia pane.</td></tr> <tr> <td>_parent</td><td>Specifies that the linked document is loaded into the immediate parent of the document containing the link.</td></tr> <tr> <td>_search</td><td>Specifies that the linked document is loaded into the browser's search pane.</td></tr> <tr> <td>_self</td><td>Specifies that the linked document is loaded into the window in which the link was clicked (the active window).</td></tr> <tr> <td>_top</td><td>Specifies that the linked document is loaded into the topmost window.</td></tr> </tbody> </table> <p>[Example:</p> <pre>&lt;v:shape ...   href="http://www.openxmlformats.org"   target="_self" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>	Value	Description	<targetname>	String containing the name of the frame or window in which to load the document.	_blank	Specifies that the linked document is loaded into a new blank window. This window is not named.	_media	Specifies that the linked document is loaded into the browser's multimedia pane.	_parent	Specifies that the linked document is loaded into the immediate parent of the document containing the link.	_search	Specifies that the linked document is loaded into the browser's search pane.	_self	Specifies that the linked document is loaded into the window in which the link was clicked (the active window).	_top	Specifies that the linked document is loaded into the topmost window.
Value	Description																
<targetname>	String containing the name of the frame or window in which to load the document.																
_blank	Specifies that the linked document is loaded into a new blank window. This window is not named.																
_media	Specifies that the linked document is loaded into the browser's multimedia pane.																
_parent	Specifies that the linked document is loaded into the immediate parent of the document containing the link.																
_search	Specifies that the linked document is loaded into the browser's search pane.																
_self	Specifies that the linked document is loaded into the window in which the link was clicked (the active window).																
_top	Specifies that the linked document is loaded into the topmost window.																
title (Shape Title)	<p>Specifies the text displayed when the mouse pointer moves over the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... title="tooltip" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>																
userdrawn (Exists In Master Slide)	<p>Specifies whether the user has added the shape to a master slide. Default is false. Used by PresentationML.</p>																
Namespace:	[Example:																



Attributes	Description
urn:schemas-microsoft-com:office:office	<pre>&lt;v:shape ... o:userdrawn="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
userhidden (Hide Script Anchors)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether a script anchor is hidden. Default is false. If true, script anchors stay hidden even if the shape is otherwise visible. A script anchor is the visual representation of a script that when displayed in an application.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userhidden="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
wrapcoords (Shape Bounding Polygon)	<p>Specifies the bounding polygon that surrounds a shape. This is specified using a comma-delimited list of x and y coordinates: "x1,y1,x2,y2,x3,y3,..." This is used when text is tightly wrapped around a shape. Default is no value until the mso-wrap-mode style attribute is set to tight or through.</p> <p>[Example:</p> <pre>&lt;v:shape ...   wrapcoords="0,0 0,200, 200,200, 200,0" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Group](#)) is located in §A.7.1. *end note]*

### 19.1.2.8 h (Shape Handle)

This element defines a single handle, which is a user interface element tied to one or two adj values. Moving the handle changes its linked adj values, which in turn changes formulas and attributes that depend on them.



The handle is optionally constrained vertically or horizontally. The linked adj values store the position of the handle in the shape's coordinate space.

[Example: The example below defines a simple kite shape with a resizable width:

```
<v:shape coordsize="200,200" coordorigin="-100,-100" adj="100"
style="width:50;height:50;position:relative"
path="m @1,-50 l 0,-200 @0,-50 0,200 x e">
<v:formulas>
  <v:f eqn="val #0"/>
  <v:f eqn="sum 0 0 @0"/>
</v:formulas>
<v:handles>
  <v:h position="#0,0"/>
</v:handles>
</v:shape>
```

end example]

Attributes	Description
invx (Invert Handle's X Position)	<p>Specifies whether the x position of the handle should be inverted according to:  <math>x_{\text{new}} = \text{coordorigin}_x + \text{coordsize}_x - x_{\text{old}}</math></p> <p>Default is false.</p> <p>[Example:</p> <pre>&lt;v:handles&gt;   &lt;v:h ... invx="true" ... /&gt; &lt;/v:handles&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
invy (Invert Handle's Y Position)	<p>Specifies whether the y position of the handle should be inverted according to:  <math>y_{\text{new}} = \text{coordorigin}_y + \text{coordsize}_y - y_{\text{old}}</math></p> <p>Default is false.</p> <p>[Example:</p> <pre>&lt;v:handles&gt;   &lt;v:h ... invy="true" ... /&gt; &lt;/v:handles&gt;</pre> <p>end example]</p>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
map (Handle Coordinate Mapping)	<p>Specifies how the x and y positions of the handle are mapped from the coordsize range into the specified range. Default is "0,1000".</p> <p>[Example:</p> <pre>&lt;v:handles&gt;   &lt;v:h ... map="-1000,1000" ... /&gt; &lt;/v:handles&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
polar (Handle Polar Center)	<p>Specifies the center position of a handle that uses polar coordinates. If specified, the position attribute is assumed to contain radius and angle values. If omitted, the position attribute is assumed to contain x and y positions. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:handles&gt;   &lt;v:h ... polar="0,0" ... /&gt; &lt;/v:handles&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
position (Handle Position)	<p>Specifies the x and y position of the handle. If the polar attribute is present, defines the handle position using radius and angle values. Default is "0,0".</p> <p>Each value in the vector is one of the following:</p> <ul style="list-style-type: none"> <li>• constant</li> <li>• formula (e.g., @2)</li> <li>• adj value (e.g., #2)</li> <li>• center</li> <li>• topleft</li> <li>• bottomright</li> </ul> <p>Each of the above except for an adj value reference fixes the handle position for that dimension. Specifying an adj value allows the handle to move in that dimension and the</p>



Attributes	Description
	<p>handle position for that dimension is stored in the adj value.</p> <p>[Example: The handle's x position is fixed but it is free to move in the y dimension:</p> <pre>&lt;v:handles&gt;   &lt;v:h ... position="topleft,#2" ... /&gt; &lt;/v:handles&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
radiusrange (Handle Polar Radius Range)	<p>Specifies a range of minimum and maximum values that constrain the radius of a handle using polar coordinates. Default is "0,0". Each value is either a constant or a formula reference. Omitting a value leaves that bound unconstrained.</p> <p>[Example: The polar handle can only be moved within a radius range of 25 to 50.</p> <pre>&lt;v:handles&gt;   &lt;v:h ... radiusrange="25,50" ... /&gt; &lt;/v:handles&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
switch (Handle Inversion Toggle)	<p>Specifies whether the x and y dimensions of the handle are switched when the shape is taller than it is wide. Default is false. This is useful for shapes with limo stretch behavior.</p> <p>[Example:</p> <pre>&lt;v:handles&gt;   &lt;v:h ... switch="true" ... /&gt; &lt;/v:handles&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalseBlank simple type (§20.1.2.6).</p>
xrange (Handle X Position Range)	<p>Specifies a range of minimum and maximum values that constrain the x position of a handle. Default is "0,0". Each value is either a constant or a formula reference. Omitting a value leaves that bound unconstrained.</p> <p>[Example: The handle's x position has a maximum bound of 500 and no minimum bound:</p>



Attributes	Description
	<pre>&lt;v:handles&gt;   &lt;v:h ... xrange=",500" ... /&gt; &lt;/v:handles&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
yrange (Handle Y Position Range)	<p>Specifies a range of minimum and maximum values that constrain the y position of a handle. Default is "0,0". Each value is either a constant or a formula reference. Omitting a value leaves that bound unconstrained.</p> <p>[<i>Example:</i> The handle's y position has a minimum bound of -500 and no maximum bound:</p> <pre>&lt;v:handles&gt;   &lt;v:h ... yrange="-500," ... /&gt; &lt;/v:handles&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[*Note:* The W3C XML Schema definition of this element's content model ([CT\\_H](#)) is located in §A.7.1. *end note]*

#### 19.1.2.9 handles (Set of Handles)

This element defines a set of user interface elements which can vary a shape's adj values. All dependent formulas and attributes are recalculated. Each handle is defined by a child h element.

[*Note:* The W3C XML Schema definition of this element's content model ([CT\\_Handles](#)) is located in §A.7.1. *end note]*

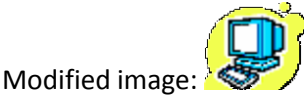
#### 19.1.2.10 image (Image File)

This element is used to draw an image that has been loaded from an external source. There is an implied rectangle that is the same size as the image. Any stroke or fill is applied to this implied rectangle. The stroke is drawn on top of the image. The fill is behind the image and therefore only visible through transparent areas of the image. Image transparency is either encoded in the file or defined via a color value using the chromakey attribute. Unlike the imagedata element (§19.1.2.11), the image element does not have a parent element.

[*Example:*





```
<v:image src="myimage.gif"
  style="position:relative;top:1;left:1;width:50;height:45"
  cropbottom="10%" gamma="0.5" gain="2">
</v:image>
```



*end example]*

Attributes	Description
<p>allowincell (Allow in Table Cell)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a shape can be placed in a table. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:allowincell="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>allowoverlap (Allow Shape Overlap)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a shape can overlap another shape. Default is true. If false, the shape shifts left or right so as not to overlap another shape, similar to the behavior of the HTML float attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:allowoverlap="false" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>alt (Alternate Text)</p>	<p>Specifies alternative text describing the graphical object. This text should provide a brief description of the shape for use by accessibility tools. Default is no value.</p> <p>[Example: The alt text describes the basic shape:</p> <pre>&lt;v:shape ... fillcolor="red"   alt="Red rectangle"&gt;</pre>



Attributes	Description
	<p><code>&lt;/v:shape&gt;</code></p> <p>The alt text describes the contents of a shape displaying an image:</p> <pre>&lt;v:shape ... alt="Picture of a sunset"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
bilevel (Image Bilevel Toggle)	<p>Specifies that all colors in the picture shall be converted to either 0 or full intensity component values. This converts a color bitmap to 8 colors and a grayscale bitmap to black and white. Default is false.</p> <p>[Example:</p> <pre>&lt;v:image ... bilevel="true" ...&gt; &lt;/v:image&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
blacklevel (Image Brightness)	<p>Specifies the image brightness. Default is 0.</p> <p>[Example:</p> <pre>&lt;v:image ... blacklevel="0.1" ...&gt; &lt;/v:image&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
borderbottomcolor (Bottom Border Color)	<p>Specifies the bottom border color of an inline shape. Default is no value.</p> <p>[Example:</p>



Attributes	Description
Namespace: urn:schemas-microsoft-com:office:office	<pre>&lt;v:shape ... o:borderbottomcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>borderleftcolor</b> (Border Left Color)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the left border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderleftcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>borderrightcolor</b> (Border Right Color)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the right border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderrightcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>bordertopcolor</b> (Border Top Color)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the top border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:bordertopcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>bullet</b> (Graphical Bullet)  Namespace:	<p>Specifies whether the shape is a graphical bullet. Default is <code>false</code>.</p> <p>[Example:</p>



Attributes	Description
urn:schemas-microsoft-com:office:office	<pre>&lt;v:shape ... o:bullet="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
button (Button Behavior Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether a shape exhibits button press behavior on click. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:button="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
bwmode (Black-and-White Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies how a shape renders for black-and-white output devices. When a shape is printed on a black-and-white printer or displayed in a black-and-white view in an application, several options are possible. Default is auto, which uses o:bwnormal for normal black-and-white rendering and o:bwpure for pure black-and-white rendering.</p> <p>bwnormal and bwpure are subordinate to bwmode. If bwmode is "auto" then the value for bwnormal or bwpure is used depending on what the output format is. An application can define for itself what, if any, difference there is between normal B&amp;W and pure B&amp;W. [Example: Normal B&amp;W might allow greyscale and pure B&amp;W might not. <i>end example]</i></p> <p>[Example: This shape renders in grayscale in a black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="grayscale" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
bwnormal (Normal Black-and-White Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the black-and-white mode for normal black-and-white output devices. Default is auto.</p> <p>[Example: This shape renders in a pale grayscale in a normal black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="auto" o:bwnormal="lightgrayscale" ... &gt; &lt;/v:shape&gt;</pre>





Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
<p>bwpure (Pure Black-and-White Mode)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the black-and-white mode for pure black-and-white output devices. Default is auto.</p> <p>[<i>Example:</i> This shape renders in high contrast when in a pure black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="auto" o:bwpure="highcontrast" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
<p>chromakey (Image Transparency Color)</p>	<p>Specifies a color value that is transparent and show anything behind the shape. Default is no value.</p> <p>[<i>Example:</i></p> <pre>&lt;v:image ... chromakey="white" ...&gt; &lt;/v:image&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<p>class (CSS Reference)</p>	<p>Specifies a reference to the definition of a CSS style. Default is no value.</p> <p>[<i>Example:</i> The snippets below are equivalent:</p> <pre>... .narrowstyle {width:50;height:100} ... &lt;v:shape ... class="narrowstyle"   style="top:1;left:1"&gt; &lt;/v:shape&gt;</pre> <pre>&lt;v:shape ... style="top:1;left:1;   width:50;height:100"&gt; &lt;/v:shape&gt;</pre>





Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>clip (Clipping Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the clipping region is active. This is used in conjunction with the clippath (§19.2.2.3) element to create a clipping region.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:clip="true"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>cliptowrap (Clip to Wrapping Polygon)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the clipping region for the shape aligns with the wrapping polygon that tightly surrounds the entire shape (essentially, that the shape shall not be drawn beyond its wrapping polygon's extents – if it does, the shape shall be clipped). Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:cliptowrap="true"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>connectortype (Shape Connector Type)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the kind of connector used for joining shapes. Default is straight.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:connectortype="elbow" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ConnectorType simple type (§19.2.3.7).</p>
<p>coordorigin (Coordinate Space Origin)</p>	<p>Specifies the coordinate of the top left corner of the shape's coordinate space. This determines the position of the (0,0) coordinate space origin within the shape's bounding box. Default is "0,0", which places the (0,0) origin at the top left corner of the bounding box.</p>





Attributes	Description
	<p>This affects shape properties that specify coordinate positions, such as the path attribute. Thus a path can be defined against a generic (0,0) origin and the coordorigin value translates the entire path within the shape's bounding space.</p> <p>[<i>Example:</i> The horizontal and vertical coordinate space ranges from -100 to +100 because the coordinate space (coordsize) is 200 by 200 and the top left coordinate is (-100,-100). The (0,0) origin lies at the center of the shape's bounding box, as evidenced by the position of the shape's path within the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200"   coordorigin="-100,-100"   path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>coordsize (Coordinate Space Size)</p>	<p>Specifies the size of the shape's coordinate space in coordinate units. Default is "1000,1000".</p> <p>The physical size of a coordinate unit length is determined by both the size of the coordinate space (coordsize) and the size of the shape (style width and height). The coordsize attribute defines the number of horizontal and vertical subdivisions into which the shape's bounding box is divided. The combination of coordsize and style width/height effective scales the shape anisotropically.</p> <p>[<i>Example:</i> The path is 50 units wide and tall, which is 25% of the size of the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200"   coordorigin="-100,-100"   path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p>



Attributes	Description
cropbottom (Image Bottom Crop)	<p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p> <p>Specifies the how much to crop the image from the bottom up as a fraction of picture size. Default is 0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. For example, a value of "52429f" represents 52429/65536 or 0.8.</p> <p>[Example:</p> <pre>&lt;v:image ... cropbottom="10%" ...&gt; &lt;/v:image&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
cropleft (Image Left Crop)	<p>Specifies how much to crop the image from the left in as a fraction of picture size. Default is 0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. For example, a value of "52429f" represents 52429/65536 or 0.8.</p> <p>[Example:</p> <pre>&lt;v:image ... cropleft="10%" ...&gt; &lt;/v:image&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
cropright (Image Right Crop)	<p>Specifies how much to crop the image from the right in as a fraction of picture size. Default is 0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. [Example: For example, a value of "52429f" represents 52429/65536 or 0.8. end example]</p> <p>[Example:</p> <pre>&lt;v:image ... cropright="10%" ...&gt; &lt;/v:image&gt;</pre>




Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
croptop (Image Top Crop)	<p>Specifies how much to crop the image from the top down as a fraction of picture size. Default is 0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. [Example: For example, a value of "52429f" represents 52429/65536 or 0.8. <i>end example]</i></p> <p>[Example:</p> <pre>&lt;v:image ... croptop="10%" ...&gt; &lt;/v:image&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
dgmlayout (Diagram Node Layout Identifier)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the kind of automatic layout to apply to the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element. [Example:</p> <pre>&lt;v:shape ... dgmlayout="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).</p>
dgmlayoutmru (Diagram Node Recent Layout Identifier)  Namespace: urn:schemas-	<p>Specifies the kind of automatic layout most recently used on the child elements of the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.</p> <p>[Example:</p>






Attributes	Description
microsoft-com:office:office	<pre>&lt;v:shape ... dgmlayout="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).</p>
dgmnodekind (Diagram Node Identifier)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies an optional, application-defined parameter that is intended to be used by the application to tag different types of nodes in a diagram.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmnodekind="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
doubleclicknotify (Double-click Notification Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies that an event message is sent when a shape is double-clicked. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:doubleclicknotify="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
fillcolor (Fill Color)	<p>Specifies the color to use for the fill. Default is white. If the fill element (§19.1.2.5) is present, its color attribute takes precedence. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example: This shape is red if its fill is visible:</p> <pre>&lt;v:shape ... fillcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p>This is equivalent to:</p> <pre>&lt;v:shape ... fillcolor="#ff0000" ... &gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<p>filled (Shape Fill Toggle)</p>	<p>Specifies whether the closed path is filled. Default is true. This attribute is overridden by the fill on attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... filled="f"   fillcolor="red" ...&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>forcedash (Force Dashed Outline)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a dashed outline is used to draw a shape when a shape has no line or fill. Default is false.</p> <p>Used by PresentationML placeholders to draw a dashed outline when there is no line and no fill for a shape.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:forcedash="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>gain (Image Intensity)</p>	<p>Specifies an adjustment for the intensity of all colors. Essentially sets how bright white is. Default is 1.</p> <p>[Example:</p> <pre>&lt;v:image ... gain="0.5" ...&gt; &lt;/v:image&gt;</pre>



Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
gamma (Image Gamma Correction)	<p>Specifies the gamma correction. Default is 1.</p> <p>Gamma correction is a factor by which the intended target display gamma differs from the sRGB profile. It can be used to correct for images not prepared for sRGB displays and to adjust overall image contrast. Decreasing it below 1 gives a higher contrast image.</p> <p>[Example:</p> <pre>&lt;v:image ... gamma="0.5" ...&gt; &lt;/v:image&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
grayscale (Image Grayscale Toggle)	<p>Specifies to display the image in grayscale. Default is false.</p> <p>[Example:</p> <pre>&lt;v:image ... gamma="0.5" ...&gt; &lt;/v:image&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
hr (Horizontal Rule Toggle)  Namespace:	<p>Specifies that a shape is a horizontal rule. Default is false.</p> <p>[Example:</p>



Attributes	Description
urn:schemas-microsoft-com:office:office	<pre>&lt;v:shape ... o:hr="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<b>hralign (Horizontal Rule Alignment)</b>  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the alignment of a horizontal rule. Default is left.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hralign="center" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_HrAlign simple type (§19.2.3.16).</p>
<b>href (Hyperlink Target)</b>	<p>Specifies a hyperlink URL target for the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... href="http://www.openxmlformats.org" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>hrnoshade (Horizontal Rule 3D Shading Toggle)</b>  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies that the horizontal rule does not have 3-D shading. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrnoshade="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<b>hrpct (Horizontal Rule Length Percentage)</b>  Namespace:	<p>Specifies the length of a horizontal rule as a percentage of page width. Default is 0.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrpct="85" ... &gt;</pre>

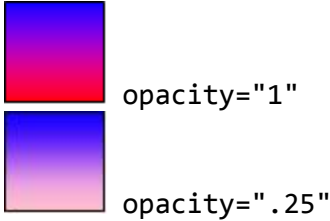


Attributes	Description
urn:schemas-microsoft-com:office:office	<p><code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
hrstd (Horizontal Rule Standard Display Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether a shape is displayed as a standard horizontal rule. Only applies if hr is true. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrstd="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
id (Unique Identifier)	<p>Specifies a unique identifier that can be used to reference a VML object.</p> <p>Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
insetmode (Text Inset Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the application calculates the internal text margin instead of using the inset attribute. Default is custom. This attribute is only meaningful for text boxes.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:insetmode="auto" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_InsetMode simple type (§19.2.3.17).</p>
insetpen (Inset Border From Path)	<p>Specifies that the border shall be displayed inside of the path defining the shape, rather than along the path (the default border placement), or outside of the path as might be done with an image.</p>




Attributes	Description
	<p>[Example:</p> <pre>&lt;v:shape ... insetpen="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>ole (Embedded Object Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the shape is an embedded object. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:ole="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalseBlank simple type (§20.1.2.6).</p>
<p>oleicon (Embedded Object Icon Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether an embedded object is displayed as an icon. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oleicon="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>oned (Shape Handle Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the extra handles of a shape are hidden. If true, hides all shape handles except the top left and bottom right; that is, the same handles that are used for a straight line segment. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oned="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>






Attributes	Description
opacity (Fill Color Opacity)	<p>Specifies the opacity of the primary fill color. Default is 1.0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. <i>[Example: A value of "52429f" represents 52429/65536 or 0.8. end example]</i></p> <p><i>[Example: The red color is 25% opaque:</i></p> <pre>&lt;v:fill type="gradient" color="red"   color2="blue" opacity=".25"&gt; &lt;/v:fill&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
preferrelative (Relative Resize Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the original size of an object is saved after reformatting. Default is false. If true, the original size of the object is stored and all resizing is based on a percentage of that original size. Otherwise, each resizing resets the scale to 100%.</p> <p><i>[Example:</i></p> <pre>&lt;v:shape ... o:preferrelative="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
print (Print Toggle)	<p>Specifies whether the shape is printed. Default is true.</p> <p><i>[Example:</i></p> <pre>&lt;v:shape ... print="false" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>



Attributes	Description
<p>regroupid (Regroup ID)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies a previous group for a shape. An ID number is used to identify groups of shapes that are no longer grouped. This allows shapes to be regrouped programmatically.</p> <p>[Example: The shape was part of a group identified by the ID 040754:</p> <pre>&lt;v:shape ... o:regroupid="040754" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
<p>spid (Optional String)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies an optional string that an application can use to identify the particular shape. Default is no value.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>spt (Optional Number)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies an optional number that an application can use to associate the particular shape with a defined shape type. Default is 0.</p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
<p>src (Image Source)</p>	<p>Specifies the URL of the image to use.</p> <p>[Example:</p> <pre>&lt;v:image ... src="myimage.gif" ...&gt; &lt;/v:image&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>strokecolor (Shape Stroke Color)</p>	<p>Specifies the primary color of the brush to use to stroke the path of the shape. Default is black. The color attribute of the stroke element (§19.1.2.21) overrides this. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details</p>



Attributes	Description
	<p>are specified in the simple type description.</p> <p>[Example:</p> <pre>&lt;v:shape ... strokecolor="red" ...&gt; &lt;/v:shape&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
stroked (Shape Stroke Toggle)	<p>Specifies whether the path defining the shape is stroked with a solid line. The stroke element (§19.1.2.21) defines other strokes. The on attribute of the stroke element overrides this attribute. Default is true.</p> <p>[Example:</p> <pre>&lt;v:shape ... fillcolor="red"   stroked="false" strokecolor="blue"...&gt; &lt;/v:shape&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
strokeweight (Shape Stroke Weight)	<p>Specifies the width of the brush to use to stroke the path. Default is 1 point. If a number is given without units, the emu is used. The weight attribute of the stroke element (§19.1.2.21) overrides this attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... strokeweight="3pt" ... &gt; &lt;/v:shape&gt;</pre> 



Attributes	Description								
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>								
<p>style (Shape Styling Properties)</p>	<p>Specifies the CSS2 styling properties of the shape. The CSS2 (Cascading Style Sheets, Level 2) specification, a Recommendation of the World Wide Web Consortium, is available here: <a href="http://www.w3.org/TR/REC-CSS2">http://www.w3.org/TR/REC-CSS2</a>.</p> <p>This attribute uses a semi-colon delimited list of “name:value” pairs, the syntax defined by section 4.1.8 of the CSS2 specification for grouped declarations (without the surrounding braces). The following tables define the allowed properties and the VML treatment of each.</p> <p>[Example:  <code>&lt;v:shape ... style='position:absolute;width:100pt;height:50pt' ...</code>  <code>&gt;</code>  <code>&lt;/v:shape&gt;</code>  <i>end example]</i></p> <table border="1"> <thead> <tr> <th>Property</th><th>Description</th></tr> </thead> <tbody> <tr> <td>flip</td><td> <p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul> </td></tr> <tr> <td>height</td><td> <p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul> </td></tr> <tr> <td>left</td><td> <p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> </td></tr> </tbody> </table>	Property	Description	flip	<p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul>	height	<p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>	left	<p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p>
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Attributes	Description	
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	margin-bottom	<p>Specifies the position of the bottom of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	margin-left	<p>Specifies the position of the left of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-right	<p>Specifies the position of the right of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>



Attributes	Description	
	margin-top	<p>Specifies the position of the top of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	mso-position-horizontal	<p>Specifies the horizontal positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• left</li> <li>• center</li> <li>• right</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-horizontal-relative	<p>Specifies relative horizontal position data for objects in WordprocessingML documents. This modifies the mso-position-horizontal property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• char</li> </ul>
	mso-position-vertical	<p>Specifies the vertical positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• top</li> <li>• center</li> <li>• bottom</li> <li>• inside</li> <li>• outside</li> </ul>



Attributes	Description	
	mso-position-vertical-relative	<p>Specifies relative vertical position data for objects in WordprocessingML documents. This modifies the mso-position-vertical property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• line</li> </ul>
	mso-wrap-distance-bottom	<p>Specifies the distance from the bottom of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-distance-left	<p>Specifies the distance from the left side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-distance-right	<p>Specifies the distance from the right side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-distance-top	<p>Specifies the distance from the top of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-edited	<p>Specifies whether the wrap coordinates were customized by the user. If the wrap coordinates are generated by an editor, this property is true; otherwise they were customized by a user. Default is false.</p>
	mso-wrap-style	<p>Specifies the wrapping mode for text in shapes in WordprocessingML documents. Default is square. Allowed values are:</p> <ul style="list-style-type: none"> <li>• square - Wraps text inside the shape in a square.</li> <li>• none - Text does not wrap.</li> </ul>
	position	<p>Specifies the kind of positioning used to place an element. Default is static. When the element is contained inside a group, this property shall be absolute. Allowed values are:</p>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• <b>static</b> - The element is positioned according to the normal flow of the page. The <b>top</b> and <b>left</b> properties are ignored. If the object is anchored inline, this value is used.</li> <li>• <b>absolute</b> - The element is positioned relative to the parent, using the <b>top</b> and <b>left</b> properties.</li> <li>• <b>relative</b> - The element is positioned according to the normal flow of the page, but the <b>top</b> and <b>left</b> properties are used. The overlap of overlapping elements is governed by the <b>z-index</b> property.</li> </ul>
	rotation	Specifies the angle that a shape is rotated, in degrees. Default is 0. Positive angles are clockwise.
	top	<p>Specifies the position of the top of the containing block of the shape relative to the element above it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <b>auto</b> - Default position of an element in the flow of the page.</li> <li>• <b>&lt;units&gt;</b>- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• <b>&lt;percentage&gt;</b>- Value expressed as a percentage of the parent object's height.</li> </ul>
	visibility	<p>Specifies whether a shape is displayed. Only <b>inherit</b> and <b>hidden</b> are used; any other values are mapped to <b>inherit</b>. Default is <b>inherit</b>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <b>hidden</b> - The shape is not visible, but is still part of the flow of the objects in the browser. Mouse events are not processed.</li> <li>• <b>inherit</b> - The visibility state is inherited from the parent of the shape.</li> </ul>
	width	<p>Specifies the width of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <b>auto</b> - Default position of an element in the flow of the page.</li> <li>• <b>&lt;units&gt;</b>- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> </ul>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	z-index	<p>Specifies the display order of overlapping shapes. Default is 0. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Uses the order that the shapes appear in the page, bottom to top.</li> <li>• &lt;order&gt;- A number that represents the stacking precedence. Shapes with higher numbers are placed on top of those with lower numbers. Negative numbers are allowed.</li> </ul>
The following properties are only used by the textbox element (§19.1.2.22):		
Property	Description	
direction	<p>Specifies the direction of the text in the textbox. Default is ltr. This property is superseded by the mso-direction-alt property if that is specified. Allowed values are:</p> <ul style="list-style-type: none"> <li>• ltr - Text is displayed left-to-right.</li> <li>• rtl - Text is displayed right-to-left.</li> </ul>	
layout-flow	<p>Determines the flow of the text layout in a textbox. Default is horizontal. Allowed values are:</p> <ul style="list-style-type: none"> <li>• horizontal - Text is displayed horizontally.</li> <li>• vertical - Text is displayed vertically.</li> <li>• vertical-ideographic - Ideographic text is displayed vertically.</li> <li>• horizontal-ideographic - Ideographic text is displayed horizontally.</li> </ul>	
mso-direction-alt	<p>Specifies an alternate direction for text in textboxes. Overrides the direction property. The only allowed value is context.</p>	
mso-fit-shape-to-text	<p>Specifies whether the shape stretches to fit the text in the textbox. Default is false.</p>	
mso-fit-text-to-shape	<p>Specifies whether the text stretches to fit the textbox. Default is false.</p>	
mso-layout-	<p>Specifies the alternate layout flow for text in textboxes. This</p>	



Attributes	Description							
	flow-alt	property is used instead of layout-flow when the layout flow is from bottom to top for non-ideographic languages. Its only value is bottom-to-top.						
	mso-next-textbox	Specifies the ID of the next textbox in a series. Used to keep track of a set of linked textboxes. Default is no value.						
	mso-rotate	Specifies a specific rotation value for text in a textbox. Default is 0. Allowed values are: <ul style="list-style-type: none"><li>0</li><li>90</li><li>180</li><li>-90</li></ul>						
	mso-text-scale	Specifies the scaling factor for fitting text to shapes. Default is 0. This property is only used if mso-fit-text-to-shape is true.						
	v-text-anchor	Specifies the vertical anchoring of text in a textbox. Default is top. The alignment of a text anchor only becomes evident if mso-fit-text-to-shape is false. This property is different from the vertical-align CSS property, which is used for ideographic languages. Allowed values are: <ul style="list-style-type: none"><li>top</li><li>middle</li><li>bottom</li><li>top-center</li><li>middle-center</li><li>bottom-center</li><li>top-baseline</li><li>bottom-baseline</li><li>top-center-baseline</li><li>bottom-center-baseline</li></ul>						
The following properties are only used by the textpath element (§19.1.2.23):								
<table><tr><th>Property</th><th>Description</th></tr><tr><td>font</td><td>Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.</td></tr><tr><td>font-family</td><td>Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.</td></tr></table>			Property	Description	font	Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.	font-family	Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.
Property	Description							
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font-family	Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.							



Attributes	Description																	
	font-size	Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.																
	font-style	Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are: <ul style="list-style-type: none"><li>normal</li><li>italic</li><li>oblique - Treated the same as italic.</li></ul>																
	font-variant	Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are: <ul style="list-style-type: none"><li>normal</li><li>small-caps</li></ul>																
	font-weight	<div>Specifies the thickness of the letters of the font. Default is normal. The values are the same as those of the CSS font-weight property. Allowed values are:</div> <table><tr><th>Value</th><th>Description</th></tr><tr><td>normal</td><td rowspan="6">Treated as non-bold.</td></tr><tr><td>lighter</td></tr><tr><td>100</td></tr><tr><td>200</td></tr><tr><td>300</td></tr><tr><td>400</td></tr><tr><td>bold</td><td rowspan="7">Treated as bold.</td></tr><tr><td>bolder</td></tr><tr><td>500</td></tr><tr><td>600</td></tr><tr><td>700</td></tr><tr><td>800</td></tr><tr><td>900</td></tr></table>	Value	Description	normal	Treated as non-bold.	lighter	100	200	300	400	bold	Treated as bold.	bolder	500	600	700	800
Value	Description																	
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lighter																		
100																		
200																		
300																		
400																		
bold	Treated as bold.																	
bolder																		
500																		
600																		
700																		
800																		
900																		
mso-text-	Specifies whether a shadow is applied to the text on a text path.																	



Attributes	Description	
	shadow	Default is false.
	text-decoration	<p>Specifies the style of text decoration. Default is none. The values are the same as those of the CSS text-decoration property. Allowed values are:</p> <ul style="list-style-type: none"> <li>• none</li> <li>• underline</li> <li>• overline</li> <li>• line-through</li> <li>• blink</li> </ul>
	v-rotate-letters	Specifies whether the letters of the text are rotated counterclockwise by 90 degrees. Default is false.
	v-same-letter-heights	Specifies whether all letters are the same height regardless of initial case. If true, the lowercase letters are stretched to the height of the uppercase letters. Default is false.
	v-text-align	<p>Specifies the alignment of text. Default is left. Allowed values are:</p> <ul style="list-style-type: none"> <li>• left</li> <li>• right</li> <li>• center</li> <li>• justify</li> <li>• letter-justify - Distributes the extra space between the letters.</li> <li>• stretch-justify - Stretches the letters to fill in the space.</li> </ul>
	v-text-kern	Specifies whether kerning is turned on. Default is false.
	v-text-reverse	Specifies whether the layout order of rows is reversed. Default is false. This is used for vertical text layout.
	v-text-spacing-mode	<p>Specifies the mode for letter spacing. Default is tightening. This property determines whether space is removed between each letter (tightening) or added between each letter (tracking). The amount of letter spacing change is defined by the v-text-spacing property. Allowed values are:</p> <ul style="list-style-type: none"> <li>• tightening</li> <li>• tracking</li> </ul>
	v-text-spacing	Specifies the amount of spacing for text in 100ths of single line spacing. Default is 100.



Attributes	Description														
	<p>The line (§19.1.2.12), polyline (§19.1.2.15) and curve (§19.1.2.3) elements ignore the following properties:</p> <ul style="list-style-type: none"> <li>• top</li> <li>• left</li> <li>• width</li> <li>• height</li> </ul> <p>The following properties are not inherited by an element that references a shapetype element (§19.1.2.20) via the id attribute:</p> <ul style="list-style-type: none"> <li>• flip</li> <li>• height</li> <li>• left</li> <li>• margin-left</li> <li>• margin-top</li> <li>• position</li> <li>• rotation</li> <li>• top</li> <li>• visibility</li> <li>• width</li> <li>• z-index</li> </ul> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>														
target (Hyperlink Display Target)	<p>Specifies a frame or window that a URL is displayed in. Default is no value. Allowed values are:</p> <table border="1"> <thead> <tr> <th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>&lt;targetname&gt;</td><td>String containing the name of the frame or window in which to load the document.</td></tr> <tr> <td>_blank</td><td>Specifies that the linked document is loaded into a new blank window. This window is not named.</td></tr> <tr> <td>_media</td><td>Specifies that the linked document is loaded into the browser's multimedia pane.</td></tr> <tr> <td>_parent</td><td>Specifies that the linked document is loaded into the immediate parent of the document containing the link.</td></tr> <tr> <td>_search</td><td>Specifies that the linked document is loaded into the browser's search pane.</td></tr> <tr> <td>_self</td><td>Specifies that the linked document is loaded into the window in which the link was clicked (the active window).</td></tr> </tbody> </table>	Value	Description	<targetname>	String containing the name of the frame or window in which to load the document.	_blank	Specifies that the linked document is loaded into a new blank window. This window is not named.	_media	Specifies that the linked document is loaded into the browser's multimedia pane.	_parent	Specifies that the linked document is loaded into the immediate parent of the document containing the link.	_search	Specifies that the linked document is loaded into the browser's search pane.	_self	Specifies that the linked document is loaded into the window in which the link was clicked (the active window).
Value	Description														
<targetname>	String containing the name of the frame or window in which to load the document.														
_blank	Specifies that the linked document is loaded into a new blank window. This window is not named.														
_media	Specifies that the linked document is loaded into the browser's multimedia pane.														
_parent	Specifies that the linked document is loaded into the immediate parent of the document containing the link.														
_search	Specifies that the linked document is loaded into the browser's search pane.														
_self	Specifies that the linked document is loaded into the window in which the link was clicked (the active window).														



Attributes	Description		
	<table border="1"> <tr> <td><code>_top</code></td><td>Specifies that the linked document is loaded into the topmost window.</td></tr> </table> <p><i>[Example:</i></p> <pre> &lt;v:shape ...   href="http://www.openxmlformats.org"   target="_self" ... &gt; &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>	<code>_top</code>	Specifies that the linked document is loaded into the topmost window.
<code>_top</code>	Specifies that the linked document is loaded into the topmost window.		
title (Shape Title)	<p>Specifies the text displayed when the mouse pointer moves over the shape. Default is no value.</p> <p><i>[Example:</i></p> <pre> &lt;v:shape ... title="tooltip" ... &gt; &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>		
userdrawn (Exists In Master Slide)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the user has added the shape to a master slide. Default is <code>false</code>. Used by PresentationML.</p> <p><i>[Example:</i></p> <pre> &lt;v:shape ... o:userdrawn="true" ... &gt; &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>		
userhidden (Hide Script Anchors)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether a script anchor is hidden. Default is <code>false</code>. If <code>true</code>, script anchors stay hidden even if the shape is otherwise visible. A script anchor is the visual representation of a script that when displayed in an application.</p> <p><i>[Example:</i></p> <pre> &lt;v:shape ... o:userhidden="true" ... &gt; </pre>		



Attributes	Description
	<p><code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
wrapcoords (Shape Bounding Polygon)	<p>Specifies the bounding polygon that surrounds a shape. This is specified using a comma-delimited list of x and y coordinates: "x1,y1,x2,y2,x3,y3,..." This is used when text is tightly wrapped around a shape. Default is no value until the mso-wrap-mode style attribute is set to tight or through.</p> <p>[Example:</p> <pre> &lt;v:shape ...   wrapcoords="0,0 0,200, 200,200, 200,0" ... &gt; &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Image](#)) is located in §A.7.1. *end note]*

#### 19.1.2.11 imagedata (Image Data)

This element is used to draw an image that has been loaded from an external source. There is an implied rectangle that is the same size as the image. Any stroke or fill is applied to this implied rectangle. The stroke is drawn on top of the image. The fill is behind the image and therefore only visible through transparent areas of the image. Image transparency is either encoded in the file or defined via a color value using the chromakey attribute. Unlike the image element (§19.1.2.10), the imagedata element shall have a parent element.

[Example:

```



<v:shape style="position:relative;top:1;left:1;width:50;height:50"
  path="m 0,0 l 1000,0 1000,1000 0,1000 x e" fillcolor="blue">
  <v:imagedata src="myimage.gif"/>
</v:shape>

```





*end example]*





Attributes	Description
<b>althref</b> (Alternate Image Reference)  Namespace: urn:schemas-microsoft-com:office:office	Defines an alternate reference for an image in Macintosh PICT format.  <i>[Example:</i> <pre>&lt;v:imagedata ... althref="myimage.pcz" ... &gt; &lt;/v:imagedata&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the W3C XML Schema string datatype.
<b>bilevel</b> (Image Bilevel Toggle)	Specifies that all colors in the picture shall be converted to either 0 or full intensity component values. This converts a color bitmap to 8 colors and a grayscale bitmap to black and white. Default is <i>false</i> .  <i>[Example:</i> <pre>&lt;v:image ... bilevel="true" ...&gt; &lt;/v:image&gt;</pre>  <i>end example]</i>  The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).
<b>blacklevel</b> (Image Brightness)	Specifies the image brightness. Default is 0.  <i>[Example:</i> <pre>&lt;v:image ... blacklevel="0.1" ...&gt; &lt;/v:image&gt;</pre>  <i>end example]</i>  The possible values for this attribute are defined by the W3C XML Schema string datatype.
<b>chromakey</b> (Image Transparency Color)	Specifies a color value that is transparent and show anything behind the shape. Default is no value.






Attributes	Description
	<p>[Example:</p> <pre>&lt;v:image ... chromakey="white" ...&gt; &lt;/v:image&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<p>cropbottom (Image Bottom Crop)</p>	<p>Specifies the how much to crop the image from the bottom up as a fraction of picture size. Default is 0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. For example, a value of "52429f" represents 52429/65536 or 0.8.</p> <p>[Example:</p> <pre>&lt;v:image ... cropbottom="10%" ...&gt; &lt;/v:image&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>cropleft (Image Left Crop)</p>	<p>Specifies how much to crop the image from the left in as a fraction of picture size. Default is 0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. For example, a value of "52429f" represents 52429/65536 or 0.8.</p> <p>[Example:</p> <pre>&lt;v:image ... cropleft="10%" ...&gt; &lt;/v:image&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>cropright (Image Right Crop)</p>	<p>Specifies how much to crop the image from the right in as a fraction of picture size. Default is 0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is</p>



Attributes	Description
	<p>supplied. [Example: For example, a value of "52429f" represents 52429/65536 or 0.8. end example]</p> <p>[Example:</p> <pre>&lt;v:image ... cropright="10%" ...&gt; &lt;/v:image&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
croptop (Image Top Crop)	<p>Specifies how much to crop the image from the top down as a fraction of picture size. Default is 0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. [Example: For example, a value of "52429f" represents 52429/65536 or 0.8. end example]</p> <p>[Example:</p> <pre>&lt;v:image ... croptop="10%" ...&gt; &lt;/v:image&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
detectmouseclick (Detect Mouse Click)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether a mouse click is detected on the fill of a shape.</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
embosscolor (Embossed Color)	<p>Specifies the color to use to create an embossed effect in the image. Default is no value. This can be set to a percentage of the shadow color to create an embossed picture effect.</p> <p>The possible values for this attribute are defined by the ST_ColorType simple type</p>



Attributes	Description
gain (Image Intensity)	<p>(§20.1.2.3).</p> <p>Specifies an adjustment for the intensity of all colors. Essentially sets how bright white is. Default is 1.</p> <p>[Example:</p> <pre>&lt;v:image ... gain="0.5" ...&gt; &lt;/v:image&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
gamma (Image Gamma Correction)	<p>Specifies the gamma correction. Default is 1.</p> <p>Gamma correction is a factor by which the intended target display gamma differs from the sRGB profile. It can be used to correct for images not prepared for sRGB displays and to adjust overall image contrast. Decreasing it below 1 gives a higher contrast image.</p> <p>[Example:</p> <pre>&lt;v:image ... gamma="0.5" ...&gt; &lt;/v:image&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
grayscale (Image Grayscale Toggle)	<p>Specifies to display the image in grayscale. Default is false.</p> <p>[Example:</p> <pre>&lt;v:image ... gamma="0.5" ...&gt; &lt;/v:image&gt;</pre> 





Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>href (Explicit Relationship to Hyperlink Target)</p> <p>Namespace: .../officeDocument/2006/relationships</p>	<p>Specifies the relationship ID of the relationship to the hyperlink used for this VML object. The specified relationship shall be of type <code>http://schemas.openxmlformats.org/officeDocument/2006/relationships/image</code> or the document shall be considered non-conformant.</p> <p>[<i>Example:</i> The markup specifies the associated relationship part with relationship ID <code>rId10</code> contains the corresponding relationship information for the image data:</p> <pre>&lt; ... r:href="rId5" /&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>
<p>href (Original Image Reference)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the URL to the original image file. Used only if the picture has been linked and embedded. Default is no value.</p> <p>[<i>Example:</i></p> <pre>&lt;v:fill ... o:href="myimage.gif" ... &gt; &lt;/v:fill&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>id (Explicit Relationship to Image Data)</p> <p>Namespace: .../officeDocument/2006/relationships</p>	<p>Specifies the relationship ID of the relationship to the image used for this VML object. The specified relationship shall be of type <code>http://schemas.openxmlformats.org/officeDocument/2006/relationships/image</code> or the document shall be considered non-conformant.</p> <p>[<i>Example:</i> The markup specifies the associated relationship part with relationship ID <code>rId10</code> contains the corresponding relationship information for the image data:</p> <pre>&lt; ... r:id="rId10" /&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>




Attributes	Description
<b>id (Unique Identifier)</b>	<p>Specifies a unique identifier that can be used to reference a VML object.</p> <p>Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>movie (Movie Reference)</b>  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies a pointer to a movie image. This is a data block that contains a pointer to a pointer to movie data.</p> <p>[Example:</p> <pre>&lt;v:imagedata ... o:movie="1434" ...&gt; &lt;/v:imagedata&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
<b>oleid (Image Embedded Object ID)</b>  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the embedded object ID of an image.</p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
<b>pict (Explicit Relationship to Alternate Image Data)</b>  Namespace: .../officeDocument/2006/relationships	<p>Specifies the relationship ID of the relationship to an alternate format image used for this VML object. The specified relationship shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/image">http://schemas.openxmlformats.org/officeDocument/2006/relationships/image</a> or the document shall be considered non-conformant.</p> <p>If this attribute is specified, the application should attempt to display the image defined by the relationship. If the application cannot display the format of that image, the r:id attribute is used.</p> <p>[Example: The markup specifies the associated relationship part with relationship ID rId7 contains the corresponding relationship information for the image data. The relationship part with relationship ID rId10 is used if the application cannot display the image referenced by rId7.:]</p>



Attributes	Description
	<p><code>&lt; ... r:id="rId10" r:pict="rId7"/&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>
<p>recolortarget (Black Recoloring Color)</p>	<p>Specifies the color to which black should be recolored.</p> <p>[Example:</p> <p><code>&lt;v:imagedata r:id="rId4" recolortarget="red"&gt;</code>  <code>&lt;/v:imagedata&gt;</code></p> <div>  </div> <p>no recolor</p> <div>  </div> <p>recolortarget="red"</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<p>relid (Relationship to Part)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the relationship ID of the relationship to the image. The specified relationship shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/image">http://schemas.openxmlformats.org/officeDocument/2006/relationships/image</a> or the document shall be considered non-conformant.</p> <p>[Example: The markup specifies the associated relationship part with relationship ID rId10 contains the corresponding relationship information:</p> <p><code>&lt;v:imagedata ... o:relid="rId10" ...&gt;</code>  <code>&lt;/v:imagedata&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>
<p>src (Image Source)</p>	<p>Specifies the URL of the image to use.</p> <p>[Example:</p> <p><code>&lt;v:image ... src="myimage.gif" ...&gt;</code></p>



Attributes	Description
	<p><code>&lt;/v:image&gt;</code></p>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>title (Image Data Title)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the title of an embedded image. This is typically set to the comment property of the image, which is often blank.</p> <p>[Example:</p> <pre>&lt;v:fill ... o:title="alt text" ... &gt; &lt;/v:fill&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

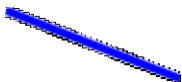
[Note: The W3C XML Schema definition of this element's content model ([CT\\_ImageData](#)) is located in §A.7.1.  
*end note]*

#### 19.1.2.12 line (Line)

This element draws a straight line.

[Example:

```
<v:line from="10pt,10pt" to="75pt,35pt"
strokecolor="blue" strokeweight="3pt">
</v:line>
```



*end example]*

Attributes	Description
allowincell (Allow in Table Cell)	<p>Specifies whether a shape can be placed in a table. Default is false.</p> <p>[Example:</p>



Attributes	Description
Namespace: urn:schemas-microsoft-com:office:office	<pre>&lt;v:shape ... o:allowincell="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
allowoverlap (Allow Shape Overlap)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether a shape can overlap another shape. Default is true. If false, the shape shifts left or right so as not to overlap another shape, similar to the behavior of the HTML float attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:allowoverlap="false" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
alt (Alternate Text)	<p>Specifies alternative text describing the graphical object. This text should provide a brief description of the shape for use by accessibility tools. Default is no value.</p> <p>[Example: The alt text describes the basic shape:</p> <pre>&lt;v:shape ... fillcolor="red"   alt="Red rectangle"&gt; &lt;/v:shape&gt;</pre> <p>The alt text describes the contents of a shape displaying an image:</p> <pre>&lt;v:shape ... alt="Picture of a sunset"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
borderbottomcolor (Bottom Border Color)  Namespace: urn:schemas-	<p>Specifies the bottom border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderbottomcolor="red" ... &gt; &lt;/v:shape&gt;</pre>



Attributes	Description
microsoft-com:office:office	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>borderleftcolor</b> (Border Left Color)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the left border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderleftcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>borderrightcolor</b> (Border Right Color)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the right border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderrightcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>bordertopcolor</b> (Border Top Color)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the top border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:bordertopcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>bullet</b> (Graphical Bullet)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the shape is a graphical bullet. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:bullet="true" ... &gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>button (Button Behavior Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a shape exhibits button press behavior on click. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:button="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>bwmode (Black-and-White Mode)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies how a shape renders for black-and-white output devices. When a shape is printed on a black-and-white printer or displayed in a black-and-white view in an application, several options are possible. Default is auto, which uses o:bwnormal for normal black-and-white rendering and o:bwpure for pure black-and-white rendering.</p> <p>bwnormal and bwpure are subordinate to bwmode. If bwmode is "auto" then the value for bwnormal or bwpure is used depending on what the output format is. An application can define for itself what, if any, difference there is between normal B&amp;W and pure B&amp;W. [Example: Normal B&amp;W might allow greyscale and pure B&amp;W might not. <i>end example]</i></p> <p>[Example: This shape renders in grayscale in a black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="grayscale" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
<p>bwnormal (Normal Black-and-White Mode)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the black-and-white mode for normal black-and-white output devices. Default is auto.</p> <p>[Example: This shape renders in a pale grayscale in a normal black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="auto" o:bwnormal="lightgrayscale" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p>





Attributes	Description
bwpure (Pure Black-and-White Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p> <p>Specifies the black-and-white mode for pure black-and-white output devices. Default is auto.</p> <p>[Example: This shape renders in high contrast when in a pure black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="auto" o:bwpure="highcontrast" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
chromakey (Image Transparency Color)	<p>Specifies a color value that is transparent and show anything behind the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:image ... chromakey="white" ...&gt; &lt;/v:image&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
class (CSS Reference)	<p>Specifies a reference to the definition of a CSS style. Default is no value.</p> <p>[Example: The snippets below are equivalent:</p> <pre>... .narrowstyle {width:50;height:100} ... &lt;v:shape ... class="narrowstyle"   style="top:1;left:1"&gt; &lt;/v:shape&gt;</pre> <pre>&lt;v:shape ... style="top:1;left:1;   width:50;height:100"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p>



Attributes	Description
	The possible values for this attribute are defined by the W3C XML Schema string datatype.
<p>clip (Clipping Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the clipping region is active. This is used in conjunction with the clippath (§19.2.2.3) element to create a clipping region.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:clip="true"&gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>cliptowrap (Clip to Wrapping Polygon)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the clipping region for the shape aligns with the wrapping polygon that tightly surrounds the entire shape (essentially, that the shape shall not be drawn beyond its wrapping polygon's extents – if it does, the shape shall be clipped). Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:cliptowrap="true"&gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>connectortype (Shape Connector Type)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the kind of connector used for joining shapes. Default is straight.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:connectortype="elbow" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_ConnectorType simple type (§19.2.3.7).</p>
<p>coordorigin (Coordinate Space Origin)</p>	<p>Specifies the coordinate of the top left corner of the shape's coordinate space. This determines the position of the (0,0) coordinate space origin within the shape's bounding box. Default is "0,0", which places the (0,0) origin at the top left corner of the bounding box.</p> <p>This affects shape properties that specify coordinate positions, such as the path attribute. Thus a path can be defined against a generic (0,0) origin and the coordorigin</p>




Attributes	Description
	<p>value translates the entire path within the shape's bounding space.</p> <p>[<i>Example:</i> The horizontal and vertical coordinate space ranges from -100 to +100 because the coordinate space (coordsize) is 200 by 200 and the top left coordinate is (-100,-100). The (0,0) origin lies at the center of the shape's bounding box, as evidenced by the position of the shape's path within the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200"   coordorigin="-100,-100"   path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>coordsize (Coordinate Space Size)</p>	<p>Specifies the size of the shape's coordinate space in coordinate units. Default is "1000,1000".</p> <p>The physical size of a coordinate unit length is determined by both the size of the coordinate space (coordsize) and the size of the shape (style width and height). The coordsize attribute defines the number of horizontal and vertical subdivisions into which the shape's bounding box is divided. The combination of coordsize and style width/height effective scales the shape anisotropically.</p> <p>[<i>Example:</i> The path is 50 units wide and tall, which is 25% of the size of the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200"   coordorigin="-100,-100"   path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>dgmlayout</p>	<p>Specifies the kind of automatic layout to apply to the diagram node. This is only</p>




Attributes	Description
<p>(Diagram Node Layout Identifier)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>meaningful if the shape is a node in an organization chart, which is denoted by the <code>orgchart</code> value of the <code>editas</code> attribute of the group element.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmlayout="1"&gt;   &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the <code>ST_DiagramLayout</code> simple type (§19.2.3.10).</p>
<p><code>dgmlayoutmru</code> (Diagram Node Recent Layout Identifier)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the kind of automatic layout most recently used on the child elements of the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the <code>orgchart</code> value of the <code>editas</code> attribute of the group element.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmlayout="1"&gt;   &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the <code>ST_DiagramLayout</code> simple type (§19.2.3.10).</p>
<p><code>dgmnodekind</code> (Diagram Node Identifier)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies an optional, application-defined parameter that is intended to be used by the application to tag different types of nodes in a diagram.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmnodekind="1"&gt;   &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
<p><code>doubleclicknotify</code> (Double-click Notification Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that an event message is sent when a shape is double-clicked. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:doubleclicknotify="true" ... &gt;   &lt;/v:shape&gt;</pre> <p>end example]</p>



Attributes	Description
<p>fillcolor (Fill Color)</p>	<p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p> <p>Specifies the color to use for the fill. Default is white. If the fill element (§19.1.2.5) is present, its color attribute takes precedence. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example: This shape is red if its fill is visible:</p> <pre>&lt;v:shape ... fillcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p>This is equivalent to:</p> <pre>&lt;v:shape ... fillcolor="#ff0000" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<p>filled (Shape Fill Toggle)</p>	<p>Specifies whether the closed path is filled. Default is true. This attribute is overridden by the fill on attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... filled="f"   fillcolor="red" ...&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>forcedash (Force Dashed Outline)</p> <p>Namespace: urn:schemas-</p>	<p>Specifies whether a dashed outline is used to draw a shape when a shape has no line or fill. Default is false.</p> <p>Used by PresentationML placeholders to draw a dashed outline when there is no line and no fill for a shape.</p>



Attributes	Description
microsoft-com:office:office	<p>[Example:</p> <pre>&lt;v:shape ... o:forcedash="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
from (Line Start)	<p>Specifies the starting point of the line in the coordinate space of the parent element. Default is "0,0". If the parent is not a VML element, the default unit is a pixel. Allowed units are in, cm, mm, pt, pc and px.</p> <p>[Example:</p> <pre>&lt;v:line from="10pt,10pt" to="50pt,50pt"&gt; &lt;/v:line&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
hr (Horizontal Rule Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies that a shape is a horizontal rule. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hr="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
hralign (Horizontal Rule Alignment)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the alignment of a horizontal rule. Default is left.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hralign="center" ... &gt; &lt;/v:shape&gt;</pre>




Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_HrAlign simple type (§19.2.3.16).</p>
<p>href (Hyperlink Target)</p>	<p>Specifies a hyperlink URL target for the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... href="http://www.openxmlformats.org" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>hrnoshade (Horizontal Rule 3D Shading Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the horizontal rule does not have 3-D shading. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrnoshade="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>hrpct (Horizontal Rule Length Percentage)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the length of a horizontal rule as a percentage of page width. Default is 0.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrpct="85" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
<p>hrstd (Horizontal Rule Standard Display Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a shape is displayed as a standard horizontal rule. Only applies if hr is true. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrstd="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p>




Attributes	Description
	<p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>id (Unique Identifier)</p>	<p>Specifies a unique identifier that can be used to reference a VML object.</p> <p>Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>insetmode (Text Inset Mode)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the application calculates the internal text margin instead of using the inset attribute. Default is custom. This attribute is only meaningful for text boxes.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:insetmode="auto" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_InsetMode simple type (§19.2.3.17).</p>
<p>insetpen (Inset Border From Path)</p>	<p>Specifies that the border shall be displayed inside of the path defining the shape, rather than along the path (the default border placement), or outside of the path as might be done with an image.</p> <p>[Example:</p> <pre>&lt;v:shape ... insetpen="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>ole (Embedded Object Toggle)</p> <p>Namespace:</p>	<p>Specifies whether the shape is an embedded object. Default is false.</p> <p>[Example:</p>





Attributes	Description
urn:schemas-microsoft-com:office:office	<pre>&lt;v:shape ... o:ole="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalseBlank simple type (§20.1.2.6).</p>
oleicon (Embedded Object Icon Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether an embedded object is displayed as an icon. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oleicon="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
oned (Shape Handle Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the extra handles of a shape are hidden. If <code>true</code>, hides all shape handles except the top left and bottom right; that is, the same handles that are used for a straight line segment. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oned="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
opacity (Fill Color Opacity)	<p>Specifies the opacity of the primary fill color. Default is 1.0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. [Example: A value of "52429f" represents 52429/65536 or 0.8. <i>end example]</i></p> <p>[Example: The red color is 25% opaque:</p> <pre>&lt;v:fill type="gradient" color="red" color2="blue" opacity=".25"&gt; &lt;/v:fill&gt;</pre> 




Attributes	Description
	 <code>opacity=".25"</code>  <i>end example]</i>  The possible values for this attribute are defined by the W3C XML Schema string datatype.
<b>preferrelative</b> (Relative Resize Toggle)  Namespace: urn:schemas-microsoft-com:office:office	Specifies whether the original size of an object is saved after reformatting. Default is false. If true, the original size of the object is stored and all resizing is based on a percentage of that original size. Otherwise, each resizing resets the scale to 100%.  <i>[Example:</i> <pre>&lt;v:shape ... o:preferrelative="true" ... &gt; &lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).
<b>print</b> (Print Toggle)	Specifies whether the shape is printed. Default is true.  <i>[Example:</i> <pre>&lt;v:shape ... print="false" ... &gt; &lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).
<b>regroupid</b> (Regroup ID)  Namespace: urn:schemas-microsoft-com:office:office	Specifies a previous group for a shape. An ID number is used to identify groups of shapes that are no longer grouped. This allows shapes to be regrouped programmatically.  <i>[Example:</i> The shape was part of a group identified by the ID 040754: <pre>&lt;v:shape ... o:regroupid="040754" ... &gt; &lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the W3C XML Schema integer datatype.
<b>spid</b> (Optional)	Specifies an optional string that an application can use to identify the particular shape.



Attributes	Description
String)  Namespace: urn:schemas-microsoft-com:office:office	Default is no value.  The possible values for this attribute are defined by the W3C XML Schema string datatype.
spt (Optional Number)  Namespace: urn:schemas-microsoft-com:office:office	Specifies an optional number that an application can use to associate the particular shape with a defined shape type. Default is 0.  The possible values for this attribute are defined by the W3C XML Schema float datatype.
strokecolor (Shape Stroke Color)	Specifies the primary color of the brush to use to stroke the path of the shape. Default is black. The color attribute of the stroke element (§19.1.2.21) overrides this. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.  [Example:  <pre>&lt;v:shape ... strokecolor="red" ...&gt; &lt;/v:shape&gt;</pre>  end example]  The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).
stroked (Shape Stroke Toggle)	Specifies whether the path defining the shape is stroked with a solid line. The stroke element (§19.1.2.21) defines other strokes. The on attribute of the stroke element overrides this attribute. Default is true.  [Example:  <pre>&lt;v:shape ... fillcolor="red"   stroked="false" strokecolor="blue"...&gt; &lt;/v:shape&gt;</pre>  



Attributes	Description				
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>				
<p>strokeweight (Shape Stroke Weight)</p>	<p>Specifies the width of the brush to use to stroke the path. Default is 1 point. If a number is given without units, the emu is used. The weight attribute of the stroke element (§19.1.2.21) overrides this attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... strokeweight="3pt" ... &gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>				
<p>style (Shape Styling Properties)</p>	<p>Specifies the CSS2 styling properties of the shape. The CSS2 (Cascading Style Sheets, Level 2) specification, a Recommendation of the World Wide Web Consortium, is available here: <a href="http://www.w3.org/TR/REC-CSS2">http://www.w3.org/TR/REC-CSS2</a>.</p> <p>This attribute uses a semi-colon delimited list of “name:value” pairs, the syntax defined by section 4.1.8 of the CSS2 specification for grouped declarations (without the surrounding braces). The following tables define the allowed properties and the VML treatment of each.</p> <p>[Example:</p> <pre>&lt;v:shape ... style='position:absolute;width:100pt;height:50pt' ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <table border="1"> <thead> <tr> <th>Property</th><th>Description</th></tr> </thead> <tbody> <tr> <td>flip</td><td> <p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul> </td></tr> </tbody> </table>	Property	Description	flip	<p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul>
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Attributes	Description	
	height	<p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	left	<p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-bottom	<p>Specifies the position of the bottom of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	margin-left	<p>Specifies the position of the left of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm,</li> </ul>



Attributes	Description	
		<p>mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</p> <ul style="list-style-type: none"> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-right	<p>Specifies the position of the right of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-top	<p>Specifies the position of the top of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	mso-position-horizontal	<p>Specifies the horizontal positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• left</li> <li>• center</li> <li>• right</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-horizontal-relative	<p>Specifies relative horizontal position data for objects in WordprocessingML documents. This modifies the mso-position-horizontal property. Default is text. Allowed values are:</p>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• char</li> </ul>
	mso-position-vertical	<p>Specifies the vertical positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• top</li> <li>• center</li> <li>• bottom</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-vertical-relative	<p>Specifies relative vertical position data for objects in WordprocessingML documents. This modifies the mso-position-vertical property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• line</li> </ul>
	mso-wrap-distance-bottom	<p>Specifies the distance from the bottom of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-distance-left	<p>Specifies the distance from the left side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-distance-right	<p>Specifies the distance from the right side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-distance-top	<p>Specifies the distance from the top of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the</p>



Attributes	Description	
		origin.
	mso-wrap-edited	Specifies whether the wrap coordinates were customized by the user. If the wrap coordinates are generated by an editor, this property is true; otherwise they were customized by a user. Default is false.
	mso-wrap-style	<p>Specifies the wrapping mode for text in shapes in WordprocessingML documents. Default is square. Allowed values are:</p> <ul style="list-style-type: none"> <li>• square - Wraps text inside the shape in a square.</li> <li>• none - Text does not wrap.</li> </ul>
	position	<p>Specifies the kind of positioning used to place an element. Default is static. When the element is contained inside a group, this property shall be absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• static - The element is positioned according to the normal flow of the page. The top and left properties are ignored. If the object is anchored inline, this value is used.</li> <li>• absolute - The element is positioned relative to the parent, using the top and left properties.</li> <li>• relative - The element is positioned according to the normal flow of the page, but the top and left properties are used. The overlap of overlapping elements is governed by the z-index property.</li> </ul>
	rotation	Specifies the angle that a shape is rotated, in degrees. Default is 0. Positive angles are clockwise.
	top	<p>Specifies the position of the top of the containing block of the shape relative to the element above it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	visibility	Specifies whether a shape is displayed. Only inherit and hidden are used; any other values are mapped to inherit. Default is inherit. Allowed values are:



Attributes	Description	
		<ul style="list-style-type: none"> <li>• <b>hidden</b> - The shape is not visible, but is still part of the flow of the objects in the browser. Mouse events are not processed.</li> <li>• <b>inherit</b> - The visibility state is inherited from the parent of the shape.</li> </ul>
	<b>width</b>	<p>Specifies the width of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <b>auto</b> - Default position of an element in the flow of the page.</li> <li>• <b>&lt;units&gt;</b>- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• <b>&lt;percentage&gt;</b>- Value expressed as a percentage of the parent object's width.</li> </ul>
	<b>z-index</b>	<p>Specifies the display order of overlapping shapes. Default is 0. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <b>auto</b> - Uses the order that the shapes appear in the page, bottom to top.</li> <li>• <b>&lt;order&gt;</b>- A number that represents the stacking precedence. Shapes with higher numbers are placed on top of those with lower numbers. Negative numbers are allowed.</li> </ul>
The following properties are only used by the textbox element (§19.1.2.22):		
	Property	Description
	<b>direction</b>	<p>Specifies the direction of the text in the textbox. Default is <b>ltr</b>. This property is superceded by the <b>mso-direction-alt</b> property if that is specified. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <b>ltr</b> - Text is displayed left-to-right.</li> <li>• <b>rtl</b> - Text is displayed right-to-left.</li> </ul>
	<b>layout-flow</b>	<p>Determines the flow of the text layout in a textbox. Default is <b>horizontal</b>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <b>horizontal</b> - Text is displayed horizontally.</li> </ul>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• vertical - Text is displayed vertically.</li> <li>• vertical-ideographic - Ideographic text is displayed vertically.</li> <li>• horizontal-ideographic - Ideographic text is displayed horizontally.</li> </ul>
	mso-direction-alt	Specifies an alternate direction for text in textboxes. Overrides the direction property. The only allowed value is context.
	mso-fit-shape-to-text	Specifies whether the shape stretches to fit the text in the textbox. Default is false.
	mso-fit-text-to-shape	Specifies whether the text stretches to fit the textbox. Default is false.
	mso-layout-flow-alt	Specifies the alternate layout flow for text in textboxes. This property is used instead of layout-flow when the layout flow is from bottom to top for non-ideographic languages. Its only value is bottom-to-top.
	mso-next-textbox	Specifies the ID of the next textbox in a series. Used to keep track of a set of linked textboxes. Default is no value.
	mso-rotate	<p>Specifies a specific rotation value for text in a textbox. Default is 0. Allowed values are:</p> <ul style="list-style-type: none"> <li>• 0</li> <li>• 90</li> <li>• 180</li> <li>• -90</li> </ul>
	mso-text-scale	Specifies the scaling factor for fitting text to shapes. Default is 0. This property is only used if mso-fit-text-to-shape is true.
	v-text-anchor	<p>Specifies the vertical anchoring of text in a textbox. Default is top. The alignment of a text anchor only becomes evident if mso-fit-text-to-shape is false. This property is different from the vertical-align CSS property, which is used for ideographic languages. Allowed values are:</p> <ul style="list-style-type: none"> <li>• top</li> <li>• middle</li> <li>• bottom</li> <li>• top-center</li> <li>• middle-center</li> <li>• bottom-center</li> </ul>



Attributes	Description								
		<ul style="list-style-type: none"><li>• top-baseline</li><li>• bottom-baseline</li><li>• top-center-baseline</li><li>• bottom-center-baseline</li></ul>							
	The following properties are only used by the textpath element (§19.1.2.23):								
	Property	Description							
	font	Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.							
	font-family	Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.							
	font-size	Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.							
	font-style	Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are: <ul style="list-style-type: none"><li>• normal</li><li>• italic</li><li>• oblique - Treated the same as italic.</li></ul>							
	font-variant	Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are: <ul style="list-style-type: none"><li>• normal</li><li>• small-caps</li></ul>							
	font-weight	Specifies the thickness of the letters of the font. Default is normal. The values are the same as those of the CSS font-weight property. Allowed values are: <table><tr><th>Value</th><th>Description</th></tr><tr><td>normal</td><td rowspan="4">Treated as non-bold.</td></tr><tr><td>lighter</td></tr><tr><td>100</td></tr><tr><td>200</td></tr></table>	Value	Description	normal	Treated as non-bold.	lighter	100	200
	Value	Description							
normal	Treated as non-bold.								
lighter									
100									
200									



Attributes	Description		
		300	Treated as bold.
		400	
		bold	
		bolder	
		500	
		600	
		700	
		800	
		900	
mso-text-shadow	Specifies whether a shadow is applied to the text on a text path. Default is false.		
text-decoration	Specifies the style of text decoration. Default is none. The values are the same as those of the CSS text-decoration property. Allowed values are: <ul style="list-style-type: none"><li>none</li><li>underline</li><li>overline</li><li>line-through</li><li>blink</li></ul>		
v-rotate-letters	Specifies whether the letters of the text are rotated counterclockwise by 90 degrees. Default is false.		
v-same-letter-heights	Specifies whether all letters are the same height regardless of initial case. If true, the lowercase letters are stretched to the height of the uppercase letters. Default is false.		
v-text-align	Specifies the alignment of text. Default is left. Allowed values are: <ul style="list-style-type: none"><li>left</li><li>right</li><li>center</li><li>justify</li><li>letter-justify - Distributes the extra space between the letters.</li><li>stretch-justify - Stretches the letters to fill in the space.</li></ul>		




Attributes	Description	
	v-text-kern	Specifies whether kerning is turned on. Default is false.
	v-text-reverse	Specifies whether the layout order of rows is reversed. Default is false. This is used for vertical text layout.
	v-text-spacing-mode	Specifies the mode for letter spacing. Default is tightening. This property determines whether space is removed between each letter (tightening) or added between each letter (tracking). The amount of letter spacing change is defined by the v-text-spacing property. Allowed values are: <ul style="list-style-type: none"><li>• tightening</li><li>• tracking</li></ul>
	v-text-spacing	Specifies the amount of spacing for text in 100ths of single line spacing. Default is 100.
	<p>The line (§19.1.2.12), polyline (§19.1.2.15) and curve (§19.1.2.3) elements ignore the following properties:</p> <ul style="list-style-type: none"><li>• top</li><li>• left</li><li>• width</li><li>• height</li></ul> <p>The following properties are not inherited by an element that references a shapetype element (§19.1.2.20) via the id attribute:</p> <ul style="list-style-type: none"><li>• flip</li><li>• height</li><li>• left</li><li>• margin-left</li><li>• margin-top</li><li>• position</li><li>• rotation</li><li>• top</li><li>• visibility</li><li>• width</li><li>• z-index</li></ul> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>	
target (Hyperlink Display Target)	Specifies a frame or window that a URL is displayed in. Default is no value. Allowed values are:	



Attributes	Description																
	<table border="1"> <thead> <tr> <th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>&lt;targetname&gt;</td><td>String containing the name of the frame or window in which to load the document.</td></tr> <tr> <td>_blank</td><td>Specifies that the linked document is loaded into a new blank window. This window is not named.</td></tr> <tr> <td>_media</td><td>Specifies that the linked document is loaded into the browser's multimedia pane.</td></tr> <tr> <td>_parent</td><td>Specifies that the linked document is loaded into the immediate parent of the document containing the link.</td></tr> <tr> <td>_search</td><td>Specifies that the linked document is loaded into the browser's search pane.</td></tr> <tr> <td>_self</td><td>Specifies that the linked document is loaded into the window in which the link was clicked (the active window).</td></tr> <tr> <td>_top</td><td>Specifies that the linked document is loaded into the topmost window.</td></tr> </tbody> </table> <p><i>[Example:</i></p> <pre> &lt;v:shape ...   href="http://www.openxmlformats.org"   target="_self" ... &gt; &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>	Value	Description	<targetname>	String containing the name of the frame or window in which to load the document.	_blank	Specifies that the linked document is loaded into a new blank window. This window is not named.	_media	Specifies that the linked document is loaded into the browser's multimedia pane.	_parent	Specifies that the linked document is loaded into the immediate parent of the document containing the link.	_search	Specifies that the linked document is loaded into the browser's search pane.	_self	Specifies that the linked document is loaded into the window in which the link was clicked (the active window).	_top	Specifies that the linked document is loaded into the topmost window.
Value	Description																
<targetname>	String containing the name of the frame or window in which to load the document.																
_blank	Specifies that the linked document is loaded into a new blank window. This window is not named.																
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_self	Specifies that the linked document is loaded into the window in which the link was clicked (the active window).																
_top	Specifies that the linked document is loaded into the topmost window.																
title (Shape Title)	<p>Specifies the text displayed when the mouse pointer moves over the shape. Default is no value.</p> <p><i>[Example:</i></p> <pre> &lt;v:shape ... title="tooltip" ... &gt; &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>																
to (Line End Point)	<p>Specifies the ending point of the line in the coordinate space of the parent element. Default is "10,10". If the parent is not a VML element, the default unit is a pixel. Allowed units are in, cm, mm, pt, pc and px.</p>																



Attributes	Description
	<p>[Example:</p> <pre>&lt;v:line from="10pt,10pt" to="50pt,50pt"&gt; &lt;/v:line&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>userdrawn (Exists In Master Slide)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the user has added the shape to a master slide. Default is false. Used by PresentationML.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userdrawn="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>userhidden (Hide Script Anchors)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a script anchor is hidden. Default is false. If true, script anchors stay hidden even if the shape is otherwise visible. A script anchor is the visual representation of a script that when displayed in an application.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userhidden="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>wrapcoords (Shape Bounding Polygon)</p>	<p>Specifies the bounding polygon that surrounds a shape. This is specified using a comma-delimited list of x and y coordinates: "x1,y1,x2,y2,x3,y3,..." This is used when text is tightly wrapped around a shape. Default is no value until the mso-wrap-mode style attribute is set to tight or through.</p> <p>[Example:</p>



Attributes	Description
	<pre>&lt;v:shape ...   wrapcoords="0,0 0,200, 200,200, 200,0" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[Note: The W3C XML Schema definition of this element’s content model ([CT\\_Line](#)) is located in §A.7.1. *end note]*

19.1.2.13 oval (Oval)

This element draws an oval sized according to the CSS2 style content width and height.

[Example:

```
<v:oval fillcolor="blue"  
  style="position:relative;top:1;left:1;width:150;height:50">  
</v:oval>
```



*end example]*

Attributes	Description
allowincell (Allow in Table Cell)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether a shape can be placed in a table. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:allowincell="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
allowoverlap (Allow Shape Overlap)  Namespace: urn:schemas-	<p>Specifies whether a shape can overlap another shape. Default is true. If false, the shape shifts left or right so as not to overlap another shape, similar to the behavior of the HTML float attribute.</p> <p>[Example:</p>



Attributes	Description
microsoft-com:office:office	<pre>&lt;v:shape ... o:allowoverlap="false" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
alt (Alternate Text)	<p>Specifies alternative text describing the graphical object. This text should provide a brief description of the shape for use by accessibility tools. Default is no value.</p> <p>[Example: The alt text describes the basic shape:</p> <pre>&lt;v:shape ... fillcolor="red"   alt="Red rectangle"&gt; &lt;/v:shape&gt;</pre> <p>The alt text describes the contents of a shape displaying an image:</p> <pre>&lt;v:shape ... alt="Picture of a sunset"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
borderbottomcolor (Bottom Border Color)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the bottom border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderbottomcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
borderleftcolor (Border Left Color)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the left border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderleftcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p>



Attributes	Description
	The possible values for this attribute are defined by the W3C XML Schema string datatype.
<b>borderrightcolor</b> (Border Right Color)  Namespace: urn:schemas- microsoft- com:office:office	Specifies the right border color of an inline shape. Default is no value.  <i>[Example:</i> <pre>&lt;v:shape ... o:borderrightcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the W3C XML Schema string datatype.
<b>bordertopcolor</b> (Border Top Color)  Namespace: urn:schemas- microsoft- com:office:office	Specifies the top border color of an inline shape. Default is no value.  <i>[Example:</i> <pre>&lt;v:shape ... o:bordertopcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the W3C XML Schema string datatype.
<b>bullet</b> (Graphical Bullet)  Namespace: urn:schemas- microsoft- com:office:office	Specifies whether the shape is a graphical bullet. Default is <i>false</i> .  <i>[Example:</i> <pre>&lt;v:shape ... o:bullet="true" ... &gt; &lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).
<b>button</b> (Button Behavior Toggle)  Namespace: urn:schemas- microsoft- com:office:office	Specifies whether a shape exhibits button press behavior on click. Default is <i>false</i> .  <i>[Example:</i> <pre>&lt;v:shape ... o:button="true" ... &gt; &lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the ST_TrueFalse simple type




Attributes	Description
<p>bwmode (Black-and-White Mode)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>(§20.1.2.5).</p> <p>Specifies how a shape renders for black-and-white output devices. When a shape is printed on a black-and-white printer or displayed in a black-and-white view in an application, several options are possible. Default is auto, which uses o:bwnormal for normal black-and-white rendering and o:bwpure for pure black-and-white rendering.</p> <p>bwnormal and bwpure are subordinate to bwmode. If bwmode is "auto" then the value for bwnormal or bwpure is used depending on what the output format is. An application can define for itself what, if any, difference there is between normal B&amp;W and pure B&amp;W. <i>[Example: Normal B&amp;W might allow greyscale and pure B&amp;W might not. end example]</i></p> <p><i>[Example: This shape renders in grayscale in a black-and-white environment:</i></p> <pre>&lt;v:shape ... o:bwmode="grayscale" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
<p>bwnormal (Normal Black-and-White Mode)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the black-and-white mode for normal black-and-white output devices. Default is auto.</p> <p><i>[Example: This shape renders in a pale grayscale in a normal black-and-white environment:</i></p> <pre>&lt;v:shape ... o:bwmode="auto" o:bwnormal="lightgrayscale" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
<p>bwpure (Pure Black-and-White Mode)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the black-and-white mode for pure black-and-white output devices. Default is auto.</p> <p><i>[Example: This shape renders in high contrast when in a pure black-and-white environment:</i></p> <pre>&lt;v:shape ... o:bwmode="auto" o:bwpure="highcontrast" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type</p>




Attributes	Description
chromakey (Image Transparency Color)	<p>(§19.2.3.3).</p> <p>Specifies a color value that is transparent and show anything behind the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:image ... chromakey="white" ...&gt; &lt;/v:image&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
class (CSS Reference)	<p>Specifies a reference to the definition of a CSS style. Default is no value.</p> <p>[Example: The snippets below are equivalent:</p> <pre>... .narrowstyle {width:50;height:100} ... &lt;v:shape ... class="narrowstyle"   style="top:1;left:1"&gt; &lt;/v:shape&gt;</pre> <pre>&lt;v:shape ... style="top:1;left:1;   width:50;height:100"&gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
clip (Clipping Toggle)  Namespace: urn:schemas- microsoft- com:office:office	<p>Specifies that the clipping region is active. This is used in conjunction with the clippath (§19.2.2.3) element to create a clipping region.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:clip="true"&gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>



Attributes	Description
<p>cliptowrap (Clip to Wrapping Polygon)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the clipping region for the shape aligns with the wrapping polygon that tightly surrounds the entire shape (essentially, that the shape shall not be drawn beyond its wrapping polygon's extents – if it does, the shape shall be clipped). Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:cliptowrap="true"&gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>connectortype (Shape Connector Type)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the kind of connector used for joining shapes. Default is straight.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:connectortype="elbow" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_ConnectorType simple type (§19.2.3.7).</p>
<p>coordorigin (Coordinate Space Origin)</p>	<p>Specifies the coordinate of the top left corner of the shape's coordinate space. This determines the position of the (0,0) coordinate space origin within the shape's bounding box. Default is "0,0", which places the (0,0) origin at the top left corner of the bounding box.</p> <p>This affects shape properties that specify coordinate positions, such as the path attribute. Thus a path can be defined against a generic (0,0) origin and the coordorigin value translates the entire path within the shape's bounding space.</p> <p>[Example: The horizontal and vertical coordinate space ranges from -100 to +100 because the coordinate space (coordsize) is 200 by 200 and the top left coordinate is (-100,-100). The (0,0) origin lies at the center of the shape's bounding box, as evidenced by the position of the shape's path within the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200" coordorigin="-100,-100" path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre> 




Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>coordsize (Coordinate Space Size)</p>	<p>Specifies the size of the shape's coordinate space in coordinate units. Default is "1000,1000".</p> <p>The physical size of a coordinate unit length is determined by both the size of the coordinate space (coordsize) and the size of the shape (style width and height). The coordsize attribute defines the number of horizontal and vertical subdivisions into which the shape's bounding box is divided. The combination of coordsize and style width/height effective scales the shape anisotropically.</p> <p>[<i>Example:</i> The path is 50 units wide and tall, which is 25% of the size of the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200"   coordorigin="-100,-100"   path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>dgmlayout (Diagram Node Layout Identifier)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the kind of automatic layout to apply to the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.</p> <p>[<i>Example:</i></p> <pre>&lt;v:shape ... dgmlayout="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).</p>
<p>dgmlayoutmru (Diagram Node Recent Layout)</p>	<p>Specifies the kind of automatic layout most recently used on the child elements of the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.</p>



Attributes	Description
<p>Identifier)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>[Example:</p> <pre>&lt;v:shape ... dgmlayout="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).</p>
<p>dgmnodekind (Diagram Node Identifier)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies an optional, application-defined parameter that is intended to be used by the application to tag different types of nodes in a diagram.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmnodekind="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
<p>doubleclicknotify (Double-click Notification Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that an event message is sent when a shape is double-clicked. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:doubleclicknotify="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>fillcolor (Fill Color)</p>	<p>Specifies the color to use for the fill. Default is white. If the fill element (§19.1.2.5) is present, its color attribute takes precedence. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example: This shape is red if its fill is visible:</p> <pre>&lt;v:shape ... fillcolor="red" ... &gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	<p>This is equivalent to:</p> <pre>&lt;v:shape ... fillcolor="#ff0000" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<p>filled (Shape Fill Toggle)</p>	<p>Specifies whether the closed path is filled. Default is <code>true</code>. This attribute is overridden by the <code>fill on</code> attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... filled="f"   fillcolor="red" ...&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>forcedash (Force Dashed Outline)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a dashed outline is used to draw a shape when a shape has no line or fill. Default is <code>false</code>.</p> <p>Used by PresentationML placeholders to draw a dashed outline when there is no line and no fill for a shape.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:forcedash="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>hr (Horizontal Rule Toggle)</p> <p>Namespace:</p>	<p>Specifies that a shape is a horizontal rule. Default is <code>false</code>.</p> <p>[Example:</p>



Attributes	Description
urn:schemas-microsoft-com:office:office	<pre>&lt;v:shape ... o:hr="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<b>hralign (Horizontal Rule Alignment)</b>  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the alignment of a horizontal rule. Default is left.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hralign="center" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_HrAlign simple type (§19.2.3.16).</p>
<b>href (Hyperlink Target)</b>	<p>Specifies a hyperlink URL target for the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... href="http://www.openxmlformats.org" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>hrnoshade (Horizontal Rule 3D Shading Toggle)</b>  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies that the horizontal rule does not have 3-D shading. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrnoshade="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<b>hrpct (Horizontal Rule Length Percentage)</b>  Namespace:	<p>Specifies the length of a horizontal rule as a percentage of page width. Default is 0.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrpct="85" ... &gt;</pre>

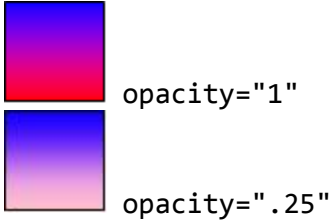


Attributes	Description
urn:schemas-microsoft-com:office:office	<p>&lt;/v:shape&gt;</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
<p>hrstd (Horizontal Rule Standard Display Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a shape is displayed as a standard horizontal rule. Only applies if hr is true. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrstd="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>id (Unique Identifier)</p>	<p>Specifies a unique identifier that can be used to reference a VML object.</p> <p>Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>insetmode (Text Inset Mode)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the application calculates the internal text margin instead of using the inset attribute. Default is custom. This attribute is only meaningful for text boxes.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:insetmode="auto" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_InsetMode simple type (§19.2.3.17).</p>
<p>insetpen (Inset Border From Path)</p>	<p>Specifies that the border shall be displayed inside of the path defining the shape, rather than along the path (the default border placement), or outside of the path as might be done with an image.</p>




Attributes	Description
	<p>[Example:</p> <pre>&lt;v:shape ... insetpen="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>ole (Embedded Object Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the shape is an embedded object. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:ole="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalseBlank simple type (§20.1.2.6).</p>
<p>oleicon (Embedded Object Icon Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether an embedded object is displayed as an icon. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oleicon="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>oned (Shape Handle Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the extra handles of a shape are hidden. If true, hides all shape handles except the top left and bottom right; that is, the same handles that are used for a straight line segment. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oned="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>





Attributes	Description
opacity (Fill Color Opacity)	<p>Specifies the opacity of the primary fill color. Default is 1.0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. <i>[Example: A value of "52429f" represents 52429/65536 or 0.8. end example]</i></p> <p><i>[Example: The red color is 25% opaque:</i></p> <pre>&lt;v:fill type="gradient" color="red"   color2="blue" opacity=".25"&gt; &lt;/v:fill&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
preferrelative (Relative Resize Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the original size of an object is saved after reformatting. Default is false. If true, the original size of the object is stored and all resizing is based on a percentage of that original size. Otherwise, each resizing resets the scale to 100%.</p> <p><i>[Example:</i></p> <pre>&lt;v:shape ... o:preferrelative="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
print (Print Toggle)	<p>Specifies whether the shape is printed. Default is true.</p> <p><i>[Example:</i></p> <pre>&lt;v:shape ... print="false" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>



Attributes	Description
<p>regroupid (Regroup ID)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies a previous group for a shape. An ID number is used to identify groups of shapes that are no longer grouped. This allows shapes to be regrouped programmatically.</p> <p>[Example: The shape was part of a group identified by the ID 040754:</p> <pre>&lt;v:shape ... o:regroupid="040754" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
<p>spid (Optional String)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies an optional string that an application can use to identify the particular shape. Default is no value.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>spt (Optional Number)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies an optional number that an application can use to associate the particular shape with a defined shape type. Default is 0.</p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
<p>strokecolor (Shape Stroke Color)</p>	<p>Specifies the primary color of the brush to use to stroke the path of the shape. Default is black. The color attribute of the stroke element (§19.1.2.21) overrides this. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example:</p> <pre>&lt;v:shape ... strokecolor="red" ...&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>



Attributes	Description
stroked (Shape Stroke Toggle)	<p>Specifies whether the path defining the shape is stroked with a solid line. The stroke element (§19.1.2.21) defines other strokes. The on attribute of the stroke element overrides this attribute. Default is true.</p> <p>[Example:</p> <pre>&lt;v:shape ... fillcolor="red"   stroked="false" strokecolor="blue"...&gt; &lt;/v:shape&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
strokeweight (Shape Stroke Weight)	<p>Specifies the width of the brush to use to stroke the path. Default is 1 point. If a number is given without units, the emu is used. The weight attribute of the stroke element (§19.1.2.21) overrides this attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... strokeweight="3pt" ... &gt; &lt;/v:shape&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
style (Shape Styling Properties)	<p>Specifies the CSS2 styling properties of the shape. The CSS2 (Cascading Style Sheets, Level 2) specification, a Recommendation of the World Wide Web Consortium, is available here: <a href="http://www.w3.org/TR/REC-CSS2">http://www.w3.org/TR/REC-CSS2</a>.</p> <p>This attribute uses a semi-colon delimited list of “name:value” pairs, the syntax defined by section 4.1.8 of the CSS2 specification for grouped declarations (without the surrounding braces). The following tables define the allowed properties and the VML treatment of each.</p> <p>[Example:</p> <pre>&lt;v:shape ... style='position:absolute;width:100pt;height:50pt' ...</pre>



Attributes	Description									
	<pre>&gt; &lt;/v:shape&gt; end example]</pre>									
	<table> <tr> <th>Property</th><th>Description</th></tr> <tr> <td>flip</td><td> <p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul> </td></tr> <tr> <td>height</td><td> <p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul> </td></tr> <tr> <td>left</td><td> <p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul> </td></tr> <tr> <td>margin-bottom</td><td> <p>Specifies the position of the bottom of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm,</li> </ul> </td></tr> </table>	Property	Description	flip	<p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul>	height	<p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>	left	<p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>	margin-bottom
Property	Description									
flip	<p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul>									
height	<p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>									
left	<p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>									
margin-bottom	<p>Specifies the position of the bottom of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm,</li> </ul>									



Attributes	Description	
		<p>mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</p> <ul style="list-style-type: none"> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	margin-left	<p>Specifies the position of the left of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-right	<p>Specifies the position of the right of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-top	<p>Specifies the position of the top of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	mso-position-horizontal	<p>Specifies the horizontal positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• absolute</li> <li>• left</li> <li>• center</li> <li>• right</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-horizontal-relative	<p>Specifies relative horizontal position data for objects in WordprocessingML documents. This modifies the mso-position-horizontal property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• char</li> </ul>
	mso-position-vertical	<p>Specifies the vertical positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• top</li> <li>• center</li> <li>• bottom</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-vertical-relative	<p>Specifies relative vertical position data for objects in WordprocessingML documents. This modifies the mso-position-vertical property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• line</li> </ul>
	mso-wrap-distance-bottom	<p>Specifies the distance from the bottom of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-	<p>Specifies the distance from the left side of the shape to the text that wraps around it. Default is 0 pt. This property is different</p>



Attributes	Description	
	distance-left	from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-right	Specifies the distance from the right side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-top	Specifies the distance from the top of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-edited	Specifies whether the wrap coordinates were customized by the user. If the wrap coordinates are generated by an editor, this property is true; otherwise they were customized by a user. Default is false.
	mso-wrap-style	<p>Specifies the wrapping mode for text in shapes in WordprocessingML documents. Default is square. Allowed values are:</p> <ul style="list-style-type: none"> <li>• square - Wraps text inside the shape in a square.</li> <li>• none - Text does not wrap.</li> </ul>
	position	<p>Specifies the kind of positioning used to place an element. Default is static. When the element is contained inside a group, this property shall be absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• static - The element is positioned according to the normal flow of the page. The top and left properties are ignored. If the object is anchored inline, this value is used.</li> <li>• absolute - The element is positioned relative to the parent, using the top and left properties.</li> <li>• relative - The element is positioned according to the normal flow of the page, but the top and left properties are used. The overlap of overlapping elements is governed by the z-index property.</li> </ul>
	rotation	Specifies the angle that a shape is rotated, in degrees. Default is 0. Positive angles are clockwise.
	top	Specifies the position of the top of the containing block of the shape relative to the element above it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property



Attributes	Description	
		<p>shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	visibility	<p>Specifies whether a shape is displayed. Only inherit and hidden are used; any other values are mapped to inherit. Default is inherit. Allowed values are:</p> <ul style="list-style-type: none"> <li>• hidden - The shape is not visible, but is still part of the flow of the objects in the browser. Mouse events are not processed.</li> <li>• inherit - The visibility state is inherited from the parent of the shape.</li> </ul>
	width	<p>Specifies the width of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	z-index	<p>Specifies the display order of overlapping shapes. Default is 0. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Uses the order that the shapes appear in the page, bottom to top.</li> <li>• &lt;order&gt;- A number that represents the stacking precedence. Shapes with higher numbers are placed on top of those with lower numbers. Negative numbers are allowed.</li> </ul>
The following properties are only used by the textbox element (§19.1.2.22):		
	Property	Description



Attributes	Description	
	direction	<p>Specifies the direction of the text in the textbox. Default is ltr. This property is superceded by the mso-direction-alt property if that is specified. Allowed values are:</p> <ul style="list-style-type: none"> <li>• ltr - Text is displayed left-to-right.</li> <li>• rtl - Text is displayed right-to-left.</li> </ul>
	layout-flow	<p>Determines the flow of the text layout in a textbox. Default is horizontal. Allowed values are:</p> <ul style="list-style-type: none"> <li>• horizontal - Text is displayed horizontally.</li> <li>• vertical - Text is displayed vertically.</li> <li>• vertical-ideographic - Ideographic text is displayed vertically.</li> <li>• horizontal-ideographic - Ideographic text is displayed horizontally.</li> </ul>
	mso-direction-alt	<p>Specifies an alternate direction for text in textboxes. Overrides the direction property. The only allowed value is context.</p>
	mso-fit-shape-to-text	<p>Specifies whether the shape stretches to fit the text in the textbox. Default is false.</p>
	mso-fit-text-to-shape	<p>Specifies whether the text stretches to fit the textbox. Default is false.</p>
	mso-layout-flow-alt	<p>Specifies the alternate layout flow for text in textboxes. This property is used instead of layout-flow when the layout flow is from bottom to top for non-ideographic languages. Its only value is bottom-to-top.</p>
	mso-next-textbox	<p>Specifies the ID of the next textbox in a series. Used to keep track of a set of linked textboxes. Default is no value.</p>
	mso-rotate	<p>Specifies a specific rotation value for text in a textbox. Default is 0. Allowed values are:</p> <ul style="list-style-type: none"> <li>• 0</li> <li>• 90</li> <li>• 180</li> <li>• -90</li> </ul>
	mso-text-scale	<p>Specifies the scaling factor for fitting text to shapes. Default is 0. This property is only used if mso-fit-text-to-shape is true.</p>



Attributes	Description													
	v-text-anchor	<p>Specifies the vertical anchoring of text in a textbox. Default is top. The alignment of a text anchor only becomes evident if mso-fit-text-to-shape is false. This property is different from the vertical-align CSS property, which is used for ideographic languages. Allowed values are:</p> <ul style="list-style-type: none"><li>• top</li><li>• middle</li><li>• bottom</li><li>• top-center</li><li>• middle-center</li><li>• bottom-center</li><li>• top-baseline</li><li>• bottom-baseline</li><li>• top-center-baseline</li><li>• bottom-center-baseline</li></ul>												
	The following properties are only used by the textpath element (§19.1.2.23):													
	<table><tr><th>Property</th><th>Description</th></tr><tr><td>font</td><td>Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.</td></tr><tr><td>font-family</td><td>Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.</td></tr><tr><td>font-size</td><td>Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.</td></tr><tr><td>font-style</td><td><p>Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are:</p><ul style="list-style-type: none"><li>• normal</li><li>• italic</li><li>• oblique - Treated the same as italic.</li></ul></td></tr><tr><td>font-variant</td><td><p>Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are:</p><ul style="list-style-type: none"><li>• normal</li><li>• small-caps</li></ul></td></tr></table>		Property	Description	font	Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.	font-family	Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.	font-size	Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.	font-style	<p>Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are:</p> <ul style="list-style-type: none"><li>• normal</li><li>• italic</li><li>• oblique - Treated the same as italic.</li></ul>	font-variant	<p>Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are:</p> <ul style="list-style-type: none"><li>• normal</li><li>• small-caps</li></ul>
	Property	Description												
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Attributes	Description	
	font-weight	Specifies the thickness of the letters of the font. Default is normal. The values are the same as those of the CSS font-weight property. Allowed values are:



Attributes	Description	
		height of the uppercase letters. Default is false.
	v-text-align	<p>Specifies the alignment of text. Default is left. Allowed values are:</p> <ul style="list-style-type: none"> <li>• left</li> <li>• right</li> <li>• center</li> <li>• justify</li> <li>• letter-justify - Distributes the extra space between the letters.</li> <li>• stretch-justify - Stretches the letters to fill in the space.</li> </ul>
	v-text-kern	Specifies whether kerning is turned on. Default is false.
	v-text-reverse	Specifies whether the layout order of rows is reversed. Default is false. This is used for vertical text layout.
	v-text-spacing-mode	<p>Specifies the mode for letter spacing. Default is tightening. This property determines whether space is removed between each letter (tightening) or added between each letter (tracking). The amount of letter spacing change is defined by the v-text-spacing property. Allowed values are:</p> <ul style="list-style-type: none"> <li>• tightening</li> <li>• tracking</li> </ul>
	v-text-spacing	Specifies the amount of spacing for text in 100ths of single line spacing. Default is 100.
<p>The line (§19.1.2.12), polyline (§19.1.2.15) and curve (§19.1.2.3) elements ignore the following properties:</p> <ul style="list-style-type: none"> <li>• top</li> <li>• left</li> <li>• width</li> <li>• height</li> </ul> <p>The following properties are not inherited by an element that references a shapetype element (§19.1.2.20) via the id attribute:</p> <ul style="list-style-type: none"> <li>• flip</li> <li>• height</li> <li>• left</li> <li>• margin-left</li> <li>• margin-top</li> </ul>		



Attributes	Description																
	<ul style="list-style-type: none"> <li>• position</li> <li>• rotation</li> <li>• top</li> <li>• visibility</li> <li>• width</li> <li>• z-index</li> </ul> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>																
target (Hyperlink Display Target)	<p>Specifies a frame or window that a URL is displayed in. Default is no value. Allowed values are:</p> <table border="1"> <thead> <tr> <th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>&lt;targetname&gt;</td><td>String containing the name of the frame or window in which to load the document.</td></tr> <tr> <td>_blank</td><td>Specifies that the linked document is loaded into a new blank window. This window is not named.</td></tr> <tr> <td>_media</td><td>Specifies that the linked document is loaded into the browser's multimedia pane.</td></tr> <tr> <td>_parent</td><td>Specifies that the linked document is loaded into the immediate parent of the document containing the link.</td></tr> <tr> <td>_search</td><td>Specifies that the linked document is loaded into the browser's search pane.</td></tr> <tr> <td>_self</td><td>Specifies that the linked document is loaded into the window in which the link was clicked (the active window).</td></tr> <tr> <td>_top</td><td>Specifies that the linked document is loaded into the topmost window.</td></tr> </tbody> </table> <p>[Example:</p> <pre> &lt;v:shape ...   href="http://www.openxmlformats.org"   target="_self" ... &gt; &lt;/v:shape&gt; </pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>	Value	Description	<targetname>	String containing the name of the frame or window in which to load the document.	_blank	Specifies that the linked document is loaded into a new blank window. This window is not named.	_media	Specifies that the linked document is loaded into the browser's multimedia pane.	_parent	Specifies that the linked document is loaded into the immediate parent of the document containing the link.	_search	Specifies that the linked document is loaded into the browser's search pane.	_self	Specifies that the linked document is loaded into the window in which the link was clicked (the active window).	_top	Specifies that the linked document is loaded into the topmost window.
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_top	Specifies that the linked document is loaded into the topmost window.																
title (Shape Title)	<p>Specifies the text displayed when the mouse pointer moves over the shape. Default is no value.</p>																



Attributes	Description
	<p>[Example:</p> <pre>&lt;v:shape ... title="tooltip" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>userdrawn (Exists In Master Slide)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the user has added the shape to a master slide. Default is false. Used by PresentationML.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userdrawn="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>userhidden (Hide Script Anchors)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a script anchor is hidden. Default is false. If true, script anchors stay hidden even if the shape is otherwise visible. A script anchor is the visual representation of a script that when displayed in an application.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userhidden="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>wrapcoords (Shape Bounding Polygon)</p>	<p>Specifies the bounding polygon that surrounds a shape. This is specified using a comma-delimited list of x and y coordinates: "x1,y1,x2,y2,x3,y3,..." This is used when text is tightly wrapped around a shape. Default is no value until the mso-wrap-mode style attribute is set to tight or through.</p> <p>[Example:</p> <pre>&lt;v:shape ...   wrapcoords="0,0 0,200, 200,200, 200,0" ... &gt; &lt;/v:shape&gt;</pre>




Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Oval](#)) is located in §A.7.1. *end note*]

#### 19.1.2.14 path (Shape Path)

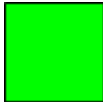


This element defines the path that makes up the shape. This is done through a string that contains a rich set of pen movement commands. This element also describes the limo-stretch point, inscribed textbox rectangle locations and connection site locations. The limo-stretch definition and the formulas element (§19.1.2.6) allow greater designer control of how the path scales. [Example: They allow, for example, definition of a true rounded corner rectangle where the corners remain circular even though the rectangle is scaled anisotropically. *end example]*

Attributes	Description
<p>arrowok (Arrowhead Display Toggle)</p>	<p>Specifies whether arrowheads are allowed to be displayed. This attribute overrides all other arrowhead attributes in the parent or the stroke element (§19.1.2.21). Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape style="width:50;height:50"&gt;   &lt;v:stroke endarrow="block"/&gt;   &lt;v:path arrowok="true"     v="m 0,0 l 1000,0 1000,1000 e"/&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>connectangles (Connection Point Connect Angles)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the angle at which curves connect to a shape's connection points. The connection angles are defined by a string consisting of angle values delimited by commas. Default is no value.</p> <p>[Example: Connections are made along the horizontal and vertical axes:</p> <pre>&lt;v:path ... o:connectangles="0,90,180,270" ... &gt;</pre>

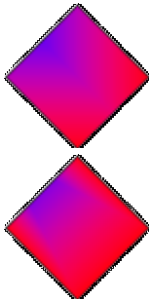


Attributes	Description
	<p><code>&lt;/v:path&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p><b>connectlocs</b> (Connection Points)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the location of connection points on a path. The connection points are defined by a string consisting of pairs of x and y values, delimited by commas. This is used if connecttype is custom. Default is no value.</p> <p>[Example: Connection points exist at the midpoints of the sides of the square:</p> <pre>&lt;v:path ... v="m 0,0 1 100,0 100,100 0,100 x e" o:connectlocs="50,0;100,50;50,100;0,50" ... &gt;</pre> <p><code>&lt;/v:path&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p><b>connecttype</b> (Connection Point Type)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the kind of connection points used for attaching shapes to other shapes. Default is none. If set to custom, connectlocs is used. Allowed values are:</p> <p>[Example:</p> <pre>&lt;v:path ... o:connecttype="custom" o:connectlocs="50,0;100,50;50,100;0,50" ... &gt;</pre> <p><code>&lt;/v:path&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ConnectType simple type (§19.2.3.8).</p>
<p><b>extrusionok</b> (Extrusion Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether an extrusion is allowed to be displayed. This attribute overrides all other extrusion attributes in the parent or the extrusion element (§19.2.2.11). Default is true.</p> <p>[Example:</p> <pre>&lt;v:rect fillcolor="lime" style="width:50;height:50"&gt; &lt;v:extrusion on="true"/&gt; &lt;v:path o:extrusionok="false"/&gt; &lt;/v:rect&gt;</pre>




Attributes	Description
	 <pre>&lt;v:path o:extrusionok="false"/&gt;</pre>  <pre>&lt;v:path o:extrusionok="true"/&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
fillok (Shape Fill Toggle)	<p>Specifies whether a fill is allowed to be displayed. This attribute overrides all other fill attributes in the parent or fill element (§19.1.2.5). Default is true.</p> <p>[Example:</p> <pre>&lt;v:shape style="width:50;height:50"   fillcolor="red"&gt;   &lt;v:path fillok="false"     v="m 0,0 l 0,1000, 1000,1000, 1000,0 x e"/&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
gradientshapeok (Gradient Shape Toggle)	<p>Specifies whether a gradient path is made up of repeated concentric paths. Default is false.</p> <p>If true, a gradient fill can be produced by repeated drawing of scaled versions of the path - this shall only be set if it is possible to scale the path in such a way that a fill is always contained in the original path. This controls the interpretation of the type="gradientradial" attribute of the fill element (§19.1.2.5).</p> <p>[Example: In the first case, the radial gradient is aligned irrespective of the shape's path:</p> <pre>&lt;v:shape style="width:50;height:50;rotation:45"   path="m 0,0 l 0,1000, 1000,1000, 1000,0 x e"&gt;   &lt;v:path gradientshapeok="false"/&gt;   &lt;v:fill type="gradientradial"     color="red" color2="blue"/&gt;</pre>

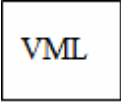



Attributes	Description
	<p>&lt;/v:shape&gt;</p> <div>  <p>gradientshapeok="false"</p> <p>gradientshapeok="true"</p> </div> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
id (Unique Identifier)	<p>Specifies a unique identifier that can be used to reference a VML object.</p> <p>Default is no value.</p> <p><i>[Example:</i></p> <div> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> </div> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
insetpenok (Inset Stroke From Path Flag)	<p>Specifies whether the stroke can be inset from the path. If this is false, it overrides the insetpen attribute and prevents the stroke from being inset.</p> <p><i>[Example: The stroke is not inset:</i></p> <div> <pre>&lt;v:shape ... insetpen="true"&gt;   &lt;v:path ... insetpenok="false"/&gt; &lt;/v:shape&gt;</pre> </div> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
limo (Limo Stretch Point)	<p>Specifies a stretch point on the shape's edge that defines where and how a shape is allowed to be stretched by a user in a graphical editor. Default is "0,0".</p> <p><i>[Example:</i></p>



Attributes	Description
	<pre>&lt;v:line from="20pt,20pt" to="100pt,20pt"&gt;   &lt;v:path limo="60pt,20pt"/&gt; &lt;/v:line&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
shadowok (Shadow Toggle)	<p>Specifies whether a shadow is allowed to be displayed. This attribute overrides all other shadow attributes in the parent or the shadow element (§19.1.2.18). Default is true.</p> <p>[Example: The shape has no shadow:</p> <pre>&lt;v:shape style="width:50;height:50"&gt;   &lt;v:path v="m 0,0 l 0,1000, 1000,1000, 1000,0 x e"     shadowok="false"/&gt;   &lt;v:shadow on="true"/&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
strokeok (Stroke Toggle)	<p>Specifies whether a stroke is displayed. This attribute overrides all other stroke attributes in the parent or the stroke element (§19.1.2.21). Default is true.</p> <p>[Example: The shape's red stroke is not shown:</p> <pre>&lt;v:shape style="width:50;height:50"   fillcolor="blue" strokecolor="red"&gt;   &lt;v:path v="m 0,0 l 0,1000, 1000,1000, 1000,0 x e"     strokeok="false"/&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
textboxrect (Text Box Bounding Box)	<p>Specifies one or more text boxes inside a shape. Default is the same as the geometry's bounding box.</p>



Attributes	Description
	<p>A textbox is defined by one or more sets of numbers specifying (in order) the left, top, right, and bottom points of the rectangle. Multiple sets are delimited by a semicolon. The default value is the same dimension value as the containing rectangle. If more than one textbox is defined, the comma-delimited quadruple sets that define each textbox are separated by semicolons. Normally textboxes come in sets of 1, 2, 3, or 6 rectangles on a shape. The textboxrect dimensions clip any text that extends beyond its region.</p> <p>[Example: The textbox is 25% down from the top and the exclamation point is clipped:</p> <pre>&lt;v:shape style="width:60;height:50"&gt;   &lt;v:path v="m 0,0 l 0,1000, 1000,1000, 1000,0 x e"     textboxrect="0,250,850,1000"/&gt;   &lt;v:textbox&gt;VML!&lt;/v:textbox&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
textpathok (Text Path Toggle)	<p>Specifies whether a text path is displayed. Default is false.</p> <p>If true, this indicates that the path is an appropriate warping path for the textpath element (§19.1.2.23). Otherwise, the textpath element shall be ignored.</p> <p>[Example: The defined textpath is ignored:</p> <pre>&lt;v:curve from="50,100" to="400,100"   control1="200,200" control2="300,200"&gt;   &lt;v:path textpathok="false"/&gt;   &lt;v:textpath on="false" style="font:normal normal     normal 36pt Arial" string="textpath"/&gt; &lt;/v:curve&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>



Attributes	Description																								
v (Path Definition)	<p>Specifies a string containing the commands that define the shape's path. This value consists of commands followed by zero or more parameters. Default is no value.</p> <p>The following rules apply to path strings:</p> <ul style="list-style-type: none"><li>• Commas or spaces delimit parameters for each command. Both "m 0,0" and "m0 0" are acceptable.</li><li>• A parameter that is omitted using commas is treated as having a value of zero. Thus, "c 10,10,0,0,25,13" and "c 10,10,,,25,13" are equivalent.</li><li>• Parameterized paths are also allowed. In this case, the shape shall also have a formulas element (§19.1.2.6) with a list of formulas that are substituted into the path using the @ symbol followed by the number of the formula. The adj property of the shape contains the input parameters for these formulas. [Example: For example, "moveto @1@4". end example] The evaluations of the formulas are substituted into the appropriate positions. The @ character also serves as a delimiter.</li></ul> <p>The allowed commands are given below. An asterisk (*) indicates that the command is allowed to be repeated. For the qb command, the controlpoint parameter is also allowed to be repeated.</p> <table><tr><th>Command</th><th>Name</th><th>Parameters</th><th>Description</th></tr><tr><td>m</td><td>moveto</td><td>2</td><td>Start a new sub-path at the given (x,y) coordinate.</td></tr><tr><td>l</td><td>lineto</td><td>2*</td><td>Draw a line from the current point to the given (x,y) coordinate which becomes the new current point. Specifying a number of coordinate pairs forms a polyline.</td></tr><tr><td>c</td><td>curveto</td><td>6*</td><td>Draw a cubic bézier curve from the current point to the coordinate given by the final two parameters. The control points are given by the first four parameters.</td></tr><tr><td>x</td><td>close</td><td>0</td><td>Close the current sub-path by drawing a straight line from the current point to the original moveto point.</td></tr><tr><td>e</td><td>end</td><td>0</td><td>End the current set of sub-paths. A given set of sub-paths (as delimited by end) is filled. Subsequent sets of sub-paths are filled independently and superimposed on existing ones.</td></tr></table>	Command	Name	Parameters	Description	m	moveto	2	Start a new sub-path at the given (x,y) coordinate.	l	lineto	2*	Draw a line from the current point to the given (x,y) coordinate which becomes the new current point. Specifying a number of coordinate pairs forms a polyline.	c	curveto	6*	Draw a cubic bézier curve from the current point to the coordinate given by the final two parameters. The control points are given by the first four parameters.	x	close	0	Close the current sub-path by drawing a straight line from the current point to the original moveto point.	e	end	0	End the current set of sub-paths. A given set of sub-paths (as delimited by end) is filled. Subsequent sets of sub-paths are filled independently and superimposed on existing ones.
Command	Name	Parameters	Description																						
m	moveto	2	Start a new sub-path at the given (x,y) coordinate.																						
l	lineto	2*	Draw a line from the current point to the given (x,y) coordinate which becomes the new current point. Specifying a number of coordinate pairs forms a polyline.																						
c	curveto	6*	Draw a cubic bézier curve from the current point to the coordinate given by the final two parameters. The control points are given by the first four parameters.																						
x	close	0	Close the current sub-path by drawing a straight line from the current point to the original moveto point.																						
e	end	0	End the current set of sub-paths. A given set of sub-paths (as delimited by end) is filled. Subsequent sets of sub-paths are filled independently and superimposed on existing ones.																						



Attributes	Description			
	t	rmoveto	2*	Start a new sub-path at a coordinate relative to the current point, cp (cpx+x, cpy+y).
	r	rlineto	2*	Draw a line from the current point to the given relative coordinate (cpx+x, cpy+y).
	v	rcurveto	6*	Cubic bézier curve using the given coordinate relative to the current point.
	nf	nofill	0	The current set of sub-paths (delimited by e) is not filled.
	ns	nostroke	0	The current set of sub-paths (delimited by e) is not stroked.
	ae	angleellipseto	6*	Draws a segment of an ellipse as described using these parameters. A straight line is drawn from the current point to the start point of the segment. The parameters are: center (x,y), size(w,h), start angle, end angle.
	al	angleellipse	6*	Same as angleellipseto except that there is an implied moveto the starting point of the segment.
	at	arcto	8*	A segment of the ellipse is drawn which starts at the angle defined by the start radius vector and ends at the angle defined by the end vector. A straight line is drawn from the current point to the start of the arc. The arc is always drawn in a counterclockwise direction. The parameters are: left, top, right, bottom, start(x,y), end(x,y). The first four values define the bounding box of an ellipse. The last four define two radial vectors.
	ar	arc	8*	Same as arcto except there is an implied moveto the start point of the arc.
	wa	clockwisearcto	8*	Same as arcto but the arc is drawn in a clockwise direction.
	wr	clockwisearc	8*	Same as arc but the arc is drawn in a clockwise direction



Attributes	Description			
	qx	ellipticalquadrant x	2*	A quarter ellipse is drawn from the current point to the given end point. The elliptical segment is initially tangential to a line parallel to the x-axis. (i.e. the segment starts out horizontal). The parameters are: end(x,y).
	qy	ellipticalquadrant y	2*	Same as ellipticalquadrantx except that the elliptical segment is initially tangential to a line parallel to the y-axis (i.e. the segment starts out vertical).
	qb	quadraticbezier	2+2*	Defines one or more quadratic bézier curves by means of control points and an end point. Intermediate (on-curve) points are obtained by interpolation between successive control points as in the OpenType font specification. The sub-path need not be started in which case the sub-path is closed. In this case the last point of the sub-path defines the start point of the quadratic bézier. The parameters are: controlpoint(x,y)*, end(x,y).
	The possible values for this attribute are defined by the W3C XML Schema string datatype.			

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Path](#)) is located in §A.7.1. *end note*]

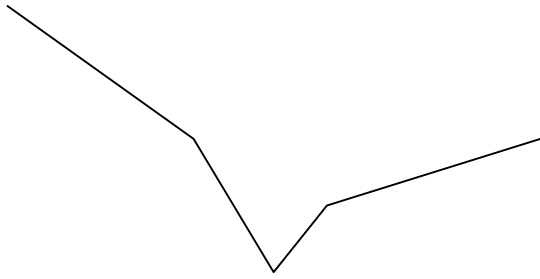
#### 19.1.2.15 **polyline** (Multiple Path Line)

This element defines shapes made up of connected line segments.

[Example:

```
<v:polyline
  points="50pt,0pt 120pt,50pt 150pt,100pt 170pt,75pt 250pt,50pt">
</v:polyline>
```





*end example]*

Attributes	Description
<p>allowincell (Allow in Table Cell)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a shape can be placed in a table. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:allowincell="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>allowoverlap (Allow Shape Overlap)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a shape can overlap another shape. Default is true. If false, the shape shifts left or right so as not to overlap another shape, similar to the behavior of the HTML float attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:allowoverlap="false" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>alt (Alternate Text)</p>	<p>Specifies alternative text describing the graphical object. This text should provide a brief description of the shape for use by accessibility tools. Default is no value.</p> <p>[Example: The alt text describes the basic shape:</p> <pre>&lt;v:shape ... fillcolor="red" alt="Red rectangle"&gt; &lt;/v:shape&gt;</pre> <p>The alt text describes the contents of a shape displaying an image:</p>



Attributes	Description
	<p>&lt;v:shape ... alt="Picture of a sunset"&gt; &lt;/v:shape&gt;</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
borderbottomcolor (Bottom Border Color)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the bottom border color of an inline shape. Default is no value.</p> <p>[Example:</p> <p>&lt;v:shape ... o:borderbottomcolor="red" ... &gt; &lt;/v:shape&gt;</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
borderleftcolor (Border Left Color)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the left border color of an inline shape. Default is no value.</p> <p>[Example:</p> <p>&lt;v:shape ... o:borderleftcolor="red" ... &gt; &lt;/v:shape&gt;</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
borderrightcolor (Border Right Color)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the right border color of an inline shape. Default is no value.</p> <p>[Example:</p> <p>&lt;v:shape ... o:borderrightcolor="red" ... &gt; &lt;/v:shape&gt;</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
bordertopcolor (Border Top Color)  Namespace: urn:schemas-	<p>Specifies the top border color of an inline shape. Default is no value.</p> <p>[Example:</p> <p>&lt;v:shape ... o:bordertopcolor="red" ... &gt;</p>



Attributes	Description
microsoft-com:office:office	<p><code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
bullet (Graphical Bullet)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the shape is a graphical bullet. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:bullet="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
button (Button Behavior Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether a shape exhibits button press behavior on click. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:button="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
bwmode (Black-and-White Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies how a shape renders for black-and-white output devices. When a shape is printed on a black-and-white printer or displayed in a black-and-white view in an application, several options are possible. Default is <code>auto</code>, which uses <code>o:bwnormal</code> for normal black-and-white rendering and <code>o:bwpure</code> for pure black-and-white rendering.</p> <p><code>bwnormal</code> and <code>bwpure</code> are subordinate to <code>bwmode</code>. If <code>bwmode</code> is <code>"auto"</code> then the value for <code>bwnormal</code> or <code>bwpure</code> is used depending on what the output format is. An application can define for itself what, if any, difference there is between normal B&amp;W and pure B&amp;W. [Example: Normal B&amp;W might allow greyscale and pure B&amp;W might not. <i>end example]</i></p> <p>[Example: This shape renders in grayscale in a black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="grayscale" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p>



Attributes	Description
<p>bwnormal (Normal Black-and-White Mode)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p> <p>Specifies the black-and-white mode for normal black-and-white output devices. Default is auto.</p> <p>[Example: This shape renders in a pale grayscale in a normal black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="auto" o:bwnormal="lightgrayscale" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
<p>bwpure (Pure Black-and-White Mode)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the black-and-white mode for pure black-and-white output devices. Default is auto.</p> <p>[Example: This shape renders in high contrast when in a pure black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="auto" o:bwpure="highcontrast" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
<p>chromakey (Image Transparency Color)</p>	<p>Specifies a color value that is transparent and show anything behind the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:image ... chromakey="white" ...&gt; &lt;/v:image&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<p>class (CSS Reference)</p>	<p>Specifies a reference to the definition of a CSS style. Default is no value.</p> <p>[Example: The snippets below are equivalent:</p> <p>...</p>




Attributes	Description
	<pre>.narrowstyle {width:50;height:100} ... &lt;v:shape ... class="narrowstyle"   style="top:1;left:1"&gt; &lt;/v:shape&gt;  &lt;v:shape ... style="top:1;left:1;   width:50;height:100"&gt; &lt;/v:shape&gt;  end example]</pre> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>clip (Clipping Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the clipping region is active. This is used in conjunction with the clippath (§19.2.2.3) element to create a clipping region.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:clip="true"&gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>cliptowrap (Clip to Wrapping Polygon)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the clipping region for the shape aligns with the wrapping polygon that tightly surrounds the entire shape (essentially, that the shape shall not be drawn beyond its wrapping polygon's extents – if it does, the shape shall be clipped). Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:cliptowrap="true"&gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>connectortype (Shape Connector Type)</p> <p>Namespace:</p>	<p>Specifies the kind of connector used for joining shapes. Default is straight.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:connectortype="elbow" ... &gt;</pre>



Attributes	Description
urn:schemas-microsoft-com:office:office	<div> &lt;/v:shape&gt; </div> <div> <i>end example]</i> </div> <p>The possible values for this attribute are defined by the ST_ConnectorType simple type (§19.2.3.7).</p>
coordorigin (Coordinate Space Origin)	<p>Specifies the coordinate of the top left corner of the shape's coordinate space. This determines the position of the (0,0) coordinate space origin within the shape's bounding box. Default is "0,0", which places the (0,0) origin at the top left corner of the bounding box.</p> <p>This affects shape properties that specify coordinate positions, such as the path attribute. Thus a path can be defined against a generic (0,0) origin and the coordorigin value translates the entire path within the shape's bounding space.</p> <p>[Example: The horizontal and vertical coordinate space ranges from -100 to +100 because the coordinate space (coordsize) is 200 by 200 and the top left coordinate is (-100,-100). The (0,0) origin lies at the center of the shape's bounding box, as evidenced by the position of the shape's path within the coordinate space:</p> <div> <pre>&lt;v:shape ... coordsize="200,200"   coordorigin="-100,-100"   path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre> </div> <div> </div> <div> <i>end example]</i> </div> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
coordsize (Coordinate Space Size)	<p>Specifies the size of the shape's coordinate space in coordinate units. Default is "1000,1000".</p> <p>The physical size of a coordinate unit length is determined by both the size of the coordinate space (coordsize) and the size of the shape (style width and height). The coordsize attribute defines the number of horizontal and vertical subdivisions into which the shape's bounding box is divided. The combination of coordsize and style width/height effective scales the shape anisotropically.</p> <p>[Example: The path is 50 units wide and tall, which is 25% of the size of the coordinate space:</p> <div> <pre>&lt;v:shape ... coordsize="200,200"</pre> </div>




Attributes	Description
	<pre>coordorigin="-100,-100" path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>dgmlayout (Diagram Node Layout Identifier)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the kind of automatic layout to apply to the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmlayout="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).</p>
<p>dgmlayoutmru (Diagram Node Recent Layout Identifier)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the kind of automatic layout most recently used on the child elements of the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmlayout="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).</p>
<p>dgmnodekind (Diagram Node Identifier)</p> <p>Namespace: urn:schemas-microsoft-</p>	<p>Specifies an optional, application-defined parameter that is intended to be used by the application to tag different types of nodes in a diagram.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmnodekind="1"&gt; &lt;/v:shape&gt;</pre>



Attributes	Description
com:office:office	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
doubleclicknotify (Double-click Notification Toggle)  Namespace: urn:schemas- microsoft- com:office:office	<p>Specifies that an event message is sent when a shape is double-clicked. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:doubleclicknotify="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
fillcolor (Fill Color)	<p>Specifies the color to use for the fill. Default is white. If the fill element (§19.1.2.5) is present, its color attribute takes precedence. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example: This shape is red if its fill is visible:</p> <pre>&lt;v:shape ... fillcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p>This is equivalent to:</p> <pre>&lt;v:shape ... fillcolor="#ff0000" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
filled (Shape Fill Toggle)	<p>Specifies whether the closed path is filled. Default is true. This attribute is overridden by the fill on attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... filled="f" fillcolor="red" ...&gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p><b>forcedash</b> (Force Dashed Outline)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a dashed outline is used to draw a shape when a shape has no line or fill. Default is <code>false</code>.</p> <p>Used by PresentationML placeholders to draw a dashed outline when there is no line and no fill for a shape.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:forcedash="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p><b>hr</b> (Horizontal Rule Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that a shape is a horizontal rule. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hr="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p><b>hralign</b> (Horizontal Rule Alignment)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the alignment of a horizontal rule. Default is <code>left</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hralign="center" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_HrAlign simple type (§19.2.3.16).</p>





Attributes	Description
<b>href (Hyperlink Target)</b>	<p>Specifies a hyperlink URL target for the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... href="http://www.openxmlformats.org" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>hrnoshade (Horizontal Rule 3D Shading Toggle)</b>  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies that the horizontal rule does not have 3-D shading. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrnoshade="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<b>hrpct (Horizontal Rule Length Percentage)</b>  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the length of a horizontal rule as a percentage of page width. Default is 0.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrpct="85" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
<b>hrstd (Horizontal Rule Standard Display Toggle)</b>  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether a shape is displayed as a standard horizontal rule. Only applies if hr is true. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrstd="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<b>id (Unique</b>	<p>Specifies a unique identifier that can be used to reference a VML object.</p>



Attributes	Description
Identifier)	<p>Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
insetmode (Text Inset Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the application calculates the internal text margin instead of using the inset attribute. Default is custom. This attribute is only meaningful for text boxes.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:insetmode="auto" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_InsetMode simple type (§19.2.3.17).</p>
insetpen (Inset Border From Path)	<p>Specifies that the border shall be displayed inside of the path defining the shape, rather than along the path (the default border placement), or outside of the path as might be done with an image.</p> <p>[Example:</p> <pre>&lt;v:shape ... insetpen="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
ole (Embedded Object Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the shape is an embedded object. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:ole="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p>




Attributes	Description
	<p>The possible values for this attribute are defined by the ST_TrueFalseBlank simple type (§20.1.2.6).</p>
<p>oleicon (Embedded Object Icon Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether an embedded object is displayed as an icon. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oleicon="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>oned (Shape Handle Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the extra handles of a shape are hidden. If true, hides all shape handles except the top left and bottom right; that is, the same handles that are used for a straight line segment. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oned="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>opacity (Fill Color Opacity)</p>	<p>Specifies the opacity of the primary fill color. Default is 1.0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. [Example: A value of "52429f" represents 52429/65536 or 0.8. end example]</p> <p>[Example: The red color is 25% opaque:</p> <pre>&lt;v:fill type="gradient" color="red" color2="blue" opacity=".25"&gt; &lt;/v:fill&gt;</pre> <div>  <p>opacity="1"</p>  <p>opacity=".25"</p> </div> <p>end example]</p>





Attributes	Description
	<p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>points (Points for Compound Line)</p>	<p>Specifies a set of straight line segments that are composed of a series of pairs of points. Default is "0,0 10,10".</p> <p>Points are specified in the coordinate system of the parent element. If the parent is not a VML element, the default unit is a pixel. Allowed units are in, cm, mm, pt, pc and px. While commas are not required, they should be used for easier readability.</p> <p>See above for an example.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>preferrelative (Relative Resize Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the original size of an object is saved after reformatting. Default is false. If true, the original size of the object is stored and all resizing is based on a percentage of that original size. Otherwise, each resizing resets the scale to 100%.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:preferrelative="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>print (Print Toggle)</p>	<p>Specifies whether the shape is printed. Default is true.</p> <p>[Example:</p> <pre>&lt;v:shape ... print="false" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>regroupid (Regroup ID)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies a previous group for a shape. An ID number is used to identify groups of shapes that are no longer grouped. This allows shapes to be regrouped programmatically.</p> <p>[Example: The shape was part of a group identified by the ID 040754:</p> <pre>&lt;v:shape ... o:regroupid="040754" ... &gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
<p>spid (Optional String)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies an optional string that an application can use to identify the particular shape. Default is no value.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>spt (Optional Number)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies an optional number that an application can use to associate the particular shape with a defined shape type. Default is 0.</p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
<p>strokecolor (Shape Stroke Color)</p>	<p>Specifies the primary color of the brush to use to stroke the path of the shape. Default is black. The color attribute of the stroke element (§19.1.2.21) overrides this. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example:</p> <pre>&lt;v:shape ... strokecolor="red" ...&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<p>stroked (Shape Stroke Toggle)</p>	<p>Specifies whether the path defining the shape is stroked with a solid line. The stroke element (§19.1.2.21) defines other strokes. The on attribute of the stroke element overrides this attribute. Default is true.</p> <p>[Example:</p> <pre>&lt;v:shape ... fillcolor="red"</pre>



Attributes	Description		
	<pre>         stroked="false" strokecolor="blue"...&gt;       &lt;/v:shape&gt; </pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>		
strokeweight (Shape Stroke Weight)	<p>Specifies the width of the brush to use to stroke the path. Default is 1 point. If a number is given without units, the emu is used. The weight attribute of the stroke element (§19.1.2.21) overrides this attribute.</p> <p>[Example:</p> <pre>         &lt;v:shape ... strokeweight="3pt" ... &gt;       &lt;/v:shape&gt; </pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>		
style (Shape Styling Properties)	<p>Specifies the CSS2 styling properties of the shape. The CSS2 (Cascading Style Sheets, Level 2) specification, a Recommendation of the World Wide Web Consortium, is available here: <a href="http://www.w3.org/TR/REC-CSS2">http://www.w3.org/TR/REC-CSS2</a>.</p> <p>This attribute uses a semi-colon delimited list of “name:value” pairs, the syntax defined by section 4.1.8 of the CSS2 specification for grouped declarations (without the surrounding braces). The following tables define the allowed properties and the VML treatment of each.</p> <p>[Example:</p> <pre>         &lt;v:shape ... style='position:absolute;width:100pt;height:50pt' ...         &gt;       &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <table border="1"> <thead> <tr> <th>Property</th><th>Description</th></tr> </thead> </table>	Property	Description
Property	Description		



Attributes	Description	
	flip	<p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul>
	height	<p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	left	<p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-bottom	<p>Specifies the position of the bottom of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>



Attributes	Description	
	margin-left	<p>Specifies the position of the left of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-right	<p>Specifies the position of the right of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-top	<p>Specifies the position of the top of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	mso-position-horizontal	<p>Specifies the horizontal positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• left</li> <li>• center</li> <li>• right</li> </ul>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-horizontal-relative	<p>Specifies relative horizontal position data for objects in WordprocessingML documents. This modifies the mso-position-horizontal property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• char</li> </ul>
	mso-position-vertical	<p>Specifies the vertical positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• top</li> <li>• center</li> <li>• bottom</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-vertical-relative	<p>Specifies relative vertical position data for objects in WordprocessingML documents. This modifies the mso-position-vertical property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• line</li> </ul>
	mso-wrap-distance-bottom	<p>Specifies the distance from the bottom of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-distance-left	<p>Specifies the distance from the left side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-	<p>Specifies the distance from the right side of the shape to the text</p>



Attributes	Description	
	distance-right	that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-top	Specifies the distance from the top of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-edited	Specifies whether the wrap coordinates were customized by the user. If the wrap coordinates are generated by an editor, this property is true; otherwise they were customized by a user. Default is false.
	mso-wrap-style	<p>Specifies the wrapping mode for text in shapes in WordprocessingML documents. Default is square. Allowed values are:</p> <ul style="list-style-type: none"> <li>• square - Wraps text inside the shape in a square.</li> <li>• none - Text does not wrap.</li> </ul>
	position	<p>Specifies the kind of positioning used to place an element. Default is static. When the element is contained inside a group, this property shall be absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• static - The element is positioned according to the normal flow of the page. The top and left properties are ignored. If the object is anchored inline, this value is used.</li> <li>• absolute - The element is positioned relative to the parent, using the top and left properties.</li> <li>• relative - The element is positioned according to the normal flow of the page, but the top and left properties are used. The overlap of overlapping elements is governed by the z-index property.</li> </ul>
	rotation	Specifies the angle that a shape is rotated, in degrees. Default is 0. Positive angles are clockwise.
	top	<p>Specifies the position of the top of the containing block of the shape relative to the element above it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> </ul>



Attributes	Description				
		<ul style="list-style-type: none"><li>• <code>&lt;units&gt;</code>- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li><li>• <code>&lt;percentage&gt;</code>- Value expressed as a percentage of the parent object's height.</li></ul>			
	visibility	<p>Specifies whether a shape is displayed. Only <code>inherit</code> and <code>hidden</code> are used; any other values are mapped to <code>inherit</code>. Default is <code>inherit</code>. Allowed values are:</p> <ul style="list-style-type: none"><li>• <code>hidden</code> - The shape is not visible, but is still part of the flow of the objects in the browser. Mouse events are not processed.</li><li>• <code>inherit</code> - The visibility state is inherited from the parent of the shape.</li></ul>			
	width	<p>Specifies the width of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"><li>• <code>auto</code> - Default position of an element in the flow of the page.</li><li>• <code>&lt;units&gt;</code>- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li><li>• <code>&lt;percentage&gt;</code>- Value expressed as a percentage of the parent object's width.</li></ul>			
	z-index	<p>Specifies the display order of overlapping shapes. Default is 0. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"><li>• <code>auto</code> - Uses the order that the shapes appear in the page, bottom to top.</li><li>• <code>&lt;order&gt;</code>- A number that represents the stacking precedence. Shapes with higher numbers are placed on top of those with lower numbers. Negative numbers are allowed.</li></ul>			
	<p>The following properties are only used by the <code>textbox</code> element (§19.1.2.22):</p> <table><tr><th>Property</th><th>Description</th></tr><tr><td>direction</td><td><p>Specifies the direction of the text in the <code>textbox</code>. Default is <code>ltr</code>. This property is superceded by the <code>mso-direction-alt</code> property if that is specified. Allowed values are:</p></td></tr></table>		Property	Description	direction
Property	Description				
direction	<p>Specifies the direction of the text in the <code>textbox</code>. Default is <code>ltr</code>. This property is superceded by the <code>mso-direction-alt</code> property if that is specified. Allowed values are:</p>				



Attributes	Description	
		<ul style="list-style-type: none"> <li>• <code>ltr</code> - Text is displayed left-to-right.</li> <li>• <code>rtl</code> - Text is displayed right-to-left.</li> </ul>
	<code>layout-flow</code>	<p>Determines the flow of the text layout in a textbox. Default is <code>horizontal</code>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <code>horizontal</code> - Text is displayed horizontally.</li> <li>• <code>vertical</code> - Text is displayed vertically.</li> <li>• <code>vertical-ideographic</code> - Ideographic text is displayed vertically.</li> <li>• <code>horizontal-ideographic</code> - Ideographic text is displayed horizontally.</li> </ul>
	<code>mso-direction-alt</code>	Specifies an alternate direction for text in textboxes. Overrides the <code>direction</code> property. The only allowed value is <code>context</code> .
	<code>mso-fit-shape-to-text</code>	Specifies whether the shape stretches to fit the text in the textbox. Default is <code>false</code> .
	<code>mso-fit-text-to-shape</code>	Specifies whether the text stretches to fit the textbox. Default is <code>false</code> .
	<code>mso-layout-flow-alt</code>	Specifies the alternate layout flow for text in textboxes. This property is used instead of <code>layout-flow</code> when the layout flow is from bottom to top for non-ideographic languages. Its only value is <code>bottom-to-top</code> .
	<code>mso-next-textbox</code>	Specifies the ID of the next textbox in a series. Used to keep track of a set of linked textboxes. Default is no value.
	<code>mso-rotate</code>	<p>Specifies a specific rotation value for text in a textbox. Default is 0. Allowed values are:</p> <ul style="list-style-type: none"> <li>• 0</li> <li>• 90</li> <li>• 180</li> <li>• -90</li> </ul>
	<code>mso-text-scale</code>	Specifies the scaling factor for fitting text to shapes. Default is 0. This property is only used if <code>mso-fit-text-to-shape</code> is true.
	<code>v-text-anchor</code>	Specifies the vertical anchoring of text in a textbox. Default is <code>top</code> . The alignment of a text anchor only becomes evident if <code>mso-fit-text-to-shape</code> is false. This property is different from the <code>vertical-align</code> CSS property, which is used for ideographic languages. Allowed values are:



Attributes	Description																			
		<ul style="list-style-type: none"><li>• top</li><li>• middle</li><li>• bottom</li><li>• top-center</li><li>• middle-center</li><li>• bottom-center</li><li>• top-baseline</li><li>• bottom-baseline</li><li>• top-center-baseline</li><li>• bottom-center-baseline</li></ul>																		
	The following properties are only used by the textpath element (§19.1.2.23):																			
		<table><tr><th>Property</th><th>Description</th></tr><tr><td>font</td><td>Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.</td></tr><tr><td>font-family</td><td>Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.</td></tr><tr><td>font-size</td><td>Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.</td></tr><tr><td>font-style</td><td>Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are:<ul style="list-style-type: none"><li>• normal</li><li>• italic</li><li>• oblique - Treated the same as italic.</li></ul></td></tr><tr><td>font-variant</td><td>Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are:<ul style="list-style-type: none"><li>• normal</li><li>• small-caps</li></ul></td></tr><tr><td>font-weight</td><td>Specifies the thickness of the letters of the font. Default is normal. The values are the same as those of the CSS font-weight property. Allowed values are:<table><tr><th>Value</th><th>Description</th></tr><tr><td></td><td></td></tr></table></td></tr></table>	Property	Description	font	Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.	font-family	Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.	font-size	Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.	font-style	Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are: <ul style="list-style-type: none"><li>• normal</li><li>• italic</li><li>• oblique - Treated the same as italic.</li></ul>	font-variant	Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are: <ul style="list-style-type: none"><li>• normal</li><li>• small-caps</li></ul>	font-weight	Specifies the thickness of the letters of the font. Default is normal. The values are the same as those of the CSS font-weight property. Allowed values are: <table><tr><th>Value</th><th>Description</th></tr><tr><td></td><td></td></tr></table>	Value	Description		
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Attributes	Description	
		<p>normal</p> <p>lighter</p> <p>100</p> <p>200</p> <p>300</p> <p>400</p> <p>Treated as non-bold.</p>
		<p>bold</p> <p>bolder</p> <p>500</p> <p>600</p> <p>700</p> <p>800</p> <p>900</p> <p>Treated as bold.</p>
	mso-text-shadow	Specifies whether a shadow is applied to the text on a text path. Default is false.
	text-decoration	<p>Specifies the style of text decoration. Default is none. The values are the same as those of the CSS text-decoration property. Allowed values are:</p> <ul style="list-style-type: none"> <li>• none</li> <li>• underline</li> <li>• overline</li> <li>• line-through</li> <li>• blink</li> </ul>
	v-rotate-letters	Specifies whether the letters of the text are rotated counterclockwise by 90 degrees. Default is false.
	v-same-letter-heights	Specifies whether all letters are the same height regardless of initial case. If true, the lowercase letters are stretched to the height of the uppercase letters. Default is false.
	v-text-align	<p>Specifies the alignment of text. Default is left. Allowed values are:</p> <ul style="list-style-type: none"> <li>• left</li> </ul>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• right</li> <li>• center</li> <li>• justify</li> <li>• letter-justify - Distributes the extra space between the letters.</li> <li>• stretch-justify - Stretches the letters to fill in the space.</li> </ul>
	v-text-kern	Specifies whether kerning is turned on. Default is false.
	v-text-reverse	Specifies whether the layout order of rows is reversed. Default is false. This is used for vertical text layout.
	v-text-spacing-mode	<p>Specifies the mode for letter spacing. Default is tightening. This property determines whether space is removed between each letter (tightening) or added between each letter (tracking). The amount of letter spacing change is defined by the v-text-spacing property. Allowed values are:</p> <ul style="list-style-type: none"> <li>• tightening</li> <li>• tracking</li> </ul>
	v-text-spacing	Specifies the amount of spacing for text in 100ths of single line spacing. Default is 100.
<p>The line (§19.1.2.12), polyline (§19.1.2.15) and curve (§19.1.2.3) elements ignore the following properties:</p> <ul style="list-style-type: none"> <li>• top</li> <li>• left</li> <li>• width</li> <li>• height</li> </ul> <p>The following properties are not inherited by an element that references a shapetype element (§19.1.2.20) via the id attribute:</p> <ul style="list-style-type: none"> <li>• flip</li> <li>• height</li> <li>• left</li> <li>• margin-left</li> <li>• margin-top</li> <li>• position</li> <li>• rotation</li> <li>• top</li> <li>• visibility</li> <li>• width</li> </ul>		



Attributes	Description																
	<ul style="list-style-type: none"> <li>• z-index</li> </ul> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>																
target (Hyperlink Display Target)	<p>Specifies a frame or window that a URL is displayed in. Default is no value. Allowed values are:</p> <table border="1"> <thead> <tr> <th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>&lt;targetname&gt;</td><td>String containing the name of the frame or window in which to load the document.</td></tr> <tr> <td>_blank</td><td>Specifies that the linked document is loaded into a new blank window. This window is not named.</td></tr> <tr> <td>_media</td><td>Specifies that the linked document is loaded into the browser's multimedia pane.</td></tr> <tr> <td>_parent</td><td>Specifies that the linked document is loaded into the immediate parent of the document containing the link.</td></tr> <tr> <td>_search</td><td>Specifies that the linked document is loaded into the browser's search pane.</td></tr> <tr> <td>_self</td><td>Specifies that the linked document is loaded into the window in which the link was clicked (the active window).</td></tr> <tr> <td>_top</td><td>Specifies that the linked document is loaded into the topmost window.</td></tr> </tbody> </table> <p>[Example:</p> <pre> &lt;v:shape ...   href="http://www.openxmlformats.org"   target="_self" ... &gt; &lt;/v:shape&gt; </pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>	Value	Description	<targetname>	String containing the name of the frame or window in which to load the document.	_blank	Specifies that the linked document is loaded into a new blank window. This window is not named.	_media	Specifies that the linked document is loaded into the browser's multimedia pane.	_parent	Specifies that the linked document is loaded into the immediate parent of the document containing the link.	_search	Specifies that the linked document is loaded into the browser's search pane.	_self	Specifies that the linked document is loaded into the window in which the link was clicked (the active window).	_top	Specifies that the linked document is loaded into the topmost window.
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_top	Specifies that the linked document is loaded into the topmost window.																
title (Shape Title)	<p>Specifies the text displayed when the mouse pointer moves over the shape. Default is no value.</p> <p>[Example:</p> <pre> &lt;v:shape ... title="tooltip" ... &gt; &lt;/v:shape&gt; </pre>																



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>userdrawn (Exists In Master Slide)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the user has added the shape to a master slide. Default is <code>false</code>. Used by PresentationML.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userdrawn="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>userhidden (Hide Script Anchors)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a script anchor is hidden. Default is <code>false</code>. If <code>true</code>, script anchors stay hidden even if the shape is otherwise visible. A script anchor is the visual representation of a script that when displayed in an application.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userhidden="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>wrapcoords (Shape Bounding Polygon)</p>	<p>Specifies the bounding polygon that surrounds a shape. This is specified using a comma-delimited list of x and y coordinates: "x1,y1,x2,y2,x3,y3,..." This is used when text is tightly wrapped around a shape. Default is no value until the <code>mso-wrap-mode</code> style attribute is set to <code>tight</code> or <code>through</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ...   wrapcoords="0,0 0,200, 200,200, 200,0" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>



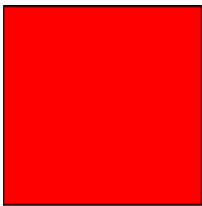
[*Note:* The W3C XML Schema definition of this element's content model ([CT\\_PolyLine](#)) is located in §A.7.1. *end note*]

### 19.1.2.16 `rect` (Rectangle)

This element is used to draw a simple rectangle. The CSS2 style content width and height define the width and height of the rectangle.

[*Example:*

```
<v:rect fillcolor="red"
  style="position:relative;top:0;left:0;width:100;height:100">
</v:rect>
```



*end example]*

Attributes	Description
allowincell (Allow in Table Cell)  Namespace: urn:schemas-microsoft-com:office:office	Specifies whether a shape can be placed in a table. Default is false.  [ <i>Example:</i> <pre>&lt;v:shape ... o:allowincell="true" ... &gt; &lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).
allowoverlap (Allow Shape Overlap)  Namespace: urn:schemas-microsoft-com:office:office	Specifies whether a shape can overlap another shape. Default is true. If false, the shape shifts left or right so as not to overlap another shape, similar to the behavior of the HTML float attribute.  [ <i>Example:</i> <pre>&lt;v:shape ... o:allowoverlap="false" ... &gt; &lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).



Attributes	Description
alt (Alternate Text)	<p>Specifies alternative text describing the graphical object. This text should provide a brief description of the shape for use by accessibility tools. Default is no value.</p> <p>[Example: The alt text describes the basic shape:</p> <pre>&lt;v:shape ... fillcolor="red"   alt="Red rectangle"&gt; &lt;/v:shape&gt;</pre> <p>The alt text describes the contents of a shape displaying an image:</p> <pre>&lt;v:shape ... alt="Picture of a sunset"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
borderbottomcolor (Bottom Border Color)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the bottom border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderbottomcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
borderleftcolor (Border Left Color)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the left border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderleftcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
borderrightcolor (Border Right Color)  Namespace: urn:schemas-	<p>Specifies the right border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderrightcolor="red" ... &gt;</pre>



Attributes	Description
microsoft-com:office:office	<p><code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>bordercolor (Border Top Color)</b>  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the top border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:bordercolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>bullet (Graphical Bullet)</b>  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the shape is a graphical bullet. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:bullet="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<b>button (Button Behavior Toggle)</b>  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether a shape exhibits button press behavior on click. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:button="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<b>bwmode (Black-and-White Mode)</b>  Namespace: urn:schemas-microsoft-	<p>Specifies how a shape renders for black-and-white output devices. When a shape is printed on a black-and-white printer or displayed in a black-and-white view in an application, several options are possible. Default is <code>auto</code>, which uses <code>o:bwnormal</code> for normal black-and-white rendering and <code>o:bwpure</code> for pure black-and-white rendering.</p> <p><code>bwnormal</code> and <code>bwpure</code> are subordinate to <code>bwmode</code>. If <code>bwmode</code> is "auto" then the value</p>




Attributes	Description
com:office:office	<p>for bwnormal or bwpure is used depending on what the output format is. An application can define for itself what, if any, difference there is between normal B&amp;W and pure B&amp;W. <i>[Example: Normal B&amp;W might allow greyscale and pure B&amp;W might not. end example]</i></p> <p><i>[Example: This shape renders in grayscale in a black-and-white environment:</i></p> <pre>&lt;v:shape ... o:bwmode="grayscale" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
bwnormal (Normal Black-and-White Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the black-and-white mode for normal black-and-white output devices. Default is auto.</p> <p><i>[Example: This shape renders in a pale grayscale in a normal black-and-white environment:</i></p> <pre>&lt;v:shape ... o:bwmode="auto" o:bwnormal="lightgrayscale" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
bwpure (Pure Black-and-White Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the black-and-white mode for pure black-and-white output devices. Default is auto.</p> <p><i>[Example: This shape renders in high contrast when in a pure black-and-white environment:</i></p> <pre>&lt;v:shape ... o:bwmode="auto" o:bwpure="highcontrast" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
chromakey (Image Transparency Color)	<p>Specifies a color value that is transparent and show anything behind the shape. Default is no value.</p> <p><i>[Example:</i></p> <pre>&lt;v:image ... chromakey="white" ...&gt;</pre>




Attributes	Description
	<p><code>&lt;/v:image&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<p>class (CSS Reference)</p>	<p>Specifies a reference to the definition of a CSS style. Default is no value.</p> <p>[Example: The snippets below are equivalent:</p> <pre> ... .narrowstyle {width:50;height:100} ... &lt;v:shape ... class="narrowstyle"   style="top:1;left:1"&gt; &lt;/v:shape&gt;  &lt;v:shape ... style="top:1;left:1;   width:50;height:100"&gt; &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>clip (Clipping Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the clipping region is active. This is used in conjunction with the clippath (§19.2.2.3) element to create a clipping region.</p> <p>[Example:</p> <pre> &lt;v:shape ... o:clip="true"&gt; &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>cliptowrap (Clip to Wrapping Polygon)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the clipping region for the shape aligns with the wrapping polygon that tightly surrounds the entire shape (essentially, that the shape shall not be drawn beyond its wrapping polygon's extents – if it does, the shape shall be clipped). Default is false.</p> <p>[Example:</p> <pre> &lt;v:shape ... o:cliptowrap="true"&gt; </pre>



Attributes	Description
	<p><code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>connectortype (Shape Connector Type)</p> <p>Namespace: urn:schemas- microsoft- com:office:office</p>	<p>Specifies the kind of connector used for joining shapes. Default is straight.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:connectortype="elbow" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ConnectorType simple type (§19.2.3.7).</p>
<p>coordorigin (Coordinate Space Origin)</p>	<p>Specifies the coordinate of the top left corner of the shape's coordinate space. This determines the position of the (0,0) coordinate space origin within the shape's bounding box. Default is "0,0", which places the (0,0) origin at the top left corner of the bounding box.</p> <p>This affects shape properties that specify coordinate positions, such as the path attribute. Thus a path can be defined against a generic (0,0) origin and the coordorigin value translates the entire path within the shape's bounding space.</p> <p>[Example: The horizontal and vertical coordinate space ranges from -100 to +100 because the coordinate space (coordsize) is 200 by 200 and the top left coordinate is (-100,-100). The (0,0) origin lies at the center of the shape's bounding box, as evidenced by the position of the shape's path within the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200" coordorigin="-100,-100" path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>coordsize</p>	<p>Specifies the size of the shape's coordinate space in coordinate units. Default is</p>




Attributes	Description
(Coordinate Space Size)	<p>"1000,1000".</p> <p>The physical size of a coordinate unit length is determined by both the size of the coordinate space (coordsize) and the size of the shape (style width and height). The coordsize attribute defines the number of horizontal and vertical subdivisions into which the shape's bounding box is divided. The combination of coordsize and style width/height effective scales the shape anisotropically.</p> <p>[Example: The path is 50 units wide and tall, which is 25% of the size of the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200"   coordorigin="-100,-100"   path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
dgmlayout (Diagram Node Layout Identifier)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the kind of automatic layout to apply to the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmlayout="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).</p>
dgmlayoutmru (Diagram Node Recent Layout Identifier)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the kind of automatic layout most recently used on the child elements of the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmlayout="1"&gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).</p>
<p>dgmnodekind (Diagram Node Identifier)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies an optional, application-defined parameter that is intended to be used by the application to tag different types of nodes in a diagram.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmnodekind="1"&gt;   &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
<p>doubleclicknotify (Double-click Notification Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that an event message is sent when a shape is double-clicked. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:doubleclicknotify="true" ... &gt;   &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>fillcolor (Fill Color)</p>	<p>Specifies the color to use for the fill. Default is white. If the fill element (§19.1.2.5) is present, its color attribute takes precedence. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example: This shape is red if its fill is visible:</p> <pre>&lt;v:shape ... fillcolor="red" ... &gt;   &lt;/v:shape&gt;</pre> <p>This is equivalent to:</p> <pre>&lt;v:shape ... fillcolor="#ff0000" ... &gt;   &lt;/v:shape&gt;</pre> <p><i>end example]</i></p>



Attributes	Description
<p>filled (Shape Fill Toggle)</p>	<p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p> <p>Specifies whether the closed path is filled. Default is <code>true</code>. This attribute is overridden by the <code>fill on</code> attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... filled="f"   fillcolor="red" ...&gt; &lt;/v:shape&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>forcedash (Force Dashed Outline)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a dashed outline is used to draw a shape when a shape has no line or fill. Default is <code>false</code>.</p> <p>Used by PresentationML placeholders to draw a dashed outline when there is no line and no fill for a shape.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:forcedash="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>hr (Horizontal Rule Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that a shape is a horizontal rule. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hr="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>



Attributes	Description
<b>hralign</b> (Horizontal Rule Alignment)  Namespace: urn:schemas-microsoft-com:office:office	Specifies the alignment of a horizontal rule. Default is <code>left</code> .  <i>[Example:</i> <pre>&lt;v:shape ... o:hralign="center" ... &gt; &lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the <code>ST_HrAlign</code> simple type (§19.2.3.16).
<b>href</b> (Hyperlink Target)	Specifies a hyperlink URL target for the shape. Default is no value.  <i>[Example:</i> <pre>&lt;v:shape ... href="http://www.openxmlformats.org" ... &gt; &lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the W3C XML Schema string datatype.
<b>hrnoshade</b> (Horizontal Rule 3D Shading Toggle)  Namespace: urn:schemas-microsoft-com:office:office	Specifies that the horizontal rule does not have 3-D shading. Default is <code>false</code> .  <i>[Example:</i> <pre>&lt;v:shape ... o:hrnoshade="true" ... &gt; &lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the <code>ST_TrueFalse</code> simple type (§20.1.2.5).
<b>hrpct</b> (Horizontal Rule Length Percentage)  Namespace: urn:schemas-microsoft-com:office:office	Specifies the length of a horizontal rule as a percentage of page width. Default is 0.  <i>[Example:</i> <pre>&lt;v:shape ... o:hrpct="85" ... &gt; &lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the W3C XML Schema float datatype.
<b>hrstd</b> (Horizontal Rule Standard)	Specifies whether a shape is displayed as a standard horizontal rule. Only applies if <code>hr</code> is <code>true</code> . Default is <code>false</code> .




Attributes	Description
Display Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>[Example:</p> <pre>&lt;v:shape ... o:hrstd="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
id (Unique Identifier)	<p>Specifies a unique identifier that can be used to reference a VML object.</p> <p>Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
insetmode (Text Inset Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the application calculates the internal text margin instead of using the inset attribute. Default is custom. This attribute is only meaningful for text boxes.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:insetmode="auto" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_InsetMode simple type (§19.2.3.17).</p>
insetpen (Inset Border From Path)	<p>Specifies that the border shall be displayed inside of the path defining the shape, rather than along the path (the default border placement), or outside of the path as might be done with an image.</p> <p>[Example:</p> <pre>&lt;v:shape ... insetpen="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p>




Attributes	Description
	<p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>ole (Embedded Object Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the shape is an embedded object. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:ole="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalseBlank simple type (§20.1.2.6).</p>
<p>oleicon (Embedded Object Icon Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether an embedded object is displayed as an icon. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oleicon="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>oned (Shape Handle Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the extra handles of a shape are hidden. If true, hides all shape handles except the top left and bottom right; that is, the same handles that are used for a straight line segment. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oned="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>opacity (Fill Color Opacity)</p>	<p>Specifies the opacity of the primary fill color. Default is 1.0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. [Example: A value of "52429f" represents 52429/65536 or 0.8. end example]</p> <p>[Example: The red color is 25% opaque:</p> <pre>&lt;v:fill type="gradient" color="red"</pre>





Attributes	Description
	<pre>color2="blue" opacity=".25"&gt; &lt;/v:fill&gt;</pre>  <pre>opacity="1" opacity=".25"</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>preferrelative (Relative Resize Toggle)</p> <p>Namespace: urn:schemas- microsoft- com:office:office</p>	<p>Specifies whether the original size of an object is saved after reformatting. Default is false. If true, the original size of the object is stored and all resizing is based on a percentage of that original size. Otherwise, each resizing resets the scale to 100%.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:preferrelative="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>print (Print Toggle)</p>	<p>Specifies whether the shape is printed. Default is true.</p> <p>[Example:</p> <pre>&lt;v:shape ... print="false" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>regroupid (Regroup ID)</p> <p>Namespace: urn:schemas- microsoft- com:office:office</p>	<p>Specifies a previous group for a shape. An ID number is used to identify groups of shapes that are no longer grouped. This allows shapes to be regrouped programmatically.</p> <p>[Example: The shape was part of a group identified by the ID 040754:</p> <pre>&lt;v:shape ... o:regroupid="040754" ... &gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
<p>spid (Optional String)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies an optional string that an application can use to identify the particular shape. Default is no value.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>spt (Optional Number)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies an optional number that an application can use to associate the particular shape with a defined shape type. Default is 0.</p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
<p>strokecolor (Shape Stroke Color)</p>	<p>Specifies the primary color of the brush to use to stroke the path of the shape. Default is black. The color attribute of the stroke element (§19.1.2.21) overrides this. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example:</p> <pre>&lt;v:shape ... strokecolor="red" ...&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<p>stroked (Shape Stroke Toggle)</p>	<p>Specifies whether the path defining the shape is stroked with a solid line. The stroke element (§19.1.2.21) defines other strokes. The on attribute of the stroke element overrides this attribute. Default is true.</p> <p>[Example:</p> <pre>&lt;v:shape ... fillcolor="red"</pre>



Attributes	Description		
	<pre>         stroked="false" strokecolor="blue"...&gt;       &lt;/v:shape&gt; </pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>		
strokeweight (Shape Stroke Weight)	<p>Specifies the width of the brush to use to stroke the path. Default is 1 point. If a number is given without units, the emu is used. The weight attribute of the stroke element (§19.1.2.21) overrides this attribute.</p> <p>[Example:</p> <pre>       &lt;v:shape ... strokeweight="3pt" ... &gt;     &lt;/v:shape&gt; </pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>		
style (Shape Styling Properties)	<p>Specifies the CSS2 styling properties of the shape. The CSS2 (Cascading Style Sheets, Level 2) specification, a Recommendation of the World Wide Web Consortium, is available here: <a href="http://www.w3.org/TR/REC-CSS2">http://www.w3.org/TR/REC-CSS2</a>.</p> <p>This attribute uses a semi-colon delimited list of “name:value” pairs, the syntax defined by section 4.1.8 of the CSS2 specification for grouped declarations (without the surrounding braces). The following tables define the allowed properties and the VML treatment of each.</p> <p>[Example:</p> <pre>       &lt;v:shape ... style='position:absolute;width:100pt;height:50pt' ...     &gt;     &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <table border="1"> <thead> <tr> <th>Property</th><th>Description</th></tr> </thead> </table>	Property	Description
Property	Description		



Attributes	Description	
	flip	<p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul>
	height	<p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	left	<p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-bottom	<p>Specifies the position of the bottom of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>



Attributes	Description	
	margin-left	<p>Specifies the position of the left of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-right	<p>Specifies the position of the right of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-top	<p>Specifies the position of the top of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	mso-position-horizontal	<p>Specifies the horizontal positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• left</li> <li>• center</li> <li>• right</li> </ul>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-horizontal-relative	<p>Specifies relative horizontal position data for objects in WordprocessingML documents. This modifies the mso-position-horizontal property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• char</li> </ul>
	mso-position-vertical	<p>Specifies the vertical positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• top</li> <li>• center</li> <li>• bottom</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-vertical-relative	<p>Specifies relative vertical position data for objects in WordprocessingML documents. This modifies the mso-position-vertical property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• line</li> </ul>
	mso-wrap-distance-bottom	<p>Specifies the distance from the bottom of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-distance-left	<p>Specifies the distance from the left side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-	<p>Specifies the distance from the right side of the shape to the text</p>



Attributes	Description	
	distance-right	that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-top	Specifies the distance from the top of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-edited	Specifies whether the wrap coordinates were customized by the user. If the wrap coordinates are generated by an editor, this property is true; otherwise they were customized by a user. Default is false.
	mso-wrap-style	<p>Specifies the wrapping mode for text in shapes in WordprocessingML documents. Default is square. Allowed values are:</p> <ul style="list-style-type: none"> <li>• square - Wraps text inside the shape in a square.</li> <li>• none - Text does not wrap.</li> </ul>
	position	<p>Specifies the kind of positioning used to place an element. Default is static. When the element is contained inside a group, this property shall be absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• static - The element is positioned according to the normal flow of the page. The top and left properties are ignored. If the object is anchored inline, this value is used.</li> <li>• absolute - The element is positioned relative to the parent, using the top and left properties.</li> <li>• relative - The element is positioned according to the normal flow of the page, but the top and left properties are used. The overlap of overlapping elements is governed by the z-index property.</li> </ul>
	rotation	Specifies the angle that a shape is rotated, in degrees. Default is 0. Positive angles are clockwise.
	top	<p>Specifies the position of the top of the containing block of the shape relative to the element above it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> </ul>



Attributes	Description				
		<ul style="list-style-type: none"><li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li><li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li></ul>			
	visibility	<p>Specifies whether a shape is displayed. Only inherit and hidden are used; any other values are mapped to inherit. Default is inherit. Allowed values are:</p> <ul style="list-style-type: none"><li>• hidden - The shape is not visible, but is still part of the flow of the objects in the browser. Mouse events are not processed.</li><li>• inherit - The visibility state is inherited from the parent of the shape.</li></ul>			
	width	<p>Specifies the width of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"><li>• auto - Default position of an element in the flow of the page.</li><li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li><li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li></ul>			
	z-index	<p>Specifies the display order of overlapping shapes. Default is 0. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"><li>• auto - Uses the order that the shapes appear in the page, bottom to top.</li><li>• &lt;order&gt;- A number that represents the stacking precedence. Shapes with higher numbers are placed on top of those with lower numbers. Negative numbers are allowed.</li></ul>			
	<p>The following properties are only used by the textbox element (§19.1.2.22):</p> <table><tr><th>Property</th><th>Description</th></tr><tr><td>direction</td><td><p>Specifies the direction of the text in the textbox. Default is ltr. This property is superceded by the mso-direction-alt property if that is specified. Allowed values are:</p></td></tr></table>		Property	Description	direction
Property	Description				
direction	<p>Specifies the direction of the text in the textbox. Default is ltr. This property is superceded by the mso-direction-alt property if that is specified. Allowed values are:</p>				



Attributes	Description	
		<ul style="list-style-type: none"> <li>• <code>ltr</code> - Text is displayed left-to-right.</li> <li>• <code>rtl</code> - Text is displayed right-to-left.</li> </ul>
	<code>layout-flow</code>	<p>Determines the flow of the text layout in a textbox. Default is <code>horizontal</code>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <code>horizontal</code> - Text is displayed horizontally.</li> <li>• <code>vertical</code> - Text is displayed vertically.</li> <li>• <code>vertical-ideographic</code> - Ideographic text is displayed vertically.</li> <li>• <code>horizontal-ideographic</code> - Ideographic text is displayed horizontally.</li> </ul>
	<code>mso-direction-alt</code>	Specifies an alternate direction for text in textboxes. Overrides the <code>direction</code> property. The only allowed value is <code>context</code> .
	<code>mso-fit-shape-to-text</code>	Specifies whether the shape stretches to fit the text in the textbox. Default is <code>false</code> .
	<code>mso-fit-text-to-shape</code>	Specifies whether the text stretches to fit the textbox. Default is <code>false</code> .
	<code>mso-layout-flow-alt</code>	Specifies the alternate layout flow for text in textboxes. This property is used instead of <code>layout-flow</code> when the layout flow is from bottom to top for non-ideographic languages. Its only value is <code>bottom-to-top</code> .
	<code>mso-next-textbox</code>	Specifies the ID of the next textbox in a series. Used to keep track of a set of linked textboxes. Default is no value.
	<code>mso-rotate</code>	<p>Specifies a specific rotation value for text in a textbox. Default is 0. Allowed values are:</p> <ul style="list-style-type: none"> <li>• 0</li> <li>• 90</li> <li>• 180</li> <li>• -90</li> </ul>
	<code>mso-text-scale</code>	Specifies the scaling factor for fitting text to shapes. Default is 0. This property is only used if <code>mso-fit-text-to-shape</code> is true.
	<code>v-text-anchor</code>	Specifies the vertical anchoring of text in a textbox. Default is <code>top</code> . The alignment of a text anchor only becomes evident if <code>mso-fit-text-to-shape</code> is false. This property is different from the <code>vertical-align</code> CSS property, which is used for ideographic languages. Allowed values are:



Attributes	Description				
		<ul style="list-style-type: none"><li>• top</li><li>• middle</li><li>• bottom</li><li>• top-center</li><li>• middle-center</li><li>• bottom-center</li><li>• top-baseline</li><li>• bottom-baseline</li><li>• top-center-baseline</li><li>• bottom-center-baseline</li></ul>			
	The following properties are only used by the textpath element (§19.1.2.23):				
	Property	Description			
	font	Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.			
	font-family	Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.			
	font-size	Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.			
	font-style	Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are: <ul style="list-style-type: none"><li>• normal</li><li>• italic</li><li>• oblique - Treated the same as italic.</li></ul>			
	font-variant	Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are: <ul style="list-style-type: none"><li>• normal</li><li>• small-caps</li></ul>			
	font-weight	Specifies the thickness of the letters of the font. Default is normal. The values are the same as those of the CSS font-weight property. Allowed values are: <table><tr><th>Value</th><th>Description</th></tr><tr><td></td><td></td></tr></table>	Value	Description	
Value	Description				



Attributes	Description	
		<p>normal</p> <p>lighter</p> <p>100</p> <p>200</p> <p>300</p> <p>400</p> <p>Treated as non-bold.</p>
		<p>bold</p> <p>bolder</p> <p>500</p> <p>600</p> <p>700</p> <p>800</p> <p>900</p> <p>Treated as bold.</p>
	mso-text-shadow	Specifies whether a shadow is applied to the text on a text path. Default is false.
	text-decoration	<p>Specifies the style of text decoration. Default is none. The values are the same as those of the CSS text-decoration property. Allowed values are:</p> <ul style="list-style-type: none"> <li>• none</li> <li>• underline</li> <li>• overline</li> <li>• line-through</li> <li>• blink</li> </ul>
	v-rotate-letters	Specifies whether the letters of the text are rotated counterclockwise by 90 degrees. Default is false.
	v-same-letter-heights	Specifies whether all letters are the same height regardless of initial case. If true, the lowercase letters are stretched to the height of the uppercase letters. Default is false.
	v-text-align	<p>Specifies the alignment of text. Default is left. Allowed values are:</p> <ul style="list-style-type: none"> <li>• left</li> </ul>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• right</li> <li>• center</li> <li>• justify</li> <li>• letter-justify - Distributes the extra space between the letters.</li> <li>• stretch-justify - Stretches the letters to fill in the space.</li> </ul>
	v-text-kern	Specifies whether kerning is turned on. Default is false.
	v-text-reverse	Specifies whether the layout order of rows is reversed. Default is false. This is used for vertical text layout.
	v-text-spacing-mode	<p>Specifies the mode for letter spacing. Default is tightening. This property determines whether space is removed between each letter (tightening) or added between each letter (tracking). The amount of letter spacing change is defined by the v-text-spacing property. Allowed values are:</p> <ul style="list-style-type: none"> <li>• tightening</li> <li>• tracking</li> </ul>
	v-text-spacing	Specifies the amount of spacing for text in 100ths of single line spacing. Default is 100.
<p>The line (§19.1.2.12), polyline (§19.1.2.15) and curve (§19.1.2.3) elements ignore the following properties:</p> <ul style="list-style-type: none"> <li>• top</li> <li>• left</li> <li>• width</li> <li>• height</li> </ul> <p>The following properties are not inherited by an element that references a shapetype element (§19.1.2.20) via the id attribute:</p> <ul style="list-style-type: none"> <li>• flip</li> <li>• height</li> <li>• left</li> <li>• margin-left</li> <li>• margin-top</li> <li>• position</li> <li>• rotation</li> <li>• top</li> <li>• visibility</li> <li>• width</li> </ul>		



Attributes	Description																
	<ul style="list-style-type: none"> <li>• z-index</li> </ul> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>																
target (Hyperlink Display Target)	<p>Specifies a frame or window that a URL is displayed in. Default is no value. Allowed values are:</p> <table border="1"> <thead> <tr> <th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>&lt;targetname&gt;</td><td>String containing the name of the frame or window in which to load the document.</td></tr> <tr> <td>_blank</td><td>Specifies that the linked document is loaded into a new blank window. This window is not named.</td></tr> <tr> <td>_media</td><td>Specifies that the linked document is loaded into the browser's multimedia pane.</td></tr> <tr> <td>_parent</td><td>Specifies that the linked document is loaded into the immediate parent of the document containing the link.</td></tr> <tr> <td>_search</td><td>Specifies that the linked document is loaded into the browser's search pane.</td></tr> <tr> <td>_self</td><td>Specifies that the linked document is loaded into the window in which the link was clicked (the active window).</td></tr> <tr> <td>_top</td><td>Specifies that the linked document is loaded into the topmost window.</td></tr> </tbody> </table> <p>[Example:</p> <pre> &lt;v:shape ...   href="http://www.openxmlformats.org"   target="_self" ... &gt; &lt;/v:shape&gt; </pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>	Value	Description	<targetname>	String containing the name of the frame or window in which to load the document.	_blank	Specifies that the linked document is loaded into a new blank window. This window is not named.	_media	Specifies that the linked document is loaded into the browser's multimedia pane.	_parent	Specifies that the linked document is loaded into the immediate parent of the document containing the link.	_search	Specifies that the linked document is loaded into the browser's search pane.	_self	Specifies that the linked document is loaded into the window in which the link was clicked (the active window).	_top	Specifies that the linked document is loaded into the topmost window.
Value	Description																
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_self	Specifies that the linked document is loaded into the window in which the link was clicked (the active window).																
_top	Specifies that the linked document is loaded into the topmost window.																
title (Shape Title)	<p>Specifies the text displayed when the mouse pointer moves over the shape. Default is no value.</p> <p>[Example:</p> <pre> &lt;v:shape ... title="tooltip" ... &gt; &lt;/v:shape&gt; </pre>																



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>userdrawn (Exists In Master Slide)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the user has added the shape to a master slide. Default is <code>false</code>. Used by PresentationML.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userdrawn="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>userhidden (Hide Script Anchors)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a script anchor is hidden. Default is <code>false</code>. If <code>true</code>, script anchors stay hidden even if the shape is otherwise visible. A script anchor is the visual representation of a script that when displayed in an application.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userhidden="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>wrapcoords (Shape Bounding Polygon)</p>	<p>Specifies the bounding polygon that surrounds a shape. This is specified using a comma-delimited list of x and y coordinates: "x1,y1,x2,y2,x3,y3,..." This is used when text is tightly wrapped around a shape. Default is no value until the <code>mso-wrap-mode</code> style attribute is set to <code>tight</code> or <code>through</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ...   wrapcoords="0,0 0,200, 200,200, 200,0" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>



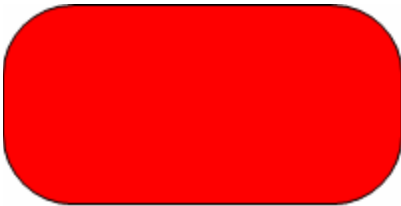
[*Note:* The W3C XML Schema definition of this element's content model ([CT\\_Rect](#)) is located in §A.7.1. *end note*]

### 19.1.2.17 `roundrect` (Rounded Rectangle)

This element is used to draw a rectangle with rounded corners. The CSS2 style content width and height define the width and height of the rectangle.

[*Example:*

```
<v:roundrect fillcolor="red" arcsize="35%"
  style="position:relative;top:0;left:0;width:200;height:100">
</v:roundrect>
```



*end example]*

Attributes	Description
<b>allowincell</b> (Allow in Table Cell)  Namespace: urn:schemas-microsoft-com:office:office	Specifies whether a shape can be placed in a table. Default is false.  [ <i>Example:</i> <pre>&lt;v:shape ... o:allowincell="true" ... &gt; &lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).
<b>allowoverlap</b> (Allow Shape Overlap)  Namespace: urn:schemas-microsoft-com:office:office	Specifies whether a shape can overlap another shape. Default is true. If false, the shape shifts left or right so as not to overlap another shape, similar to the behavior of the HTML float attribute.  [ <i>Example:</i> <pre>&lt;v:shape ... o:allowoverlap="false" ... &gt; &lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).



Attributes	Description
alt (Alternate Text)	<p>Specifies alternative text describing the graphical object. This text should provide a brief description of the shape for use by accessibility tools. Default is no value.</p> <p><i>[Example: The alt text describes the basic shape:</i></p> <pre>&lt;v:shape ... fillcolor="red"   alt="Red rectangle"&gt; &lt;/v:shape&gt;</pre> <p>The alt text describes the contents of a shape displaying an image:</p> <pre>&lt;v:shape ... alt="Picture of a sunset"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
arcsizes (Rounded Corner Arc Size)	<p>Specifies the amount of roundness for a rounded rectangle as a percentage of half the smaller dimension of the length and width of the rectangle. Default is 20%. An arc size of 0% yields square corners and 100% forms circular corners. A square with an arc size value of 100% is a circle. This numeric value can also be specified in 1/65536ths if a trailing "f" is supplied. <i>[Example: For example, a value of "52429f" represents 52429/65536 or 0.8. end example]</i></p> <p><i>[Example:</i></p> <pre>&lt;v:roundrect ... arcsizes="35%"&gt; &lt;/v:roundrect&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
borderbottomcolor (Bottom Border Color)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the bottom border color of an inline shape. Default is no value.</p> <p><i>[Example:</i></p> <pre>&lt;v:shape ... o:borderbottomcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>



Attributes	Description
<b>borderleftcolor</b> (Border Left Color)  Namespace: urn:schemas-microsoft-com:office:office	Specifies the left border color of an inline shape. Default is no value.  <i>[Example:</i> <pre>&lt;v:shape ... o:borderleftcolor="red" ... &gt;</pre> <pre>&lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the W3C XML Schema string datatype.
<b>borderrightcolor</b> (Border Right Color)  Namespace: urn:schemas-microsoft-com:office:office	Specifies the right border color of an inline shape. Default is no value.  <i>[Example:</i> <pre>&lt;v:shape ... o:borderrightcolor="red" ... &gt;</pre> <pre>&lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the W3C XML Schema string datatype.
<b>bordertopcolor</b> (Border Top Color)  Namespace: urn:schemas-microsoft-com:office:office	Specifies the top border color of an inline shape. Default is no value.  <i>[Example:</i> <pre>&lt;v:shape ... o:bordertopcolor="red" ... &gt;</pre> <pre>&lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the W3C XML Schema string datatype.
<b>bullet</b> (Graphical Bullet)  Namespace: urn:schemas-microsoft-com:office:office	Specifies whether the shape is a graphical bullet. Default is <code>false</code> .  <i>[Example:</i> <pre>&lt;v:shape ... o:bullet="true" ... &gt;</pre> <pre>&lt;/v:shape&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).
<b>button</b> (Button	Specifies whether a shape exhibits button press behavior on click. Default is <code>false</code> .



Attributes	Description
Behavior Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>[Example:</p> <pre>&lt;v:shape ... o:button="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
bwmode (Black-and-White Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies how a shape renders for black-and-white output devices. When a shape is printed on a black-and-white printer or displayed in a black-and-white view in an application, several options are possible. Default is auto, which uses o:bwnormal for normal black-and-white rendering and o:bwpure for pure black-and-white rendering.</p> <p>bwnormal and bwpure are subordinate to bwmode. If bwmode is "auto" then the value for bwnormal or bwpure is used depending on what the output format is. An application can define for itself what, if any, difference there is between normal B&amp;W and pure B&amp;W. [Example: Normal B&amp;W might allow greyscale and pure B&amp;W might not. <i>end example]</i></p> <p>[Example: This shape renders in grayscale in a black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="grayscale" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
bwnormal (Normal Black-and-White Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the black-and-white mode for normal black-and-white output devices. Default is auto.</p> <p>[Example: This shape renders in a pale grayscale in a normal black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="auto" o:bwnormal="lightgrayscale" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
bwpure (Pure Black-and-White Mode)	<p>Specifies the black-and-white mode for pure black-and-white output devices. Default is auto.</p>





Attributes	Description
Namespace: urn:schemas-microsoft-com:office:office	<p>[<i>Example:</i> This shape renders in high contrast when in a pure black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="auto" o:bwpure="highcontrast" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
chromakey (Image Transparency Color)	<p>Specifies a color value that is transparent and show anything behind the shape. Default is no value.</p> <p>[<i>Example:</i></p> <pre>&lt;v:image ... chromakey="white" ...&gt; &lt;/v:image&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
class (CSS Reference)	<p>Specifies a reference to the definition of a CSS style. Default is no value.</p> <p>[<i>Example:</i> The snippets below are equivalent:</p> <pre>... .narrowstyle {width:50;height:100} ... &lt;v:shape ... class="narrowstyle"   style="top:1;left:1"&gt; &lt;/v:shape&gt;</pre> <pre>&lt;v:shape ... style="top:1;left:1;   width:50;height:100"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
clip (Clipping Toggle)	<p>Specifies that the clipping region is active. This is used in conjunction with the clippath (§19.2.2.3) element to create a clipping region.</p>



Attributes	Description
Namespace: urn:schemas-microsoft-com:office:office	<p>[Example:</p> <pre>&lt;v:shape ... o:clip="true"&gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
cliptowrap (Clip to Wrapping Polygon)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies that the clipping region for the shape aligns with the wrapping polygon that tightly surrounds the entire shape (essentially, that the shape shall not be drawn beyond its wrapping polygon's extents – if it does, the shape shall be clipped). Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:cliptowrap="true"&gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
connectortype (Shape Connector Type)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the kind of connector used for joining shapes. Default is straight.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:connectortype="elbow" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_ConnectorType simple type (§19.2.3.7).</p>
coordorigin (Coordinate Space Origin)	<p>Specifies the coordinate of the top left corner of the shape's coordinate space. This determines the position of the (0,0) coordinate space origin within the shape's bounding box. Default is "0,0", which places the (0,0) origin at the top left corner of the bounding box.</p> <p>This affects shape properties that specify coordinate positions, such as the path attribute. Thus a path can be defined against a generic (0,0) origin and the coordorigin value translates the entire path within the shape's bounding space.</p> <p>[Example: The horizontal and vertical coordinate space ranges from -100 to +100 because the coordinate space (coordsize) is 200 by 200 and the top left coordinate is (-100,-100). The (0,0) origin lies at the center of the shape's bounding box, as evidenced by the</p>




Attributes	Description
	<p>position of the shape's path within the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200"   coordorigin="-100,-100"   path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>coordsize (Coordinate Space Size)</p>	<p>Specifies the size of the shape's coordinate space in coordinate units. Default is "1000,1000".</p> <p>The physical size of a coordinate unit length is determined by both the size of the coordinate space (coordsize) and the size of the shape (style width and height). The coordsize attribute defines the number of horizontal and vertical subdivisions into which the shape's bounding box is divided. The combination of coordsize and style width/height effective scales the shape anisotropically.</p> <p>[Example: The path is 50 units wide and tall, which is 25% of the size of the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200"   coordorigin="-100,-100"   path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>dgmlayout (Diagram Node Layout Identifier)</p> <p>Namespace: urn:schemas-</p>	<p>Specifies the kind of automatic layout to apply to the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmlayout="1"&gt;</pre>



Attributes	Description
microsoft-com:office:office	<p><code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).</p>
dgmlayoutmru (Diagram Node Recent Layout Identifier)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the kind of automatic layout most recently used on the child elements of the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.</p> <p>[Example:</p> <p><code>&lt;v:shape ... dgmlayout="1"&gt;</code>  <code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).</p>
dgmnodekind (Diagram Node Identifier)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies an optional, application-defined parameter that is intended to be used by the application to tag different types of nodes in a diagram.</p> <p>[Example:</p> <p><code>&lt;v:shape ... dgmnodekind="1"&gt;</code>  <code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
doubleclicknotify (Double-click Notification Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies that an event message is sent when a shape is double-clicked. Default is false.</p> <p>[Example:</p> <p><code>&lt;v:shape ... o:doubleclicknotify="true" ... &gt;</code>  <code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
fillcolor (Fill Color)	<p>Specifies the color to use for the fill. Default is white. If the fill element (§19.1.2.5) is present, its color attribute takes precedence. Colors are typically specified as either a</p>



Attributes	Description
	<p>named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example: This shape is red if its fill is visible:</p> <pre>&lt;v:shape ... fillcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p>This is equivalent to:</p> <pre>&lt;v:shape ... fillcolor="#ff0000" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<p>filled (Shape Fill Toggle)</p>	<p>Specifies whether the closed path is filled. Default is true. This attribute is overridden by the fill on attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... filled="f" fillcolor="red" ...&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>forcedash (Force Dashed Outline)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a dashed outline is used to draw a shape when a shape has no line or fill. Default is false.</p> <p>Used by PresentationML placeholders to draw a dashed outline when there is no line and no fill for a shape.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:forcedash="true" ... &gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>hr (Horizontal Rule Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that a shape is a horizontal rule. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hr="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>hralign (Horizontal Rule Alignment)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the alignment of a horizontal rule. Default is left.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hralign="center" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_HrAlign simple type (§19.2.3.16).</p>
<p>href (Hyperlink Target)</p>	<p>Specifies a hyperlink URL target for the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... href="http://www.openxmlformats.org" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>hrnoshade (Horizontal Rule 3D Shading Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the horizontal rule does not have 3-D shading. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrnoshade="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p>





Attributes	Description
	<p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>hrpct (Horizontal Rule Length Percentage)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the length of a horizontal rule as a percentage of page width. Default is 0.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrpct="85" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
<p>hrstd (Horizontal Rule Standard Display Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a shape is displayed as a standard horizontal rule. Only applies if hr is true. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrstd="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>id (Unique Identifier)</p>	<p>Specifies a unique identifier that can be used to reference a VML object.</p> <p>Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>insetmode (Text Inset Mode)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the application calculates the internal text margin instead of using the inset attribute. Default is custom. This attribute is only meaningful for text boxes.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:insetmode="auto" ... &gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_InsetMode simple type (§19.2.3.17).</p>
<p>insetpen (Inset Border From Path)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the border shall be displayed inside of the path defining the shape, rather than along the path (the default border placement), or outside of the path as might be done with an image.</p> <p>[Example:</p> <pre>&lt;v:shape ... insetpen="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>ole (Embedded Object Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the shape is an embedded object. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:ole="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalseBlank simple type (§20.1.2.6).</p>
<p>oleicon (Embedded Object Icon Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether an embedded object is displayed as an icon. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oleicon="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>oned (Shape Handle Toggle)</p> <p>Namespace: urn:schemas-</p>	<p>Specifies whether the extra handles of a shape are hidden. If true, hides all shape handles except the top left and bottom right; that is, the same handles that are used for a straight line segment. Default is false.</p> <p>[Example:</p>






Attributes	Description
microsoft-com:office:office	<pre>&lt;v:shape ... o:oned="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
opacity (Fill Color Opacity)	<p>Specifies the opacity of the primary fill color. Default is 1.0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. [<i>Example:</i> A value of "52429f" represents 52429/65536 or 0.8. <i>end example]</i></p> <p>[<i>Example:</i> The red color is 25% opaque:</p> <pre>&lt;v:fill type="gradient" color="red"   color2="blue" opacity=".25"&gt; &lt;/v:fill&gt;</pre> <div>  opacity="1"   opacity=".25" </div> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>preferrelative (Relative Resize Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the original size of an object is saved after reformatting. Default is false. If true, the original size of the object is stored and all resizing is based on a percentage of that original size. Otherwise, each resizing resets the scale to 100%.</p> <p>[<i>Example:</i></p> <pre>&lt;v:shape ... o:preferrelative="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
print (Print Toggle)	<p>Specifies whether the shape is printed. Default is true.</p> <p>[<i>Example:</i></p>



Attributes	Description
	<pre>&lt;v:shape ... print="false" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>regroupid (Regroup ID)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies a previous group for a shape. An ID number is used to identify groups of shapes that are no longer grouped. This allows shapes to be regrouped programmatically.</p> <p>[<i>Example:</i> The shape was part of a group identified by the ID 040754:</p> <pre>&lt;v:shape ... o:regroupid="040754" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
<p>spid (Optional String)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies an optional string that an application can use to identify the particular shape. Default is no value.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>spt (Optional Number)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies an optional number that an application can use to associate the particular shape with a defined shape type. Default is 0.</p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
<p>strokecolor (Shape Stroke Color)</p>	<p>Specifies the primary color of the brush to use to stroke the path of the shape. Default is black. The color attribute of the stroke element (§19.1.2.21) overrides this. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[<i>Example:</i></p> <pre>&lt;v:shape ... strokecolor="red" ...&gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
stroked (Shape Stroke Toggle)	<p>Specifies whether the path defining the shape is stroked with a solid line. The stroke element (§19.1.2.21) defines other strokes. The on attribute of the stroke element overrides this attribute. Default is true.</p> <p>[Example:</p> <pre>&lt;v:shape ... fillcolor="red"   stroked="false" strokecolor="blue"...&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
strokeweight (Shape Stroke Weight)	<p>Specifies the width of the brush to use to stroke the path. Default is 1 point. If a number is given without units, the emu is used. The weight attribute of the stroke element (§19.1.2.21) overrides this attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... strokeweight="3pt" ... &gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
style (Shape Styling Properties)	<p>Specifies the CSS2 styling properties of the shape. The CSS2 (Cascading Style Sheets, Level 2) specification, a Recommendation of the World Wide Web Consortium, is available</p>



Attributes	Description								
	<p>here: <a href="http://www.w3.org/TR/REC-CSS2">http://www.w3.org/TR/REC-CSS2</a>.</p> <p>This attribute uses a semi-colon delimited list of “name:value” pairs, the syntax defined by section 4.1.8 of the CSS2 specification for grouped declarations (without the surrounding braces). The following tables define the allowed properties and the VML treatment of each.</p> <p>[Example:  <code>&lt;v:shape ... style='position:absolute;width:100pt;height:50pt' ...</code>  <code>&gt;</code>  <code>&lt;/v:shape&gt;</code>  <i>end example]</i></p> <table> <tr> <th>Property</th><th>Description</th></tr> <tr> <td>flip</td><td> <p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul> </td></tr> <tr> <td>height</td><td> <p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul> </td></tr> <tr> <td>left</td><td> <p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the</li> </ul> </td></tr> </table>	Property	Description	flip	<p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul>	height	<p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>	left	<p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the</li> </ul>
Property	Description								
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left	<p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the</li> </ul>								



Attributes	Description	
		parent object's width.
	margin-bottom	<p>Specifies the position of the bottom of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	margin-left	<p>Specifies the position of the left of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-right	<p>Specifies the position of the right of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-top	<p>Specifies the position of the top of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> </ul>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	mso-position-horizontal	<p>Specifies the horizontal positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• left</li> <li>• center</li> <li>• right</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-horizontal-relative	<p>Specifies relative horizontal position data for objects in WordprocessingML documents. This modifies the mso-position-horizontal property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• char</li> </ul>
	mso-position-vertical	<p>Specifies the vertical positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• top</li> <li>• center</li> <li>• bottom</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-vertical-relative	<p>Specifies relative vertical position data for objects in WordprocessingML documents. This modifies the mso-position-vertical property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> </ul>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• text</li> <li>• line</li> </ul>
	mso-wrap-distance-bottom	Specifies the distance from the bottom of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-left	Specifies the distance from the left side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-right	Specifies the distance from the right side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-top	Specifies the distance from the top of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-edited	Specifies whether the wrap coordinates were customized by the user. If the wrap coordinates are generated by an editor, this property is true; otherwise they were customized by a user. Default is false.
	mso-wrap-style	<p>Specifies the wrapping mode for text in shapes in WordprocessingML documents. Default is square. Allowed values are:</p> <ul style="list-style-type: none"> <li>• square - Wraps text inside the shape in a square.</li> <li>• none - Text does not wrap.</li> </ul>
	position	<p>Specifies the kind of positioning used to place an element. Default is static. When the element is contained inside a group, this property shall be absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• static - The element is positioned according to the normal flow of the page. The top and left properties are ignored. If the object is anchored inline, this value is used.</li> <li>• absolute - The element is positioned relative to the parent, using the top and left properties.</li> <li>• relative - The element is positioned according to the</li> </ul>



Attributes	Description	
		normal flow of the page, but the top and left properties are used. The overlap of overlapping elements is governed by the z-index property.
	rotation	Specifies the angle that a shape is rotated, in degrees. Default is 0. Positive angles are clockwise.
	top	<p>Specifies the position of the top of the containing block of the shape relative to the element above it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	visibility	<p>Specifies whether a shape is displayed. Only inherit and hidden are used; any other values are mapped to inherit. Default is inherit. Allowed values are:</p> <ul style="list-style-type: none"> <li>• hidden - The shape is not visible, but is still part of the flow of the objects in the browser. Mouse events are not processed.</li> <li>• inherit - The visibility state is inherited from the parent of the shape.</li> </ul>
	width	<p>Specifies the width of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	z-index	<p>Specifies the display order of overlapping shapes. Default is 0. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Uses the order that the shapes appear in the page,</li> </ul>



Attributes	Description	
		<p>bottom to top.</p> <ul style="list-style-type: none"><li>• <code>&lt;order&gt;</code>- A number that represents the stacking precedence. Shapes with higher numbers are placed on top of those with lower numbers. Negative numbers are allowed.</li></ul>
	The following properties are only used by the textbox element (§19.1.2.22):	



Attributes	Description											
	mso-rotate	Specifies a specific rotation value for text in a textbox. Default is 0. Allowed values are: <ul style="list-style-type: none"><li>0</li><li>90</li><li>180</li><li>-90</li></ul>										
	mso-text-scale	Specifies the scaling factor for fitting text to shapes. Default is 0. This property is only used if mso-fit-text-to-shape is true.										
	v-text-anchor	Specifies the vertical anchoring of text in a textbox. Default is top. The alignment of a text anchor only becomes evident if mso-fit-text-to-shape is false. This property is different from the vertical-align CSS property, which is used for ideographic languages. Allowed values are: <ul style="list-style-type: none"><li>top</li><li>middle</li><li>bottom</li><li>top-center</li><li>middle-center</li><li>bottom-center</li><li>top-baseline</li><li>bottom-baseline</li><li>top-center-baseline</li><li>bottom-center-baseline</li></ul>										
The following properties are only used by the textpath element (§19.1.2.23):												
<table><tr><th>Property</th><th>Description</th></tr><tr><td>font</td><td>Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.</td></tr><tr><td>font-family</td><td>Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.</td></tr><tr><td>font-size</td><td>Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.</td></tr><tr><td>font-style</td><td>Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are:</td></tr></table>			Property	Description	font	Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.	font-family	Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.	font-size	Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.	font-style	Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are:
Property	Description											
font	Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.											
font-family	Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.											
font-size	Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.											
font-style	Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are:											



Attributes	Description																		
		<ul style="list-style-type: none"><li>normal</li><li>italic</li><li>oblique - Treated the same as italic.</li></ul>																	
	font-variant	<p>Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are:</p> <ul style="list-style-type: none"><li>normal</li><li>small-caps</li></ul>																	
	font-weight	<p>Specifies the thickness of the letters of the font. Default is normal. The values are the same as those of the CSS font-weight property. Allowed values are:</p> <table><tr><th>Value</th><th>Description</th></tr><tr><td>normal</td><td rowspan="6">Treated as non-bold.</td></tr><tr><td>lighter</td></tr><tr><td>100</td></tr><tr><td>200</td></tr><tr><td>300</td></tr><tr><td>400</td></tr><tr><td>bold</td><td rowspan="7">Treated as bold.</td></tr><tr><td>bolder</td></tr><tr><td>500</td></tr><tr><td>600</td></tr><tr><td>700</td></tr><tr><td>800</td></tr><tr><td>900</td></tr></table>	Value	Description	normal	Treated as non-bold.	lighter	100	200	300	400	bold	Treated as bold.	bolder	500	600	700	800	900
	Value	Description																	
	normal	Treated as non-bold.																	
lighter																			
100																			
200																			
300																			
400																			
bold	Treated as bold.																		
bolder																			
500																			
600																			
700																			
800																			
900																			
mso-text-shadow	<p>Specifies whether a shadow is applied to the text on a text path. Default is false.</p>																		
text-decoration	<p>Specifies the style of text decoration. Default is none. The values are the same as those of the CSS text-decoration property. Allowed values are:</p> <ul style="list-style-type: none"><li>none</li></ul>																		



Attributes	Description	
		<ul style="list-style-type: none"> <li>• underline</li> <li>• overline</li> <li>• line-through</li> <li>• blink</li> </ul>
	v-rotate-letters	Specifies whether the letters of the text are rotated counterclockwise by 90 degrees. Default is false.
	v-same-letter-heights	Specifies whether all letters are the same height regardless of initial case. If true, the lowercase letters are stretched to the height of the uppercase letters. Default is false.
	v-text-align	Specifies the alignment of text. Default is left. Allowed values are: <ul style="list-style-type: none"> <li>• left</li> <li>• right</li> <li>• center</li> <li>• justify</li> <li>• letter-justify - Distributes the extra space between the letters.</li> <li>• stretch-justify - Stretches the letters to fill in the space.</li> </ul>
	v-text-kern	Specifies whether kerning is turned on. Default is false.
	v-text-reverse	Specifies whether the layout order of rows is reversed. Default is false. This is used for vertical text layout.
	v-text-spacing-mode	Specifies the mode for letter spacing. Default is tightening. This property determines whether space is removed between each letter (tightening) or added between each letter (tracking). The amount of letter spacing change is defined by the v-text-spacing property. Allowed values are: <ul style="list-style-type: none"> <li>• tightening</li> <li>• tracking</li> </ul>
	v-text-spacing	Specifies the amount of spacing for text in 100ths of single line spacing. Default is 100.
	<p>The line (§19.1.2.12), polyline (§19.1.2.15) and curve (§19.1.2.3) elements ignore the following properties:</p> <ul style="list-style-type: none"> <li>• top</li> <li>• left</li> <li>• width</li> <li>• height</li> </ul>	



Attributes	Description																
	<p>The following properties are not inherited by an element that references a shapetype element (§19.1.2.20) via the id attribute:</p> <ul style="list-style-type: none"> <li>• flip</li> <li>• height</li> <li>• left</li> <li>• margin-left</li> <li>• margin-top</li> <li>• position</li> <li>• rotation</li> <li>• top</li> <li>• visibility</li> <li>• width</li> <li>• z-index</li> </ul> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>																
target (Hyperlink Display Target)	<p>Specifies a frame or window that a URL is displayed in. Default is no value. Allowed values are:</p> <table border="1"> <thead> <tr> <th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>&lt;targetname&gt;</td><td>String containing the name of the frame or window in which to load the document.</td></tr> <tr> <td>_blank</td><td>Specifies that the linked document is loaded into a new blank window. This window is not named.</td></tr> <tr> <td>_media</td><td>Specifies that the linked document is loaded into the browser's multimedia pane.</td></tr> <tr> <td>_parent</td><td>Specifies that the linked document is loaded into the immediate parent of the document containing the link.</td></tr> <tr> <td>_search</td><td>Specifies that the linked document is loaded into the browser's search pane.</td></tr> <tr> <td>_self</td><td>Specifies that the linked document is loaded into the window in which the link was clicked (the active window).</td></tr> <tr> <td>_top</td><td>Specifies that the linked document is loaded into the topmost window.</td></tr> </tbody> </table> <p>[Example:</p> <pre> &lt;v:shape ...   href="http://www.openxmlformats.org"   target="_self" ... &gt; </pre>	Value	Description	<targetname>	String containing the name of the frame or window in which to load the document.	_blank	Specifies that the linked document is loaded into a new blank window. This window is not named.	_media	Specifies that the linked document is loaded into the browser's multimedia pane.	_parent	Specifies that the linked document is loaded into the immediate parent of the document containing the link.	_search	Specifies that the linked document is loaded into the browser's search pane.	_self	Specifies that the linked document is loaded into the window in which the link was clicked (the active window).	_top	Specifies that the linked document is loaded into the topmost window.
Value	Description																
<targetname>	String containing the name of the frame or window in which to load the document.																
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_self	Specifies that the linked document is loaded into the window in which the link was clicked (the active window).																
_top	Specifies that the linked document is loaded into the topmost window.																



Attributes	Description
	<p><code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>title (Shape Title)</p>	<p>Specifies the text displayed when the mouse pointer moves over the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... title="tooltip" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>userdrawn (Exists In Master Slide)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the user has added the shape to a master slide. Default is false. Used by PresentationML.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userdrawn="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>userhidden (Hide Script Anchors)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a script anchor is hidden. Default is false. If true, script anchors stay hidden even if the shape is otherwise visible. A script anchor is the visual representation of a script that when displayed in an application.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userhidden="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>wrapcoords (Shape Bounding Polygon)</p>	<p>Specifies the bounding polygon that surrounds a shape. This is specified using a comma-delimited list of x and y coordinates: "x1,y1,x2,y2,x3,y3,..." This is used when text is</p>



Attributes	Description
	<p>tightly wrapped around a shape. Default is no value until the mso-wrap-mode style attribute is set to tight or through.</p> <p>[Example:</p> <pre>&lt;v:shape ...   wrapcoords="0,0 0,200, 200,200, 200,0" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[Note: The W3C XML Schema definition of this element's content model ([CT\\_RoundRect](#)) is located in §A.7.1.  
end note]

#### 19.1.2.18 shadow (Shadow Effect)

This element adds shadow effects to a shape. The on attribute shall be true for the shadow to be displayed.

[Example:


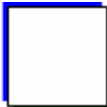
```
<v:shadow on="true" type="perspective"
  matrix="1.25,-2,,1.5,,.000001"
  offset="38pt,-6pt">
</v:shadow>
```









end example]

Attributes	Description
color (Shadow Primary Color)	<p>Specifies the color of the primary shadow. Default is gray (RGB 128,128,128).</p> <p>[Example:</p> <pre>&lt;v:shadow on="true" color="green"&gt; &lt;/v:shadow&gt;</pre> <p>Applied to a simple square the shadow looks like this:</p>

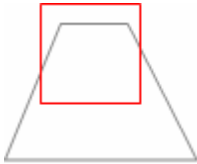

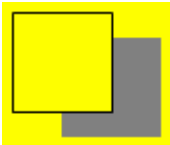


Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
color2 (Shadow Secondary Color)	<p>Specifies the color of the second shadow, or highlight in an embossed or engraved shadow. Default is light gray (RGB 203,203,203).</p> <p>[Example:</p> <pre>&lt;v:shadow on="true" type="double"   color="green" color2="blue"&gt; &lt;/v:shadow&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
id (Unique Identifier)	<p>Specifies a unique identifier that can be used to reference a VML object.</p> <p>Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
matrix (Shadow Perspective Matrix)	<p>Specifies a perspective transform for a shadow. Default is no value.</p> <p>The matrix is given in the form "s<sub>xx</sub>, s<sub>xy</sub>, s<sub>yx</sub>, s<sub>yy</sub>, p<sub>x</sub>, p<sub>y</sub>" where s = scale and p = perspective. If the offset attribute is in absolute units then p<sub>x</sub>, p<sub>y</sub> are in 1/EMU units; otherwise they are an inverse fraction of the shape size.</p>


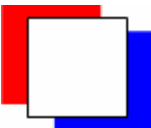


Attributes	Description
	<p>[Example: The following snippets explain the matrix parameters. The shadow is applied to a simple square with no fill and a red stroke color (note there is a default shadow offset):</p> <div>  matrix=",,,," </div> <p><math>s_{xx}, s_{yy}</math> specify scaling factors for the x and y dimensions:</p> <div>  matrix="2,,,,," </div> <div>  matrix=",,,2,," </div> <p><math>s_{xy}, s_{yx}</math> specify skews in the x and y dimensions:</p> <div>  matrix="2,,,,," </div> <div>  matrix=",-2,,,," </div> <p><math>p_x, p_y</math> effectively set the perspective trapezoid skews along the x and y dimensions:</p> <div>  matrix=",,,,.000001," </div>


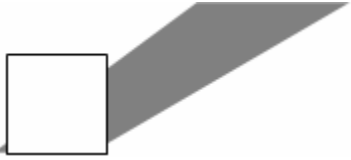


Attributes	Description
	<div></div> <div>matrix=",,,,-.000002"</div> <div>end example]</div> <div>[Example:</div> <div><pre>&lt;v:shadow on="true" type="perspective"   matrix="1.25,-2,,1.5,,.000001"   offset="38pt,-6pt"&gt; &lt;/v:shadow&gt;</pre></div> <div></div> <div>end example]</div> <div>The possible values for this attribute are defined by the W3C XML Schema string datatype.</div>
obscured (Shadow Transparency)	<div>Specifies whether a shadow is transparent. Default is false. If true, the shadow is transparent if there is no fill on the shape.</div> <div>[Example:</div> <div><pre>&lt;v:background fillcolor="yellow"/&gt; &lt;v:shape style="width:50;height:50"   filled="false" fillcolor="red"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:shadow on="true" offset="50%,25%"     obscured="true"&gt;   &lt;/v:shadow&gt; &lt;/v:shape&gt;</pre></div> <div></div> <div>end example]</div> <div>The possible values for this attribute are defined by the ST_TrueFalse simple type</div>



Attributes	Description
offset (Shadow Primary Offset)	<p>(§20.1.2.5).</p> <p>Specifies the primary shadow's x,y offset from the shape's location. Default is "2pt,2pt".</p> <p>Values are either an absolute measurement or a fractional value of the shape dimensions, from –50% to 50%.</p> <p>[Example:</p> <pre>&lt;v:shadow on="true" offset="50%,25%"&gt; &lt;/v:shadow&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
offset2 (Shadow Secondary Offset)	<p>Specifies the secondary shadow's x,y offset from the shape's location. Default is "-2pt,-2pt".</p> <p>[Example:</p> <pre>&lt;v:shadow type="double" on="true"   color="blue" offset="10pt,5pt"   color2="red" offset2="-10pt,-5pt"&gt; &lt;/v:shadow&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
on (Shadow Toggle)	<p>Specifies whether to show a shadow. Default is true.</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
opacity (Shadow Opacity)	<p>Specifies the opacity of the shadow. Default is 1. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. [Example: For example, a value of "52429f" represents 52429/65536 or 0.8. end example]</p>



Attributes	Description								
	<p>[Example:</p> <pre>&lt;v:shadow type="double" on="true" opacity=".5"   color="blue" offset="10pt,5pt"   color2="red" offset2="-10pt,-5pt"&gt; &lt;/v:shadow&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>								
origin (Shadow Origin)	<p>Specifies the center of the shadow relative to the shape's origin. Specified as a pair of fractional values of the shape dimensions, ranging from 50% to -50%. Default is "0,0".</p> <p>[Example: This example is unchanged from above except for the addition of the origin attribute:</p> <pre>&lt;v:shadow on="true" type="perspective"   matrix="1.25,-2,,1.5,,.000001"   offset="38pt,-6pt" origin="10%,-10%"&gt; &lt;/v:shadow&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>								
type (Shadow Type)	<p>Specifies the kind of shadow. Default is single. Allowed values are:</p> <table><tr><th>Value</th><th>Description</th></tr><tr><td>single</td><td>Single shadow.</td></tr><tr><td>double</td><td>Double shadow. color2 and offset2 are used for the second shadow's color and offset.</td></tr><tr><td>perspective</td><td>Perspective shadow.</td></tr></table>	Value	Description	single	Single shadow.	double	Double shadow. color2 and offset2 are used for the second shadow's color and offset.	perspective	Perspective shadow.
Value	Description								
single	Single shadow.								
double	Double shadow. color2 and offset2 are used for the second shadow's color and offset.								
perspective	Perspective shadow.								



Attributes	Description	
	shaperelative	The shadow is created relative to the shape.
	drawingrelative	The shadow is created relative to the drawing.
	emboss	The shadow has an embossed look.
	The possible values for this attribute are defined by the ST_ShadowType simple type (§19.1.3.6).	

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Shadow](#)) is located in §A.7.1. *end note*]

#### 19.1.2.19 [shape](#) (Shape Definition)

This element is used to describe a shape, the core object in VML. This element can appear by itself or within a group element (§19.1.2.7). If a shapetype element (§19.1.2.20) is referenced using the type attribute, any attributes specified in the shape override those found in the shapetype.

[Example:

```
<v:shape style="position:absolute;top:50;left:20;width:50;height:50"
  path="m 0,0 l 0,1000 1000,1000 1000,0 x e">
  <v:shadow on="true" type="perspective"
    matrix="1.25,-2,,1.5,,.000001" offset="38pt,-6pt"/>
</v:shape>
```

```
<v:shape style="position:absolute;top:50;left:20;width:50;height:50"
  fillcolor="yellow" path="m 0,0 l 0,1000 1000,1000 1000,0 x e">
  <v:extrusion on="true" lightposition="0,-2000,10000"/>
</v:shape>
```



*end example]*

Attributes	Description
adj (Adjustment Parameters)	Specifies a comma-delimited list of parameters, or adjustment values, used to define values for a parameterized formula. Values can be omitted. There can be up to 8 adjust values. Each value is referenced using # followed by a number corresponding to the zero-



Attributes	Description
	<p>based index for that value in the list of adjustment values. <i>[Example: For example, #2 references the second value in the adj list. end example]</i></p> <p><i>[Example: The following shape uses formulas to define a simple rectangle. The adj values are referenced by the eqn attribute of the f element (§19.1.2.4) and in turn referenced by the path element (§19.1.2.14).</i></p> <pre> &lt;v:shape   coordorigin="0 0" coordsize="200 200"   style="position:relative;top:30;left:30;width:20;height:20"   adj="1, 1, 1, 200, 200, 200, 200, 1"&gt;   &lt;v:path v="m @0,@1 l @2,@3, @4,@5, @6,@7 x e"/&gt;   &lt;v:formulas&gt;     &lt;v:f eqn="val #0"/&gt;     &lt;v:f eqn="val #1"/&gt;     &lt;v:f eqn="val #2"/&gt;     &lt;v:f eqn="val #3"/&gt;     &lt;v:f eqn="val #4"/&gt;     &lt;v:f eqn="val #5"/&gt;     &lt;v:f eqn="val #6"/&gt;     &lt;v:f eqn="val #7"/&gt;   &lt;/v:formulas&gt; &lt;/v:shape&gt; </pre> <p>This is the equivalent of:</p> <pre> &lt;v:shape   coordorigin="0 0" coordsize="200 200"   style="position:relative;top:30;left:30;width:20;height:20"   path="m 1,1 l 1,200, 200,200, 200,1 x e"&gt; &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>allowincell (Allow in Table Cell)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a shape can be placed in a table. Default is false.</p> <p><i>[Example:</i></p> <pre> &lt;v:shape ... o:allowincell="true" ... &gt; &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>



Attributes	Description
<p>allowoverlap (Allow Shape Overlap)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a shape can overlap another shape. Default is true. If false, the shape shifts left or right so as not to overlap another shape, similar to the behavior of the HTML float attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:allowoverlap="false" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>alt (Alternate Text)</p>	<p>Specifies alternative text describing the graphical object. This text should provide a brief description of the shape for use by accessibility tools. Default is no value.</p> <p>[Example: The alt text describes the basic shape:</p> <pre>&lt;v:shape ... fillcolor="red" alt="Red rectangle"&gt; &lt;/v:shape&gt;</pre> <p>The alt text describes the contents of a shape displaying an image:</p> <pre>&lt;v:shape ... alt="Picture of a sunset"&gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>borderbottomcolor (Bottom Border Color)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the bottom border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderbottomcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>borderleftcolor (Border Left Color)</p>	<p>Specifies the left border color of an inline shape. Default is no value.</p> <p>[Example:</p>



Attributes	Description
Namespace: urn:schemas-microsoft-com:office:office	<pre>&lt;v:shape ... o:borderleftcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>borderrightcolor</b> (Border Right Color)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the right border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:borderrightcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>bordertopcolor</b> (Border Top Color)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the top border color of an inline shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:bordertopcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>bullet</b> (Graphical Bullet)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the shape is a graphical bullet. Default is <i>false</i>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:bullet="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<b>button</b> (Button Behavior Toggle)  Namespace:	<p>Specifies whether a shape exhibits button press behavior on click. Default is <i>false</i>.</p> <p>[Example:</p>



Attributes	Description
urn:schemas-microsoft-com:office:office	<pre>&lt;v:shape ... o:button="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
bwmode (Black-and-White Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies how a shape renders for black-and-white output devices. When a shape is printed on a black-and-white printer or displayed in a black-and-white view in an application, several options are possible. Default is auto, which uses o:bwnormal for normal black-and-white rendering and o:bwpure for pure black-and-white rendering.</p> <p>bwnormal and bwpure are subordinate to bwmode. If bwmode is "auto" then the value for bwnormal or bwpure is used depending on what the output format is. An application can define for itself what, if any, difference there is between normal B&amp;W and pure B&amp;W. <i>[Example: Normal B&amp;W might allow greyscale and pure B&amp;W might not. end example]</i></p> <p><i>[Example: This shape renders in grayscale in a black-and-white environment:</i></p> <pre>&lt;v:shape ... o:bwmode="grayscale" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
bwnormal (Normal Black-and-White Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the black-and-white mode for normal black-and-white output devices. Default is auto.</p> <p><i>[Example: This shape renders in a pale grayscale in a normal black-and-white environment:</i></p> <pre>&lt;v:shape ... o:bwmode="auto" o:bwnormal="lightgrayscale" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
bwpure (Pure Black-and-White Mode)  Namespace: urn:schemas-	<p>Specifies the black-and-white mode for pure black-and-white output devices. Default is auto.</p> <p><i>[Example: This shape renders in high contrast when in a pure black-and-white environment:</i></p>





Attributes	Description
microsoft-com:office:office	<pre>&lt;v:shape ... o:bwmode="auto" o:bwpure="highcontrast" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
chromakey (Image Transparency Color)	<p>Specifies a color value that is transparent and show anything behind the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:image ... chromakey="white" ...&gt; &lt;/v:image&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
class (CSS Reference)	<p>Specifies a reference to the definition of a CSS style. Default is no value.</p> <p>[Example: The snippets below are equivalent:</p> <pre>... .narrowstyle {width:50;height:100} ... &lt;v:shape ... class="narrowstyle"   style="top:1;left:1"&gt; &lt;/v:shape&gt;</pre> <pre>&lt;v:shape ... style="top:1;left:1;   width:50;height:100"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
clip (Clipping Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies that the clipping region is active. This is used in conjunction with the clippath (§19.2.2.3) element to create a clipping region.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:clip="true"&gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>cliptowrap (Clip to Wrapping Polygon)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the clipping region for the shape aligns with the wrapping polygon that tightly surrounds the entire shape (essentially, that the shape shall not be drawn beyond its wrapping polygon's extents – if it does, the shape shall be clipped). Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:cliptowrap="true"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>connectortype (Shape Connector Type)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the kind of connector used for joining shapes. Default is straight.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:connectortype="elbow" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ConnectorType simple type (§19.2.3.7).</p>
<p>coordorigin (Coordinate Space Origin)</p>	<p>Specifies the coordinate of the top left corner of the shape's coordinate space. This determines the position of the (0,0) coordinate space origin within the shape's bounding box. Default is "0,0", which places the (0,0) origin at the top left corner of the bounding box.</p> <p>This affects shape properties that specify coordinate positions, such as the path attribute. Thus a path can be defined against a generic (0,0) origin and the coordorigin value translates the entire path within the shape's bounding space.</p> <p>[Example: The horizontal and vertical coordinate space ranges from -100 to +100 because the coordinate space (coordsize) is 200 by 200 and the top left coordinate is (-100,-100). The (0,0) origin lies at the center of the shape's bounding box, as evidenced by the position of the shape's path within the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200" coordorigin="-100,-100"</pre>




Attributes	Description
	<pre>path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>coordsize</b> (Coordinate Space Size)	<p>Specifies the size of the shape's coordinate space in coordinate units. Default is "1000,1000".</p> <p>The physical size of a coordinate unit length is determined by both the size of the coordinate space (coordsize) and the size of the shape (style width and height). The coordsize attribute defines the number of horizontal and vertical subdivisions into which the shape's bounding box is divided. The combination of coordsize and style width/height effective scales the shape anisotropically.</p> <p>[Example: The path is 50 units wide and tall, which is 25% of the size of the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200" coordorigin="-100,-100" path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>dgmlayout</b> (Diagram Node Layout Identifier)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies the kind of automatic layout to apply to the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmlayout="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p>



Attributes	Description
	The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).
dgmlayoutmru (Diagram Node Recent Layout Identifier)  Namespace: urn:schemas-microsoft-com:office:office	Specifies the kind of automatic layout most recently used on the child elements of the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.  [Example: <pre>&lt;v:shape ... dgmlayout="1"&gt; &lt;/v:shape&gt;</pre> <i>end example</i> ]  The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).
dgmnodekind (Diagram Node Identifier)  Namespace: urn:schemas-microsoft-com:office:office	Specifies an optional, application-defined parameter that is intended to be used by the application to tag different types of nodes in a diagram.  [Example: <pre>&lt;v:shape ... dgmnodekind="1"&gt; &lt;/v:shape&gt;</pre> <i>end example</i> ]  The possible values for this attribute are defined by the W3C XML Schema integer datatype.
doubleclicknotify (Double-click Notification Toggle)  Namespace: urn:schemas-microsoft-com:office:office	Specifies that an event message is sent when a shape is double-clicked. Default is false.  [Example: <pre>&lt;v:shape ... o:doubleclicknotify="true" ... &gt; &lt;/v:shape&gt;</pre> <i>end example</i> ]  The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).
equationxml (Storage for Alternate Math Content)	Specifies alternate XML markup which can be used to rehydrate an equation using the Office Open XML Math syntax. The actual format of the contents of this attribute is application-defined, but shall contain Office Open XML Math as well as any application-specific content. [Note: This form of storing alternate markup is inappropriate, and to be avoided in favor of the more flexible approach used by the child equationxml element (§19.2.2.10). <i>end note</i> ]



Attributes	Description
	<p>The XML markup stored in this attribute shall be escaped as needed to contain only those characters legal in an attribute value.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
fillcolor (Fill Color)	<p>Specifies the color to use for the fill. Default is white. If the fill element (§19.1.2.5) is present, its color attribute takes precedence. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p><i>[Example: This shape is red if its fill is visible:</i></p> <pre>&lt;v:shape ... fillcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>This is equivalent to:</i></p> <pre>&lt;v:shape ... fillcolor="#ff0000" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
filled (Shape Fill Toggle)	<p>Specifies whether the closed path is filled. Default is true. This attribute is overridden by the fill on attribute.</p> <p><i>[Example:</i></p> <pre>&lt;v:shape ... filled="f"   fillcolor="red" ...&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
forcedash (Force Dashed Outline)	<p>Specifies whether a dashed outline is used to draw a shape when a shape has no line or fill. Default is false.</p>



Attributes	Description
<p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Used by PresentationML placeholders to draw a dashed outline when there is no line and no fill for a shape.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:forcedash="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>gfxdata (Encoded Package)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies a base-64 encoded package as defined in ECMA-376-2 that contains DrawingML content as defined in ECMA-376-1. [<i>Rationale:</i> This attribute allows an application to use VML to represent graphical content for a legacy document while still persisting DrawingML for consuming applications that support DrawingML. For example, a diagram stored within this attribute would have the four parts defined for a DrawingML diagram, as well as any number of application-defined parts and relationships. end rationale]</p> <p>[Example: A DrawingML object is encoded in the gfxdata attribute, leaving VML to handle the visual display:</p> <pre>&lt;v:shape id="Diagram 1" o:spid="_x0000_i1025"   type="#_x0000_t75" style="width:446.25pt;height:252pt;   visibility:visible" o:gfxdata="UESDBBQABgAIAAAAIQDIu8KcTQE..."&gt; &lt;v:imagedata r:id="rId4" o:title=""/&gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema base64Binary datatype.</p>
<p>hr (Horizontal Rule Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that a shape is a horizontal rule. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hr="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>hralign (Horizontal</p>	<p>Specifies the alignment of a horizontal rule. Default is left.</p>



Attributes	Description
<p>Rule Alignment)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>[Example:</p> <pre>&lt;v:shape ... o:hralign="center" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_HrAlign simple type (§19.2.3.16).</p>
<p>href (Hyperlink Target)</p>	<p>Specifies a hyperlink URL target for the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... href="http://www.openxmlformats.org" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>hrnoshade (Horizontal Rule 3D Shading Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the horizontal rule does not have 3-D shading. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrnoshade="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>hrpct (Horizontal Rule Length Percentage)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the length of a horizontal rule as a percentage of page width. Default is 0.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrpct="85" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
<p>hrstd (Horizontal Rule Standard Display Toggle)</p>	<p>Specifies whether a shape is displayed as a standard horizontal rule. Only applies if hr is true. Default is false.</p>




Attributes	Description
Namespace: urn:schemas-microsoft-com:office:office	<p>[Example:</p> <pre>&lt;v:shape ... o:hrstd="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
id (Unique Identifier)	<p>Specifies a unique identifier that can be used to reference a VML object.</p> <p>Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
insetmode (Text Inset Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the application calculates the internal text margin instead of using the inset attribute. Default is custom. This attribute is only meaningful for text boxes.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:insetmode="auto" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_InsetMode simple type (§19.2.3.17).</p>
insetpen (Inset Border From Path)	<p>Specifies that the border shall be displayed inside of the path defining the shape, rather than along the path (the default border placement), or outside of the path as might be done with an image.</p> <p>[Example:</p> <pre>&lt;v:shape ... insetpen="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p>




Attributes	Description
	<p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>ole (Embedded Object Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the shape is an embedded object. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:ole="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalseBlank simple type (§20.1.2.6).</p>
<p>oleicon (Embedded Object Icon Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether an embedded object is displayed as an icon. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oleicon="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>oned (Shape Handle Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the extra handles of a shape are hidden. If true, hides all shape handles except the top left and bottom right; that is, the same handles that are used for a straight line segment. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oned="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>opacity (Fill Color Opacity)</p>	<p>Specifies the opacity of the primary fill color. Default is 1.0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. [Example: A value of "52429f" represents 52429/65536 or 0.8. end example]</p> <p>[Example: The red color is 25% opaque:</p> <pre>&lt;v:fill type="gradient" color="red" color2="blue" opacity=".25"&gt;</pre>





Attributes	Description
	<p>&lt;/v:fill&gt;</p> <div>  <p>opacity="1"</p> <p>opacity=".25"</p> </div> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
path (Edge Path)	<p>Specifies the line that makes up the edges of a shape. See the v attribute of the path element (§19.1.2.14) for a full description.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>preferrelative (Relative Resize Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the original size of an object is saved after reformatting. Default is false. If true, the original size of the object is stored and all resizing is based on a percentage of that original size. Otherwise, each resizing resets the scale to 100%.</p> <p><i>[Example:</i></p> <div> <pre>&lt;v:shape ... o:preferrelative="true" ... &gt; &lt;/v:shape&gt;</pre> </div> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
print (Print Toggle)	<p>Specifies whether the shape is printed. Default is true.</p> <p><i>[Example:</i></p> <div> <pre>&lt;v:shape ... print="false" ... &gt; &lt;/v:shape&gt;</pre> </div> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
regroupid (Regroup ID)	<p>Specifies a previous group for a shape. An ID number is used to identify groups of shapes that are no longer grouped. This allows shapes to be regrouped programmatically.</p>



Attributes	Description
Namespace: urn:schemas-microsoft-com:office:office	<p>[Example: The shape was part of a group identified by the ID 040754:</p> <pre>&lt;v:shape ... o:regroupid="040754" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
spid (Optional String)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies an optional string that an application can use to identify the particular shape. Default is no value.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
spt (Optional Number)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies an optional number that an application can use to associate the particular shape with a defined shape type. Default is 0.</p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
strokecolor (Shape Stroke Color)	<p>Specifies the primary color of the brush to use to stroke the path of the shape. Default is black. The color attribute of the stroke element (§19.1.2.21) overrides this. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example:</p> <pre>&lt;v:shape ... strokecolor="red" ...&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
stroked (Shape Stroke Toggle)	<p>Specifies whether the path defining the shape is stroked with a solid line. The stroke element (§19.1.2.21) defines other strokes. The on attribute of the stroke element</p>



Attributes	Description
	<p>overrides this attribute. Default is true.</p> <p>[Example:</p> <pre>&lt;v:shape ... fillcolor="red"   stroked="false" strokecolor="blue"...&gt; &lt;/v:shape&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>strokeweight (Shape Stroke Weight)</p>	<p>Specifies the width of the brush to use to stroke the path. Default is 1 point. If a number is given without units, the emu is used. The weight attribute of the stroke element (§19.1.2.21) overrides this attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... strokeweight="3pt" ... &gt; &lt;/v:shape&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>style (Shape Styling Properties)</p>	<p>Specifies the CSS2 styling properties of the shape. The CSS2 (Cascading Style Sheets, Level 2) specification, a Recommendation of the World Wide Web Consortium, is available here: <a href="http://www.w3.org/TR/REC-CSS2">http://www.w3.org/TR/REC-CSS2</a>.</p> <p>This attribute uses a semi-colon delimited list of “name:value” pairs, the syntax defined by section 4.1.8 of the CSS2 specification for grouped declarations (without the surrounding braces). The following tables define the allowed properties and the VML treatment of each.</p> <p>[Example:</p> <pre>&lt;v:shape ... style='position:absolute;width:100pt;height:50pt' ... &gt; &lt;/v:shape&gt;</pre>



Attributes	Description									
	<i>end example]</i>									
	<table> <tr> <th>Property</th><th>Description</th></tr> <tr> <td>flip</td><td> <p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul> </td></tr> <tr> <td>height</td><td> <p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul> </td></tr> <tr> <td>left</td><td> <p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul> </td></tr> <tr> <td>margin-bottom</td><td> <p>Specifies the position of the bottom of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> </ul> </td></tr> </table>	Property	Description	flip	<p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul>	height	<p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>	left	<p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>	margin-bottom
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Attributes	Description	
		<ul style="list-style-type: none"> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	margin-left	<p>Specifies the position of the left of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-right	<p>Specifies the position of the right of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-top	<p>Specifies the position of the top of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	mso-position-horizontal	<p>Specifies the horizontal positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> </ul>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• left</li> <li>• center</li> <li>• right</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-horizontal-relative	<p>Specifies relative horizontal position data for objects in WordprocessingML documents. This modifies the mso-position-horizontal property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• char</li> </ul>
	mso-position-vertical	<p>Specifies the vertical positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• top</li> <li>• center</li> <li>• bottom</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-vertical-relative	<p>Specifies relative vertical position data for objects in WordprocessingML documents. This modifies the mso-position-vertical property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• line</li> </ul>
	mso-wrap-distance-bottom	<p>Specifies the distance from the bottom of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-distance-left	<p>Specifies the distance from the left side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the</p>



Attributes	Description	
		shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-right	Specifies the distance from the right side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-top	Specifies the distance from the top of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-edited	Specifies whether the wrap coordinates were customized by the user. If the wrap coordinates are generated by an editor, this property is true; otherwise they were customized by a user. Default is false.
	mso-wrap-style	<p>Specifies the wrapping mode for text in shapes in WordprocessingML documents. Default is square. Allowed values are:</p> <ul style="list-style-type: none"> <li>• square - Wraps text inside the shape in a square.</li> <li>• none - Text does not wrap.</li> </ul>
	position	<p>Specifies the kind of positioning used to place an element. Default is static. When the element is contained inside a group, this property shall be absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• static - The element is positioned according to the normal flow of the page. The top and left properties are ignored. If the object is anchored inline, this value is used.</li> <li>• absolute - The element is positioned relative to the parent, using the top and left properties.</li> <li>• relative - The element is positioned according to the normal flow of the page, but the top and left properties are used. The overlap of overlapping elements is governed by the z-index property.</li> </ul>
	rotation	Specifies the angle that a shape is rotated, in degrees. Default is 0. Positive angles are clockwise.
	top	Specifies the position of the top of the containing block of the shape relative to the element above it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:



Attributes	Description		
		<ul style="list-style-type: none"><li>• auto - Default position of an element in the flow of the page.</li><li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li><li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li></ul>	
	visibility	<p>Specifies whether a shape is displayed. Only inherit and hidden are used; any other values are mapped to inherit. Default is inherit. Allowed values are:</p> <ul style="list-style-type: none"><li>• hidden - The shape is not visible, but is still part of the flow of the objects in the browser. Mouse events are not processed.</li><li>• inherit - The visibility state is inherited from the parent of the shape.</li></ul>	
	width	<p>Specifies the width of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"><li>• auto - Default position of an element in the flow of the page.</li><li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li><li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li></ul>	
	z-index	<p>Specifies the display order of overlapping shapes. Default is 0. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"><li>• auto - Uses the order that the shapes appear in the page, bottom to top.</li><li>• &lt;order&gt;- A number that represents the stacking precedence. Shapes with higher numbers are placed on top of those with lower numbers. Negative numbers are allowed.</li></ul>	
	The following properties are only used by the textbox element (§19.1.2.22):		
<table><tr><th>Property</th><th>Description</th></tr></table>		Property	Description
Property	Description		



Attributes	Description	
	direction	<p>Specifies the direction of the text in the textbox. Default is ltr. This property is superceded by the mso-direction-alt property if that is specified. Allowed values are:</p> <ul style="list-style-type: none"> <li>• ltr - Text is displayed left-to-right.</li> <li>• rtl - Text is displayed right-to-left.</li> </ul>
	layout-flow	<p>Determines the flow of the text layout in a textbox. Default is horizontal. Allowed values are:</p> <ul style="list-style-type: none"> <li>• horizontal - Text is displayed horizontally.</li> <li>• vertical - Text is displayed vertically.</li> <li>• vertical-ideographic - Ideographic text is displayed vertically.</li> <li>• horizontal-ideographic - Ideographic text is displayed horizontally.</li> </ul>
	mso-direction-alt	<p>Specifies an alternate direction for text in textboxes. Overrides the direction property. The only allowed value is context.</p>
	mso-fit-shape-to-text	<p>Specifies whether the shape stretches to fit the text in the textbox. Default is false.</p>
	mso-fit-text-to-shape	<p>Specifies whether the text stretches to fit the textbox. Default is false.</p>
	mso-layout-flow-alt	<p>Specifies the alternate layout flow for text in textboxes. This property is used instead of layout-flow when the layout flow is from bottom to top for non-ideographic languages. Its only value is bottom-to-top.</p>
	mso-next-textbox	<p>Specifies the ID of the next textbox in a series. Used to keep track of a set of linked textboxes. Default is no value.</p>
	mso-rotate	<p>Specifies a specific rotation value for text in a textbox. Default is 0. Allowed values are:</p> <ul style="list-style-type: none"> <li>• 0</li> <li>• 90</li> <li>• 180</li> <li>• -90</li> </ul>
	mso-text-scale	<p>Specifies the scaling factor for fitting text to shapes. Default is 0. This property is only used if mso-fit-text-to-shape is true.</p>



Attributes	Description													
	v-text-anchor	<p>Specifies the vertical anchoring of text in a textbox. Default is top. The alignment of a text anchor only becomes evident if mso-fit-text-to-shape is false. This property is different from the vertical-align CSS property, which is used for ideographic languages. Allowed values are:</p> <ul style="list-style-type: none"><li>• top</li><li>• middle</li><li>• bottom</li><li>• top-center</li><li>• middle-center</li><li>• bottom-center</li><li>• top-baseline</li><li>• bottom-baseline</li><li>• top-center-baseline</li><li>• bottom-center-baseline</li></ul>												
	The following properties are only used by the textpath element (§19.1.2.23):													
	<table><tr><th>Property</th><th>Description</th></tr><tr><td>font</td><td>Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.</td></tr><tr><td>font-family</td><td>Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.</td></tr><tr><td>font-size</td><td>Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.</td></tr><tr><td>font-style</td><td>Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are:<ul style="list-style-type: none"><li>• normal</li><li>• italic</li><li>• oblique - Treated the same as italic.</li></ul></td></tr><tr><td>font-variant</td><td>Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are:<ul style="list-style-type: none"><li>• normal</li><li>• small-caps</li></ul></td></tr></table>		Property	Description	font	Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.	font-family	Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.	font-size	Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.	font-style	Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are: <ul style="list-style-type: none"><li>• normal</li><li>• italic</li><li>• oblique - Treated the same as italic.</li></ul>	font-variant	Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are: <ul style="list-style-type: none"><li>• normal</li><li>• small-caps</li></ul>
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Attributes	Description																		
	font-weight	Specifies the thickness of the letters of the font. Default is normal. The values are the same as those of the CSS font-weight property. Allowed values are:																	
		<table><tr><th>Value</th><th>Description</th></tr><tr><td>normal</td><td rowspan="6">Treated as non-bold.</td></tr><tr><td>lighter</td></tr><tr><td>100</td></tr><tr><td>200</td></tr><tr><td>300</td></tr><tr><td>400</td></tr><tr><td>bold</td><td rowspan="6">Treated as bold.</td></tr><tr><td>bolder</td></tr><tr><td>500</td></tr><tr><td>600</td></tr><tr><td>700</td></tr><tr><td>800</td></tr><tr><td>900</td></tr></table>	Value	Description	normal	Treated as non-bold.	lighter	100	200	300	400	bold	Treated as bold.	bolder	500	600	700	800	900
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300																			
400																			
bold	Treated as bold.																		
bolder																			
500																			
600																			
700																			
800																			
900																			
mso-text-shadow	Specifies whether a shadow is applied to the text on a text path. Default is false.																		
text-decoration	Specifies the style of text decoration. Default is none. The values are the same as those of the CSS text-decoration property. Allowed values are: <ul style="list-style-type: none"><li>• none</li><li>• underline</li><li>• overline</li><li>• line-through</li><li>• blink</li></ul>																		
v-rotate-letters	Specifies whether the letters of the text are rotated counterclockwise by 90 degrees. Default is false.																		
v-same-letter-	Specifies whether all letters are the same height regardless of initial case. If true, the lowercase letters are stretched to the																		



Attributes	Description	
	heights	height of the uppercase letters. Default is false.
	v-text-align	Specifies the alignment of text. Default is left. Allowed values are: <ul style="list-style-type: none"> <li>• left</li> <li>• right</li> <li>• center</li> <li>• justify</li> <li>• letter-justify - Distributes the extra space between the letters.</li> <li>• stretch-justify - Stretches the letters to fill in the space.</li> </ul>
	v-text-kern	Specifies whether kerning is turned on. Default is false.
	v-text-reverse	Specifies whether the layout order of rows is reversed. Default is false. This is used for vertical text layout.
	v-text-spacing-mode	Specifies the mode for letter spacing. Default is tightening. This property determines whether space is removed between each letter (tightening) or added between each letter (tracking). The amount of letter spacing change is defined by the v-text-spacing property. Allowed values are: <ul style="list-style-type: none"> <li>• tightening</li> <li>• tracking</li> </ul>
	v-text-spacing	Specifies the amount of spacing for text in 100ths of single line spacing. Default is 100.
<p>The line (§19.1.2.12), polyline (§19.1.2.15) and curve (§19.1.2.3) elements ignore the following properties:</p> <ul style="list-style-type: none"> <li>• top</li> <li>• left</li> <li>• width</li> <li>• height</li> </ul> <p>The following properties are not inherited by an element that references a shapetype element (§19.1.2.20) via the id attribute:</p> <ul style="list-style-type: none"> <li>• flip</li> <li>• height</li> <li>• left</li> <li>• margin-left</li> </ul>		



Attributes	Description																
	<ul style="list-style-type: none"> <li>• margin-top</li> <li>• position</li> <li>• rotation</li> <li>• top</li> <li>• visibility</li> <li>• width</li> <li>• z-index</li> </ul> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>																
target (Hyperlink Display Target)	<p>Specifies a frame or window that a URL is displayed in. Default is no value. Allowed values are:</p> <table border="1"> <thead> <tr> <th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>&lt;targetname&gt;</td><td>String containing the name of the frame or window in which to load the document.</td></tr> <tr> <td>_blank</td><td>Specifies that the linked document is loaded into a new blank window. This window is not named.</td></tr> <tr> <td>_media</td><td>Specifies that the linked document is loaded into the browser's multimedia pane.</td></tr> <tr> <td>_parent</td><td>Specifies that the linked document is loaded into the immediate parent of the document containing the link.</td></tr> <tr> <td>_search</td><td>Specifies that the linked document is loaded into the browser's search pane.</td></tr> <tr> <td>_self</td><td>Specifies that the linked document is loaded into the window in which the link was clicked (the active window).</td></tr> <tr> <td>_top</td><td>Specifies that the linked document is loaded into the topmost window.</td></tr> </tbody> </table> <p>[Example:</p> <pre> &lt;v:shape ...   href="http://www.openxmlformats.org"   target="_self" ... &gt; &lt;/v:shape&gt; </pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>	Value	Description	<targetname>	String containing the name of the frame or window in which to load the document.	_blank	Specifies that the linked document is loaded into a new blank window. This window is not named.	_media	Specifies that the linked document is loaded into the browser's multimedia pane.	_parent	Specifies that the linked document is loaded into the immediate parent of the document containing the link.	_search	Specifies that the linked document is loaded into the browser's search pane.	_self	Specifies that the linked document is loaded into the window in which the link was clicked (the active window).	_top	Specifies that the linked document is loaded into the topmost window.
Value	Description																
<targetname>	String containing the name of the frame or window in which to load the document.																
_blank	Specifies that the linked document is loaded into a new blank window. This window is not named.																
_media	Specifies that the linked document is loaded into the browser's multimedia pane.																
_parent	Specifies that the linked document is loaded into the immediate parent of the document containing the link.																
_search	Specifies that the linked document is loaded into the browser's search pane.																
_self	Specifies that the linked document is loaded into the window in which the link was clicked (the active window).																
_top	Specifies that the linked document is loaded into the topmost window.																
title (Shape Title)	Specifies the text displayed when the mouse pointer moves over the shape. Default is no value.																



Attributes	Description
	<p>[Example:</p> <pre>&lt;v:shape ... title="tooltip" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>type (Shape Type Reference)</p>	<p>Specifies a reference to a shapetype ID that describes the standard path, fill and stroke properties of a shape. Properties specified in the shape override the shapetype properties. Default is no value.</p> <p>[Example: The following example defines a shapetype that is a simple rectangle and an actual shape instance that uses it and overrides the fill color.</p> <pre>&lt;v:shapetype id="mytype" fillcolor="red" strokecolor="blue" coordorigin="0 0" coordsize="200 200" path="m 0,0 l 0,200, 200,200, 200,0 x e"/&gt; &lt;/v:shapetype&gt;</pre> <pre>&lt;v:shape id="shape02" type="#mytype" fillcolor="green" style="position:relative;top:1;left:1;width:20;height:20"&gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>userdrawn (Exists In Master Slide)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the user has added the shape to a master slide. Default is false. Used by PresentationML.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userdrawn="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>userhidden (Hide Script Anchors)</p>	<p>Specifies whether a script anchor is hidden. Default is false. If true, script anchors stay hidden even if the shape is otherwise visible. A script anchor is the visual representation</p>



Attributes	Description
Namespace: urn:schemas-microsoft-com:office:office	<p>of a script that when displayed in an application.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userhidden="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
wrapcoords (Shape Bounding Polygon)	<p>Specifies the bounding polygon that surrounds a shape. This is specified using a comma-delimited list of x and y coordinates: "x1,y1,x2,y2,x3,y3,..." This is used when text is tightly wrapped around a shape. Default is no value until the mso-wrap-mode style attribute is set to tight or through.</p> <p>[Example:</p> <pre>&lt;v:shape ...   wrapcoords="0,0 0,200, 200,200, 200,0" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Shape](#)) is located in §A.7.1. end note]

#### 19.1.2.20 shapetype (Shape Template)

This element defines a shape template that can be used to create other shapes. Shapetype is identical to the shape element (§19.1.2.19) except it cannot reference another shapetype element. The type attribute shall not be used with shapetype. Attributes defined in the shape override any that appear in the shapetype. CSS positioning attributes (such as top, width, z-index, rotation, flip) are not passed to a shape from a shapetype. To use this element, create a shapetype with a specific id attribute. Then create a shape and reference the shapetype's id using the type attribute.

[Example:

```
<v:shapetype id="mytype" fillcolor="silver" strokecolor="blue">
  <v:path v="m 0,0 l 0,1000, 1000,1000, 1000,0 x e"/>
  <v:fill on="true" type="gradient" color2="navy" angle="-45"/>
```



```
</v:shapetype>
<v:shape type="#mytype"
  style="position:absolute;top:10;left:10;width:50;height:50"/>
<v:shape type="#mytype" fillcolor="teal"
  style="position:absolute;top:10;left:75;width:75;height:50"/>
<v:shape type="#mytype"
  style="position:absolute;top:10;left:165;width:50;height:50">
  <v:fill type="solid"/>
</v:shape>
<v:shape type="#mytype" path="m 500,0 l 1000,1000 0,1000 x e"
  style="position:absolute;top:10;left:230;width:50;height:50"/>
```



*end example]*

Attributes	Description
adj (Adjustment Parameters)	<p>Specifies a comma-delimited list of parameters, or adjustment values, used to define values for a parameterized formula. Values can be omitted. There can be up to 8 adjust values. Each value is referenced using # followed by a number corresponding to the zero-based index for that value in the list of adjustment values. [Example: For example, #2 references the second value in the adj list. <i>end example]</i></p> <p>[Example: The following shape uses formulas to define a simple rectangle. The adj values are referenced by the eqn attribute of the f element (§19.1.2.4) and in turn referenced by the path element (§19.1.2.14).</p> <pre>&lt;v:shape   coordorigin="0 0" coordsize="200 200"   style="position:relative;top:30;left:30;width:20;height:20"   adj="1, 1, 1, 200, 200, 200, 200, 1"&gt;   &lt;v:path v="m @0,@1 l @2,@3, @4,@5, @6,@7 x e"/&gt;   &lt;v:formulas&gt;     &lt;v:f eqn="val #0"/&gt;     &lt;v:f eqn="val #1"/&gt;     &lt;v:f eqn="val #2"/&gt;     &lt;v:f eqn="val #3"/&gt;     &lt;v:f eqn="val #4"/&gt;     &lt;v:f eqn="val #5"/&gt;     &lt;v:f eqn="val #6"/&gt;     &lt;v:f eqn="val #7"/&gt;   &lt;/v:formulas&gt; &lt;/v:shape&gt;</pre> <p>This is the equivalent of:</p>



Attributes	Description
	<pre> &lt;v:shape   coordorigin="0 0" coordsize="200 200"   style="position:relative;top:30;left:30;width:20;height:20"   path="m 1,1 l 1,200, 200,200, 200,1 x e"&gt; &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>allowincell (Allow in Table Cell)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a shape can be placed in a table. Default is false.</p> <p>[Example:</p> <pre> &lt;v:shape ... o:allowincell="true" ... &gt; &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>allowoverlap (Allow Shape Overlap)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a shape can overlap another shape. Default is true. If false, the shape shifts left or right so as not to overlap another shape, similar to the behavior of the HTML float attribute.</p> <p>[Example:</p> <pre> &lt;v:shape ... o:allowoverlap="false" ... &gt; &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>alt (Alternate Text)</p>	<p>Specifies alternative text describing the graphical object. This text should provide a brief description of the shape for use by accessibility tools. Default is no value.</p> <p>[Example: The alt text describes the basic shape:</p> <pre> &lt;v:shape ... fillcolor="red"   alt="Red rectangle"&gt; &lt;/v:shape&gt; </pre> <p>The alt text describes the contents of a shape displaying an image:</p>



Attributes	Description
	<p><code>&lt;v:shape ... alt="Picture of a sunset"&gt;</code>  <code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p><b>borderbottomcolor</b> (Bottom Border Color)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the bottom border color of an inline shape. Default is no value.</p> <p>[Example:</p> <p><code>&lt;v:shape ... o:borderbottomcolor="red" ... &gt;</code>  <code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p><b>borderleftcolor</b> (Border Left Color)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the left border color of an inline shape. Default is no value.</p> <p>[Example:</p> <p><code>&lt;v:shape ... o:borderleftcolor="red" ... &gt;</code>  <code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p><b>borderrightcolor</b> (Border Right Color)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the right border color of an inline shape. Default is no value.</p> <p>[Example:</p> <p><code>&lt;v:shape ... o:borderrightcolor="red" ... &gt;</code>  <code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p><b>bordertopcolor</b> (Border Top Color)</p> <p>Namespace:</p>	<p>Specifies the top border color of an inline shape. Default is no value.</p> <p>[Example:</p>



Attributes	Description
urn:schemas-microsoft-com:office:office	<pre>&lt;v:shape ... o:bordertopcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
bullet (Graphical Bullet)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the shape is a graphical bullet. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:bullet="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
button (Button Behavior Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether a shape exhibits button press behavior on click. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:button="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
bwmode (Black-and-White Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies how a shape renders for black-and-white output devices. When a shape is printed on a black-and-white printer or displayed in a black-and-white view in an application, several options are possible. Default is <code>auto</code>, which uses <code>o:bwnormal</code> for normal black-and-white rendering and <code>o:bwpure</code> for pure black-and-white rendering.</p> <p><code>bwnormal</code> and <code>bwpure</code> are subordinate to <code>bwmode</code>. If <code>bwmode</code> is <code>"auto"</code> then the value for <code>bwnormal</code> or <code>bwpure</code> is used depending on what the output format is. An application can define for itself what, if any, difference there is between normal B&amp;W and pure B&amp;W. [Example: Normal B&amp;W might allow grayscale and pure B&amp;W might not. <i>end example]</i></p> <p>[Example: This shape renders in grayscale in a black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="grayscale" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p>




Attributes	Description
<p>bwnormal (Normal Black-and-White Mode)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p> <p>Specifies the black-and-white mode for normal black-and-white output devices. Default is auto.</p> <p>[Example: This shape renders in a pale grayscale in a normal black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="auto" o:bwnormal="lightgrayscale" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
<p>bwpure (Pure Black-and-White Mode)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the black-and-white mode for pure black-and-white output devices. Default is auto.</p> <p>[Example: This shape renders in high contrast when in a pure black-and-white environment:</p> <pre>&lt;v:shape ... o:bwmode="auto" o:bwpure="highcontrast" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_BWMode simple type (§19.2.3.3).</p>
<p>chromakey (Image Transparency Color)</p>	<p>Specifies a color value that is transparent and show anything behind the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:image ... chromakey="white" ...&gt; &lt;/v:image&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<p>class (CSS Reference)</p>	<p>Specifies a reference to the definition of a CSS style. Default is no value.</p> <p>[Example: The snippets below are equivalent:</p>




Attributes	Description
	<pre> ... .narrowstyle {width:50;height:100} ... &lt;v:shape ... class="narrowstyle"   style="top:1;left:1"&gt; &lt;/v:shape&gt;  &lt;v:shape ... style="top:1;left:1;   width:50;height:100"&gt; &lt;/v:shape&gt;  end example]  The possible values for this attribute are defined by the W3C XML Schema string datatype.</pre>
clip (Clipping Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies that the clipping region is active. This is used in conjunction with the clippath (§19.2.2.3) element to create a clipping region.</p> <p>[Example:</p> <pre> &lt;v:shape ... o:clip="true"&gt; &lt;/v:shape&gt;  end example]</pre> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
cliptowrap (Clip to Wrapping Polygon)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies that the clipping region for the shape aligns with the wrapping polygon that tightly surrounds the entire shape (essentially, that the shape shall not be drawn beyond its wrapping polygon's extents – if it does, the shape shall be clipped). Default is false.</p> <p>[Example:</p> <pre> &lt;v:shape ... o:cliptowrap="true"&gt; &lt;/v:shape&gt;  end example]</pre> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
connectortype (Shape Connector Type)	<p>Specifies the kind of connector used for joining shapes. Default is straight.</p> <p>[Example:</p>



Attributes	Description
Namespace: urn:schemas-microsoft-com:office:office	<pre>&lt;v:shape ... o:connectortype="elbow" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ConnectorType simple type (§19.2.3.7).</p>
coordorigin (Coordinate Space Origin)	<p>Specifies the coordinate of the top left corner of the shape's coordinate space. This determines the position of the (0,0) coordinate space origin within the shape's bounding box. Default is "0,0", which places the (0,0) origin at the top left corner of the bounding box.</p> <p>This affects shape properties that specify coordinate positions, such as the path attribute. Thus a path can be defined against a generic (0,0) origin and the coordorigin value translates the entire path within the shape's bounding space.</p> <p>[Example: The horizontal and vertical coordinate space ranges from -100 to +100 because the coordinate space (coordsize) is 200 by 200 and the top left coordinate is (-100,-100). The (0,0) origin lies at the center of the shape's bounding box, as evidenced by the position of the shape's path within the coordinate space:</p> <pre>&lt;v:shape ... coordsize="200,200"   coordorigin="-100,-100"   path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
coordsize (Coordinate Space Size)	<p>Specifies the size of the shape's coordinate space in coordinate units. Default is "1000,1000".</p> <p>The physical size of a coordinate unit length is determined by both the size of the coordinate space (coordsize) and the size of the shape (style width and height). The coordsize attribute defines the number of horizontal and vertical subdivisions into which the shape's bounding box is divided. The combination of coordsize and style width/height effective scales the shape anisotropically.</p> <p>[Example: The path is 50 units wide and tall, which is 25% of the size of the coordinate space:</p>




Attributes	Description
	<pre>&lt;v:shape ... coordsize="200,200"   coordorigin="-100,-100"   path="m 0,0 l 0,50, 50,50, 50,0 x e"&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>dgmlayout (Diagram Node Layout Identifier)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the kind of automatic layout to apply to the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmlayout="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).</p>
<p>dgmlayoutmru (Diagram Node Recent Layout Identifier)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the kind of automatic layout most recently used on the child elements of the diagram node. This is only meaningful if the shape is a node in an organization chart, which is denoted by the orgchart value of the editas attribute of the group element.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmlayout="1"&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DiagramLayout simple type (§19.2.3.10).</p>
<p>dgmnodekind (Diagram Node Identifier)</p> <p>Namespace: urn:schemas-</p>	<p>Specifies an optional, application-defined parameter that is intended to be used by the application to tag different types of nodes in a diagram.</p> <p>[Example:</p> <pre>&lt;v:shape ... dgmnodekind="1"&gt;</pre>



Attributes	Description
microsoft-com:office:office	<p><code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
doubleclicknotify (Double-click Notification Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies that an event message is sent when a shape is double-clicked. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:doubleclicknotify="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
fillcolor (Fill Color)	<p>Specifies the color to use for the fill. Default is white. If the fill element (§19.1.2.5) is present, its color attribute takes precedence. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example: This shape is red if its fill is visible:</p> <pre>&lt;v:shape ... fillcolor="red" ... &gt; &lt;/v:shape&gt;</pre> <p>This is equivalent to:</p> <pre>&lt;v:shape ... fillcolor="#ff0000" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
filled (Shape Fill Toggle)	<p>Specifies whether the closed path is filled. Default is <code>true</code>. This attribute is overridden by the fill on attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... filled="f"   fillcolor="red" ...&gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p><b>forcedash (Force Dashed Outline)</b></p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a dashed outline is used to draw a shape when a shape has no line or fill. Default is <code>false</code>.</p> <p>Used by PresentationML placeholders to draw a dashed outline when there is no line and no fill for a shape.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:forcedash="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p><b>hr (Horizontal Rule Toggle)</b></p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that a shape is a horizontal rule. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hr="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p><b>hralign (Horizontal Rule Alignment)</b></p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the alignment of a horizontal rule. Default is <code>left</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hralign="center" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_HrAlign simple type</p>



Attributes	Description
<p>href (Hyperlink Target)</p>	<p>(§19.2.3.16).</p> <p>Specifies a hyperlink URL target for the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... href="http://www.openxmlformats.org" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>hrnoshade (Horizontal Rule 3D Shading Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies that the horizontal rule does not have 3-D shading. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrnoshade="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>hrpct (Horizontal Rule Length Percentage)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the length of a horizontal rule as a percentage of page width. Default is 0.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrpct="85" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
<p>hrstd (Horizontal Rule Standard Display Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a shape is displayed as a standard horizontal rule. Only applies if hr is true. Default is false.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:hrstd="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>

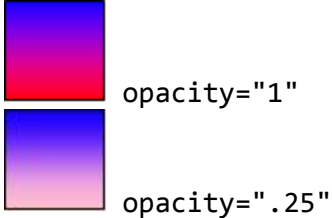


Attributes	Description
<b>id (Unique Identifier)</b>	<p>Specifies a unique identifier that can be used to reference a VML object.</p> <p>Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>insetmode (Text Inset Mode)</b>  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the application calculates the internal text margin instead of using the inset attribute. Default is custom. This attribute is only meaningful for text boxes.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:insetmode="auto" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_InsetMode simple type (§19.2.3.17).</p>
<b>insetpen (Inset Border From Path)</b>	<p>Specifies that the border shall be displayed inside of the path defining the shape, rather than along the path (the default border placement), or outside of the path as might be done with an image.</p> <p>[Example:</p> <pre>&lt;v:shape ... insetpen="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<b>master (Master Element Toggle)</b>  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the shapetype is a master element. If true, it is rendered by the rendering engine. Default is false.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>




Attributes	Description
<p>ole (Embedded Object Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the shape is an embedded object. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:ole="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalseBlank simple type (§20.1.2.6).</p>
<p>oleicon (Embedded Object Icon Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether an embedded object is displayed as an icon. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oleicon="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>oned (Shape Handle Toggle)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the extra handles of a shape are hidden. If <code>true</code>, hides all shape handles except the top left and bottom right; that is, the same handles that are used for a straight line segment. Default is <code>false</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:oned="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>opacity (Fill Color Opacity)</p>	<p>Specifies the opacity of the primary fill color. Default is 1.0. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied. [Example: A value of "52429f" represents 52429/65536 or 0.8. <i>end example]</i></p> <p>[Example: The red color is 25% opaque:</p> <pre>&lt;v:fill type="gradient" color="red" color2="blue" opacity=".25"&gt; &lt;/v:fill&gt;</pre>





Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
path (Edge Path)	<p>Specifies the line that makes up the edges of a shape. See the v attribute of the path element (§19.1.2.14) for a full description.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
preferrelative (Relative Resize Toggle)  Namespace: urn:schemas- microsoft- com:office:office	<p>Specifies whether the original size of an object is saved after reformatting. Default is false. If true, the original size of the object is stored and all resizing is based on a percentage of that original size. Otherwise, each resizing resets the scale to 100%.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:preferrelative="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
print (Print Toggle)	<p>Specifies whether the shape is printed. Default is true.</p> <p>[Example:</p> <pre>&lt;v:shape ... print="false" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
regroupid (Regroup ID)  Namespace:	<p>Specifies a previous group for a shape. An ID number is used to identify groups of shapes that are no longer grouped. This allows shapes to be regrouped programmatically.</p> <p>[Example: The shape was part of a group identified by the ID 040754:</p>



Attributes	Description
urn:schemas-microsoft-com:office:office	<pre>&lt;v:shape ... o:regroupid="040754" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
spid (Optional String)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies an optional string that an application can use to Identify the particular shape. Default is no value.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
spt (Optional Number)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies an optional number that an application can use to associate the particular shape with a defined shape type. Default is 0.</p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
strokecolor (Shape Stroke Color)	<p>Specifies the primary color of the brush to use to stroke the path of the shape. Default is black. The color attribute of the stroke element (§19.1.2.21) overrides this. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>[Example:</p> <pre>&lt;v:shape ... strokecolor="red" ...&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
stroked (Shape Stroke Toggle)	<p>Specifies whether the path defining the shape is stroked with a solid line. The stroke element (§19.1.2.21) defines other strokes. The on attribute of the stroke element overrides this attribute. Default is true.</p>



Attributes	Description
	<p>[Example:</p> <pre>&lt;v:shape ... fillcolor="red"   stroked="false" strokecolor="blue"...&gt; &lt;/v:shape&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>strokeweight (Shape Stroke Weight)</p>	<p>Specifies the width of the brush to use to stroke the path. Default is 1 point. If a number is given without units, the emu is used. The weight attribute of the stroke element (§19.1.2.21) overrides this attribute.</p> <p>[Example:</p> <pre>&lt;v:shape ... strokeweight="3pt" ... &gt; &lt;/v:shape&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>style (Shape Styling Properties)</p>	<p>Specifies the CSS2 styling properties of the shape. The CSS2 (Cascading Style Sheets, Level 2) specification, a Recommendation of the World Wide Web Consortium, is available here: <a href="http://www.w3.org/TR/REC-CSS2">http://www.w3.org/TR/REC-CSS2</a>.</p> <p>This attribute uses a semi-colon delimited list of “name:value” pairs, the syntax defined by section 4.1.8 of the CSS2 specification for grouped declarations (without the surrounding braces). The following tables define the allowed properties and the VML treatment of each.</p> <p>[Example:</p> <pre>&lt;v:shape ... style='position:absolute;width:100pt;height:50pt' ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p>



Attributes	Description	
	Property	Description
	flip	<p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul>
	height	<p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	left	<p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-bottom	<p>Specifies the position of the bottom of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>



Attributes	Description	
	margin-left	<p>Specifies the position of the left of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-right	<p>Specifies the position of the right of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-top	<p>Specifies the position of the top of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	mso-position-horizontal	<p>Specifies the horizontal positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• left</li> <li>• center</li> <li>• right</li> </ul>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-horizontal-relative	<p>Specifies relative horizontal position data for objects in WordprocessingML documents. This modifies the mso-position-horizontal property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• char</li> </ul>
	mso-position-vertical	<p>Specifies the vertical positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• top</li> <li>• center</li> <li>• bottom</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-vertical-relative	<p>Specifies relative vertical position data for objects in WordprocessingML documents. This modifies the mso-position-vertical property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• line</li> </ul>
	mso-wrap-distance-bottom	<p>Specifies the distance from the bottom of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-distance-left	<p>Specifies the distance from the left side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-	<p>Specifies the distance from the right side of the shape to the text</p>



Attributes	Description	
	distance-right	that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-top	Specifies the distance from the top of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-edited	Specifies whether the wrap coordinates were customized by the user. If the wrap coordinates are generated by an editor, this property is true; otherwise they were customized by a user. Default is false.
	mso-wrap-style	<p>Specifies the wrapping mode for text in shapes in WordprocessingML documents. Default is square. Allowed values are:</p> <ul style="list-style-type: none"> <li>• square - Wraps text inside the shape in a square.</li> <li>• none - Text does not wrap.</li> </ul>
	position	<p>Specifies the kind of positioning used to place an element. Default is static. When the element is contained inside a group, this property shall be absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• static - The element is positioned according to the normal flow of the page. The top and left properties are ignored. If the object is anchored inline, this value is used.</li> <li>• absolute - The element is positioned relative to the parent, using the top and left properties.</li> <li>• relative - The element is positioned according to the normal flow of the page, but the top and left properties are used. The overlap of overlapping elements is governed by the z-index property.</li> </ul>
	rotation	Specifies the angle that a shape is rotated, in degrees. Default is 0. Positive angles are clockwise.
	top	<p>Specifies the position of the top of the containing block of the shape relative to the element above it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> </ul>



Attributes	Description				
		<ul style="list-style-type: none"><li>• <code>&lt;units&gt;</code>- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li><li>• <code>&lt;percentage&gt;</code>- Value expressed as a percentage of the parent object's height.</li></ul>			
	visibility	<p>Specifies whether a shape is displayed. Only <code>inherit</code> and <code>hidden</code> are used; any other values are mapped to <code>inherit</code>. Default is <code>inherit</code>. Allowed values are:</p> <ul style="list-style-type: none"><li>• <code>hidden</code> - The shape is not visible, but is still part of the flow of the objects in the browser. Mouse events are not processed.</li><li>• <code>inherit</code> - The visibility state is inherited from the parent of the shape.</li></ul>			
	width	<p>Specifies the width of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"><li>• <code>auto</code> - Default position of an element in the flow of the page.</li><li>• <code>&lt;units&gt;</code>- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li><li>• <code>&lt;percentage&gt;</code>- Value expressed as a percentage of the parent object's width.</li></ul>			
	z-index	<p>Specifies the display order of overlapping shapes. Default is 0. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"><li>• <code>auto</code> - Uses the order that the shapes appear in the page, bottom to top.</li><li>• <code>&lt;order&gt;</code>- A number that represents the stacking precedence. Shapes with higher numbers are placed on top of those with lower numbers. Negative numbers are allowed.</li></ul>			
	<p>The following properties are only used by the textbox element (§19.1.2.22):</p> <table><tr><th>Property</th><th>Description</th></tr><tr><td>direction</td><td>Specifies the direction of the text in the textbox. Default is <code>ltr</code>. This property is superceded by the <code>mso-direction-alt</code> property if that is specified. Allowed values are:</td></tr></table>		Property	Description	direction
Property	Description				
direction	Specifies the direction of the text in the textbox. Default is <code>ltr</code> . This property is superceded by the <code>mso-direction-alt</code> property if that is specified. Allowed values are:				



Attributes	Description	
		<ul style="list-style-type: none"> <li>• <code>ltr</code> - Text is displayed left-to-right.</li> <li>• <code>rtl</code> - Text is displayed right-to-left.</li> </ul>
	<code>layout-flow</code>	<p>Determines the flow of the text layout in a textbox. Default is <code>horizontal</code>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <code>horizontal</code> - Text is displayed horizontally.</li> <li>• <code>vertical</code> - Text is displayed vertically.</li> <li>• <code>vertical-ideographic</code> - Ideographic text is displayed vertically.</li> <li>• <code>horizontal-ideographic</code> - Ideographic text is displayed horizontally.</li> </ul>
	<code>mso-direction-alt</code>	Specifies an alternate direction for text in textboxes. Overrides the <code>direction</code> property. The only allowed value is <code>context</code> .
	<code>mso-fit-shape-to-text</code>	Specifies whether the shape stretches to fit the text in the textbox. Default is <code>false</code> .
	<code>mso-fit-text-to-shape</code>	Specifies whether the text stretches to fit the textbox. Default is <code>false</code> .
	<code>mso-layout-flow-alt</code>	Specifies the alternate layout flow for text in textboxes. This property is used instead of <code>layout-flow</code> when the layout flow is from bottom to top for non-ideographic languages. Its only value is <code>bottom-to-top</code> .
	<code>mso-next-textbox</code>	Specifies the ID of the next textbox in a series. Used to keep track of a set of linked textboxes. Default is no value.
	<code>mso-rotate</code>	<p>Specifies a specific rotation value for text in a textbox. Default is 0. Allowed values are:</p> <ul style="list-style-type: none"> <li>• 0</li> <li>• 90</li> <li>• 180</li> <li>• -90</li> </ul>
	<code>mso-text-scale</code>	Specifies the scaling factor for fitting text to shapes. Default is 0. This property is only used if <code>mso-fit-text-to-shape</code> is true.
	<code>v-text-anchor</code>	Specifies the vertical anchoring of text in a textbox. Default is <code>top</code> . The alignment of a text anchor only becomes evident if <code>mso-fit-text-to-shape</code> is false. This property is different from the <code>vertical-align</code> CSS property, which is used for ideographic languages. Allowed values are:



Attributes	Description																			
		<ul style="list-style-type: none"><li>• top</li><li>• middle</li><li>• bottom</li><li>• top-center</li><li>• middle-center</li><li>• bottom-center</li><li>• top-baseline</li><li>• bottom-baseline</li><li>• top-center-baseline</li><li>• bottom-center-baseline</li></ul>																		
	The following properties are only used by the textpath element (§19.1.2.23):																			
		<table><tr><th>Property</th><th>Description</th></tr><tr><td>font</td><td>Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.</td></tr><tr><td>font-family</td><td>Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.</td></tr><tr><td>font-size</td><td>Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.</td></tr><tr><td>font-style</td><td>Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are:<ul style="list-style-type: none"><li>• normal</li><li>• italic</li><li>• oblique - Treated the same as italic.</li></ul></td></tr><tr><td>font-variant</td><td>Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are:<ul style="list-style-type: none"><li>• normal</li><li>• small-caps</li></ul></td></tr><tr><td>font-weight</td><td>Specifies the thickness of the letters of the font. Default is normal. The values are the same as those of the CSS font-weight property. Allowed values are:<table><tr><th>Value</th><th>Description</th></tr><tr><td></td><td></td></tr></table></td></tr></table>	Property	Description	font	Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.	font-family	Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.	font-size	Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.	font-style	Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are: <ul style="list-style-type: none"><li>• normal</li><li>• italic</li><li>• oblique - Treated the same as italic.</li></ul>	font-variant	Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are: <ul style="list-style-type: none"><li>• normal</li><li>• small-caps</li></ul>	font-weight	Specifies the thickness of the letters of the font. Default is normal. The values are the same as those of the CSS font-weight property. Allowed values are: <table><tr><th>Value</th><th>Description</th></tr><tr><td></td><td></td></tr></table>	Value	Description		
	Property	Description																		
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Attributes	Description	
		<p>normal</p> <p>lighter</p> <p>100</p> <p>200</p> <p>300</p> <p>400</p> <p>Treated as non-bold.</p>
		<p>bold</p> <p>bolder</p> <p>500</p> <p>600</p> <p>700</p> <p>800</p> <p>900</p> <p>Treated as bold.</p>
	mso-text-shadow	Specifies whether a shadow is applied to the text on a text path. Default is false.
	text-decoration	<p>Specifies the style of text decoration. Default is none. The values are the same as those of the CSS text-decoration property. Allowed values are:</p> <ul style="list-style-type: none"> <li>• none</li> <li>• underline</li> <li>• overline</li> <li>• line-through</li> <li>• blink</li> </ul>
	v-rotate-letters	Specifies whether the letters of the text are rotated counterclockwise by 90 degrees. Default is false.
	v-same-letter-heights	Specifies whether all letters are the same height regardless of initial case. If true, the lowercase letters are stretched to the height of the uppercase letters. Default is false.
	v-text-align	<p>Specifies the alignment of text. Default is left. Allowed values are:</p> <ul style="list-style-type: none"> <li>• left</li> </ul>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• right</li> <li>• center</li> <li>• justify</li> <li>• letter-justify - Distributes the extra space between the letters.</li> <li>• stretch-justify - Stretches the letters to fill in the space.</li> </ul>
	v-text-kern	Specifies whether kerning is turned on. Default is false.
	v-text-reverse	Specifies whether the layout order of rows is reversed. Default is false. This is used for vertical text layout.
	v-text-spacing-mode	<p>Specifies the mode for letter spacing. Default is tightening. This property determines whether space is removed between each letter (tightening) or added between each letter (tracking). The amount of letter spacing change is defined by the v-text-spacing property. Allowed values are:</p> <ul style="list-style-type: none"> <li>• tightening</li> <li>• tracking</li> </ul>
	v-text-spacing	Specifies the amount of spacing for text in 100ths of single line spacing. Default is 100.
<p>The line (§19.1.2.12), polyline (§19.1.2.15) and curve (§19.1.2.3) elements ignore the following properties:</p> <ul style="list-style-type: none"> <li>• top</li> <li>• left</li> <li>• width</li> <li>• height</li> </ul> <p>The following properties are not inherited by an element that references a shapetype element (§19.1.2.20) via the id attribute:</p> <ul style="list-style-type: none"> <li>• flip</li> <li>• height</li> <li>• left</li> <li>• margin-left</li> <li>• margin-top</li> <li>• position</li> <li>• rotation</li> <li>• top</li> <li>• visibility</li> <li>• width</li> </ul>		



Attributes	Description																
	<ul style="list-style-type: none"> <li>• z-index</li> </ul> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>																
target (Hyperlink Display Target)	<p>Specifies a frame or window that a URL is displayed in. Default is no value. Allowed values are:</p> <table border="1"> <thead> <tr> <th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>&lt;targetname&gt;</td><td>String containing the name of the frame or window in which to load the document.</td></tr> <tr> <td>_blank</td><td>Specifies that the linked document is loaded into a new blank window. This window is not named.</td></tr> <tr> <td>_media</td><td>Specifies that the linked document is loaded into the browser's multimedia pane.</td></tr> <tr> <td>_parent</td><td>Specifies that the linked document is loaded into the immediate parent of the document containing the link.</td></tr> <tr> <td>_search</td><td>Specifies that the linked document is loaded into the browser's search pane.</td></tr> <tr> <td>_self</td><td>Specifies that the linked document is loaded into the window in which the link was clicked (the active window).</td></tr> <tr> <td>_top</td><td>Specifies that the linked document is loaded into the topmost window.</td></tr> </tbody> </table> <p>[Example:</p> <pre>&lt;v:shape ...   href="http://www.openxmlformats.org"   target="_self" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>	Value	Description	<targetname>	String containing the name of the frame or window in which to load the document.	_blank	Specifies that the linked document is loaded into a new blank window. This window is not named.	_media	Specifies that the linked document is loaded into the browser's multimedia pane.	_parent	Specifies that the linked document is loaded into the immediate parent of the document containing the link.	_search	Specifies that the linked document is loaded into the browser's search pane.	_self	Specifies that the linked document is loaded into the window in which the link was clicked (the active window).	_top	Specifies that the linked document is loaded into the topmost window.
Value	Description																
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_top	Specifies that the linked document is loaded into the topmost window.																
title (Shape Title)	<p>Specifies the text displayed when the mouse pointer moves over the shape. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... title="tooltip" ... &gt; &lt;/v:shape&gt;</pre>																



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>userdrawn (Exists In Master Slide)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether the user has added the shape to a master slide. Default is <code>false</code>. Used by PresentationML.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userdrawn="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>userhidden (Hide Script Anchors)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a script anchor is hidden. Default is <code>false</code>. If <code>true</code>, script anchors stay hidden even if the shape is otherwise visible. A script anchor is the visual representation of a script that when displayed in an application.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:userhidden="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>wrapcoords (Shape Bounding Polygon)</p>	<p>Specifies the bounding polygon that surrounds a shape. This is specified using a comma-delimited list of x and y coordinates: "x1,y1,x2,y2,x3,y3,..." This is used when text is tightly wrapped around a shape. Default is no value until the <code>mso-wrap-mode</code> style attribute is set to <code>tight</code> or <code>through</code>.</p> <p>[Example:</p> <pre>&lt;v:shape ...   wrapcoords="0,0 0,200, 200,200, 200,0" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>



[Note: The W3C XML Schema definition of this element's content model ([CT\\_Shapetype](#)) is located in §A.7.1. *end note*]

### 19.1.2.21 stroke (Line Stroke Settings)

This element describes how to draw the path if something beyond solid line with a solid color is desired. The attributes of the stroke element can be used to describe a powerful set of stroke properties. Extensions to the VML stroke definition are encoded as sub-elements of stroke.

[Example:



```
<v:polyline points="0pt,0pt,50pt,0pt,50pt,35pt,15pt,35pt,
  15pt,15pt,75pt,15pt">
  <v:stroke startarrow="classic" endarrow="classic"
    startarrowwidth="wide" endarrowwidth="wide" dashstyle="dashdot"
    weight="2pt" color="teal" linestyle="thinThin"/>
</v:polyline>
```





*end example]*

Attributes	Description
<b>althref</b> (Alternate Image Reference)  Namespace: urn:schemas-microsoft-com:office:office	Specifies an alternate reference for an image in Macintosh PICT format.  [Example: <pre>&lt;v:stroke ... althref="myimage.pcz" ... &gt; &lt;/v:stroke&gt;</pre> <i>end example]</i>  The possible values for this attribute are defined by the W3C XML Schema string datatype.
<b>color</b> (Stroke Color)	Specifies the stroke color. Overrides the strokecolor attribute of a shape. Default is black. See the fillcolor attribute for a list of supported named colors.  [Example: The shape stroke is blue: <pre>&lt;v:shape ... strokecolor="red" ... &gt;   &lt;v:stroke color="blue"/&gt; &lt;/v:shape&gt;</pre> <i>end example]</i>

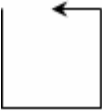



Attributes	Description
	The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).
color2 (Stroke Alternate Pattern Color)	<p>Specifies a second color for strokes, used when filltype is pattern. Default is no value.</p> <p>When a pattern fill is used for the stroke, the stroke color is used in colored parts of the source image. The color2 defines an alternate color to use in place of black in the source image.</p> <p>[Example: This unusual example is intended to demonstrate how the image and colors interact to create a patterned stroke. The yellow background shows transparency. The non-square shape and square image create an effective offset. The heavy stroke weight shows more of the image. The green shape fill shows how the stroke is overlaid on the shape.</p> <pre> &lt;v:background fillcolor="yellow"/&gt; &lt;v:shape style="width:60;height:50"   strokecolor="red" fillcolor="lime"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:stroke filltype="pattern" weight="10pt"     src="myimage.gif" color2="blue"/&gt; &lt;/v:shape&gt; </pre>  <p>, where myimage.gif is: </p> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
dashstyle (Stroke Dash Pattern)	<p>Specifies the dot and dash pattern for a stroke. Default is solid. Pre-defined values are:</p> <ul style="list-style-type: none"> <li>• solid</li> <li>• shortdash</li> <li>• shortdot</li> <li>• shortdashdot</li> <li>• shortdashdotdot</li> <li>• dot</li> <li>• dash</li> <li>• longdash</li> <li>• dashdot</li> <li>• longdashdot</li> </ul>

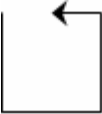



Attributes	Description
	<ul style="list-style-type: none"> <li>• <code>longdashdotdot</code></li> </ul> <p>A custom-defined dash pattern can also be specified using a series of numbers. These define the length of the dash (the drawn part of the stroke) and the length of the space between the dashes. The lengths are relative to the line width: a length of 1 is equal to the line width. The endcap style is applied to each dash but the arrow style is not. The string defines the length of the dash then the length of the space. This can be repeated to form complex dash styles. The string should always contain a pair of numbers; if it contains an odd number of numbers the last is disregarded. 0 implies a dot that is fourfold symmetrical (with round end caps, this is a circle).</p> <p>[Example:</p> <pre>&lt;v:stroke dashstyle="0 2" weight="3pt"   endcap="round"&gt; &lt;/v:stroke&gt;</pre>  <pre>&lt;v:stroke dashstyle="longdashdotdot"   weight="2pt"&gt; &lt;/v:stroke&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
endarrow (Line End Arrowhead)	<p>Specifies an arrowhead for the end of a line. Default is none. The path shall not be closed with the x command for the arrowhead to show. Allowed values are:</p> <ul style="list-style-type: none"> <li>• none</li> <li>• block</li> <li>• classic</li> <li>• diamond</li> <li>• oval</li> <li>• open</li> </ul> <p>[Example:</p>





Attributes	Description
	<p>&lt;v:stroke endarrow="classic"/&gt;</p>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowType simple type (§19.1.3.8).</p>
<p>endarrowlength (Line End Arrowhead Length)</p>	<p>Specifies the length of the arrowhead at the end of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• short</li> <li>• medium</li> <li>• long</li> </ul> <p>[Example:</p> <p>&lt;v:stroke ... endarrowlength="long" ... /&gt;</p>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowLength simple type (§19.1.3.7).</p>
<p>endarrowwidth (Line End Arrowhead Width)</p>	<p>Specifies the width of the arrowhead at the end of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• narrow</li> <li>• medium</li> <li>• wide</li> </ul> <p>[Example:</p> <p>&lt;v:stroke ... endarrowwidth="wide" ... /&gt;</p>




Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowWidth simple type (§19.1.3.9).</p>
endcap (Line End Cap)	<p>Specifies the cap style for the end of a stroke. Default is <code>flat</code>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <code>flat</code></li> <li>• <code>square</code></li> <li>• <code>round</code></li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... endcap="round" weight="10pt" ... /&gt;</pre> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>endcap="flat"</p> <p>endcap="square"</p> <p>endcap="round"</p> </div> </div> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeEndCap simple type (§19.1.3.10).</p>
filltype (Stroke Image Style)	<p>Specifies the kind of fill used for the background of a stroke. Default is <code>solid</code>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <code>solid</code> - The fill pattern is solid.</li> <li>• <code>tile</code> - The fill image is tiled.</li> <li>• <code>pattern</code> - The fill image is stretched to form a pattern.</li> <li>• <code>frame</code> - The fill image becomes a border for the shape.</li> </ul> <p>[Example:</p>







Attributes	Description
	<pre> &lt;v:shape style="width:50;height:50"   strokecolor="red"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:stroke filltype="frame" weight="10pt"     src="border.gif"/&gt; &lt;/v:shape&gt; </pre>   <p>, where border.gif is:</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_FillType simple type (§19.1.3.4).</p>
<p><b>forcedash</b> (Force Dashed Outline)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies whether a dashed outline is used to draw a shape when a shape has no line or fill. Default is <code>false</code>.</p> <p>Used by PresentationML placeholders to draw a dashed outline when there is no line and no fill for a shape.</p> <p>[Example:</p> <pre> &lt;v:shape ... o:forcedash="true" ... &gt; &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p><b>href</b> (Original Image Reference)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the URL to the original image file. Used only if the picture has been linked and embedded. Default is no value.</p> <p>[Example:</p> <pre> &lt;v:fill ... o:href="myimage.gif" ... &gt; &lt;/v:fill&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p><b>id</b> (Relationship)</p>	<p>Specifies the relationship ID of the relationship to the image used for the stroke. The specified relationship shall be of type</p>




Attributes	Description
Namespace: .../officeDocument /2006/relationships	<p>http://schemas.openxmlformats.org/officeDocument/2006/relationships/image or the document shall be considered non-conformant.</p> <p>[Example: The markup specifies the associated relationship part with relationship ID rId10 contains the corresponding relationship information:</p> <pre>&lt; ... r:id="rId10" /&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>
id (Unique Identifier)	<p>Specifies a unique identifier that can be used to reference a VML object.</p> <p>Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
imagealignshape (Stoke Image Alignment)	<p>Specifies the alignment of the stroke image. If true, the image is aligned with the shape. Otherwise, it is aligned with the containing scope. Default is true.</p> <p>[Example: The top position offset shifts the image alignment relative to the containing window:</p> <pre>&lt;v:shape fillcolor="silver"   style="top:20;width:50;height:50"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:stroke imagealignshape="false" weight="20pt"     filltype="tile" src="myimage.gif"/&gt; &lt;/v:shape&gt;</pre>  <p><i>imagealignshape="false"</i></p>





Attributes	Description								
	<div></div> <div>imagealignshape="false"</div> <div>end example]</div> <div>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</div>								
imageaspect (Stroke Image Aspect Ratio)	<div>Specifies how the stroke image aspect ratio is preserved. Default is ignore. Allowed values are:</div> <table><tr><th>Value</th><th>Description</th></tr><tr><td>ignore</td><td>Ignore aspect issues.</td></tr><tr><td>atleast</td><td>Image is at least as big as imagesize.</td></tr><tr><td>atmost</td><td>Image is no bigger than imagesize.</td></tr></table> <div>[Example:</div> <div>&lt;v:stroke filltype="frame" weight="10pt" src="border.gif" imagealignshape="true" imageaspect="atleast"&gt; &lt;/v:stroke&gt;</div> <div><div></div><div>imagealignshape="ignore"</div><div></div><div>imagealignshape="atleast"</div><div></div><div>imagealignshape="atmost"</div></div> <div>end example]</div> <div>The possible values for this attribute are defined by the ST_ImageAspect simple type (§19.1.3.5).</div>	Value	Description	ignore	Ignore aspect issues.	atleast	Image is at least as big as imagesize.	atmost	Image is no bigger than imagesize.
Value	Description								
ignore	Ignore aspect issues.								
atleast	Image is at least as big as imagesize.								
atmost	Image is no bigger than imagesize.								
imagesize (Stroke Image Size)	<div>Specifies the size of the image for the stroke. Default is the size of the image.</div>								

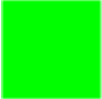



Attributes	Description
	<p>[Example:</p> <pre>&lt;v:stroke ... imagesize="10pt,10pt" ... /&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
insetpen (Inset Border From Path)	<p>Specifies that the border shall be displayed inside of the path defining the shape, rather than along the path (the default border placement), or outside of the path as might be done with an image.</p> <p>[Example:</p> <pre>&lt;v:shape ... insetpen="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
joinstyle (Line End Join Style)	<p>Specifies the join style for line ends. Default is round.</p> <ul style="list-style-type: none"> <li>• round</li> <li>• bevel</li> <li>• miter</li> </ul> <p>[Example:</p> <pre>&lt;v:polyline strokeweight="10pt" strokecolor="navy"   points="10pt,10pt,50pt,50pt,90pt,10pt"&gt;   &lt;v:stroke joinstyle="bevel"/&gt; &lt;/v:polyline&gt;</pre> <div style="display: flex; align-items: center; margin-top: 20px;">  <div style="margin-left: 20px;"> <p>joinstyle="round"</p> <p>joinstyle="bevel"</p> <p>joinstyle="miter"</p> </div> </div> <p>end example]</p>

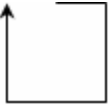


Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeJoinStyle simple type (§19.1.3.11).</p>
<p>linestyle (Stroke Line Style)</p>	<p>Specifies the line style of the stroke. Default is single.</p> <ul style="list-style-type: none"> <li>• single</li> <li>• thinThin</li> <li>• thinThick</li> <li>• thickThin</li> <li>• thickBetweenThin</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke linestyle="thickThin" weight="5pt"&gt; &lt;/v:stroke&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeLineStyle simple type (§19.1.3.12).</p>
<p>miterlimit (Miter Joint Limit)</p>	<p>Specifies the smoothness of the miter joint, or the maximum distance between the inner point and outer point of a joint. This number is a multiple of the thickness of the line. Default is 8.</p> <p>[Example:</p> <pre>&lt;v:stroke joinstyle="miter" weight="10pt"   miterlimit="2"&gt; &lt;/v:stroke&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema decimal datatype.</p>
<p>on (Stroke Toggle)</p>	<p>Specifies whether the stroke is displayed. Default is true. This attribute overrides the</p>


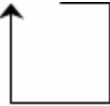


Attributes	Description
	<p>shape's stroke attribute.</p> <p>[Example:</p> <pre>&lt;v:rect style="width:50;height:50" stroked="true"   fillcolor="lime" strokecolor="red"&gt;   &lt;v:stroke on="false" weight="5pt"/&gt; &lt;/v:rect&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
opacity (Stroke Opacity)	<p>Specifies the amount of transparency of a stroke. Default is 1.0.</p> <p>[Example:</p> <pre>&lt;v:rect style="width:50;height:50"   fillcolor="lime" strokecolor="red"&gt;   &lt;v:stroke weight="5pt" opacity="50%"/&gt; &lt;/v:rect&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>relid (Relationship to Part)</p> <p>Namespace: urn:schemas-microsoft-com:office:office</p>	<p>Specifies the relationship ID of the relationship to the image. The specified relationship shall be of type <a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships/image">http://schemas.openxmlformats.org/officeDocument/2006/relationships/image</a> or the document shall be considered non-conformant.</p> <p>[Example: The markup specifies the associated relationship part with relationship ID rId10 contains the corresponding relationship information:</p> <pre>&lt;v:stroke ... o:relid="rId10" ...&gt; &lt;/v:stroke&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>
<p>src (Stroke Image Location)</p>	<p>Specifies the source image to load for a stroke fill. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:stroke ... src="myimage.gif" ... &gt; &lt;/v:stroke&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>startarrow (Line Start Arrowhead)</p>	<p>Specifies an arrowhead for the start of a line. Default is none. The path shall not be closed with the x command for the arrowhead to show. Allowed values are:</p> <ul style="list-style-type: none"> <li>• none</li> <li>• block</li> <li>• classic</li> <li>• diamond</li> <li>• oval</li> <li>• open</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke startarrow="classic"/&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowType simple type (§19.1.3.8).</p>
<p>startarrowlength (Line Start Arrowhead Length)</p>	<p>Specifies the length of the arrowhead at the start of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• short</li> <li>• medium</li> <li>• long</li> </ul>



Attributes	Description
	<p>[Example:</p> <pre>&lt;v:stroke ... startarrowlength="long" ... /&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_StrokeArrowLength simple type (§19.1.3.7).</p>
<p>startarrowwidth (Line Start Arrowhead Width)</p>	<p>Specifies the width of the arrowhead at the start of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• narrow</li> <li>• medium</li> <li>• wide</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... startarrowwidth="wide" ... /&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_StrokeArrowWidth simple type (§19.1.3.9).</p>
<p>title (Stroke Title)</p> <p>Namespace: urn:schemas- microsoft- com:office:office</p>	<p>Specifies the title of an embedded stroke image. This is typically set to the comment property of the image, which is often blank.</p> <p>[Example:</p> <pre>&lt;v:fill ... o:title="alt text" ... &gt; &lt;/v:fill&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>



Attributes	Description
weight (Stroke Weight)	<p>Specifies the thickness of a stroke. Default is 1. This attribute overrides the shape's strokeweight attribute.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Stroke](#)) is located in §A.7.1. *end note*]

19.1.2.22      [textbox \(Text Box\)](#)

This element is used to define text that appears inside the shape. This text can contain rich formatting and is rendered to fit inside the textboxrect defined by the path element (§19.1.2.14).

[Example:


```
<v:shape style="width=200;height=200" coordsize="400,400"
  fillcolor="yellow" strokecolor="maroon"
  path="m 119,0 l 148,86 238,86 166,140 192,226 119,175 46,226
72,140 0,86 90,86 x e">
  <v:textbox inset="32pt,35pt,, ">VML</v:textbox>
</v:shape>
```



*end example]*

Attributes	Description
id (Unique Identifier)	<p>Specifies a unique identifier that can be used to reference a VML object.</p> <p>Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p>



Attributes	Description
inset (Text Box Inset)	<p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p> <p>Specifies inner margin values for textbox text. Default is "0.1in, 0.05in, 0.1in, 0.05in". Missing values are set to the default. This is used if insetmode is custom.</p> <p>The internal text margin value is specified as a string containing four values, each separated by commas or spaces. The values measure inset from the left, top, right, and bottom edges of the box specified by the textboxrect attribute of the path element (§19.1.2.14).</p> <p>[Example: The text is set toward the lower right of a small square:</p> <pre>&lt;v:textbox inset="20pt,30pt,10pt,10pt"&gt;   VML&lt;/v:textbox&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
insetmode (Text Inset Mode)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether the application calculates the internal text margin instead of using the inset attribute. Default is custom.</p> <p>[Example:</p> <pre>&lt;v:textbox ... o:insetmode="auto" ... &gt; &lt;/v:textbox&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_InsetMode simple type (§19.2.3.17).</p>
singleclick (Text Box Single-Click Selection Toggle)  Namespace: urn:schemas-microsoft-com:office:office	<p>Specifies whether text is selectable with a single click. Default is false.</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>



Attributes	Description								
style (Shape Styling Properties)	<p>Specifies the CSS2 styling properties of the shape. The CSS2 (Cascading Style Sheets, Level 2) specification, a Recommendation of the World Wide Web Consortium, is available here: <a href="http://www.w3.org/TR/REC-CSS2">http://www.w3.org/TR/REC-CSS2</a>.</p> <p>This attribute uses a semi-colon delimited list of “name:value” pairs, the syntax defined by section 4.1.8 of the CSS2 specification for grouped declarations (without the surrounding braces). The following tables define the allowed properties and the VML treatment of each.</p> <p>[Example:     &lt;v:shape ... style='position:absolute;width:100pt;height:50pt' ...     &gt;     &lt;/v:shape&gt; end example]</p> <table><tr><th>Property</th><th>Description</th></tr><tr><td>flip</td><td><p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p><ul style="list-style-type: none"><li>• x - Flip along the y-axis, reversing the x-coordinates.</li><li>• y - Flip along the x-axis, reversing the y-coordinates.</li><li>• xy - Flip along both the y- and x-axis.</li><li>• yx - Flip along both the x- and y-axis.</li></ul></td></tr><tr><td>height</td><td><p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p><ul style="list-style-type: none"><li>• auto - Default position of an element in the flow of the page.</li><li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li><li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li></ul></td></tr><tr><td>left</td><td><p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p><ul style="list-style-type: none"><li>• auto - Default position of an element in the flow of the page.</li><li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or</li></ul></td></tr></table>	Property	Description	flip	<p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"><li>• x - Flip along the y-axis, reversing the x-coordinates.</li><li>• y - Flip along the x-axis, reversing the y-coordinates.</li><li>• xy - Flip along both the y- and x-axis.</li><li>• yx - Flip along both the x- and y-axis.</li></ul>	height	<p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"><li>• auto - Default position of an element in the flow of the page.</li><li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li><li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li></ul>	left	<p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"><li>• auto - Default position of an element in the flow of the page.</li><li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or</li></ul>
Property	Description								
flip	<p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"><li>• x - Flip along the y-axis, reversing the x-coordinates.</li><li>• y - Flip along the x-axis, reversing the y-coordinates.</li><li>• xy - Flip along both the y- and x-axis.</li><li>• yx - Flip along both the x- and y-axis.</li></ul>								
height	<p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"><li>• auto - Default position of an element in the flow of the page.</li><li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li><li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li></ul>								
left	<p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"><li>• auto - Default position of an element in the flow of the page.</li><li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or</li></ul>								



Attributes	Description	
		<p>ex). If no units are given, pixels (px) is assumed.</p> <ul style="list-style-type: none"> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-bottom	<p>Specifies the position of the bottom of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	margin-left	<p>Specifies the position of the left of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-right	<p>Specifies the position of the right of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-top	<p>Specifies the position of the top of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	mso-position-horizontal	<p>Specifies the horizontal positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• left</li> <li>• center</li> <li>• right</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-horizontal-relative	<p>Specifies relative horizontal position data for objects in WordprocessingML documents. This modifies the mso-position-horizontal property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• char</li> </ul>
	mso-position-vertical	<p>Specifies the vertical positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• top</li> <li>• center</li> <li>• bottom</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-vertical-relative	<p>Specifies relative vertical position data for objects in WordprocessingML documents. This modifies the mso-position-vertical property. Default is text. Allowed values are:</p>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• line</li> </ul>
	mso-wrap-distance-bottom	Specifies the distance from the bottom of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-left	Specifies the distance from the left side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-right	Specifies the distance from the right side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-top	Specifies the distance from the top of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-edited	Specifies whether the wrap coordinates were customized by the user. If the wrap coordinates are generated by an editor, this property is true; otherwise they were customized by a user. Default is false.
	mso-wrap-style	<p>Specifies the wrapping mode for text in shapes in WordprocessingML documents. Default is square. Allowed values are:</p> <ul style="list-style-type: none"> <li>• square - Wraps text inside the shape in a square.</li> <li>• none - Text does not wrap.</li> </ul>
	position	<p>Specifies the kind of positioning used to place an element. Default is static. When the element is contained inside a group, this property shall be absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• static - The element is positioned according to the normal flow of the page. The top and left properties are ignored. If the object is anchored inline, this value is used.</li> <li>• absolute - The element is positioned relative to the</li> </ul>



Attributes	Description	
		<p>parent, using the top and left properties.</p> <ul style="list-style-type: none"> <li>• <b>relative</b> - The element is positioned according to the normal flow of the page, but the top and left properties are used. The overlap of overlapping elements is governed by the z-index property.</li> </ul>
	rotation	<p>Specifies the angle that a shape is rotated, in degrees. Default is 0. Positive angles are clockwise.</p>
	top	<p>Specifies the position of the top of the containing block of the shape relative to the element above it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <b>auto</b> - Default position of an element in the flow of the page.</li> <li>• <b>&lt;units&gt;</b>- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• <b>&lt;percentage&gt;</b>- Value expressed as a percentage of the parent object's height.</li> </ul>
	visibility	<p>Specifies whether a shape is displayed. Only inherit and hidden are used; any other values are mapped to inherit. Default is inherit. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <b>hidden</b> - The shape is not visible, but is still part of the flow of the objects in the browser. Mouse events are not processed.</li> <li>• <b>inherit</b> - The visibility state is inherited from the parent of the shape.</li> </ul>
	width	<p>Specifies the width of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <b>auto</b> - Default position of an element in the flow of the page.</li> <li>• <b>&lt;units&gt;</b>- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• <b>&lt;percentage&gt;</b>- Value expressed as a percentage of the parent object's width.</li> </ul>
	z-index	<p>Specifies the display order of overlapping shapes. Default is 0. This property shall not be used for shapes anchored inline. Allowed values are:</p>



Attributes	Description	
		<ul style="list-style-type: none"><li>• auto - Uses the order that the shapes appear in the page, bottom to top.</li><li>• &lt;order&gt;- A number that represents the stacking precedence. Shapes with higher numbers are placed on top of those with lower numbers. Negative numbers are allowed.</li></ul>
	The following properties are only used by the textbox element (§19.1.2.22):	
	Property	Description
	direction	<p>Specifies the direction of the text in the textbox. Default is ltr. This property is superceded by the mso-direction-alt property if that is specified. Allowed values are:</p> <ul style="list-style-type: none"><li>• ltr - Text is displayed left-to-right.</li><li>• rtl - Text is displayed right-to-left.</li></ul>
	layout-flow	<p>Determines the flow of the text layout in a textbox. Default is horizontal. Allowed values are:</p> <ul style="list-style-type: none"><li>• horizontal - Text is displayed horizontally.</li><li>• vertical - Text is displayed vertically.</li><li>• vertical-ideographic - Ideographic text is displayed vertically.</li><li>• horizontal-ideographic - Ideographic text is displayed horizontally.</li></ul>
	mso-direction-alt	<p>Specifies an alternate direction for text in textboxes. Overrides the direction property. The only allowed value is context.</p>
	mso-fit-shape-to-text	<p>Specifies whether the shape stretches to fit the text in the textbox. Default is false.</p>
	mso-fit-text-to-shape	<p>Specifies whether the text stretches to fit the textbox. Default is false.</p>
	mso-layout-flow-alt	<p>Specifies the alternate layout flow for text in textboxes. This property is used instead of layout-flow when the layout flow is from bottom to top for non-ideographic languages. Its only value is bottom-to-top.</p>
mso-next-	<p>Specifies the ID of the next textbox in a series. Used to keep track of a set of linked textboxes. Default is no value.</p>	



Attributes	Description	
	textbox	
	mso-rotate	<p>Specifies a specific rotation value for text in a textbox. Default is 0. Allowed values are:</p> <ul style="list-style-type: none"> <li>• 0</li> <li>• 90</li> <li>• 180</li> <li>• -90</li> </ul>
	mso-text-scale	<p>Specifies the scaling factor for fitting text to shapes. Default is 0. This property is only used if <code>mso-fit-text-to-shape</code> is true.</p>
	v-text-anchor	<p>Specifies the vertical anchoring of text in a textbox. Default is top. The alignment of a text anchor only becomes evident if <code>mso-fit-text-to-shape</code> is false. This property is different from the <code>vertical-align</code> CSS property, which is used for ideographic languages. Allowed values are:</p> <ul style="list-style-type: none"> <li>• top</li> <li>• middle</li> <li>• bottom</li> <li>• top-center</li> <li>• middle-center</li> <li>• bottom-center</li> <li>• top-baseline</li> <li>• bottom-baseline</li> <li>• top-center-baseline</li> <li>• bottom-center-baseline</li> </ul>
<p>The following properties are only used by the <code>textpath</code> element (§19.1.2.23):</p>		
Property	Description	
font	<p>Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS <code>font</code> property. The order of definitions in the string is: <code>font-style</code>, <code>font-variant</code>, <code>font-weight</code>, <code>font-size</code>, <code>line-height</code>, <code>font-family</code>.</p>	
font-family	<p>Specifies the family of the font. Default is no value. The values are the same as those of the CSS <code>font-family</code> property.</p>	
font-size	<p>Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS <code>font-size</code> property.</p>	
font-style	<p>Specifies the amount of slant for a font. Default is <code>normal</code>. The values are the same as those of the CSS <code>font-style</code> property.</p>	



Attributes	Description																		
		Allowed values are: <ul style="list-style-type: none"><li>normal</li><li>italic</li><li>oblique - Treated the same as italic.</li></ul>																	
	font-variant	Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are: <ul style="list-style-type: none"><li>normal</li><li>small-caps</li></ul>																	
	font-weight	Specifies the thickness of the letters of the font. Default is normal. The values are the same as those of the CSS font-weight property. Allowed values are: <table><tr><th>Value</th><th>Description</th></tr><tr><td>normal</td><td rowspan="6">Treated as non-bold.</td></tr><tr><td>lighter</td></tr><tr><td>100</td></tr><tr><td>200</td></tr><tr><td>300</td></tr><tr><td>400</td></tr><tr><td>bold</td><td rowspan="7">Treated as bold.</td></tr><tr><td>bolder</td></tr><tr><td>500</td></tr><tr><td>600</td></tr><tr><td>700</td></tr><tr><td>800</td></tr><tr><td>900</td></tr></table>	Value	Description	normal	Treated as non-bold.	lighter	100	200	300	400	bold	Treated as bold.	bolder	500	600	700	800	900
	Value	Description																	
	normal	Treated as non-bold.																	
lighter																			
100																			
200																			
300																			
400																			
bold	Treated as bold.																		
bolder																			
500																			
600																			
700																			
800																			
900																			
mso-text-shadow	Specifies whether a shadow is applied to the text on a text path. Default is false.																		
text-decoration	Specifies the style of text decoration. Default is none. The values are the same as those of the CSS text-decoration property. Allowed values are:																		



Attributes	Description	
		<ul style="list-style-type: none"> <li>• none</li> <li>• underline</li> <li>• overline</li> <li>• line-through</li> <li>• blink</li> </ul>
	v-rotate-letters	Specifies whether the letters of the text are rotated counterclockwise by 90 degrees. Default is false.
	v-same-letter-heights	Specifies whether all letters are the same height regardless of initial case. If true, the lowercase letters are stretched to the height of the uppercase letters. Default is false.
	v-text-align	<p>Specifies the alignment of text. Default is left. Allowed values are:</p> <ul style="list-style-type: none"> <li>• left</li> <li>• right</li> <li>• center</li> <li>• justify</li> <li>• letter-justify - Distributes the extra space between the letters.</li> <li>• stretch-justify - Stretches the letters to fill in the space.</li> </ul>
	v-text-kern	Specifies whether kerning is turned on. Default is false.
	v-text-reverse	Specifies whether the layout order of rows is reversed. Default is false. This is used for vertical text layout.
	v-text-spacing-mode	<p>Specifies the mode for letter spacing. Default is tightening. This property determines whether space is removed between each letter (tightening) or added between each letter (tracking). The amount of letter spacing change is defined by the v-text-spacing property. Allowed values are:</p> <ul style="list-style-type: none"> <li>• tightening</li> <li>• tracking</li> </ul>
	v-text-spacing	Specifies the amount of spacing for text in 100ths of single line spacing. Default is 100.
<p>The line (§19.1.2.12), polyline (§19.1.2.15) and curve (§19.1.2.3) elements ignore the following properties:</p> <ul style="list-style-type: none"> <li>• top</li> <li>• left</li> </ul>		



Attributes	Description
	<ul style="list-style-type: none"> <li>• width</li> <li>• height</li> </ul> <p>The following properties are not inherited by an element that references a shapetype element (§19.1.2.20) via the id attribute:</p> <ul style="list-style-type: none"> <li>• flip</li> <li>• height</li> <li>• left</li> <li>• margin-left</li> <li>• margin-top</li> <li>• position</li> <li>• rotation</li> <li>• top</li> <li>• visibility</li> <li>• width</li> <li>• z-index</li> </ul> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Textbox](#)) is located in §A.7.1. *end note*]

### 19.1.2.23 `textpath` (Text Layout Path)

This element is used to define a vector path based on the text data, font and font styles supplied. The path which results is then mapped into the region defined by the `v` attribute of the shape's path (§19.1.2.14).








[Example:

```
<v:curve from="50,100" to="400,100"
  control1="200,200" control2="300,200">
  <v:stroke color="blue"/>
  <v:fill color="yellow" color2="green" type="gradient"/>
  <v:path textpathok="true"/>
  <v:textpath on="true" style="font:normal normal normal 36pt Arial"
    fitpath="true" string="Hello, VML!"/>
</v:curve>
```

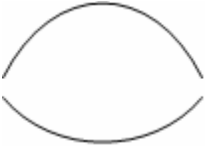



Hello, VML!

end example]

Attributes	Description				
fitpath (Path Fit Toggle)	<p>Specifies whether the text fits the path of a shape. If true, sizes the text to fill the path it lies out on. Default is false.</p> <p>[Example:</p> <pre>&lt;v:textpath on="true" fitpath="true"   string="VML"&gt; &lt;/v:textpath&gt;</pre> <table><tr><td></td><td>fitpath="true"</td></tr><tr><td></td><td>fitpath="false"</td></tr></table> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>		fitpath="true"		fitpath="false"
	fitpath="true"				
	fitpath="false"				
fitshape (Shape Fit Toggle)	<p>Specifies whether the text fits the bounding box of a shape. If true, the text is stretched out to the edges of the box that defines the entire shape. Default is false.</p> <p>[Example: When fitshape is false, the text is drawn along the first part of the path. When true, the text is stretched to fit the entire enclosed area of the shape.</p> <pre>&lt;v:shape style="width:100;height:100"   path="m 0,500 c 250,0 750,0 1000,500 e   m 0,600 c 250,900 750,900 1000,600 e"   fillcolor="yellow" strokecolor="maroon"&gt;   &lt;v:path textpathok="t"/&gt;   &lt;v:textpath on="t" fitshape="t" string="VML"/&gt; &lt;/v:shape&gt;</pre> 				



Attributes	Description
	<p>The raw path stroke is:</p>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
id (Unique Identifier)	<p>Specifies a unique identifier that can be used to reference a VML object.</p> <p>Default is no value.</p> <p>[Example:</p> <pre>&lt;v:shape ... id="myShape" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
on (Text Path Toggle)	<p>Specifies whether the text is displayed on the textpath. Default is false. The textpathok attribute of the path element (§19.1.2.14) overrides this.</p> <p>[Example:</p> <pre>&lt;v:line from="50,100" to="100,100"&gt;   &lt;v:path textpathok="false"/&gt;   &lt;v:textpath on="true" string="VML"/&gt; &lt;/v:line&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
string (Text Path Text)	<p>Specifies the text of the text path. Default is no value.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
style (Shape Styling Properties)	<p>Specifies the CSS2 styling properties of the shape. The CSS2 (Cascading Style Sheets, Level 2) specification, a Recommendation of the World Wide Web Consortium, is available</p>



Attributes	Description								
	<p>here: <a href="http://www.w3.org/TR/REC-CSS2">http://www.w3.org/TR/REC-CSS2</a>.</p> <p>This attribute uses a semi-colon delimited list of “name:value” pairs, the syntax defined by section 4.1.8 of the CSS2 specification for grouped declarations (without the surrounding braces). The following tables define the allowed properties and the VML treatment of each.</p> <p>[Example:  <code>&lt;v:shape ... style='position:absolute;width:100pt;height:50pt' ...</code>  <code>&gt;</code>  <code>&lt;/v:shape&gt;</code>  <i>end example]</i></p> <table> <tr> <th>Property</th><th>Description</th></tr> <tr> <td>flip</td><td> <p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul> </td></tr> <tr> <td>height</td><td> <p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul> </td></tr> <tr> <td>left</td><td> <p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the</li> </ul> </td></tr> </table>	Property	Description	flip	<p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul>	height	<p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>	left	<p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the</li> </ul>
Property	Description								
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height	<p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>								
left	<p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the</li> </ul>								



Attributes	Description	
		parent object's width.
	margin-bottom	<p>Specifies the position of the bottom of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	margin-left	<p>Specifies the position of the left of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-right	<p>Specifies the position of the right of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-top	<p>Specifies the position of the top of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> </ul>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	mso-position-horizontal	<p>Specifies the horizontal positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• left</li> <li>• center</li> <li>• right</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-horizontal-relative	<p>Specifies relative horizontal position data for objects in WordprocessingML documents. This modifies the mso-position-horizontal property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• char</li> </ul>
	mso-position-vertical	<p>Specifies the vertical positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• top</li> <li>• center</li> <li>• bottom</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-vertical-relative	<p>Specifies relative vertical position data for objects in WordprocessingML documents. This modifies the mso-position-vertical property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> </ul>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• text</li> <li>• line</li> </ul>
	mso-wrap-distance-bottom	Specifies the distance from the bottom of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-left	Specifies the distance from the left side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-right	Specifies the distance from the right side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-distance-top	Specifies the distance from the top of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.
	mso-wrap-edited	Specifies whether the wrap coordinates were customized by the user. If the wrap coordinates are generated by an editor, this property is true; otherwise they were customized by a user. Default is false.
	mso-wrap-style	<p>Specifies the wrapping mode for text in shapes in WordprocessingML documents. Default is square. Allowed values are:</p> <ul style="list-style-type: none"> <li>• square - Wraps text inside the shape in a square.</li> <li>• none - Text does not wrap.</li> </ul>
	position	<p>Specifies the kind of positioning used to place an element. Default is static. When the element is contained inside a group, this property shall be absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• static - The element is positioned according to the normal flow of the page. The top and left properties are ignored. If the object is anchored inline, this value is used.</li> <li>• absolute - The element is positioned relative to the parent, using the top and left properties.</li> <li>• relative - The element is positioned according to the</li> </ul>



Attributes	Description	
		normal flow of the page, but the top and left properties are used. The overlap of overlapping elements is governed by the z-index property.
	rotation	Specifies the angle that a shape is rotated, in degrees. Default is 0. Positive angles are clockwise.
	top	<p>Specifies the position of the top of the containing block of the shape relative to the element above it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	visibility	<p>Specifies whether a shape is displayed. Only inherit and hidden are used; any other values are mapped to inherit. Default is inherit. Allowed values are:</p> <ul style="list-style-type: none"> <li>• hidden - The shape is not visible, but is still part of the flow of the objects in the browser. Mouse events are not processed.</li> <li>• inherit - The visibility state is inherited from the parent of the shape.</li> </ul>
	width	<p>Specifies the width of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	z-index	<p>Specifies the display order of overlapping shapes. Default is 0. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Uses the order that the shapes appear in the page,</li> </ul>



Attributes	Description	
		<div>bottom to top.</div> <ul style="list-style-type: none"><li>&lt;order&gt;- A number that represents the stacking precedence. Shapes with higher numbers are placed on top of those with lower numbers. Negative numbers are allowed.</li></ul>
	The following properties are only used by the textbox element (§19.1.2.22):	



Attributes	Description											
	mso-rotate	Specifies a specific rotation value for text in a textbox. Default is 0. Allowed values are: <ul style="list-style-type: none"><li>• 0</li><li>• 90</li><li>• 180</li><li>• -90</li></ul>										
	mso-text-scale	Specifies the scaling factor for fitting text to shapes. Default is 0. This property is only used if mso-fit-text-to-shape is true.										
	v-text-anchor	Specifies the vertical anchoring of text in a textbox. Default is top. The alignment of a text anchor only becomes evident if mso-fit-text-to-shape is false. This property is different from the vertical-align CSS property, which is used for ideographic languages. Allowed values are: <ul style="list-style-type: none"><li>• top</li><li>• middle</li><li>• bottom</li><li>• top-center</li><li>• middle-center</li><li>• bottom-center</li><li>• top-baseline</li><li>• bottom-baseline</li><li>• top-center-baseline</li><li>• bottom-center-baseline</li></ul>										
The following properties are only used by the textpath element (§19.1.2.23):												
<table><tr><th>Property</th><th>Description</th></tr><tr><td>font</td><td>Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.</td></tr><tr><td>font-family</td><td>Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.</td></tr><tr><td>font-size</td><td>Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.</td></tr><tr><td>font-style</td><td>Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are:</td></tr></table>			Property	Description	font	Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.	font-family	Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.	font-size	Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.	font-style	Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are:
Property	Description											
font	Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.											
font-family	Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.											
font-size	Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.											
font-style	Specifies the amount of slant for a font. Default is normal. The values are the same as those of the CSS font-style property. Allowed values are:											





Attributes	Description																		
		<ul style="list-style-type: none"><li>normal</li><li>italic</li><li>oblique - Treated the same as italic.</li></ul>																	
	font-variant	<p>Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are:</p> <ul style="list-style-type: none"><li>normal</li><li>small-caps</li></ul>																	
	font-weight	<p>Specifies the thickness of the letters of the font. Default is normal. The values are the same as those of the CSS font-weight property. Allowed values are:</p> <table><tr><th>Value</th><th>Description</th></tr><tr><td>normal</td><td rowspan="6">Treated as non-bold.</td></tr><tr><td>lighter</td></tr><tr><td>100</td></tr><tr><td>200</td></tr><tr><td>300</td></tr><tr><td>400</td></tr><tr><td>bold</td><td rowspan="7">Treated as bold.</td></tr><tr><td>bolder</td></tr><tr><td>500</td></tr><tr><td>600</td></tr><tr><td>700</td></tr><tr><td>800</td></tr><tr><td>900</td></tr></table>	Value	Description	normal	Treated as non-bold.	lighter	100	200	300	400	bold	Treated as bold.	bolder	500	600	700	800	900
	Value	Description																	
	normal	Treated as non-bold.																	
lighter																			
100																			
200																			
300																			
400																			
bold	Treated as bold.																		
bolder																			
500																			
600																			
700																			
800																			
900																			
mso-text-shadow	<p>Specifies whether a shadow is applied to the text on a text path. Default is false.</p>																		
text-decoration	<p>Specifies the style of text decoration. Default is none. The values are the same as those of the CSS text-decoration property. Allowed values are:</p> <ul style="list-style-type: none"><li>none</li></ul>																		



Attributes	Description	
		<ul style="list-style-type: none"> <li>• underline</li> <li>• overline</li> <li>• line-through</li> <li>• blink</li> </ul>
	v-rotate-letters	Specifies whether the letters of the text are rotated counterclockwise by 90 degrees. Default is false.
	v-same-letter-heights	Specifies whether all letters are the same height regardless of initial case. If true, the lowercase letters are stretched to the height of the uppercase letters. Default is false.
	v-text-align	Specifies the alignment of text. Default is left. Allowed values are: <ul style="list-style-type: none"> <li>• left</li> <li>• right</li> <li>• center</li> <li>• justify</li> <li>• letter-justify - Distributes the extra space between the letters.</li> <li>• stretch-justify - Stretches the letters to fill in the space.</li> </ul>
	v-text-kern	Specifies whether kerning is turned on. Default is false.
	v-text-reverse	Specifies whether the layout order of rows is reversed. Default is false. This is used for vertical text layout.
	v-text-spacing-mode	Specifies the mode for letter spacing. Default is tightening. This property determines whether space is removed between each letter (tightening) or added between each letter (tracking). The amount of letter spacing change is defined by the v-text-spacing property. Allowed values are: <ul style="list-style-type: none"> <li>• tightening</li> <li>• tracking</li> </ul>
	v-text-spacing	Specifies the amount of spacing for text in 100ths of single line spacing. Default is 100.
	<p>The line (§19.1.2.12), polyline (§19.1.2.15) and curve (§19.1.2.3) elements ignore the following properties:</p> <ul style="list-style-type: none"> <li>• top</li> <li>• left</li> <li>• width</li> <li>• height</li> </ul>	



Attributes	Description
	<p>The following properties are not inherited by an element that references a shapetype element (§19.1.2.20) via the id attribute:</p> <ul style="list-style-type: none"> <li>• flip</li> <li>• height</li> <li>• left</li> <li>• margin-left</li> <li>• margin-top</li> <li>• position</li> <li>• rotation</li> <li>• top</li> <li>• visibility</li> <li>• width</li> <li>• z-index</li> </ul> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
trim (Text Path Trim Toggle)	<p>Specifies whether extra space is removed above and below the text. If true, space reserved for ascenders and descenders is removed. Default is false.</p> <p>[Example: The shape path is duplicated as a second shape and overlaid on the textpath for illustrative purposes:</p> <pre> &lt;v:shape style=" width:100;height:100"   path="m 0,500 c 250,0 750,0 1000,500 e   m 0,600 c 250,900 750,900 1000,600 e"   fillcolor="yellow" strokecolor="maroon"&gt;   &lt;v:path textpathok="true"/&gt;   &lt;v:textpath on="true" fitshape="true"     string="vml" trim="true"/&gt; &lt;/v:shape&gt; </pre> <div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 10px;">trim="true"</div> </div> <div style="display: flex; align-items: center; justify-content: center; margin-top: 10px;">  <div style="margin-left: 10px;">trim="false"</div> </div> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type</p>



Attributes	Description
	(§20.1.2.5).
xscale (Text X-Scaling)	Specifies whether a straight text path is used instead of the shape path. If <code>true</code> , the text runs along a path from left to right along the x value of the lower boundary of the shape. Default is <code>false</code> .  The possible values for this attribute are defined by the <code>ST_TrueFalse</code> simple type (§20.1.2.5).

[Note: The W3C XML Schema definition of this element's content model ([CT\\_TextPath](#)) is located in §A.7.1. *end note*]

### 19.1.3 Simple Types

The following additional simple type information in the `urn:schemas-microsoft-com:vml` namespace is used for documents of a transitional conformance class.

#### 19.1.3.1 ST\_EditAs (Shape Grouping Types)

This simple type specifies the different meanings of a group of shapes.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
bullseye (Bullseye Diagram)	Specifies that the group represents a bulls-eye diagram.
canvas (Shape Canvas)	Specifies that the group is a regular group and does not represent a diagram.
cycle (Cycle Diagram)	Specifies that the group represents a cycle diagram.
orgchart (Organization Chart Diagram)	Specifies that the group represents an organization chart.
radial (Radial Diagram)	Specifies that the group represents a radial diagram.
stacked (Pyramid Diagram)	Specifies that the group represents a pyramid diagram.
venn (Venn Diagram)	Specifies that the group represents a Venn diagram.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_EditAs](#)) is located in §A.7.1. *end note*]

#### 19.1.3.2 ST\_Ext (VML Extension Handling Behaviors)

This simple type specifies VML extension handling behaviors.

This simple type's contents are a restriction of the W3C XML Schema string datatype.







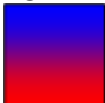
Enumeration Value	Description
backwardCompatible (Renderable)	Specifies that the VML entity may be rendered by ignoring the extension information. If edited, the extension information must be discarded.
edit (Editable)	Specifies that the VML entity may be safely rendered and edited without invalidating the extension information.
view (Not renderable)	Specifies that the VML entity is not be renderable without understanding the extension information. If the extension information cannot be understood, the downlevel image should be used to render the object.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_Ext](#)) is located in §A.7.1. *end note*]

### 19.1.3.3 ST\_FillMethod (Gradient Fill Computation Type)

This simple type specifies ways in which a gradient fill is computed.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
any (Application Default Fill)	Default blend 
linear (Linear Fill)	Linear blend 
linear sigma (Linear Sigma Fill)	Linear sigma blend 
none (No Gradient Fill)	No blend 
sigma (Sigma Fill)	Sigma blend 





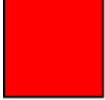



[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_FillMethod](#)) is located in §A.7.1.  
end note]

#### 19.1.3.4 ST\_FillType (Shape Fill Type)

This simple type specifies the types for fills applied to a shape.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
frame (Stretch Image to Fit)	The image is stretched to fill the shape. 
gradient (Linear Gradient)	The fill colors blend together in a linear gradient from bottom to top. 
gradientRadial (Radial Gradient)	The fill colors blend together in a radial gradient. 
pattern (Image Pattern)	The image is used to create a pattern using the fill colors. 
solid (Solid Fill)	The fill pattern is a solid color. 
tile (Tiled Image)	The fill image is tiled. 




[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_FillType](#)) is located in §A.7.1.  
end note]

#### 19.1.3.5 ST\_ImageAspect (Image Scaling Behavior)

This simple type specifies the scaling behaviors for an image applied to a stroke.

This simple type's contents are a restriction of the W3C XML Schema string datatype.



Enumeration Value	Description
atLeast (At Least)	Image is at least as big as imagesize. 
atMost (At Most)	Image is no bigger than imagesize. 
ignore (Ignore Aspect Ratio)	Ignore aspect issues. 

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_ImageAspect](#)) is located in §A.7.1. *end note*]

#### 19.1.3.6 ST\_ShadowType (Shadow Type)

This simple type specifies the types of shadows applied to a shape.

This simple type's contents are a restriction of the W3C XML Schema string datatype.


Enumeration Value	Description
double (Double Shadow)	Double shadow. color2 and offset2 are used for the second shadow's color and offset.
emboss (Embossed Shadow)	The shadow has an embossed look. Similar to double.
perspective (Perspective Shadow)	Perspective shadow.
single (Single Shadow)	Single shadow.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_ShadowType](#)) is located in §A.7.1. *end note*]



#### 19.1.3.7 ST\_StrokeArrowLength (Stroke Arrowhead Length)

This simple type specifies the lengths of a stroke arrowhead.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
long (Long Arrowhead)	Long length 









Enumeration Value	Description
medium (Medium Arrowhead)	Medium length 
short (Short Arrowhead)	Short length 

[*Note:* The W3C XML Schema definition of this simple type's content model ([ST\\_StrokeArrowLength](#)) is located in §A.7.1. *end note*]

### 19.1.3.8 ST\_StrokeArrowType (Stroke Arrowhead Type)

This simple type specifies the types of arrowhead for a stroke.

This simple type's contents are a restriction of the W3C XML Schema string datatype.



Enumeration Value	Description
block (Block Arrowhead)	Block arrowhead 
classic (Classic Arrowhead)	Classic curved arrowhead 
diamond (Diamond Arrowhead)	Diamond arrowhead 
none (No Arrowhead)	No arrowhead 
open (Open Arrowhead)	Open arrowhead 
oval (Oval Arrowhead)	Round arrowhead 

[*Note:* The W3C XML Schema definition of this simple type's content model ([ST\\_StrokeArrowType](#)) is located in §A.7.1. *end note*]


### 19.1.3.9 ST\_StrokeArrowWidth (Stroke Arrowhead Width)

This simple type specifies the widths of a stroke arrowhead.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
medium (Medium Arrowhead)	Medium width 
narrow (Narrow Arrowhead)	Narrow width 






Enumeration Value	Description
wide (Wide Arrowhead)	Wide width 

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_StrokeArrowWidth](#)) is located in §A.7.1. *end note*]

#### 19.1.3.10 ST\_StrokeEndCap (Stroke End Cap Type)

This simple type specifies the styles for the end of a stroke.

This simple type's contents are a restriction of the W3C XML Schema string datatype.


Enumeration Value	Description
flat (Flat End)	Flat end 
round (Round End)	Round end 
square (Square End)	Square end 

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_StrokeEndCap](#)) is located in §A.7.1. *end note*]



#### 19.1.3.11 ST\_StrokeJoinStyle (Line Join Type)

This simple type specifies the join styles for a polyline (§19.1.2.15).

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
bevel (Bevel Joint)	Bevel joint 








Enumeration Value	Description
miter (Miter Joint)	Miter joint 
round (Round Joint)	Round joint 

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_StrokeJoinStyle](#)) is located in §A.7.1. *end note*]

#### 19.1.3.12 ST\_StrokeLineStyle (Stroke Line Style)

This simple type specifies the line styles for a stroke.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
single (Single Line)	Single line 
thickBetweenThin (Thck Line Between Thin Lines)	Thick line between thin lines 
thickThin (Thick Line Outside Thin Line)	Thick line outside thin line 
thinThick (Thin Line Outside Thick Line)	Thin line outside thick line 
thinThin (Two Thin Lines)	Two thin lines 

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_StrokeLineStyle](#)) is located in §A.7.1. *end note*]



## 19.2 VML - Office Drawing

It is possible to include graphical VML objects in Office Open XML documents. The elements describing the core graphical objects are defined in the VML namespace. Additional elements that describe certain advanced shape effects, metadata and relationships are defined in this namespace.

[*Note:* The VML format is a legacy format originally introduced with Office 2000 and is included and fully defined in ECMA-376 for backwards compatibility reasons. The DrawingML format is a newer and richer format created with the goal of eventually replacing any uses of VML in the Office Open XML formats. VML should be considered a transitional format included in Office Open XML for legacy reasons only and new applications that need a file format for drawings are strongly encouraged to use preferentially DrawingML .*end note*]

[*Example:* Assume the following shape exists in a document:



The basic speech bubble shape is defined using VML. The 3-D effect is defined using the extrusion element in this namespace. The specular attribute defines the subtle sharp reflection on the edge of the shape. The color attribute sets the extrusion to a different color than the face of the shape. The rotationangle attribute sets the shape's rotation about the X- and Y-axes. The lightposition and lightposition2 attributes set the positions of the light sources that illuminate the shape.

```
<o:extrusion v:ext="view" specularity="80000f" color="#c4bc96 [2414]" on="t"
rotationangle="-5,15" lightposition="0,-50000" lightposition2="0,50000"
type="perspective"/>
```

This element is a child of the primary shape definition:

```
<v:shape id="_x0000_s1030" type="#_x0000_t62"
style="position:absolute;left:0;text-align:left;margin-left:35.25pt;
margin-top:60pt;width:69pt;height:57pt;z-index:251658240" adj="1675,27171"
fillcolor="#ddd8c2 [2894]">
  <o:extrusion ... />
</v:shape>
```

*end example]*

Throughout VML, numeric values that are allowed to take units can be specified in: cm (centimeters), mm (millimeters), in (inches), pt (points), pc (picas), px (pixels).



## 19.2.1 Table of Contents

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**End of informative text.**

## 19.2.2 Elements

The following elements comprise the contents of the urn:schemas-microsoft-com:office:office namespace:

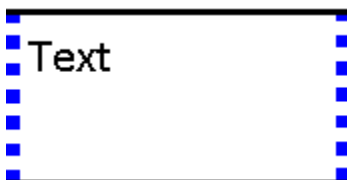
[*Note:* As the VML format is a format provided for backward compatibility, those VML elements defined in the same urn:schemas-microsoft-com:office:office namespace remain in that namespace as it is already used by millions of documents already using VML. *end note*]

### 19.2.2.1 bottom (Text Box Bottom Stroke)

This element specifies the stroke properties for the bottom border of a text box. It entirely supercedes its parent stroke element if its on attribute is true. Thus the default value of an unspecified attribute overrides a value specified in the parent. If the on attribute is false or not specified, the border is not shown.

[*Example:* The text box borders are set independently. Note that the bottom border does not inherit the weight from the parent stroke element.

```
<v:stroke weight="2.25pt">
  <o:left v:ext="view" dashstyle="1 1" color="blue" weight="5pt" on="t"/>
  <o:top v:ext="view" color="black" weight="2.25pt" on="t"/>
  <o:right v:ext="view" dashstyle="1 1" color="blue" weight="5pt" on="t"/>
  <o:bottom v:ext="view" color="black" on="t"/>
  <o:column v:ext="view" color="#f60" on="t"/>
</v:stroke>
```

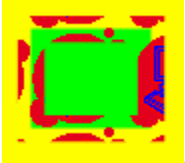







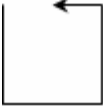

*end example]*

Attributes	Description
<b>althref</b> (Alternate Image Reference)	<p>Specifies an alternate reference for an image in Macintosh PICT format.</p> <p>[Example:</p> <pre>&lt;v:stroke ... althref="myimage.pcz" ... &gt; &lt;/v:stroke&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>color</b> (Stroke Color)	<p>Specifies the stroke color. Overrides the strokecolor attribute of a shape. Default is black. See the fillcolor attribute for a list of supported named colors.</p> <p>[Example: The shape stroke is blue:</p> <pre>&lt;v:shape ... strokecolor="red" ... &gt;   &lt;v:stroke color="blue"/&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<b>color2</b> (Stroke Alternate Pattern Color)	<p>Specifies a second color for strokes, used when filltype is pattern. Default is no value.</p> <p>When a pattern fill is used for the stroke, the stroke color is used in colored parts of the source image. The color2 defines an alternate color to use in place of black in the source image.</p> <p>[Example: This unusual example is intended to demonstrate how the image and colors interact to create a patterned stroke. The yellow background shows transparency. The non-square shape and square image create an effective offset. The heavy stroke weight shows more of the image. The green shape fill shows how the stroke is overlaid on the shape.</p> <pre>&lt;v:background fillcolor="yellow"/&gt; &lt;v:shape style="width:60;height:50"   strokecolor="red" fillcolor="lime"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:stroke filltype="pattern" weight="10pt"     src="myimage.gif" color2="blue"/&gt; &lt;/v:shape&gt;</pre>

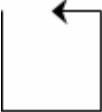



Attributes	Description
	  <p>, where myimage.gif is:</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
dashstyle (Stroke Dash Pattern)	<p>Specifies the dot and dash pattern for a stroke. Default is solid. Pre-defined values are:</p> <ul style="list-style-type: none"> <li>• solid</li> <li>• shortdash</li> <li>• shortdot</li> <li>• shortdashdot</li> <li>• shortdashdotdot</li> <li>• dot</li> <li>• dash</li> <li>• longdash</li> <li>• dashdot</li> <li>• longdashdot</li> <li>• longdashdotdot</li> </ul> <p>A custom-defined dash pattern can also be specified using a series of numbers. These define the length of the dash (the drawn part of the stroke) and the length of the space between the dashes. The lengths are relative to the line width: a length of 1 is equal to the line width. The endcap style is applied to each dash but the arrow style is not. The string defines the length of the dash then the length of the space. This can be repeated to form complex dash styles. The string should always contain a pair of numbers; if it contains an odd number of numbers the last is disregarded. 0 implies a dot that is fourfold symmetrical (with round end caps, this is a circle).</p> <p>[Example:</p> <pre>&lt;v:stroke dashstyle="0 2" weight="3pt"   endcap="round"&gt; &lt;/v:stroke&gt;</pre>  <pre>&lt;v:stroke dashstyle="longdashdotdot"   weight="2pt"&gt; &lt;/v:stroke&gt;</pre>




Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>endarrow (Line End Arrowhead)</b>	<p>Specifies an arrowhead for the end of a line. Default is none. The path shall not be closed with the x command for the arrowhead to show. Allowed values are:</p> <ul style="list-style-type: none"> <li>• none</li> <li>• block</li> <li>• classic</li> <li>• diamond</li> <li>• oval</li> <li>• open</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke endarrow="classic"/&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowType simple type (§19.1.3.8).</p>
<b>endarrowlength (Line End Arrowhead Length)</b>	<p>Specifies the length of the arrowhead at the end of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• short</li> <li>• medium</li> <li>• long</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... endarrowlength="long" ... /&gt;</pre>  <p><i>end example]</i></p>





Attributes	Description
<p>endarrowwidth (Line End Arrowhead Width)</p>	<p>The possible values for this attribute are defined by the ST_StrokeArrowLength simple type (§19.1.3.7).</p> <p>Specifies the width of the arrowhead at the end of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• narrow</li> <li>• medium</li> <li>• wide</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... endarrowwidth="wide" ... /&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_StrokeArrowWidth simple type (§19.1.3.9).</p>
<p>endcap (Line End Cap)</p>	<p>Specifies the cap style for the end of a stroke. Default is flat. Allowed values are:</p> <ul style="list-style-type: none"> <li>• flat</li> <li>• square</li> <li>• round</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... endcap="round" weight="10pt" ... /&gt;</pre>  <p>endcap="flat"</p> <p>endcap="square"</p> <p>endcap="round"</p> <p>end example]</p>




Attributes	Description
	<p>The possible values for this attribute are defined by the ST_StrokeEndCap simple type (§19.1.3.10).</p>
<p>ext (VML Extension Handling Behavior)</p> <p>Namespace: urn:schemas-microsoft-com:VML</p>	<p>Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.</p> <p>[<i>Rationale</i>: This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale</i>]</p> <p>The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).</p>
<p>filltype (Stroke Image Style)</p>	<p>Specifies the kind of fill used for the background of a stroke. Default is solid. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <code>solid</code> - The fill pattern is solid.</li> <li>• <code>tile</code> - The fill image is tiled.</li> <li>• <code>pattern</code> - The fill image is stretched to form a pattern.</li> <li>• <code>frame</code> - The fill image becomes a border for the shape.</li> </ul> <p>[<i>Example</i>:</p> <pre>&lt;v:shape style="width:50;height:50"   strokecolor="red"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:stroke filltype="frame" weight="10pt"     src="border.gif"/&gt; &lt;/v:shape&gt;</pre> <div> </div> <p>, where border.gif is: </p> <p><i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_FillType simple type (§19.1.3.4).</p>
<p>forcedash (Force Dashed Outline)</p>	<p>Specifies whether a dashed outline is used to draw a shape when a shape has no line or fill. Default is <code>false</code>.</p> <p>Used by PresentationML placeholders to draw a dashed outline when there is no line and no fill for a shape.</p> <p>[<i>Example</i>:</p> <pre>&lt;v:shape ... o:forcedash="true" ... &gt;</pre>




Attributes	Description
	<p><code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
href (Original Image Reference)	<p>Specifies the URL to the original image file. Used only if the picture has been linked and embedded. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:fill ... o:href="myimage.gif" ... &gt; &lt;/v:fill&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
imagealignshape (Stoke Image Alignment)	<p>Specifies the alignment of the stroke image. If true, the image is aligned with the shape. Otherwise, it is aligned with the containing scope. Default is true.</p> <p>[Example: The top position offset shifts the image alignment relative to the containing window:</p> <pre>&lt;v:shape fillcolor="silver"   style="top:20;width:50;height:50"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:stroke imagealignshape="false" weight="20pt"     filltype="tile" src="myimage.gif"/&gt; &lt;/v:shape&gt;</pre> <div>  </div> <p><code>imagealignshape="false"</code></p> <div>  </div> <p><code>imagealignshape="false"</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type</p>






Attributes	Description								
	(§20.1.2.5).								
imageaspect (Stroke Image Aspect Ratio)	<p>Specifies how the stroke image aspect ratio is preserved. Default is ignore. Allowed values are:</p> <table><tr><th>Value</th><th>Description</th></tr><tr><td>ignore</td><td>Ignore aspect issues.</td></tr><tr><td>atleast</td><td>Image is at least as big as imagesize.</td></tr><tr><td>atmost</td><td>Image is no bigger than imagesize.</td></tr></table> <p>[Example:</p> <pre>&lt;v:stroke filltype="frame" weight="10pt"   src="border.gif" imagealignshape="true"   imageaspect="atleast"&gt; &lt;/v:stroke&gt;</pre> <div><p>imagealignshape="ignore"</p><p>imagealignshape="atleast"</p><p>imagealignshape="atmost"</p></div> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_ImageAspect simple type (§19.1.3.5).</p>	Value	Description	ignore	Ignore aspect issues.	atleast	Image is at least as big as imagesize.	atmost	Image is no bigger than imagesize.
Value	Description								
ignore	Ignore aspect issues.								
atleast	Image is at least as big as imagesize.								
atmost	Image is no bigger than imagesize.								
imagesize (Stroke Image Size)	<p>Specifies the size of the image for the stroke. Default is the size of the image.</p> <p>[Example:</p> <pre>&lt;v:stroke ... imagesize="10pt,10pt" ... /&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>								
insetpen (Inset Border From Path)	<p>Specifies that the border shall be displayed inside of the path defining the shape, rather than along the path (the default border placement), or outside of the path as might be done with an image.</p>								




Attributes	Description
	<p>[Example:</p> <pre>&lt;v:shape ... insetpen="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>joinstyle (Line End Join Style))</p>	<p>Specifies the join style for line ends. Default is round.</p> <ul style="list-style-type: none"> <li>• round</li> <li>• bevel</li> <li>• miter</li> </ul> <p>[Example:</p> <pre>&lt;v:polyline strokeweight="10pt" strokecolor="navy"   points="10pt,10pt,50pt,50pt,90pt,10pt"&gt;   &lt;v:stroke joinstyle="bevel"/&gt; &lt;/v:polyline&gt;</pre> <div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 20px;"> <p>joinstyle="round"</p> <p>joinstyle="bevel"</p> <p>joinstyle="miter"</p> </div> </div> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_StrokeJoinStyle simple type (§19.1.3.11).</p>
<p>linestyle (Stroke Line Style)</p>	<p>Specifies the line style of the stroke. Default is single.</p> <ul style="list-style-type: none"> <li>• single</li> <li>• thinThin</li> <li>• thinThick</li> <li>• thickThin</li> </ul>


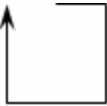
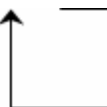


Attributes	Description
	<ul style="list-style-type: none"> <li>thickBetweenThin</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke linestyle="thickThin" weight="5pt"&gt; &lt;/v:stroke&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_StrokeLineStyle simple type (§19.1.3.12).</p>
miterlimit (Miter Joint Limit)	<p>Specifies the smoothness of the miter joint, or the maximum distance between the inner point and outer point of a joint. This number is a multiple of the thickness of the line. Default is 8.</p> <p>[Example:</p> <pre>&lt;v:stroke jointstyle="miter" weight="10pt"   miterlimit="2"&gt; &lt;/v:stroke&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema decimal datatype.</p>
on (Stroke Toggle)	<p>Specifies whether the stroke is displayed. Default is true. This attribute overrides the shape's stroke attribute.</p> <p>[Example:</p> <pre>&lt;v:rect style="width:50;height:50" stroked="true"   fillcolor="lime" strokecolor="red"&gt;   &lt;v:stroke on="false" weight="5pt"/&gt; &lt;/v:rect&gt;</pre> 



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>opacity (Stroke Opacity)</p>	<p>Specifies the amount of transparency of a stroke. Default is 1.0.</p> <p>[Example:</p> <pre>&lt;v:rect style="width:50;height:50"   fillcolor="lime" strokecolor="red"&gt;   &lt;v:stroke weight="5pt" opacity="50%"/&gt; &lt;/v:rect&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>src (Stroke Image Location)</p>	<p>Specifies the source image to load for a stroke fill. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:stroke ... src="myimage.gif" ... &gt; &lt;/v:stroke&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>startarrow (Line Start Arrowhead)</p>	<p>Specifies an arrowhead for the start of a line. Default is none. The path shall not be closed with the x command for the arrowhead to show. Allowed values are:</p> <ul style="list-style-type: none"> <li>• none</li> <li>• block</li> <li>• classic</li> <li>• diamond</li> <li>• oval</li> <li>• open</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke startarrow="classic"/&gt;</pre>



Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowType simple type (§19.1.3.8).</p>
<b>startarrowlength</b> (Line Start Arrowhead Length)	<p>Specifies the length of the arrowhead at the start of a line. Default is <i>medium</i>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <i>short</i></li> <li>• <i>medium</i></li> <li>• <i>long</i></li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... startarrowlength="long" ... /&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowLength simple type (§19.1.3.7).</p>
<b>startarrowwidth</b> (Line Start Arrowhead Width)	<p>Specifies the width of the arrowhead at the start of a line. Default is <i>medium</i>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <i>narrow</i></li> <li>• <i>medium</i></li> <li>• <i>wide</i></li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... startarrowwidth="wide" ... /&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowWidth simple</p>



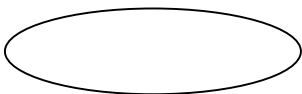
Attributes	Description
	type (§19.1.3.9).
title (Stroke Title)	<p>Specifies the title of an embedded stroke image. This is typically set to the comment property of the image, which is often blank.</p> <p><i>[Example:</i></p> <pre>&lt;v:fill ... o:title="alt text" ... &gt; &lt;/v:fill&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
weight (Stroke Weight)	<p>Specifies the thickness of a stroke. Default is 1. This attribute overrides the shape's strokeweight attribute.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

*[Note: The W3C XML Schema definition of this element's content model ([CT\\_StrokeChild](#)) is located in §A.7.2. end note]*

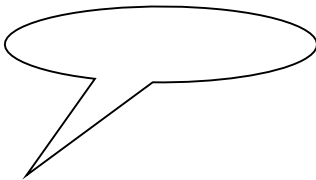
#### 19.2.2.2 callout (Callout)

This element specifies the automatic behavior and layout parameters of callout shapes. Callout shapes are standard VML shapes that behave as callouts, providing an additional callout object which can be used to point at another location:

*[Example: Consider the following VML shape:*



If this shape is made a callout shape by adding the callout element to its shape definition, then the shape has a callout object, for example:



*end example]*



Attributes	Description
accentbar (Callout accent bar toggle)	<p>Specifies whether an accent bar is used with the callout. Default is <code>false</code>.</p> <p>The possible values for this attribute are defined by the <code>ST_TrueFalse</code> simple type (§20.1.2.5).</p>
angle (Callout angle)	<p>Specifies the angle that the callout makes with respect to the bounding box of the shape. Default is no value.</p> <p>The possible values for this attribute are defined by the <code>ST_Angle</code> simple type (§19.2.3.2).</p>
distance (Callout drop distance)	<p>Specifies the drop distance of a callout. The drop distance of a callout is measured from the edge of the shape where the pointer line starts and continues the absolute length of the distance value. If specified with no units, EMUs are assumed. Default is no value.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
drop (Callout drop position)	<p>Specifies where the drop of a callout is placed.</p> <p>The possible values for this attribute are defined by the <code>ST_CalloutDrop</code> simple type (§19.2.3.4).</p>
dropauto (Callout automatic drop toggle)	<p>Specifies whether the callout has an automatic drop.</p> <p>The possible values for this attribute are defined by the <code>ST_TrueFalse</code> simple type (§20.1.2.5).</p>
ext (VML Extension Handling Behavior)  Namespace: urn:schemas-microsoft-com:vml	<p>Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.</p> <p><i>[Rationale: This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. end rationale]</i></p> <p>The possible values for this attribute are defined by the <code>ST_Ext</code> simple type (§19.1.3.2).</p>
gap (Callout gap)	<p>Specifies the distance of the callout line from the bounding rectangle of the callout. Default value is one-twelfth of an inch, in EMUs (76200).</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
length (Callout length)	<p>Specifies the length of the first part of a multi-segmented callout line. If specified with no units, EMUs are assumed. Default is 0.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
lengthspecified (Callout length toggle)	<p>Specifies whether the length attribute is used for the callout. Default is <code>false</code>. If <code>true</code>, the length attribute is used. If <code>false</code>, a best fit is used.</p>



Attributes	Description
	The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).
minusx (Callout flip x)	Specifies whether the callout flips to the other side of the drop tip along the x-axis when moved or resized. Default is false.  The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).
minusy (Callout flip y)	Specifies whether the callout flips to the other side of the drop tip along the y-axis when moved or resized. Default is false.  The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).
on (Callout toggle)	Specifies whether a shape is a callout. Default is false.  The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).
textborder (Callout text border toggle)	Specifies whether a callout has a text border. Default is true.  The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).
type (Callout type)	Specifies the type of callout. Default is rectangle. Allowed values are: <ul style="list-style-type: none"> <li>rectangle</li> <li>roundedrectangle</li> <li>oval</li> <li>cloud</li> </ul> The possible values for this attribute are defined by the W3C XML Schema string datatype.

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Callout](#)) is located in §A.7.2. *end note*]

### 19.2.2.3 [clippath \(Shape Clipping Path\)](#)

This element specifies the path of the clipping polygon for the shape.

[Example:

```
<v:rect ... wrapcoords="-207 -433 -207 21925 21807 21925 21807 -433 -207 -433"
o:clip="t" o:cliptowrap="t">
  <o:clippath o:v="m-207,-433r,22358121807,21925r,-223581-207,-433xe"/>
```



&lt;/v:rect&gt;

*end example]*

Attributes	Description																								
v (Path Definition)	<p>Specifies a string containing the commands that define the shape's path. This value consists of commands followed by zero or more parameters. Default is no value.</p> <p>The following rules apply to path strings:</p> <ul style="list-style-type: none"><li>Commas or spaces delimit parameters for each command. Both "m 0,0" and "m0 0" are acceptable.</li><li>A parameter that is omitted using commas is treated as having a value of zero. Thus, "c 10,10,0,0,25,13" and "c 10,10,,,25,13" are equivalent.</li><li>Parameterized paths are also allowed. In this case, the shape shall also have a formulas element (§19.1.2.6) with a list of formulas that are substituted into the path using the @ symbol followed by the number of the formula. The adj property of the shape contains the input parameters for these formulas. For example, "moveto @1@4". The evaluations of the formulas are substituted into the appropriate positions. @ also serves as a delimiter.</li></ul> <p>The allowed commands are given below. An asterisk (*) indicates that the command is allowed to be repeated. For the qb command, the controlpoint parameter is also allowed to be repeated.</p> <table><tr><th>Command</th><th>Name</th><th>Parameters</th><th>Description</th></tr><tr><td>m</td><td>moveto</td><td>2</td><td>Start a new sub-path at the given (x,y) coordinate.</td></tr><tr><td>l</td><td>lineto</td><td>2*</td><td>Draw a line from the current point to the given (x,y) coordinate which becomes the new current point. Specifying a number of coordinate pairs forms a polyline.</td></tr><tr><td>c</td><td>curveto</td><td>6*</td><td>Draw a cubic bézier curve from the current point to the coordinate given by the final two parameters. The control points are given by the first four parameters.</td></tr><tr><td>x</td><td>close</td><td>0</td><td>Close the current sub-path by drawing a straight line from the current point to the original moveto point.</td></tr><tr><td>e</td><td>end</td><td>0</td><td>End the current set of sub-paths. A given set of sub-paths (as delimited by end) is filled. Subsequent sets of sub-paths are filled independently and superimposed on existing ones.</td></tr></table>	Command	Name	Parameters	Description	m	moveto	2	Start a new sub-path at the given (x,y) coordinate.	l	lineto	2*	Draw a line from the current point to the given (x,y) coordinate which becomes the new current point. Specifying a number of coordinate pairs forms a polyline.	c	curveto	6*	Draw a cubic bézier curve from the current point to the coordinate given by the final two parameters. The control points are given by the first four parameters.	x	close	0	Close the current sub-path by drawing a straight line from the current point to the original moveto point.	e	end	0	End the current set of sub-paths. A given set of sub-paths (as delimited by end) is filled. Subsequent sets of sub-paths are filled independently and superimposed on existing ones.
Command	Name	Parameters	Description																						
m	moveto	2	Start a new sub-path at the given (x,y) coordinate.																						
l	lineto	2*	Draw a line from the current point to the given (x,y) coordinate which becomes the new current point. Specifying a number of coordinate pairs forms a polyline.																						
c	curveto	6*	Draw a cubic bézier curve from the current point to the coordinate given by the final two parameters. The control points are given by the first four parameters.																						
x	close	0	Close the current sub-path by drawing a straight line from the current point to the original moveto point.																						
e	end	0	End the current set of sub-paths. A given set of sub-paths (as delimited by end) is filled. Subsequent sets of sub-paths are filled independently and superimposed on existing ones.																						



Attributes	Description			
	t	rmoveto	2*	Start a new sub-path at a coordinate relative to the current point, cp (cpx+x, cpy+y).
	r	rlineto	2*	Draw a line from the current point to the given relative coordinate (cpx+x, cpy+y).
	v	rcurveto	6*	Cubic bézier curve using the given coordinate relative to the current point.
	nf	nofill	0	The current set of sub-paths (delimited by e) is not filled.
	ns	nostroke	0	The current set of sub-paths (delimited by e) is not stroked.
	ae	angleellipseto	6*	Draws a segment of an ellipse as described using these parameters. A straight line is drawn from the current point to the start point of the segment. The parameters are: center (x,y), size(w,h), start angle, end angle.
	al	angleellipse	6*	Same as angleellipseto except that there is an implied moveto the starting point of the segment.
	at	arcto	8*	A segment of the ellipse is drawn which starts at the angle defined by the start radius vector and ends at the angle defined by the end vector. A straight line is drawn from the current point to the start of the arc. The arc is always drawn in a counterclockwise direction. The parameters are: left, top, right, bottom, start(x,y), end(x,y). The first four values define the bounding box of an ellipse. The last four define two radial vectors.
	ar	arc	8*	Same as arcto except there is an implied moveto the start point of the arc.
	wa	clockwisearco	8*	Same as arcto but the arc is drawn in a clockwise direction.
	wr	clockwisearc	8*	Same as arc but the arc is drawn in a clockwise direction



Attributes	Description			
	qx	ellipticalquadrantx	2*	A quarter ellipse is drawn from the current point to the given end point. The elliptical segment is initially tangential to a line parallel to the x-axis. (i.e. the segment starts out horizontal). The parameters are: end(x,y).
	qy	ellipticalquadranty	2*	Same as ellipticalquadrantx except that the elliptical segment is initially tangential to a line parallel to the y-axis (i.e. the segment starts out vertical).
	qb	quadraticbezier	2+2*	Defines one or more quadratic bézier curves by means of control points and an end point. Intermediate (on-curve) points are obtained by interpolation between successive control points as in the OpenType font specification. The sub-path need not be started in which case the sub-path is closed. In this case the last point of the sub-path defines the start point of the quadratic bézier. The parameters are: controlpoint(x,y)*, end(x,y).
	The possible values for this attribute are defined by the W3C XML Schema string datatype.			

[Note: The W3C XML Schema definition of this element's content model ([CT\\_ClipPath](#)) is located in §A.7.2. *end note*]

#### 19.2.2.4 [colormenu](#) (UI Default Colors)

This element determines the default colors for different types of colors that can be applied to VML shapes.

[*Rationale*: An application can choose to retain default colors or the last color choices a user made and present those in parts of its user interface. *end rationale*]

[Example:

```
<o:shapedefaults ... >
  <o:colormenu v:ext="edit" fillcolor="none" extrusioncolor="#36f"/>
</o:shapedefaults>
```



*end example]*

Attributes	Description
ext (VML Extension Handling Behavior)  Namespace: urn:schemas-microsoft-com:vm	Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.  <i>[Rationale:</i> This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale]</i>  The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).
extrusioncolor (Default extrusion color)	The default color associated with the 3D extrusion of a VML shape. Default is "#000000".  The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).
fillcolor (Default fill color)	The default color associated with the fill of a VML shape. Default is "#0000FF".  The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).
shadowcolor (Default shadow color)	The default color associated with the shadow of a VML shape. Default is "#80800C".  The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).
strokecolor (Default stroke color)	The default color associated with the stroke of a VML shape. Default is "#FFFF00".  The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).

*[Note:* The W3C XML Schema definition of this element's content model ([CT\\_ColorMenu](#)) is located in §A.7.2. *end note]*

#### 19.2.2.5 colormru (Most Recently Used Colors)

This element defines a list of up to eight colors which represent the colors most recently used by the user.

*[Rationale:* An application can choose to retain the last color choices a user made, regardless of where on VML shapes they are used, and present those in parts of its user interface. *end rationale]*

*[Example:*

```
<o:shapedefaults ... >
  <o:colormru v:ext="edit" colors="#a01aae,#456b69,#06f,#a1ae24,#d57811"/>
</o:shapedefaults>
```

*end example]*



Attributes	Description
<b>colors</b> (Recent colors)	<p>A comma-separated list of up to eight most recently used colors. Default is no value. Colors should be defined using hexadecimal notation - see the ST_ColorType simple type (§20.1.2.3) for a full description.</p> <p>[Example:</p> <pre>&lt;o:colormru v:ext="edit"   colors="#a01aae,#456b69,#06f,#a1ae24,#d57811"/&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>ext</b> (VML Extension Handling Behavior)  Namespace: urn:schemas-microsoft-com:vml	<p>Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.</p> <p>[Rationale: This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. end rationale]</p> <p>The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).</p>

[Note: The W3C XML Schema definition of this element's content model ([CT\\_ColorMru](#)) is located in §A.7.2. end note]

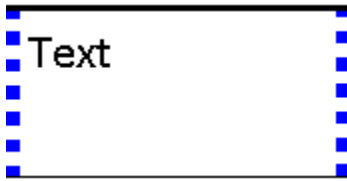
### 19.2.2.6 column (Text Box Interior Stroke)

This element specifies the stroke properties for the interior border of a text box. It entirely supercedes its parent stroke element if its on attribute is true. Thus the default value of an unspecified attribute overrides a value specified in the parent. If the on attribute is false or not specified, the border is not shown. [Note: This element is ignored if an implementation does not support multi-column text boxes. end note]

[Example: The text box borders are set independently. Note that the bottom border does not inherit the weight from the parent stroke element.

```
<v:stroke weight="2.25pt">
  <o:left v:ext="view" dashstyle="1 1" color="blue" weight="5pt" on="t"/>
  <o:top v:ext="view" color="black" weight="2.25pt" on="t"/>
  <o:right v:ext="view" dashstyle="1 1" color="blue" weight="5pt" on="t"/>
  <o:bottom v:ext="view" color="black" on="t"/>
  <o:column v:ext="view" color="#f60" on="t"/>
</v:stroke>
```

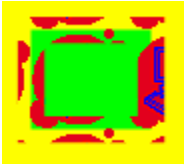






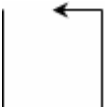
*end example]*

Attributes	Description
<b>althref</b> (Alternate Image Reference)	<p>Specifies an alternate reference for an image in Macintosh PICT format.</p> <p>[Example:</p> <pre>&lt;v:stroke ... althref="myimage.pcz" ... &gt; &lt;/v:stroke&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>color</b> (Stroke Color)	<p>Specifies the stroke color. Overrides the strokecolor attribute of a shape. Default is black. See the fillcolor attribute for a list of supported named colors.</p> <p>[Example: The shape stroke is blue:</p> <pre>&lt;v:shape ... strokecolor="red" ... &gt;   &lt;v:stroke color="blue"/&gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<b>color2</b> (Stroke Alternate Pattern Color)	<p>Specifies a second color for strokes, used when filltype is pattern. Default is no value.</p> <p>When a pattern fill is used for the stroke, the stroke color is used in colored parts of the source image. The color2 defines an alternate color to use in place of black in the source image.</p> <p>[Example: This unusual example is intended to demonstrate how the image and colors interact to create a patterned stroke. The yellow background shows transparency. The non-square shape and square image create an effective offset. The heavy stroke weight shows more of the image. The green shape fill shows how the stroke is overlaid on the shape.</p> <pre>&lt;v:background fillcolor="yellow"/&gt;</pre>


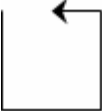



Attributes	Description
	<pre> &lt;v:shape style="width:60;height:50"   strokecolor="red" fillcolor="lime"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:stroke filltype="pattern" weight="10pt"     src="myimage.gif" color2="blue"/&gt; &lt;/v:shape&gt; </pre>  <p>, where myimage.gif is:</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
dashstyle (Stroke Dash Pattern)	<p>Specifies the dot and dash pattern for a stroke. Default is solid. Pre-defined values are:</p> <ul style="list-style-type: none"> <li>• solid</li> <li>• shortdash</li> <li>• shortdot</li> <li>• shortdashdot</li> <li>• shortdashdotdot</li> <li>• dot</li> <li>• dash</li> <li>• longdash</li> <li>• dashdot</li> <li>• longdashdot</li> <li>• longdashdotdot</li> </ul> <p>A custom-defined dash pattern can also be specified using a series of numbers. These define the length of the dash (the drawn part of the stroke) and the length of the space between the dashes. The lengths are relative to the line width: a length of 1 is equal to the line width. The endcap style is applied to each dash but the arrow style is not. The string defines the length of the dash then the length of the space. This can be repeated to form complex dash styles. The string should always contain a pair of numbers; if it contains an odd number of numbers the last is disregarded. 0 implies a dot that is fourfold symmetrical (with round end caps, this is a circle).</p> <p><i>[Example:</i></p> <pre> &lt;v:stroke dashstyle="0 2" weight="3pt"   endcap="round"&gt; &lt;/v:stroke&gt; </pre>


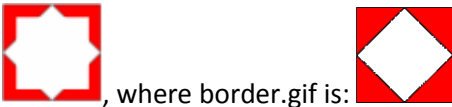


Attributes	Description
	 <pre>&lt;v:stroke dashstyle="longdashdotdot"   weight="2pt"&gt; &lt;/v:stroke&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
endarrow (Line End Arrowhead)	<p>Specifies an arrowhead for the end of a line. Default is none. The path shall not be closed with the x command for the arrowhead to show. Allowed values are:</p> <ul style="list-style-type: none"> <li>• none</li> <li>• block</li> <li>• classic</li> <li>• diamond</li> <li>• oval</li> <li>• open</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke endarrow="classic"/&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowType simple type (§19.1.3.8).</p>
endarrowlength (Line End Arrowhead Length)	<p>Specifies the length of the arrowhead at the end of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• short</li> <li>• medium</li> <li>• long</li> </ul> <p>[Example:</p>




Attributes	Description
	<p>&lt;v:stroke ... endarrowlength="long" ... /&gt;</p>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowLength simple type (§19.1.3.7).</p>
<p>endarrowwidth (Line End Arrowhead Width)</p>	<p>Specifies the width of the arrowhead at the end of a line. Default is <code>medium</code>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <code>narrow</code></li> <li>• <code>medium</code></li> <li>• <code>wide</code></li> </ul> <p>[Example:</p> <p>&lt;v:stroke ... endarrowwidth="wide" ... /&gt;</p>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowWidth simple type (§19.1.3.9).</p>
<p>endcap (Line End Cap)</p>	<p>Specifies the cap style for the end of a stroke. Default is <code>flat</code>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <code>flat</code></li> <li>• <code>square</code></li> <li>• <code>round</code></li> </ul> <p>[Example:</p> <p>&lt;v:stroke ... endcap="round" weight="10pt" ... /&gt;</p>  <p>endcap="flat"</p>





Attributes	Description
	 <p>endcap="square"</p> <p>endcap="round"</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeEndCap simple type (§19.1.3.10).</p>
<p>ext (VML Extension Handling Behavior)</p> <p>Namespace: urn:schemas-microsoft-com:vm1</p>	<p>Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.</p> <p>[<i>Rationale:</i> This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale]</i></p> <p>The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).</p>
<p>filltype (Stroke Image Style)</p>	<p>Specifies the kind of fill used for the background of a stroke. Default is solid. Allowed values are:</p> <ul style="list-style-type: none"> <li>• solid - The fill pattern is solid.</li> <li>• tile - The fill image is tiled.</li> <li>• pattern - The fill image is stretched to form a pattern.</li> <li>• frame - The fill image becomes a border for the shape.</li> </ul> <p>[<i>Example:</i></p> <pre>&lt;v:shape style="width:50;height:50"   strokecolor="red"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:stroke filltype="frame" weight="10pt"     src="border.gif"/&gt; &lt;/v:shape&gt;</pre>  <p>, where border.gif is:</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_FillType simple type (§19.1.3.4).</p>




Attributes	Description
<b>forcedash</b> (Force Dashed Outline)	<p>Specifies whether a dashed outline is used to draw a shape when a shape has no line or fill. Default is <code>false</code>.</p> <p>Used by PresentationML placeholders to draw a dashed outline when there is no line and no fill for a shape.</p> <p>[Example:</p> <pre>&lt;v:shape ... o:forcedash="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the <code>ST_TrueFalse</code> simple type (§20.1.2.5).</p>
<b>href</b> (Original Image Reference)	<p>Specifies the URL to the original image file. Used only if the picture has been linked and embedded. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:fill ... o:href="myimage.gif" ... &gt; &lt;/v:fill&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>imagealignshape</b> (Stoke Image Alignment)	<p>Specifies the alignment of the stroke image. If <code>true</code>, the image is aligned with the shape. Otherwise, it is aligned with the containing scope. Default is <code>true</code>.</p> <p>[Example: The top position offset shifts the image alignment relative to the containing window:</p> <pre>&lt;v:shape fillcolor="silver"   style="top:20;width:50;height:50"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:stroke imagealignshape="false" weight="20pt"     filltype="tile" src="myimage.gif"/&gt; &lt;/v:shape&gt;</pre>  <p>imagealignshape="false"</p>





Attributes	Description								
	 <p><code>imagealignshape="false"</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>								
<p>imageaspect (Stroke Image Aspect Ratio)</p>	<p>Specifies how the stroke image aspect ratio is preserved. Default is ignore. Allowed values are:</p> <table border="1"> <thead> <tr> <th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>ignore</td><td>Ignore aspect issues.</td></tr> <tr> <td>atleast</td><td>Image is at least as big as imagesize.</td></tr> <tr> <td>atmost</td><td>Image is no bigger than imagesize.</td></tr> </tbody> </table> <p>[Example:</p> <pre> &lt;v:stroke filltype="frame" weight="10pt"   src="border.gif" imagealignshape="true"   imageaspect="atleast"&gt; &lt;/v:stroke&gt; </pre>  <p><code>imagealignshape="ignore"</code></p> <p><code>imagealignshape="atleast"</code></p> <p><code>imagealignshape="atmost"</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ImageAspect simple type (§19.1.3.5).</p>	Value	Description	ignore	Ignore aspect issues.	atleast	Image is at least as big as imagesize.	atmost	Image is no bigger than imagesize.
Value	Description								
ignore	Ignore aspect issues.								
atleast	Image is at least as big as imagesize.								
atmost	Image is no bigger than imagesize.								
<p>imagesize (Stroke Image Size)</p>	<p>Specifies the size of the image for the stroke. Default is the size of the image.</p> <p>[Example:</p>								

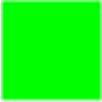
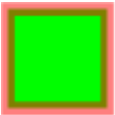


Attributes	Description
	<p><code>&lt;v:stroke ... imagesize="10pt,10pt" ... /&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
insetpen (Inset Border From Path)	<p>Specifies that the border shall be displayed inside of the path defining the shape, rather than along the path (the default border placement), or outside of the path as might be done with an image.</p> <p>[Example:</p> <p><code>&lt;v:shape ... insetpen="true" ... &gt;</code> <code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
joinstyle (Line End Join Style))	<p>Specifies the join style for line ends. Default is round.</p> <ul style="list-style-type: none"><li>• round</li><li>• bevel</li><li>• miter</li></ul> <p>[Example:</p> <p><code>&lt;v:polyline strokeweight="10pt" strokecolor="navy"</code> <code>  points="10pt,10pt,50pt,50pt,90pt,10pt"&gt;</code> <code>  &lt;v:stroke joinstyle="bevel"/&gt;</code> <code>&lt;/v:polyline&gt;</code></p> <div><p>joinstyle="round"</p><p>joinstyle="bevel"</p><p>joinstyle="miter"</p></div> <p><i>end example]</i></p>

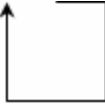



Attributes	Description
	<p>The possible values for this attribute are defined by the ST_StrokeJoinStyle simple type (§19.1.3.11).</p>
<b>linestyle (Stroke Line Style)</b>	<p>Specifies the line style of the stroke. Default is single.</p> <ul style="list-style-type: none"> <li>• single</li> <li>• thinThin</li> <li>• thinThick</li> <li>• thickThin</li> <li>• thickBetweenThin</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke linestyle="thickThin" weight="5pt"&gt; &lt;/v:stroke&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_StrokeLineStyle simple type (§19.1.3.12).</p>
<b>miterlimit (Miter Joint Limit)</b>	<p>Specifies the smoothness of the miter joint, or the maximum distance between the inner point and outer point of a joint. This number is a multiple of the thickness of the line. Default is 8.</p> <p>[Example:</p> <pre>&lt;v:stroke joinstyle="miter" weight="10pt"   miterlimit="2"&gt; &lt;/v:stroke&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema decimal datatype.</p>
<b>on (Stroke Toggle)</b>	<p>Specifies whether the stroke is displayed. Default is true. This attribute overrides the shape's stroke attribute.</p> <p>[Example:</p>




Attributes	Description
	<pre> &lt;v:rect style="width:50;height:50" stroked="true"   fillcolor="lime" strokecolor="red"&gt;   &lt;v:stroke on="false" weight="5pt"/&gt; &lt;/v:rect&gt; </pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
opacity (Stroke Opacity)	<p>Specifies the amount of transparency of a stroke. Default is 1.0.</p> <p>[Example:</p> <pre> &lt;v:rect style="width:50;height:50"   fillcolor="lime" strokecolor="red"&gt;   &lt;v:stroke weight="5pt" opacity="50%"/&gt; &lt;/v:rect&gt; </pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
src (Stroke Image Location)	<p>Specifies the source image to load for a stroke fill. Default is no value.</p> <p>[Example:</p> <pre> &lt;v:stroke ... src="myimage.gif" ... &gt; &lt;/v:stroke&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
startarrow (Line Start Arrowhead)	<p>Specifies an arrowhead for the start of a line. Default is none. The path shall not be closed with the x command for the arrowhead to show. Allowed values are:</p>



Attributes	Description
	<ul style="list-style-type: none"> <li>• none</li> <li>• block</li> <li>• classic</li> <li>• diamond</li> <li>• oval</li> <li>• open</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke startarrow="classic"/&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_StrokeArrowType simple type (§19.1.3.8).</p>
startarrowlength (Line Start Arrowhead Length)	<p>Specifies the length of the arrowhead at the start of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• short</li> <li>• medium</li> <li>• long</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... startarrowlength="long" ... /&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_StrokeArrowLength simple type (§19.1.3.7).</p>
startarrowwidth (Line Start Arrowhead Width)	<p>Specifies the width of the arrowhead at the start of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• narrow</li> <li>• medium</li> <li>• wide</li> </ul> <p>[Example:</p>



Attributes	Description
	<p><code>&lt;v:stroke ... startarrowwidth="wide" ... /&gt;</code></p>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowWidth simple type (§19.1.3.9).</p>
title (Stroke Title)	<p>Specifies the title of an embedded stroke image. This is typically set to the comment property of the image, which is often blank.</p> <p>[Example:</p> <p><code>&lt;v:fill ... o:title="alt text" ... &gt;</code> <code>&lt;/v:fill&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
weight (Stroke Weight)	<p>Specifies the thickness of a stroke. Default is 1. This attribute overrides the shape's strokeweight attribute.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[Note: The W3C XML Schema definition of this element’s content model ([CT\\_StrokeChild](#)) is located in §A.7.2.  
*end note]*

19.2.2.7      complex (Complex)

This element specifies that a shapetype contains fragments.

Attributes	Description
ext (VML Extension Handling Behavior)	Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.
Namespace: urn:schemas-microsoft-com:vml	[Rationale: This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale]</i>

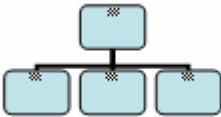
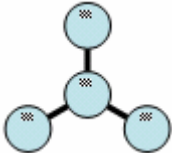
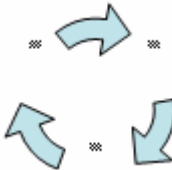


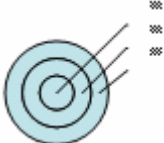


Attributes	Description
	The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Complex](#)) is located in §A.7.2. *end note*]

### 19.2.2.8 diagram (VML Diagram)

This element specifies semantic information for a limited set of structured diagrams that have VML representations. Diagrams should be defined using DrawingML; this representation is included for compatibility with applications that rely on VML. The following diagram types have VML representations:

Diagram Type	Example (non-normative)
Organization chart	
Radial	
Cycle	
Pyramid	
Venn	
Bulls-eye	

Each of these types of diagrams contains shapes that are positioned relative to one another. Each shape also has optional associated text.

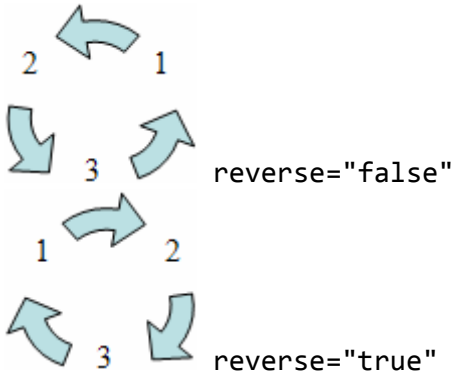


Attributes	Description
<b>autoformat</b> (Diagram Automatic Format)	<p>Specifies whether the diagram is formatted automatically by the application and user overrides are locked. Default is false.</p> <p>[Example:</p> <pre>&lt;o:diagram ... autoformat="true"&gt; &lt;/o:diagram&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<b>autolayout</b> (Diagram Automatic Layout)	<p>Specifies whether the diagram elements are laid out automatically by the application and user overrides are locked. Default is true.</p> <p>[Example:</p> <pre>&lt;o:diagram ... autolayout="false"&gt; &lt;/o:diagram&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<b>constrainbounds</b> (Diagram Layout Extents)	<p>Specifies an optional, application-specific parameter related to the diagram's extents intended to be used by the application to assist laying out the diagram.</p> <p>[Example:</p> <pre>&lt;o:diagram ... constrainbounds="2910,2696,9773,9558"&gt; &lt;/o:diagram&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>dgmbasetextscale</b> (Diagram Base Font Size)	<p>Specifies the diagram's original font size. This is used in subsequent font size recalculations. If the most recent diagram font size is used to calculate the font size after a rescale, the font size would be wrong after non-isometric diagram rescalings.</p> <p>[Example:</p> <pre>&lt;o:diagram ... dgmbasetextscale="12"&gt; &lt;/o:diagram&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
<b>dgmfontsize</b> (Diagram Font Size)	<p>Specifies the font size for attached text when a new diagram node is added.</p> <p>[Example:</p> <pre>&lt;o:diagram ... dgmfontsize="12"&gt; &lt;/o:diagram&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
<b>dgmsex</b> (Diagram Layout X Scale)	<p>Specifies an optional, application-specific parameter related to the horizontal scaling of the diagram that is intended to be used by the application to assist laying out the diagram.</p> <p>[Example:</p> <pre>&lt;o:diagram ... dgmsex="50000"&gt; &lt;/o:diagram&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
<b>dgmsey</b> (Diagram Layout Y Scale)	<p>Specifies an optional, application-specific parameter related to the vertical scaling of the diagram that is intended to be used by the application to assist laying out the diagram.</p> <p>[Example:</p> <pre>&lt;o:diagram ... dgmsey="75000"&gt; &lt;/o:diagram&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
<b>dgmstyle</b> (Diagram Style Options)	<p>Specifies an optional, application-specific parameter related to the styling of the diagram that is intended to be used by the application to assist in formatting the diagram.</p> <p>[Example:</p>



Attributes	Description
	<p><code>&lt;o:diagram ... dgmstyle="1"&gt;</code>  <code>&lt;/o:diagram&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
<p>ext (VML Extension Handling Behavior)</p> <p>Namespace:  urn:schemas-microsoft-com:vml</p>	<p>Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.</p> <p>[<i>Rationale</i>: This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale</i>]</p> <p>The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).</p>
<p>reverse (Diagram Reverse Direction)</p>	<p>Specifies whether the order of the diagram nodes is reversed. This is only relevant to diagrams that have linear ordering.</p> <p>[<i>Example</i>:</p> <p><code>&lt;o:diagram ... reverse="true"&gt;</code>  <code>&lt;/o:diagram&gt;</code></p>  <p><i>end example</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>

[*Note*: The W3C XML Schema definition of this element’s content model ([CT\\_Diagram](#)) is located in §A.7.2. *end note*]



### 19.2.2.9 entry (Regroup Entry)

This element specifies a single entry in a regrouptable (§19.2.2.23). Each entry is a pair mapping a current regroupid value to an old one. This is used to restore regrouping information on the regrouped object. A value of zero indicates no previous group.

[*Example:* The zero value of the old attribute indicates that if the shapes with regroupid 1 are regrouped, the restored group was not previously grouped with any other shapes:

```
<o:regrouptable v:ext="edit">
  <o:entry new="1" old="0"/>
</o:regrouptable>
```

*end example]*

Attributes	Description
new (New Group ID)	Specifies the ID of the new group. Default is 0.  The possible values for this attribute are defined by the W3C XML Schema int datatype.
old (Old Group ID)	Specifies the ID of the old group. Default is 0.  The possible values for this attribute are defined by the W3C XML Schema int datatype.

[*Note:* The W3C XML Schema definition of this element's content model ([CT\\_Entry](#)) is located in §A.7.2. *end note]*

### 19.2.2.10 equationxml (Storage for Alternate Math Content)

This element specifies XML markup for mathematical text which can be used in place of the shape data. [*Note:* Applications are encouraged to use an open format, such as the Math format defined in ECMA-376-1, or the MathML format, a Recommendation from the World Wide Web Consortium, available at <http://www.w3.org/TR/MathML/>. *end note]*

[*Example:* Consider a VML object which specifies alternate math content using MathML. This object might contain the following XML markup:

```
<v:shape>
...
<o:equationXml contentType="mathml">
  <mrow>
    <mrow>
      <msup>
        <mi>x</mi>
        <mn>2</mn>
      </msup>
```



```
<mo>+</mo>
<mrow>
  <mn>4</mn>
  <mo>*</mo>
  <mi>x</mi>
</mrow>
<mo>+</mo>
<mn>4</mn>
</mrow>
<mo>=</mo>
<mn>0</mn>
</mrow>
</o:equationXml>
</v:shape>
```

The embedded MathML markup is stored within the equationxml element. *end example*]

If a producer that wants interoperability supports equations, it should use one of the following standard formats:

- Office Open XML Math (Part 1, §22.1
- W3C MathML 2.0

Attributes	Description
contentType (Content Type of Alternate Math Content)	Specifies the syntax of the markup used for the alternate math content stored in the equationxml attribute.  The possible values for this attribute are defined by the ST_AlternateMathContentType simple type (§19.2.3.1).

[*Note:* The W3C XML Schema definition of this element’s content model ([CT\\_EquationXml](#)) is located in §A.7.2. *end note*]

19.2.2.11      [extrusion \(3D Extrusion\)](#)

This element specifies a parallel or perspective extrusion of a 2-D shape, creating the appearance of a 3-D shape. Lighting is controlled via two independent point light sources. Extrusions are defined as either perspective or parallel.

[*Example:*


```
<v:polyline points="0pt,75pt 20pt,45pt 10pt,50pt 30pt,10pt
50pt,50pt 40pt,45pt 60pt,75pt 0pt,75pt" fillcolor="#00a000">
  <o:extrusion on="t" backdepth="20pt"
    lightposition="30000,10000,10000"/>
```








```
</v:polyline>
```





*end example]*

Attributes	Description
<b>autorotationcenter</b> (Center of Rotation Toggle)	<p>Specifies whether the center of rotation is the geometric center of the extrusion. Default is <code>false</code>. If <code>true</code>, the geometric center of an extruded shape is (0,0,0). If <code>false</code>, the center of rotation is determined by the <code>rotationcenter</code> attribute.</p> <p>The possible values for this attribute are defined by the <code>ST_TrueFalse</code> simple type (§20.1.2.5).</p>
<b>backdepth</b> (Backward Extrusion Depth)	<p>Specifies the amount of backward extrusion. Default is 36 pt, default units are points.</p> <p><i>[Example:</i></p> <pre>&lt;o:extrusion on="true" backdepth="15pt"&gt; &lt;/o:extrusion&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>brightness</b> (Brightness)	<p>Specifies the overall brightness of a scene. Default is 0.3. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied (as "f" indicates the value is a fraction). For example, a value of "52429f" represents 52429/65536 or 0.8.</p> <p>This quantity is not specified using units. The numeric values are in the range 0 to 1 (0f to 65536f), where 0 implies darkness and 1 implies light saturation.</p> <p><i>[Example:</i></p> <pre>&lt;o:extrusion on="true" brightness="0.4"&gt; &lt;/o:extrusion&gt;</pre>





Attributes	Description
	<div></div> <div>brightness="0"</div> <div></div> <div>brightness="25000f"</div> <div></div> <div>brightness="0.4"</div> <div></div> <div>brightness="0.75"</div> <div><i>end example]</i></div> <div>The possible values for this attribute are defined by the W3C XML Schema string datatype.</div>
color (Extrusion Color)	<div>Specifies the color of the extrusion faces. This attribute is only used when colormode is custom. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</div> <div><i>[Example:</i></div> <div><pre>&lt;o:extrusion on="true" color="lime"   colormode="custom"&gt; &lt;/o:extrusion&gt;</pre></div> <div></div> <div><i>end example]</i></div> <div>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</div>
colormode (Extrusion Color Mode)	<div>Specifies whether the extrusion color is defined by the color attribute or is the same as the shape's fill color. Default is auto.</div> <div><i>[Example:</i></div>






Attributes	Description
	<pre>&lt;o:extrusion on="true" color="lime"   colormode="auto"&gt; &lt;/o:extrusion&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorMode simple type (§19.2.3.6).</p>
diffusivity (Diffuse Reflection)	<p>Specifies the amount of diffusion of reflected light from an extruded shape, defined as the ratio of incident light to diffused reflected light. Default is 1. Normal values are in the range 0 to 1. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied (as "f" indicates the value is a fraction). <i>[Example: A value of "52429f" represents 52429/65536 or 0.8. end example]</i></p> <p>This quantity is not specified using units. The numeric values are in the range 0 to 1 (0f to 65536f), where 0 implies all reflected light is diffuse and 1 implies no reflected light is diffuse.</p> <p>Specularity and diffusivity should be considered together as it is possible, though physically incorrect, to define more reflected light than incident light. This is the case if the amount of specularly reflected light and diffusely reflected light add up to more than the amount of incident light.</p> <p><i>[Example:</i></p> <pre>&lt;o:extrusion on="true" diffusivity=".75"&gt; &lt;/o:extrusion&gt;</pre> <div>  <p>diffusivity="0"</p> <p>diffusivity="0.5"</p> <p>diffusivity="0.75"</p> </div>




Attributes	Description
	 <p>diffusivity="1"</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
edge (Simulated Bevel)	<p>Specifies the apparent bevel of the extrusion edges. Default is 1 point.</p> <p>[Example:</p> <pre>&lt;o:extrusion on="true" edge="2pt"&gt;   &lt;/o:extrusion&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
ext (VML Extension Handling Behavior)  Namespace: urn:schemas-microsoft-com:vmf	<p>Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.</p> <p>[<i>Rationale:</i> This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale]</i></p> <p>The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).</p>
facet (Faceting Quality)	<p>Specifies the quality with which the application approximates curved surfaces of an extrusion. A higher facet value produces shapes with smoother curves. A lower value reduces smoothing, resulting in curves with sharper, jagged edges. Default is 30000.</p> <p>Allowed values are in the range 1 to 65536, where 1 implies extremely low quality curve approximation and 65536 implies extremely high quality.</p> <p>[Example:</p> <pre>&lt;o:extrusion on="true" facet="65536"&gt;   &lt;/o:extrusion&gt;</pre>





Attributes	Description
	 <p>facet="65536"</p> <p>facet="100"</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
foredepth (Forward Extrusion)	<p>Specifies the amount of forward extrusion. Default is 0 pt, default units are points.</p> <p>[Example:</p> <pre>&lt;o:extrusion on="true" foredepth="25pt"&gt; &lt;/o:extrusion&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
lightface (Shape Face Lighting Toggle)	<p>Specifies whether the front face of the extrusion responds to changes in the lighting. If false, the front face does not respond when a lighting value changes. Default is true.</p> <p>[Example: The front face is colored as if the shape were not extruded and lit by a 3-D light source:</p> <pre>&lt;o:extrusion on="true" lightface="false"&gt; &lt;/o:extrusion&gt;</pre>  <p><i>end example]</i></p>



Attributes	Description
	The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).
lightharsh (Primary Light Harshness Toggle)	<p>Specifies whether the primary light source is harsh. If <code>false</code>, shadow boundaries are diffused. Default is <code>true</code>.</p> <p>[<i>Example</i>: The secondary light source is turned off so only the primary has an effect:</p> <pre>&lt;o:extrusion on="true" lightharsh="false"   lightlevel2="0"&gt; &lt;/o:extrusion&gt;</pre> <div>  <p style="margin-left: 100px;">lightharsh="false"</p> <p style="margin-left: 100px;">lightharsh="true"</p> </div> <p><i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
lightharsh2 (Secondary Light Harshness Toggle)	<p>Specifies whether the secondary light source is harsh. If <code>false</code>, shadow boundaries defined by the secondary light source are diffused. Default is <code>false</code>.</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
lightlevel (Primary Light Intensity)	<p>Specifies the intensity of the primary light source for the scene. Default is 0.6. This numeric value can also be specified in 1/65536ths if a trailing "f" is supplied (as "f" indicates the value is a fraction). [<i>Example</i>: A value of "52429f" represents 52429/65536 or 0.8. <i>end example</i>]</p> <p>This quantity is not specified using units. The numeric values are in the range 0 to 1 (0f to 65536f), where 0 implies no direct light and 1 implies saturated direct light.</p> <p>[<i>Example</i>: The secondary light source is turned off so only the primary has an effect:</p> <pre>&lt;o:extrusion on="true" lightlevel=".5"   lightlevel2="0"&gt; &lt;/o:extrusion&gt;</pre>

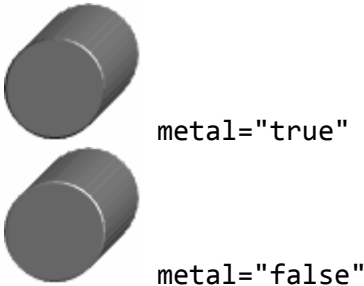



Attributes	Description
	 <p>lightlevel="1"</p> <p>lightlevel="0.5"</p> <p>lightlevel="0"</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
lightlevel2 (Secondary Light Intensity)	<p>Specifies the intensity of the secondary light source for the scene. Default is 0.6. This numeric value can also be specified in 1/65536-ths if a trailing "f" is supplied (as "f" indicates the value is a fraction). [<i>Example:</i> A value of "52429f" represents 52429/65536 or 0.8. <i>end example]</i></p> <p>This quantity is not specified using units. The numeric values are in the range 0 to 1 (0f to 65536f), where 0 implies no direct light and 1 implies saturated direct light.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
lightposition (Primary Light Position)	<p>Specifies the normalized X,Y,Z position of the primary light in a scene in 1/65536-ths. Default is "50000,0,10000". The use of a normalized vector from the shape origin effectively establishes the direction of the light relative to the shape. The distance of the light from the shape is irrelevant as the light source is treated as a directional light.</p> <p>The position "0,0,0" is at the center of the shape. Positive numbers move the light to the right, down and toward the viewer, respectively.</p> <p>[<i>Example:</i> The secondary light source is turned off so only the primary has an effect:</p> <pre>&lt;o:extrusion on="true" lightlevel2="0"   lightposition="7000,-13000,20000"&gt; &lt;/o:extrusion&gt;</pre> 




Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>lightposition2 (Secondary Light Position)</p>	<p>Specifies the X,Y,Z position of the secondary light in a scene in 1/65536-ths. Default is "-50000,0,10000". The use of a normalized vector from the shape origin effectively establishes the direction of the light relative to the shape. The distance of the light from the shape is irrelevant as the light source is treated as a directional light.</p> <p>The position "0,0,0" is at the center of the shape. Positive numbers move the light to the right, down and toward the viewer, respectively.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>lockrotationcenter (Rotation Toggle)</p>	<p>Specifies whether the rotation of the extruded object is specified by the rotationangle attribute. If false, the rotation is specified by the orientation attribute. Default is true.</p> <p>[Example: The following snippets are equivalent:</p> <pre> &lt;o:extrusion lockrotationcenter="false"   orientationangle="45" orientation="0,1,0"&gt; &lt;/o:extrusion&gt;  &lt;o:extrusion lockrotationcenter=true   rotationangle="45"/&gt; &lt;/o:extrusion&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>metal (Metallic Surface Toggle)</p>	<p>Specifies whether the surface of the extruded shape resembles metal. Default is false.</p> <p>If true, this attribute causes the specularly reflected light to be the material color instead of the light source color, making the object seem more metallic. To further approximate a metallic material requires that specularity be relatively high (about 1.2) and diffusivity be relatively low (about 0.6).</p> <p>[Example:</p> <pre> &lt;o:extrusion on="true" metal="true"   lightposition="10000,-10000,10000"   lightlevel2="0" specularity="1.2"   diffusivity="0.6"&gt; </pre>

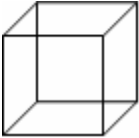



Attributes	Description
	<p><code>&lt;/o:extrusion&gt;</code></p>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
on (Extrusion Toggle)	<p>Specifies whether an extrusion is displayed. Default is false.</p> <p>[Example:</p> <pre>&lt;v:rect style="width=50;height=50"&gt;   &lt;o:extrusion /&gt; &lt;/v:rect&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
orientation (Rotation Axis)	<p>Specifies a vector in 3D space around which the shape is rotated, as given by the orientationangle attribute. Default is "100,0,0".</p> <p>The position "0,0,0" is at the center of the shape. Positive numbers are to the right, down and toward the viewer, respectively.</p> <p>[Example:</p> <pre>&lt;o:extrusion ... orientation="200,0,0"&gt; &lt;/o:extrusion&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string</p>





Attributes	Description								
	datatype.								
orientationangle (Rotation Around Axis)	<p>Specifies the angle, in degrees, that an extrusion rotates around the orientation. Default is 0.</p> <p>[Example:</p> <pre>&lt;o:extrusion ... orientationangle="30"&gt; &lt;/o:extrusion&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>								
plane (Extrusion Direction)	<p>Specifies the plane that is at right angles to the extrusion. Default is xy. Allowed values are:</p> <ul style="list-style-type: none"><li>• xy</li><li>• zx</li><li>• yz</li></ul> <p>[Example:</p> <pre>&lt;o:extrusion on="true" plane="yz"   backdepth="100pt"&gt; &lt;/o:extrusion&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_ExtrusionPlane simple type (§19.2.3.11).</p>								
render (Extrusion Render Mode)	<p>Specifies the rendering mode of the extrusion. Default is solid. Allowed values are:</p> <table><tr><th>Value</th><th>Description</th></tr><tr><td>solid</td><td>Rendering displays a solid shape.</td></tr><tr><td>wireframe</td><td>Rendering displays a wireframe shape.</td></tr><tr><td>boundingcube</td><td>Rendering displays the bounding cube that contains the shape.</td></tr></table>	Value	Description	solid	Rendering displays a solid shape.	wireframe	Rendering displays a wireframe shape.	boundingcube	Rendering displays the bounding cube that contains the shape.
Value	Description								
solid	Rendering displays a solid shape.								
wireframe	Rendering displays a wireframe shape.								
boundingcube	Rendering displays the bounding cube that contains the shape.								

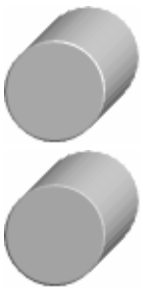


Attributes	Description
	<p>[Example:</p> <pre>&lt;o:extrusion on="true" render="wireframe"&gt; &lt;/o:extrusion&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_ExtrusionRender simple type (§19.2.3.12).</p>
<p>rotationangle (X-Y Rotation Angle)</p>	<p>Specifies the rotation of the object about the x- and y-axes, in degrees. Default is "0,0". Positive angles are measured clockwise around the axis (as if viewing from the positive axis).</p> <p>The rotation of the object is defined by a rotation angle about the y-axis followed by the rotation angle about the x-axis. The z-axis angle is controlled by the value of the CSS style attribute's rotation property.</p> <p>[Example:</p> <pre>&lt;o:extrusion on="t" lockrotationcenter="true"   rotationangle="10,20"&gt; &lt;/o:extrusion&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>rotationcenter (Rotation Center)</p>	<p>Specifies the center of rotation for a shape if autorotationcenter is false. The offset of the rotation is specified in terms of fractions of the shape's size. Default is "0,0,0".</p> <p>The position "0,0,0" is at the center of the shape. Positive numbers are to the right, down and toward the viewer, respectively.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>





Attributes	Description
shininess (Shininess)	<p>Specifies the concentration of the reflected light on an extrusion surface. Default is 5. The range of values should be constrained to 0-10. Reflection intensity typically grows exponentially with the shininess value.</p> <p>High values (8-10) approximate the shininess of a mirror and low values (2-3) approximate a speckled effect. Reflections do not mirror other objects; only pinpoint light sources are reflected.</p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
skewamt (Extrusion Skew)	<p>Specifies the amount of skew, or length, of a parallel extrusion. Default is 50%. Applies only if the extrusion type is <code>parallel</code>. This attribute and <code>backdepth</code> interact to create the actual extrusion length. Allowed values are in the range 0 (0%) to 1 (100%).</p> <p>[Example:</p> <pre>&lt;o:extrusion on="true" skewamt="100%"&gt; &lt;/o:extrusion&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
skewangle (Extrusion Skew Angle)	<p>Specifies the angle of the skew of a parallel extrusion. Default is 225 degrees. Angles are measured in degrees, counterclockwise from the negative x-axis. Applies only if the extrusion type is <code>parallel</code>.</p> <p>[Example:</p> <pre>&lt;o:extrusion on="true" skewangle="25"&gt; &lt;/o:extrusion&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema float datatype.</p>
specularity	Specifies the specularity of an extruded shape, defined as the ratio of incident light to




Attributes	Description						
(Specularity)	<p>specularly reflected light. Default is 0. Normal values are in the range 0 to 1. This numeric value can also be specified in 1/65536ths if a trailing "f" is supplied (as "f" indicates the value is a fraction). <i>[Example: A value of "52429f" represents 52429/65536 or 0.8. end example]</i></p> <p>Specularity and diffusity should be considered together as it is possible, though physically incorrect, to define more reflected light than incident light. This is the case if the amount of specularly reflected light and diffusely reflected light add up to more than the amount of incident light.</p> <p><i>[Example: The secondary light source is turned off so only the primary has an effect. Although the effect is subtle, the first cylinder has a sharper specular reflection on its edge:</i></p> <pre>&lt;o:extrusion on="true" specularity="1"   lightposition="10000,-10000,10000"   lightlevel2="0"&gt; &lt;/o:extrusion&gt;</pre> <div>  <p>specularity="1"</p> <p>specularity="0"</p> </div> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>						
type (Extrusion Type)	<p>Specifies the way that the shape is extruded. Default is parallel. Allowed values are:</p> <table border="1"> <thead> <tr> <th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>parallel</td><td>Extrusion is rendered so that the center of projection is infinitely far away; that is, the extrusion lines do not converge (unlike perspective projections).</td></tr> <tr> <td>perspective</td><td>Extrusion is rendered to a center of projection, which is the same as the vanishing point for unrotated objects.</td></tr> </tbody> </table> <p><i>[Example:</i></p>	Value	Description	parallel	Extrusion is rendered so that the center of projection is infinitely far away; that is, the extrusion lines do not converge (unlike perspective projections).	perspective	Extrusion is rendered to a center of projection, which is the same as the vanishing point for unrotated objects.
Value	Description						
parallel	Extrusion is rendered so that the center of projection is infinitely far away; that is, the extrusion lines do not converge (unlike perspective projections).						
perspective	Extrusion is rendered to a center of projection, which is the same as the vanishing point for unrotated objects.						



Attributes	Description
	<pre>&lt;o:extrusion on="true" type="parallel"   backdepth="100pt"&gt; &lt;/o:extrusion&gt;</pre> <div>  <div>type="parallel"</div> <div>type="perspective"</div> </div> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ExtrusionType simple type (§19.2.3.13).</p>
<p>viewpoint (Extrusion Viewpoint)</p>	<p>Specifies the viewpoint of the observer in EMUs. This is effectively the end of a vector extending from the viewpointorigin.</p> <p>The position "0,0,0" is at the center of the shape. Positive numbers are to the right, down and toward the viewer, respectively.</p> <p><i>[Example:</i></p> <pre>&lt;o:extrusion on="true" type="perspective"   viewpoint="500000,-100000,100000"&gt; &lt;/o:extrusion&gt;</pre> <div>  </div> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>viewpointorigin (Extrusion Viewpoint Origin)</p>	<p>Specifies the origin of the viewpoint vector for perspective extrusions. This is the origin of the vector whose opposite end is given by the viewpoint attribute. This origin is always within the bounding box of the shape. Default is "0.5,-0.5".</p> <p>The viewpoint is specified in terms of the x and y values of the original shape. The x and y</p>



Attributes	Description
	<p>values are in the range 0.5 to -0.5 (50% to -50% of the shape's coordinate origin). Larger numbers move the viewpoint outside the bounding box.</p> <p>[Example:</p> <pre>&lt;o:extrusion on="true" type="perspective"   viewpoint="500000,-100000,100000"   viewpointorigin="0,1"&gt; &lt;/o:extrusion&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Extrusion](#)) is located in §A.7.2. *end note*]

#### 19.2.2.12 FieldCodes (WordprocessingML Field Switches)

This element specifies the WordprocessingML field switches which shall be stored with an embedded object, using the set of field switches defined by the LINK field, as specified in Part 1, §17.16. This element shall only be used within a WordprocessingML document, and shall specify the exact field switches for the field which represents the object..

[*Rationale:* Legacy word processors used fields to represent embedded objects – this element stores the field switches not explicitly defined using individual Office VML Drawing elements for embeddings so as not to use the fidelity of their contents. *end rationale*]

[*Example:* The following example inserts an embedded object and specifies additional properties as defined by the LINK field.

```
<o:OLEObject ...>
  <o:FieldCodes>\f 0</o:FieldCodes>
</o:OLEObject>
```

This embedded object specifies additional LINK field code values of \f 0, which specifies that the embedded object shall retain its source formatting (as defined in Part 1, §17.16).

*end example]*



The possible values for this element are defined by the W3C XML Schema string datatype.

#### 19.2.2.13 fill (Shape Fill Extended Properties)

This element specifies additional properties for fills. It is used to identify additional types of gradient fills beyond those specified in the fill element (§19.1.2.5).

Attributes	Description
ext (VML Extension Handling Behavior)  Namespace: urn:schemas-microsoft-com:vmf	<p>Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.</p> <p>[<i>Rationale</i>: This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale</i>]</p> <p>The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).</p>
type (Fill Type)	<p>Specifies the type of fill. If specified, this overrides the value of the type attribute in the parent fill element.</p> <p>[<i>Example</i>: The gradientCenter value overrides gradientRadial:</p> <pre>&lt;v:fill color2="black" focus="100%" type="gradientRadial"&gt;   &lt;o:fill v:ext="view" type="gradientCenter"/&gt; &lt;/v:fill&gt;</pre> <p><i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_FillType simple type (§19.2.3.14).</p>

[*Note*: The W3C XML Schema definition of this element's content model (CT\_Fill) is located in §A.7.2. *end note*]

#### 19.2.2.14 idmap (Shape ID Map)

This element specifies how shape IDs in the document have been generated. This is an optional element included to allow applications a mechanism for storing information they need to persist related to generating shape IDs.

Attributes	Description
data (Shape IDs)	<p>Specifies the data the application uses to generate shape IDs.</p> <p>[<i>Example</i>: An application might choose to reserve blocks of shape ID numbers for each part in the package. Each block of 1024 shape IDs could be referred to by index and this index stored in the data attribute. The data value for a given part might then be:</p> <pre>&lt;o:idmap v:ext="edit" data="1"/&gt;</pre>



Attributes	Description
	<p>indicating that all the IDs in block 1 are reserved by this part ( meaning shape IDs from 1 to 1024 cannot be used ). The application's internal constraint would be that each part reserve a different set of IDs. Another part, that contains more shapes, might use:</p> <pre>&lt;o:idmap v:ext="edit" data="2,3"/&gt;</pre> <p>In this case, shape IDs from 1025 to 3072 [ 3 x 1024 ] cannot be used ).</p> <p>Another implementation might choose to store more verbose information in this attribute. Yet another implementation might ignore this element completely.</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>ext (VML Extension Handling Behavior)</p> <p>Namespace: urn:schemas-microsoft-com:vml</p>	<p>Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.</p> <p>[<i>Rationale:</i> This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale]</i></p> <p>The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).</p>

[*Note:* The W3C XML Schema definition of this element's content model ([CT\\_IdMap](#)) is located in §A.7.2. *end note]*

#### 19.2.2.15 [ink \(Ink\)](#)

This element specifies the presence of an ink object. An ink object is a VML object which allows applications to store data for ink annotations. [*Note:* Applications are encouraged to use an open-ink format, such as the Ink Markup Language (InkML). *end note]*

[*Example:*

```
<v:shape ... >
  <o:ink i="..." annotation="t" contentType="application/inkml+xml"/>
</v:shape>
<v:shape ... >
  <o:ink i="AMgFHQSWC+YFASAAaAwAAAAAAMA..." annotation="t"
    contentType="application/x-ms-ink"/>
</v:shape>
```



*end example]*

Attributes	Description
annotation (Annotation Flag)	<p>Specifies whether the ink object was created as an annotation rather than through pen input. Default is <code>false</code>. [<i>Rationale</i> This allows an application to treat annotation ink objects as any other annotation. For example, if annotations are hidden, the application can hide the ink object. An ink object that represents primary user input through a pen can be left visible. <i>end rationale</i>]</p> <p>[<i>Example:</i></p> <pre>&lt;o:ink ... annotation="true"&gt; &lt;/o:ink&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the <code>ST_TrueFalse</code> simple type (§20.1.2.5).</p>
contentType (Content Type)	<p>Specifies the format of the ink content stored in the <code>i</code> attribute. The syntax is a content type as defined in IETF RFC 2616.</p> <p>If this attribute is omitted, the application should attempt to determine the content type by reading the contents of the <code>i</code> element.</p> <p>The possible values for this attribute are defined by the <code>ST_ContentType</code> simple type (§19.2.3.9).</p>
i (Ink Data)	<p>Specifies additional ink object information which shall be associated with the parent VML shape. The VML shape specifies the information necessary to render the ink, and this attribute can be used to store additional data about the VML shape(s) representing ink. This attribute's contents are formatted as specified by the <code>contentType</code> attribute, but are optional and can be ignored if not recognized.</p> <p>[<i>Example:</i></p> <pre>&lt;o:ink ... i="..."&gt; &lt;/o:ink&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[*Note:* The W3C XML Schema definition of this element's content model (`CT_Ink`) is located in §A.7.2. *end note*]

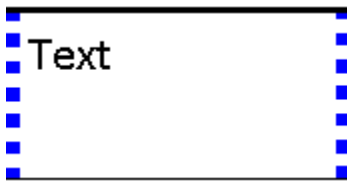


### 19.2.2.16 left (Text Box Left Stroke)

This element specifies the stroke properties for the left border of a text box. It entirely supercedes its parent stroke element if its on attribute is true. Thus the default value of an unspecified attribute overrides a value specified in the parent. If the on attribute is false or not specified, the border is not shown.

[*Example:* The text box borders are set independently. The bottom border does not inherit the weight from the parent stroke element.

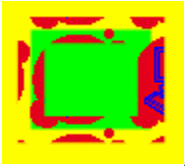

```
<v:stroke weight="2.25pt">
  <o:left v:ext="view" dashstyle="1 1" color="blue" weight="5pt" on="t"/>
  <o:top v:ext="view" color="black" weight="2.25pt" on="t"/>
  <o:right v:ext="view" dashstyle="1 1" color="blue" weight="5pt" on="t"/>
  <o:bottom v:ext="view" color="black" on="t"/>
  <o:column v:ext="view" color="#f60" on="t"/>
</v:stroke>
```





*end example]*

Attributes	Description
althref (Alternate Image Reference)	<p>Specifies an alternate reference for an image in Macintosh PICT format.</p> <p>[<i>Example:</i></p> <pre>&lt;v:stroke ... althref="myimage.pcz" ... &gt; &lt;/v:stroke&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
color (Stroke Color)	<p>Specifies the stroke color. Overrides the strokecolor attribute of a shape. Default is black. See the fillcolor attribute for a list of supported named colors.</p> <p>[<i>Example:</i> The shape stroke is blue:</p> <pre>&lt;v:shape ... strokecolor="red" ... &gt;   &lt;v:stroke color="blue"/&gt; &lt;/v:shape&gt;</pre>

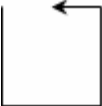

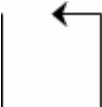


Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<p>color2 (Stroke Alternate Pattern Color)</p>	<p>Specifies a second color for strokes, used when filltype is pattern. Default is no value.</p> <p>When a pattern fill is used for the stroke, the stroke color is used in colored parts of the source image. The color2 defines an alternate color to use in place of black in the source image.</p> <p>[<i>Example:</i> This unusual example is intended to demonstrate how the image and colors interact to create a patterned stroke. The yellow background shows transparency. The non-square shape and square image create an effective offset. The heavy stroke weight shows more of the image. The green shape fill shows how the stroke is overlaid on the shape.</p> <pre> &lt;v:background fillcolor="yellow"/&gt; &lt;v:shape style="width:60;height:50"   strokecolor="red" fillcolor="lime"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:stroke filltype="pattern" weight="10pt"     src="myimage.gif" color2="blue"/&gt; &lt;/v:shape&gt; </pre>  <p>, where myimage.gif is: </p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<p>dashstyle (Stroke Dash Pattern)</p>	<p>Specifies the dot and dash pattern for a stroke. Default is solid. Pre-defined values are:</p> <ul style="list-style-type: none"> <li>• solid</li> <li>• shortdash</li> <li>• shortdot</li> <li>• shortdashdot</li> <li>• shortdashdotdot</li> <li>• dot</li> <li>• dash</li> <li>• longdash</li> <li>• dashdot</li> <li>• longdashdot</li> <li>• longdashdotdot</li> </ul>




Attributes	Description
	<p>A custom-defined dash pattern can also be specified using a series of numbers. These define the length of the dash (the drawn part of the stroke) and the length of the space between the dashes. The lengths are relative to the line width: a length of 1 is equal to the line width. The endcap style is applied to each dash but the arrow style is not. The string defines the length of the dash then the length of the space. This can be repeated to form complex dash styles. The string should always contain a pair of numbers; if it contains an odd number of numbers the last is disregarded. 0 implies a dot that is fourfold symmetrical (with round end caps, this is a circle).</p> <p>[Example:</p> <pre>&lt;v:stroke dashstyle="0 2" weight="3pt"   endcap="round"&gt; &lt;/v:stroke&gt;</pre>  <pre>&lt;v:stroke dashstyle="longdashdotdot"   weight="2pt"&gt; &lt;/v:stroke&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
endarrow (Line End Arrowhead)	<p>Specifies an arrowhead for the end of a line. Default is none. The path shall not be closed with the x command for the arrowhead to show. Allowed values are:</p> <ul style="list-style-type: none"> <li>• none</li> <li>• block</li> <li>• classic</li> <li>• diamond</li> <li>• oval</li> <li>• open</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke endarrow="classic"/&gt;</pre>





Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowType simple type (§19.1.3.8).</p>
endarrowlength (Line End Arrowhead Length)	<p>Specifies the length of the arrowhead at the end of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• short</li> <li>• medium</li> <li>• long</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... endarrowlength="long" ... /&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowLength simple type (§19.1.3.7).</p>
endarrowwidth (Line End Arrowhead Width)	<p>Specifies the width of the arrowhead at the end of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• narrow</li> <li>• medium</li> <li>• wide</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... endarrowwidth="wide" ... /&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowWidth simple</p>





Attributes	Description
<p>endcap (Line End Cap)</p>	<p>type (§19.1.3.9).</p> <p>Specifies the cap style for the end of a stroke. Default is <code>flat</code>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <code>flat</code></li> <li>• <code>square</code></li> <li>• <code>round</code></li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... endcap="round" weight="10pt" ... /&gt;</pre>  <p>The image shows three thick black lines, each ending in a different style. The top line ends in a flat, horizontal cut. The middle line ends in a square, where the stroke continues as a small square. The bottom line ends in a rounded, semi-circular shape.</p> <p>endcap="flat"</p> <p>endcap="square"</p> <p>endcap="round"</p> <p>end example]</p> <p>The possible values for this attribute are defined by the <code>ST_StrokeEndCap</code> simple type (§19.1.3.10).</p>
<p>ext (VML Extension Handling Behavior)</p> <p>Namespace: urn:schemas-microsoft-com:VML</p>	<p>Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.</p> <p>[Rationale: This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale</i>]</p> <p>The possible values for this attribute are defined by the <code>ST_Ext</code> simple type (§19.1.3.2).</p>
<p>filltype (Stroke Image Style)</p>	<p>Specifies the kind of fill used for the background of a stroke. Default is <code>solid</code>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <code>solid</code> - The fill pattern is solid.</li> <li>• <code>tile</code> - The fill image is tiled.</li> <li>• <code>pattern</code> - The fill image is stretched to form a pattern.</li> <li>• <code>frame</code> - The fill image becomes a border for the shape.</li> </ul> <p>[Example:</p>

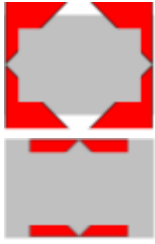


Attributes	Description
	<pre> &lt;v:shape style="width:50;height:50"   strokecolor="red"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:stroke filltype="frame" weight="10pt"     src="border.gif"/&gt; &lt;/v:shape&gt; </pre>   <p>, where border.gif is:</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_FillType simple type (§19.1.3.4).</p>
<b>forcedash</b> (Force Dashed Outline)	<p>Specifies whether a dashed outline is used to draw a shape when a shape has no line or fill. Default is <i>false</i>.</p> <p>Used by PresentationML placeholders to draw a dashed outline when there is no line and no fill for a shape.</p> <p>[<i>Example:</i></p> <pre> &lt;v:shape ... o:forcedash="true" ... &gt; &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<b>href</b> (Original Image Reference)	<p>Specifies the URL to the original image file. Used only if the picture has been linked and embedded. Default is no value.</p> <p>[<i>Example:</i></p> <pre> &lt;v:fill ... o:href="myimage.gif" ... &gt; &lt;/v:fill&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>imagealignshape</b> (Stoke Image	<p>Specifies the alignment of the stroke image. If <i>true</i>, the image is aligned with the shape. Otherwise, it is aligned with the containing scope. Default is <i>true</i>.</p>





Attributes	Description								
Alignment)	<p>[Example: The top position offset shifts the image alignment relative to the containing window:</p> <pre>&lt;v:shape fillcolor="silver"   style="top:20;width:50;height:50"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:stroke imagealignshape="false" weight="20pt"     filltype="tile" src="myimage.gif"/&gt; &lt;/v:shape&gt;</pre>  <p>imagealignshape="false"</p> <p>imagealignshape="false"</p> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>								
imageaspect (Stroke Image Aspect Ratio)	<p>Specifies how the stroke image aspect ratio is preserved. Default is ignore. Allowed values are:</p> <table border="1"> <thead> <tr> <th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>ignore</td><td>Ignore aspect issues.</td></tr> <tr> <td>atleast</td><td>Image is at least as big as imagesize.</td></tr> <tr> <td>atmost</td><td>Image is no bigger than imagesize.</td></tr> </tbody> </table> <p>[Example:</p> <pre>&lt;v:stroke filltype="frame" weight="10pt"   src="border.gif" imagealignshape="true"   imageaspect="atleast"&gt; &lt;/v:stroke&gt;</pre>  <p>imagealignshape="ignore"</p>	Value	Description	ignore	Ignore aspect issues.	atleast	Image is at least as big as imagesize.	atmost	Image is no bigger than imagesize.
Value	Description								
ignore	Ignore aspect issues.								
atleast	Image is at least as big as imagesize.								
atmost	Image is no bigger than imagesize.								


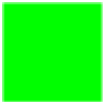
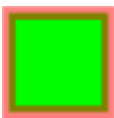


Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ImageAspect simple type (§19.1.3.5).</p>
imagesize (Stroke Image Size)	<p>Specifies the size of the image for the stroke. Default is the size of the image.</p> <p>[Example:</p> <pre>&lt;v:stroke ... imagesize="10pt,10pt" ... /&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
insetpen (Inset Border From Path)	<p>Specifies that the border shall be displayed inside of the path defining the shape, rather than along the path (the default border placement), or outside of the path as might be done with an image.</p> <p>[Example:</p> <pre>&lt;v:shape ... insetpen="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
joinstyle (Line End Join Style))	<p>Specifies the join style for line ends. Default is round.</p> <ul style="list-style-type: none"> <li>• round</li> <li>• bevel</li> <li>• miter</li> </ul> <p>[Example:</p> <pre>&lt;v:polyline strokeweight="10pt" strokecolor="navy" points="10pt,10pt,50pt,50pt,90pt,10pt"&gt;</pre>

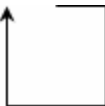


Attributes	Description
	<pre>&lt;v:stroke joinstyle="bevel"/&gt; &lt;/v:polyline&gt;</pre>  <p>joinstyle="round"</p> <p>joinstyle="bevel"</p> <p>joinstyle="miter"</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeJoinStyle simple type (§19.1.3.11).</p>
linestyle (Stroke Line Style)	<p>Specifies the line style of the stroke. Default is single.</p> <ul style="list-style-type: none"> <li>• single</li> <li>• thinThin</li> <li>• thinThick</li> <li>• thickThin</li> <li>• thickBetweenThin</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke linestyle="thickThin" weight="5pt"&gt; &lt;/v:stroke&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeLineStyle simple type (§19.1.3.12).</p>
miterlimit (Miter Joint Limit)	<p>Specifies the smoothness of the miter joint, or the maximum distance between the inner point and outer point of a joint. This number is a multiple of the thickness of the line. Default is 8.</p> <p>[Example:</p>

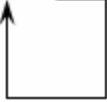
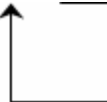


Attributes	Description
	<pre>&lt;v:stroke joinstyle="miter" weight="10pt"   miterlimit="2"&gt; &lt;/v:stroke&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema decimal datatype.</p>
on (Stroke Toggle)	<p>Specifies whether the stroke is displayed. Default is true. This attribute overrides the shape's stroke attribute.</p> <p>[Example:</p> <pre>&lt;v:rect style="width:50;height:50" stroked="true"   fillcolor="lime" strokecolor="red"&gt;   &lt;v:stroke on="false" weight="5pt"/&gt; &lt;/v:rect&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
opacity (Stroke Opacity)	<p>Specifies the amount of transparency of a stroke. Default is 1.0.</p> <p>[Example:</p> <pre>&lt;v:rect style="width:50;height:50"   fillcolor="lime" strokecolor="red"&gt;   &lt;v:stroke weight="5pt" opacity="50%"/&gt; &lt;/v:rect&gt;</pre>  <p><i>end example]</i></p>



Attributes	Description
src (Stroke Image Location)	<p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p> <p>Specifies the source image to load for a stroke fill. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:stroke ... src="myimage.gif" ... &gt; &lt;/v:stroke&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
startarrow (Line Start Arrowhead)	<p>Specifies an arrowhead for the start of a line. Default is none. The path shall not be closed with the x command for the arrowhead to show. Allowed values are:</p> <ul style="list-style-type: none"> <li>• none</li> <li>• block</li> <li>• classic</li> <li>• diamond</li> <li>• oval</li> <li>• open</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke startarrow="classic"/&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_StrokeArrowType simple type (§19.1.3.8).</p>
startarrowlength (Line Start Arrowhead Length)	<p>Specifies the length of the arrowhead at the start of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• short</li> <li>• medium</li> <li>• long</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... startarrowlength="long" ... /&gt;</pre>



Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowLength simple type (§19.1.3.7).</p>
<b>startarrowwidth</b> (Line Start Arrowhead Width)	<p>Specifies the width of the arrowhead at the start of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• narrow</li> <li>• medium</li> <li>• wide</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... startarrowwidth="wide" ... /&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowWidth simple type (§19.1.3.9).</p>
<b>title</b> (Stroke Title)	<p>Specifies the title of an embedded stroke image. This is typically set to the comment property of the image, which is often blank.</p> <p>[Example:</p> <pre>&lt;v:fill ... o:title="alt text" ... &gt; &lt;/v:fill&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>weight</b> (Stroke Weight)	<p>Specifies the thickness of a stroke. Default is 1. This attribute overrides the shape's strokeweight attribute.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>



[*Note:* The W3C XML Schema definition of this element's content model ([CT\\_StrokeChild](#)) is located in §A.7.2. *end note*]

#### 19.2.2.17 [LinkType \(Embedded Object Alternate Image Request\)](#)

This element specifies the kind of image which shall be requested from an embedded object's host application when the contents of a linked image are updated within a document. When linked images are stored in documents, the only items stored in the document are an image representation and a link to the source. This element specifies the kind of image which shall be requested from the source on update.

[*Note:* The formats available can vary based on the kind of embedded object - this information is typically queried from the embedded object's application before it is stored. This setting can be omitted, and is usually stored for performance reasons, so it is not queried on each update of the linked object. *end note*]

The possible values for this element are defined by the ST\_OLELinkType simple type (§19.2.3.19).

[*Note:* The W3C XML Schema definition of this element's content model ([ST\\_OLELinkType](#)) is located in §A.7.2. *end note*]

#### 19.2.2.18 [lock \(Shape Protections\)](#)

This element specifies locks against actions that can be effected in the UI of an authoring application or programmatically through an object model.

[*Example:* The following snippet locks the shape's aspect ratio and text from user edits.

```
<v:shape ... >
  <o:lock v:ext="edit" aspectratio="t" text="t"/>
</v:shape>
```

*end example*]

Attributes	Description
adjusthandles (Handles Lock)	Specifies whether the handles of a shape are locked from being edited. Default is <code>false</code> .  The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).
aspectratio (Aspect Ratio Lock)	Specifies whether the aspect ratio of a shape is locked from being edited. Default is <code>false</code> .  The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).
cropping (Cropping Lock)	Specifies whether cropping of a shape is locked from being edited. Default is <code>false</code> .  The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).



Attributes	Description
<p>ext (VML Extension Handling Behavior)</p> <p>Namespace: urn:schemas-microsoft-com:vml</p>	<p>Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.</p> <p>[<i>Rationale</i>: This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale</i>]</p> <p>The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).</p>
grouping (Grouping Lock)	<p>Specifies whether a shape is locked from being grouped. Default is false.</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
position (Position Lock)	<p>Specifies whether the position of a shape is locked from being edited. Default is false.</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
rotation (Rotation Lock)	<p>Specifies whether the rotation of a shape is locked from being edited. Default is false.</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
selection (Selection Lock)	<p>Specifies whether the shape is locked from being selectable in an editor. Default is false.</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
shapetype (AutoShape Type Lock)	<p>Specifies whether the AutoShape type is locked from being edited. Default is false. If true, the type of an AutoShape cannot be changed in a graphical editor.</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
text (Text Lock)	<p>Specifies whether the text attached to a shape is locked from being edited. Default is false.</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
ungrouping (Ungrouping Lock)	<p>Specifies whether a grouped shape is locked from being ungrouped. Default is false.</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
vertices (Vertices Lock)	<p>Specifies whether the vertices of a path are locked from being edited. Default is false.</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>



[*Note:* The W3C XML Schema definition of this element's content model ([CT\\_Lock](#)) is located in §A.7.2. *end note*]

#### 19.2.2.19 LockedField (Embedded Object Cannot Be Refreshed)

This element specifies that the embedded object's appearance is locked - that is, that the object's current representation shall be locked to prevent any user interaction or automatic application behavior from modifying its contents.

This element shall contain no content - its presence indicates that the embedded object is locked, and its omission allows the field to be updated.

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[*Note:* The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9. *end note*]

#### 19.2.2.20 OLEObject (Embedded OLE Object)

This element specifies an embedded object.

[*Example:* The following markup defines a reference to an embedded object using Bonobo. The ProgId attribute contains the shared library that contains the widget. The content type of the referred part identifies the referenced Bonobo object.

```
<OLEObject r:id="rb1" ProgId="OAFIID:Bonobo_Sample_Calculator">
...
</OLEObject>
```

The target of the relationship with ID rb1, defines the Bonobo object itself. This example shows a link to a sample Bonobo widget taken from the article <http://www.ibm.com/developerworks/webservices/library/co-bnbo2.html>, which also provides an introduction to Bonobo. *end example*]

[*Example:* The following demonstrates a video file embedded in a WordprocessingML document:

```
<w:object ... >
  <v:shape id="_x0000_i1025" type="#_x0000_t75"
    style="width:1in;height:24pt" o:ole="">
    <v:imagedata r:id="rId4" o:title=""/>
  </v:shape>
  <o:OLEObject Type="Embed" ProgID="AVIFile" ShapeID="_x0000_i1025"
    DrawAspect="Content" ObjectID="_1219561732" r:id="rId5"/>
</w:object>
```

*end example*]



Attributes	Description
<b>DrawAspect</b> (Embedded Object Representation)	<p>Specifies how the embedded object is represented visually in the application.</p> <p><i>[Example:</i></p> <pre>&lt;o:OLEObject ... DrawAspect="Content"&gt; &lt;/o:OLEObject&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_OLEDrawAspect simple type (§19.2.3.18).</p>
<b>id</b> (Relationship)  Namespace: .../officeDocument /2006/relationships	<p>Specifies the actual OLE object using a standard part relationship lookup.</p> <p><i>[Example:</i></p> <pre>&lt;o:OLEObject ... r:id="rId5"&gt; &lt;/o:OLEObject&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_RelationshipId simple type (Part 1, §22.8.2.1).</p>
<b>ObjectID</b> (Unique ID for Embedded Object)	<p>Specifies a unique ID identifying the embedded object.</p> <p><i>[Example:</i> The following markup defines a reference to a linked object using KParts. The name attribute contains the shared library that contains the plugin. The item element contains the name of the plugin. The content type of the referred part would identifies the referenced KParts object.</p> <pre>&lt;oleLink r:id="rKp1" progId="libhtmlvalidatorplugin"&gt; ... &lt;/oleLink&gt;</pre> <p>The following XML, contained in the target of the relationship with ID rKp1, defines the KPart object, and follows the kpartgui DTD:</p> <pre>&lt;!DOCTYPE kpartgui SYSTEM "kpartgui.dtd"&gt; &lt;kpartgui library="libhtmlvalidatorplugin" name="htmlvalidatorplugin" version="1" &gt;   &lt;MenuBar&gt;     &lt;Menu name="tools"&gt;&lt;Text&gt;&amp;Tools&lt;/Text&gt;       &lt;Action name="validatewebpage"/&gt;     &lt;/Menu&gt;   &lt;/MenuBar&gt; &lt;/kpartgui&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>ProgID (Object Link Identifier)</b>	<p>Specifies the embedded object server application associated with the embedded object.</p> <p>[Example:</p> <pre>&lt;o:OLEObject ... ProgID="AVIFile"&gt; &lt;/o:OLEObject&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>ShapeID (Embedded Object Shape)</b>	<p>Specifies the shape with which the embedded object is associated. A VML shape provides the visual placeholder for an embedded object and this attribute is set to the id of the placeholder shape.</p> <p>[Example:</p> <pre>&lt;o:OLEObject ... ShapeID="_x0000_i1025"&gt; &lt;/o:OLEObject&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>Type (Embedded Object Type)</b>	<p>Specifies the kind of embedded object connection.</p> <p>[Example:</p> <pre>&lt;o:OLEObject ... Type="Embed"&gt; &lt;/o:OLEObject&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_OLEType simple type (§19.2.3.20).</p>
<b>UpdateMode (Update Mode for Embedded Object)</b>	<p>Specifies how the object is updated with new data if the Type is Link - automatically or on-demand by the user.</p> <p>[Example:</p> <pre>&lt;o:OLEObject ... UpdateMode="Always"&gt;</pre>



Attributes	Description
	<p>&lt;/o:OLEObject&gt;</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_OLEUpdateMode simple type (§19.2.3.21).</p>

[Note: The W3C XML Schema definition of this element's content model ([CT\\_OLEObject](#)) is located in §A.7.2. *end note]*

### 19.2.2.21 proxy (Shape Reference)

This element specifies an entry in a *r* element rule that contains a reference to one or more shapes that are participating in the rule.

[Example: The following rule defines a connection between two shapes. The shape with id *\_s1036* connects shape *\_s1033* to *\_s1032*:

```
<o:shapelayout v:ext="edit">
  <o:rules v:ext="edit">
    <o:r id="V:Rule1" type="connector" idref="#_s1036">
      <o:proxy start="" idref="#_s1033" connectloc="0"/>
      <o:proxy end="" idref="#_s1032" connectloc="2"/>
    </o:r>
  </o:rules>
</o:shapelayout>
```

*end example]*

Attributes	Description
connectloc (Connection Location)	<p>Specifies the location on the shape where the connector is attached. The value is an index into the list of connection points defined in the shape - see the connectlocs attribute. Default is 0. Only used in a connector rule.</p> <p>The possible values for this attribute are defined by the W3C XML Schema int datatype.</p>
end (End Point Connection Flag)	<p>Specifies whether the connector's end point is connected to the shape. Default is <i>false</i>. Only used in a connector rule.</p> <p>The possible values for this attribute are defined by the ST_TrueFalseBlank simple type (§20.1.2.6).</p>
idref (Proxy Shape Reference)	<p>Specifies a reference to a shape in the current document. Default is no value. A shape name is used as the reference mechanism; this is not a relationship ID.</p> <p>This attribute indicates that the referenced shape is part of this rule. Two or more proxy</p>



Attributes	Description
	<p>elements are used for an alignment rule. A connector rule uses one or two, indicating which shapes the connector is attached to.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
start (Start Point Connection Flag)	<p>Specifies whether the connector's start point is connected to the shape. Default is false. Only used in a connector rule. If both start and end are specified the later one takes precedence.</p> <p>The possible values for this attribute are defined by the ST_TrueFalseBlank simple type (§20.1.2.6).</p>

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Proxy](#)) is located in §A.7.2. *end note*]

#### 19.2.2.22 r (Rule)

This element specifies a rule entry in a rules element rule set that describes how a certain shape or set of shapes behaves during editing.

[Example: The following rule defines a connection between two shapes. The shape with id \_s1036 connects shape \_s1033 to \_s1032:

```
<o:shapelayout v:ext="edit">
  <o:rules v:ext="edit">
    <o:r id="V:Rule1" type="connector" idref="#_s1036">
      <o:proxy start="" idref="#_s1033" connectloc="0"/>
      <o:proxy end="" idref="#_s1032" connectloc="2"/>
    </o:r>
  </o:rules>
</o:shapelayout>
```

*end example*]

Attributes	Description
how (Alignment Rule Type)	<p>Specifies the kind of alignment for an alignment rule. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• top</li> <li>• middle</li> <li>• bottom</li> <li>• left</li> <li>• center</li> </ul>



Attributes	Description
	<ul style="list-style-type: none"> <li>• right</li> </ul> <p>The possible values for this attribute are defined by the ST_How simple type (§19.2.3.15).</p>
id (Rule ID)	<p>Specifies an identifier for the rule. Default is no value.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
idref (Rule Shape Reference)	<p>Specifies a reference to a shape in the current document that is the primary shape in the rule. [Example: For a connector rule, the connector. <i>end example</i>]</p> <p>Default is no value. A shape name is used as the reference mechanism; this is not a relationship ID.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
type (Rule Type)	<p>Specifies the kind of the rule. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• arc</li> <li>• callout</li> <li>• connector</li> <li>• align</li> </ul> <p>The possible values for this attribute are defined by the ST_RType simple type (§19.2.3.22).</p>

[Note: The W3C XML Schema definition of this element's content model (CT\_R) is located in §A.7.2. *end note*]

### 19.2.2.23 regroupable (Shape Grouping History)

This element specifies a list of entries which describe how shapes were previously grouped so they can be regrouped. The regroupid attribute of shapes indicates which shapes belong together when a regroup is performed. The regroupable tracks the previous regroupid that should be assigned to all shapes with the given current regroupid.

[Example: Consider a document containing two rectangles and a circle. The rectangles are grouped together, then that group is grouped with the circle. This new group is then ungrouped, leaving the circle and grouped rectangles. The document might contain the following snippets:

```
<v:oval ... o:regroupid="1"/>
<v:group ... o:regroupid="1"/>
  <v:rect ... />
  <v:rect ... />
</v:group>
```



```
<o:regrouptable v:ext="edit">
  <o:entry new="1" old="0"/>
</o:regrouptable>
```

The regroupid attribute indicates that the shapes with regroupid 1 were previously grouped together. The entry indicates that if those shapes are regrouped, the new group formed should not have a regroupid value as it was not previously ungrouped.

If the two rectangles are ungrouped, the document reflects that the rectangles were previously grouped and that their old group was previously grouped:

```
<v:oval ... o:regroupid="1"/>
<v:rect ... o:regroupid="2"/>
<v:rect ... o:regroupid="2"/>

<o:regrouptable v:ext="edit">
  <o:entry new="1" old="0"/>
  <o:entry new="2" old="1"/>
</o:regrouptable>
```

*end example]*

Attributes	Description
ext (VML Extension Handling Behavior)	Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.
Namespace: urn:schemas-microsoft-com:vml	[ <i>Rationale</i> : This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale</i> ]  The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).

[*Note*: The W3C XML Schema definition of this element's content model ([CT\\_RegroupTable](#)) is located in §A.7.2. *end note*]

#### 19.2.2.24 rel (Diagram Relationship)

This element specifies a relationship between two diagram nodes. An optional third node that exists between the primary two can also be included. The relationship has an implicit order since it describes the source and destination nodes.



[Example: In the cycle diagram below, shape 1036 (the shape that is the text box for the text "2") is the first node. A relationship exists between shape 1036 and shape 1044 (the text box containing "1"). In between those shapes is shape 1038 (the yellow arrow).

```
<o:relationtable v:ext="edit">
  <o:rel v:ext="edit" idsrc="#_s1036" iddest="#_s1036"/>
  <o:rel v:ext="edit" idsrc="#_s1042" iddest="#_s1036" idcntr="#_s1043"/>
  <o:rel v:ext="edit" idsrc="#_s1044" iddest="#_s1042" idcntr="#_s1045"/>
  <o:rel v:ext="edit" idsrc="#_s1036" iddest="#_s1044" idcntr="#_s1038"/>
</o:relationtable>

<v:rect id="_s1036" ... >
  <v:textbox ... ><...>2</...></v:textbox>
</v:rect>

<v:rect id="_s1044" ... >
  <v:textbox ... ><...>1</...></v:textbox>
</v:rect>

<v:shape id="_s1038" ... />
```



end example]

Attributes	Description
ext (VML Extension Handling Behavior)	Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.
Namespace: urn:schemas-microsoft-com:vmf	<p>[Rationale: This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. end rationale]</p> <p>The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).</p>
idcntr (Diagram Relationship Center Shape)	<p>Specifies the optional identifier of the shape that exists between the source and destination shapes. This is omitted if the relationship does not have a shape between the source and destination shapes.</p> <p>[Example:</p> <pre>&lt;o:rel ... idcntr="#s_1038"&gt; &lt;/o:rel&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
iddest (Diagram Relationship Destination Shape)	<p>Specifies the identifier of the shape at the destination of the relationship.</p> <p>[Example:</p> <pre>&lt;o:rel ... iddest="#s_1044"&gt; &lt;/o:rel&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
idsrc (Diagram Relationship Source Shape)	<p>Specifies the identifier of the shape at the source of the relationship.</p> <p>[Example:</p> <pre>&lt;o:rel ... idsrc="#s_1036"&gt; &lt;/o:rel&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Relation](#)) is located in §A.7.2. *end note]*

#### 19.2.2.25 relationtable (Diagram Relationship Table)

This element specifies a list that describes the relationships among diagram nodes.

[Example: The following table describes the parent-child relationships for shapes in an organization chart. The first entry describes the top-level shape in the diagram. The next two rows describe that the shapes are subordinates to the first shape. Shape 1029 is a subordinate of shape 1028. Shape 1032, a connector in this case, is in between the two.

```
<o:relationtable v:ext="edit">
  <o:rel v:ext="edit" idsrc="#_s1028" iddest="#_s1028"/>
  <o:rel v:ext="edit" idsrc="#_s1029" iddest="#_s1028" idcntr="#_s1032"/>
  <o:rel v:ext="edit" idsrc="#_s1030" iddest="#_s1028" idcntr="#_s1033"/>
```



</o:relationtable>

*end example]*

Attributes	Description
ext (VML Extension Handling Behavior)	Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.
Namespace: urn:schemas-microsoft-com:vml	[ <i>Rationale</i> : This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale</i> ]  The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).

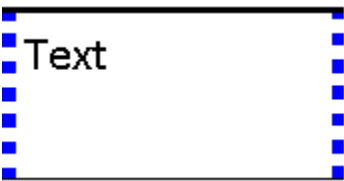
[*Note*: The W3C XML Schema definition of this element’s content model ([CT\\_RelationTable](#)) is located in §A.7.2. *end note*]

### 19.2.2.26 right (Text Box Right Stroke)

This element specifies the stroke properties for the right border of a text box. It entirely supercedes its parent stroke element if its on attribute is true. Thus the default value of an unspecified attribute overrides a value specified in the parent. If the on attribute is false or not specified, the border is not shown.

[*Example*: The text box borders are set independently. The bottom border does not inherit the weight from the parent stroke element.

```
<v:stroke weight="2.25pt">
  <o:left v:ext="view" dashstyle="1 1" color="blue" weight="5pt" on="t"/>
  <o:top v:ext="view" color="black" weight="2.25pt" on="t"/>
  <o:right v:ext="view" dashstyle="1 1" color="blue" weight="5pt" on="t"/>
  <o:bottom v:ext="view" color="black" on="t"/>
  <o:column v:ext="view" color="#f60" on="t"/>
</v:stroke>
```



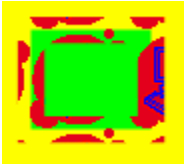


*end example]*

Attributes	Description
althref (Alternate Image Reference)	Specifies an alternate reference for an image in Macintosh PICT format.


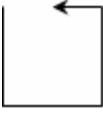



Attributes	Description
	<p>[Example:</p> <pre>&lt;v:stroke ... althref="myimage.pcz" ... &gt; &lt;/v:stroke&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
color (Stroke Color)	<p>Specifies the stroke color. Overrides the strokecolor attribute of a shape. Default is black. See the fillcolor attribute for a list of supported named colors.</p> <p>[Example: The shape stroke is blue:</p> <pre>&lt;v:shape ... strokecolor="red" ... &gt;   &lt;v:stroke color="blue"/&gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
color2 (Stroke Alternate Pattern Color)	<p>Specifies a second color for strokes, used when filltype is pattern. Default is no value.</p> <p>When a pattern fill is used for the stroke, the stroke color is used in colored parts of the source image. The color2 defines an alternate color to use in place of black in the source image.</p> <p>[Example: This unusual example is intended to demonstrate how the image and colors interact to create a patterned stroke. The yellow background shows transparency. The non-square shape and square image create an effective offset. The heavy stroke weight shows more of the image. The green shape fill shows how the stroke is overlaid on the shape.</p> <pre>&lt;v:background fillcolor="yellow"/&gt; &lt;v:shape style="width:60;height:50"   strokecolor="red" fillcolor="lime"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:stroke filltype="pattern" weight="10pt"     src="myimage.gif" color2="blue"/&gt; &lt;/v:shape&gt;</pre>

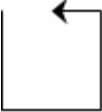
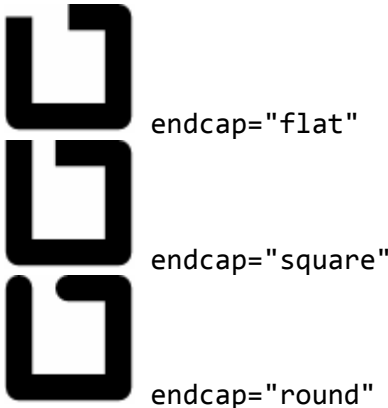


Attributes	Description
	<div></div> , where myimage.gif is: <div></div> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
dashstyle (Stroke Dash Pattern)	<p>Specifies the dot and dash pattern for a stroke. Default is solid. Pre-defined values are:</p> <ul style="list-style-type: none"><li>• solid</li><li>• shortdash</li><li>• shortdot</li><li>• shortdashdot</li><li>• shortdashdotdot</li><li>• dot</li><li>• dash</li><li>• longdash</li><li>• dashdot</li><li>• longdashdot</li><li>• longdashdotdot</li></ul> <p>A custom-defined dash pattern can also be specified using a series of numbers. These define the length of the dash (the drawn part of the stroke) and the length of the space between the dashes. The lengths are relative to the line width: a length of 1 is equal to the line width. The endcap style is applied to each dash but the arrow style is not. The string defines the length of the dash then the length of the space. This can be repeated to form complex dash styles. The string should always contain a pair of numbers; if it contains an odd number of numbers the last is disregarded. 0 implies a dot that is fourfold symmetrical (with round end caps, this is a circle).</p> <p><i>[Example:</i></p> <div><pre>&lt;v:stroke dashstyle="0 2" weight="3pt"   endcap="round"&gt; &lt;/v:stroke&gt;</pre></div> <div></div> <div><pre>&lt;v:stroke dashstyle="longdashdotdot"   weight="2pt"&gt; &lt;/v:stroke&gt;</pre></div>




Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
endarrow (Line End Arrowhead)	<p>Specifies an arrowhead for the end of a line. Default is none. The path shall not be closed with the x command for the arrowhead to show. Allowed values are:</p> <ul style="list-style-type: none"> <li>• none</li> <li>• block</li> <li>• classic</li> <li>• diamond</li> <li>• oval</li> <li>• open</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke endarrow="classic"/&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowType simple type (§19.1.3.8).</p>
endarrowlength (Line End Arrowhead Length)	<p>Specifies the length of the arrowhead at the end of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• short</li> <li>• medium</li> <li>• long</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... endarrowlength="long" ... /&gt;</pre>  <p><i>end example]</i></p>





Attributes	Description
	<p>The possible values for this attribute are defined by the ST_StrokeArrowLength simple type (§19.1.3.7).</p>
<p>endarrowwidth (Line End Arrowhead Width)</p>	<p>Specifies the width of the arrowhead at the end of a line. Default is <code>medium</code>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <code>narrow</code></li> <li>• <code>medium</code></li> <li>• <code>wide</code></li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... endarrowwidth="wide" ... /&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowWidth simple type (§19.1.3.9).</p>
<p>endcap (Line End Cap)</p>	<p>Specifies the cap style for the end of a stroke. Default is <code>flat</code>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <code>flat</code></li> <li>• <code>square</code></li> <li>• <code>round</code></li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... endcap="round" weight="10pt" ... /&gt;</pre>  <p><i>end example]</i></p>




Attributes	Description
	<p>The possible values for this attribute are defined by the ST_StrokeEndCap simple type (§19.1.3.10).</p>
<p>ext (VML Extension Handling Behavior)</p> <p>Namespace: urn:schemas-microsoft-com:vml</p>	<p>Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.</p> <p>[<i>Rationale</i>: This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale</i>]</p> <p>The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).</p>
<p>filltype (Stroke Image Style)</p>	<p>Specifies the kind of fill used for the background of a stroke. Default is <code>solid</code>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <code>solid</code> - The fill pattern is solid.</li> <li>• <code>tile</code> - The fill image is tiled.</li> <li>• <code>pattern</code> - The fill image is stretched to form a pattern.</li> <li>• <code>frame</code> - The fill image becomes a border for the shape.</li> </ul> <p>[<i>Example</i>:</p> <pre>&lt;v:shape style="width:50;height:50"   strokecolor="red"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:stroke filltype="frame" weight="10pt"     src="border.gif"/&gt; &lt;/v:shape&gt;</pre> <div> </div> <p>, where border.gif is: </p> <p><i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_FillType simple type (§19.1.3.4).</p>
<p>forcedash (Force Dashed Outline)</p>	<p>Specifies whether a dashed outline is used to draw a shape when a shape has no line or fill. Default is <code>false</code>.</p> <p>Used by PresentationML placeholders to draw a dashed outline when there is no line and no fill for a shape.</p> <p>[<i>Example</i>:</p> <pre>&lt;v:shape ... o:forcedash="true" ... &gt;</pre>




Attributes	Description
	<p><code>&lt;/v:shape&gt;</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
href (Original Image Reference)	<p>Specifies the URL to the original image file. Used only if the picture has been linked and embedded. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:fill ... o:href="myimage.gif" ... &gt; &lt;/v:fill&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
imagealignshape (Stoke Image Alignment)	<p>Specifies the alignment of the stroke image. If true, the image is aligned with the shape. Otherwise, it is aligned with the containing scope. Default is true.</p> <p>[Example: The top position offset shifts the image alignment relative to the containing window:</p> <pre>&lt;v:shape fillcolor="silver"   style="top:20;width:50;height:50"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:stroke imagealignshape="false" weight="20pt"     filltype="tile" src="myimage.gif"/&gt; &lt;/v:shape&gt;</pre> <div>  </div> <p><code>imagealignshape="false"</code></p> <div>  </div> <p><code>imagealignshape="false"</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>



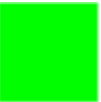


Attributes	Description								
<b>imageaspect</b> (Stroke Image Aspect Ratio)	<p>Specifies how the stroke image aspect ratio is preserved. Default is <code>ignore</code>. Allowed values are:</p> <table border="1"> <thead> <tr> <th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td><code>ignore</code></td><td>Ignore aspect issues.</td></tr> <tr> <td><code>atleast</code></td><td>Image is at least as big as <code>imagesize</code>.</td></tr> <tr> <td><code>atmost</code></td><td>Image is no bigger than <code>imagesize</code>.</td></tr> </tbody> </table> <p>[Example:</p> <pre>&lt;v:stroke filltype="frame" weight="10pt"   src="border.gif" imagealignshape="true"   imageaspect="atleast"&gt; &lt;/v:stroke&gt;</pre> <div>  <div> <p><code>imagealignshape="ignore"</code></p> <p><code>imagealignshape="atleast"</code></p> <p><code>imagealignshape="atmost"</code></p> </div> </div> <p>end example]</p> <p>The possible values for this attribute are defined by the <code>ST_ImageAspect</code> simple type (§19.1.3.5).</p>	Value	Description	<code>ignore</code>	Ignore aspect issues.	<code>atleast</code>	Image is at least as big as <code>imagesize</code> .	<code>atmost</code>	Image is no bigger than <code>imagesize</code> .
Value	Description								
<code>ignore</code>	Ignore aspect issues.								
<code>atleast</code>	Image is at least as big as <code>imagesize</code> .								
<code>atmost</code>	Image is no bigger than <code>imagesize</code> .								
<b>imagesize</b> (Stroke Image Size)	<p>Specifies the size of the image for the stroke. Default is the size of the image.</p> <p>[Example:</p> <pre>&lt;v:stroke ... imagesize="10pt,10pt" ... /&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>								
<b>insetpen</b> (Inset Border From Path)	<p>Specifies that the border shall be displayed inside of the path defining the shape, rather than along the path (the default border placement), or outside of the path as might be done with an image.</p>								




Attributes	Description
	<p>[Example:</p> <pre>&lt;v:shape ... insetpen="true" ... &gt; &lt;/v:shape&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>joinstyle (Line End Join Style))</p>	<p>Specifies the join style for line ends. Default is round.</p> <ul style="list-style-type: none"> <li>• round</li> <li>• bevel</li> <li>• miter</li> </ul> <p>[Example:</p> <pre>&lt;v:polyline strokeweight="10pt" strokecolor="navy"   points="10pt,10pt,50pt,50pt,90pt,10pt"&gt;   &lt;v:stroke joinstyle="bevel"/&gt; &lt;/v:polyline&gt;</pre> <div style="display: flex; align-items: center; margin-top: 10px;">  <div style="margin-left: 10px;"> <p>joinstyle="round"</p> <p>joinstyle="bevel"</p> <p>joinstyle="miter"</p> </div> </div> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_StrokeJoinStyle simple type (§19.1.3.11).</p>
<p>linestyle (Stroke Line Style)</p>	<p>Specifies the line style of the stroke. Default is single.</p> <ul style="list-style-type: none"> <li>• single</li> <li>• thinThin</li> <li>• thinThick</li> <li>• thickThin</li> <li>• thickBetweenThin</li> </ul>


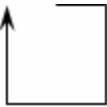
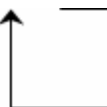


Attributes	Description
	<p>[Example:</p> <pre>&lt;v:stroke linestyle="thickThin" weight="5pt"&gt; &lt;/v:stroke&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_StrokeLineStyle simple type (§19.1.3.12).</p>
<p>miterlimit (Miter Joint Limit)</p>	<p>Specifies the smoothness of the miter joint, or the maximum distance between the inner point and outer point of a joint. This number is a multiple of the thickness of the line. Default is 8.</p> <p>[Example:</p> <pre>&lt;v:stroke joinstyle="miter" weight="10pt"   miterlimit="2"&gt; &lt;/v:stroke&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema decimal datatype.</p>
<p>on (Stroke Toggle)</p>	<p>Specifies whether the stroke is displayed. Default is true. This attribute overrides the shape's stroke attribute.</p> <p>[Example:</p> <pre>&lt;v:rect style="width:50;height:50" stroked="true"   fillcolor="lime" strokecolor="red"&gt;   &lt;v:stroke on="false" weight="5pt"/&gt; &lt;/v:rect&gt;</pre> 



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<p>opacity (Stroke Opacity)</p>	<p>Specifies the amount of transparency of a stroke. Default is 1.0.</p> <p>[Example:</p> <pre>&lt;v:rect style="width:50;height:50"   fillcolor="lime" strokecolor="red"&gt;   &lt;v:stroke weight="5pt" opacity="50%"/&gt; &lt;/v:rect&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>src (Stroke Image Location)</p>	<p>Specifies the source image to load for a stroke fill. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:stroke ... src="myimage.gif" ... &gt; &lt;/v:stroke&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<p>startarrow (Line Start Arrowhead)</p>	<p>Specifies an arrowhead for the start of a line. Default is none. The path shall not be closed with the x command for the arrowhead to show. Allowed values are:</p> <ul style="list-style-type: none"> <li>• none</li> <li>• block</li> <li>• classic</li> <li>• diamond</li> <li>• oval</li> <li>• open</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke startarrow="classic"/&gt;</pre>



Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowType simple type (§19.1.3.8).</p>
<b>startarrowlength</b> (Line Start Arrowhead Length)	<p>Specifies the length of the arrowhead at the start of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• short</li> <li>• medium</li> <li>• long</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... startarrowlength="long" ... /&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowLength simple type (§19.1.3.7).</p>
<b>startarrowwidth</b> (Line Start Arrowhead Width)	<p>Specifies the width of the arrowhead at the start of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• narrow</li> <li>• medium</li> <li>• wide</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... startarrowwidth="wide" ... /&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowWidth simple type (§19.1.3.9).</p>



Attributes	Description
title (Stroke Title)	<p>Specifies the title of an embedded stroke image. This is typically set to the comment property of the image, which is often blank.</p> <p>[Example:</p> <pre>&lt;v:fill ... o:title="alt text" ... &gt; &lt;/v:fill&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
weight (Stroke Weight)	<p>Specifies the thickness of a stroke. Default is 1. This attribute overrides the shape's strokeweight attribute.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[Note: The W3C XML Schema definition of this element's content model ([CT StrokeChild](#)) is located in §A.7.2.  
end note]

#### 19.2.2.27 rules (Rule Set)

This element specifies a list of rule entries which describe how a certain shape or sets of shapes should behave during editing.

[Example: The following rule defines a connection between two shapes. The shape with id \_s1036 connects shape \_s1033 to \_s1032:

```
<o:shapelayout v:ext="edit">
  <o:rules v:ext="edit">
    <o:r id="V:Rule1" type="connector" idref="#_s1036">
      <o:proxy start="" idref="#_s1033" connectloc="0"/>
      <o:proxy end="" idref="#_s1032" connectloc="2"/>
    </o:r>
  </o:rules>
</o:shapelayout>
```

end example]

Attributes	Description
ext (VML Extension Handling Behavior)	<p>Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.</p>



Attributes	Description
Namespace: urn:schemas-microsoft-com:vmf	<p>[<i>Rationale</i>: This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale</i>]</p> <p>The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).</p>

[*Note*: The W3C XML Schema definition of this element's content model ([CT\\_Rules](#)) is located in §A.7.2. *end note*]

### 19.2.2.28 `shapedefaults` (New Shape Defaults)

This element specifies the defaults that are used when creating new shapes. These defaults are stored once per document.



[*Example*: Consider a case in which an application chooses to store the highest shape ID it has used in the document thus far. This could be used to support the generation of new shape IDs:

```
<o:shapedefaults v:ext="edit" spidmax="1029"/>
```


*end example*]

Attributes	Description
allowincell (Allow in Table Cell)	<p>Specifies whether the shape is allowed to be placed in a table cell. Default is <code>false</code>.</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
ext (VML Extension Handling Behavior)	<p>Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.</p>
Namespace: urn:schemas-microsoft-com:vmf	<p>[<i>Rationale</i>: This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale</i>]</p> <p>The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).</p>
fill (Shape Fill Toggle)	<p>Specifies whether the closed path is filled. Default is <code>true</code>. This attribute is overridden by the fill on attribute.</p> <p>[<i>Example</i>:</p> <pre>&lt;v:shape ... fill="f" fillcolor="red" ...&gt; &lt;/v:shape&gt;</pre>



Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
fillcolor (Default Fill Color)	<p>Specifies the default shape fill color. Default is no value. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
spidmax (Shape ID Optional Storage)	<p>Specifies an optional value that allows applications a mechanism for storing information they need to persist related to shape IDs. Default is 0.</p> <p>The possible values for this attribute are defined by the W3C XML Schema integer datatype.</p>
stroke (Shape Stroke Toggle)	<p>Specifies whether the path defining the shape is stroked with a solid line. The stroke element (§19.1.2.21) defines other strokes. The on attribute of the stroke element overrides this attribute. Default is true.</p> <p><i>[Example:</i></p> <pre>&lt;v:shape ... fillcolor="red"   stroke="false" strokecolor="blue"...&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
strokecolor (Shape Stroke Color)	<p>Specifies the primary color of the brush to use to stroke the path of the shape. Default is black. The color attribute of the stroke element (§19.1.2.21) overrides this. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.</p> <p><i>[Example:</i></p>



Attributes	Description						
	<pre>&lt;v:shape ... strokecolor="red" ...&gt; &lt;/v:shape&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>						
style (Shape Styling Properties)	<p>Specifies the CSS2 styling properties of the shape. The CSS2 (Cascading Style Sheets, Level 2) specification, a Recommendation of the World Wide Web Consortium, is available here: <a href="http://www.w3.org/TR/REC-CSS2">http://www.w3.org/TR/REC-CSS2</a>.</p> <p>This attribute uses a semi-colon delimited list of “name:value” pairs, the syntax defined by section 4.1.8 of the CSS2 specification for grouped declarations (without the surrounding braces). The following tables define the allowed properties and the VML treatment of each.</p> <p>[Example:</p> <pre>&lt;v:shape ... style='position:absolute;width:100pt;height:50pt' ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <table border="1"> <thead> <tr> <th>Property</th><th>Description</th></tr> </thead> <tbody> <tr> <td>flip</td><td> <p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul> </td></tr> <tr> <td>height</td><td> <p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the</li> </ul> </td></tr> </tbody> </table>	Property	Description	flip	<p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul>	height	<p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the</li> </ul>
Property	Description						
flip	<p>Specifies that the orientation of a shape is flipped. Default is no value. Allowed values are:</p> <ul style="list-style-type: none"> <li>• x - Flip along the y-axis, reversing the x-coordinates.</li> <li>• y - Flip along the x-axis, reversing the y-coordinates.</li> <li>• xy - Flip along both the y- and x-axis.</li> <li>• yx - Flip along both the x- and y-axis.</li> </ul>						
height	<p>Specifies the height of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the</li> </ul>						



Attributes	Description	
		parent object's height.
	left	<p>Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-bottom	<p>Specifies the position of the bottom of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	margin-left	<p>Specifies the position of the left of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-right	<p>Specifies the position of the right of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the</li> </ul>



Attributes	Description	
		<p>page.</p> <ul style="list-style-type: none"> <li>• &lt;units&gt; - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li> </ul>
	margin-top	<p>Specifies the position of the top of the containing block of the shape relative to the shape anchor. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• auto - Default position of an element in the flow of the page.</li> <li>• &lt;units&gt;- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's height.</li> </ul>
	mso-position-horizontal	<p>Specifies the horizontal positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• left</li> <li>• center</li> <li>• right</li> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-horizontal-relative	<p>Specifies relative horizontal position data for objects in WordprocessingML documents. This modifies the mso-position-horizontal property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• char</li> </ul>
	mso-position-vertical	<p>Specifies the vertical positioning data for objects in WordprocessingML documents. Default is absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• absolute</li> <li>• top</li> <li>• center</li> <li>• bottom</li> </ul>



Attributes	Description	
		<ul style="list-style-type: none"> <li>• inside</li> <li>• outside</li> </ul>
	mso-position-vertical-relative	<p>Specifies relative vertical position data for objects in WordprocessingML documents. This modifies the mso-position-vertical property. Default is text. Allowed values are:</p> <ul style="list-style-type: none"> <li>• margin</li> <li>• page</li> <li>• text</li> <li>• line</li> </ul>
	mso-wrap-distance-bottom	<p>Specifies the distance from the bottom of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-distance-left	<p>Specifies the distance from the left side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-distance-right	<p>Specifies the distance from the right side of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-distance-top	<p>Specifies the distance from the top of the shape to the text that wraps around it. Default is 0 pt. This property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin.</p>
	mso-wrap-edited	<p>Specifies whether the wrap coordinates were customized by the user. If the wrap coordinates are generated by an editor, this property is true; otherwise they were customized by a user. Default is false.</p>
	mso-wrap-style	<p>Specifies the wrapping mode for text in shapes in WordprocessingML documents. Default is square. Allowed values are:</p> <ul style="list-style-type: none"> <li>• square - Wraps text inside the shape in a square.</li> <li>• none - Text does not wrap.</li> </ul>
	position	<p>Specifies the kind of positioning used to place an element. Default is static. When the element is contained inside a group,</p>



Attributes	Description	
		<p>this property shall be absolute. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <b>static</b> - The element is positioned according to the normal flow of the page. The top and left properties are ignored. If the object is anchored inline, this value is used.</li> <li>• <b>absolute</b> - The element is positioned relative to the parent, using the top and left properties.</li> <li>• <b>relative</b> - The element is positioned according to the normal flow of the page, but the top and left properties are used. The overlap of overlapping elements is governed by the z-index property.</li> </ul>
	rotation	<p>Specifies the angle that a shape is rotated, in degrees. Default is 0. Positive angles are clockwise.</p>
	top	<p>Specifies the position of the top of the containing block of the shape relative to the element above it in the flow of the page. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <b>auto</b> - Default position of an element in the flow of the page.</li> <li>• <b>&lt;units&gt;</b>- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.</li> <li>• <b>&lt;percentage&gt;</b>- Value expressed as a percentage of the parent object's height.</li> </ul>
	visibility	<p>Specifies whether a shape is displayed. Only inherit and hidden are used; any other values are mapped to inherit. Default is inherit. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <b>hidden</b> - The shape is not visible, but is still part of the flow of the objects in the browser. Mouse events are not processed.</li> <li>• <b>inherit</b> - The visibility state is inherited from the parent of the shape.</li> </ul>
	width	<p>Specifies the width of the containing block of the shape. Default is 0. It is specified in CSS units or, for elements in a group, in the coordinate system of the parent element. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <b>auto</b> - Default position of an element in the flow of the page.</li> <li>• <b>&lt;units&gt;</b>- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or</li> </ul>



Attributes	Description															
		<p>ex). If no units are given, pixels (px) is assumed.</p> <ul style="list-style-type: none"><li>• &lt;percentage&gt;- Value expressed as a percentage of the parent object's width.</li></ul>														
	z-index	<p>Specifies the display order of overlapping shapes. Default is 0. This property shall not be used for shapes anchored inline. Allowed values are:</p> <ul style="list-style-type: none"><li>• auto - Uses the order that the shapes appear in the page, bottom to top.</li><li>• &lt;order&gt;- A number that represents the stacking precedence. Shapes with higher numbers are placed on top of those with lower numbers. Negative numbers are allowed.</li></ul>														
<p>The following properties are only used by the textbox element (§19.1.2.22):</p>																
<table><tr><th>Property</th><th>Description</th></tr><tr><td>direction</td><td><p>Specifies the direction of the text in the textbox. Default is ltr. This property is superceded by the mso-direction-alt property if that is specified. Allowed values are:</p><ul style="list-style-type: none"><li>• ltr - Text is displayed left-to-right.</li><li>• rtl - Text is displayed right-to-left.</li></ul></td></tr><tr><td>layout-flow</td><td><p>Determines the flow of the text layout in a textbox. Default is horizontal. Allowed values are:</p><ul style="list-style-type: none"><li>• horizontal - Text is displayed horizontally.</li><li>• vertical - Text is displayed vertically.</li><li>• vertical-ideographic - Ideographic text is displayed vertically.</li><li>• horizontal-ideographic - Ideographic text is displayed horizontally.</li></ul></td></tr><tr><td>mso-direction-alt</td><td><p>Specifies an alternate direction for text in textboxes. Overrides the direction property. The only allowed value is context.</p></td></tr><tr><td>mso-fit-shape-to-text</td><td><p>Specifies whether the shape stretches to fit the text in the textbox. Default is false.</p></td></tr><tr><td>mso-fit-text-to-shape</td><td><p>Specifies whether the text stretches to fit the textbox. Default is false.</p></td></tr><tr><td>mso-layout-flow-alt</td><td><p>Specifies the alternate layout flow for text in textboxes. This property is used instead of layout-flow when the layout flow is</p></td></tr></table>			Property	Description	direction	<p>Specifies the direction of the text in the textbox. Default is ltr. This property is superceded by the mso-direction-alt property if that is specified. Allowed values are:</p> <ul style="list-style-type: none"><li>• ltr - Text is displayed left-to-right.</li><li>• rtl - Text is displayed right-to-left.</li></ul>	layout-flow	<p>Determines the flow of the text layout in a textbox. Default is horizontal. Allowed values are:</p> <ul style="list-style-type: none"><li>• horizontal - Text is displayed horizontally.</li><li>• vertical - Text is displayed vertically.</li><li>• vertical-ideographic - Ideographic text is displayed vertically.</li><li>• horizontal-ideographic - Ideographic text is displayed horizontally.</li></ul>	mso-direction-alt	<p>Specifies an alternate direction for text in textboxes. Overrides the direction property. The only allowed value is context.</p>	mso-fit-shape-to-text	<p>Specifies whether the shape stretches to fit the text in the textbox. Default is false.</p>	mso-fit-text-to-shape	<p>Specifies whether the text stretches to fit the textbox. Default is false.</p>	mso-layout-flow-alt	<p>Specifies the alternate layout flow for text in textboxes. This property is used instead of layout-flow when the layout flow is</p>
Property	Description															
direction	<p>Specifies the direction of the text in the textbox. Default is ltr. This property is superceded by the mso-direction-alt property if that is specified. Allowed values are:</p> <ul style="list-style-type: none"><li>• ltr - Text is displayed left-to-right.</li><li>• rtl - Text is displayed right-to-left.</li></ul>															
layout-flow	<p>Determines the flow of the text layout in a textbox. Default is horizontal. Allowed values are:</p> <ul style="list-style-type: none"><li>• horizontal - Text is displayed horizontally.</li><li>• vertical - Text is displayed vertically.</li><li>• vertical-ideographic - Ideographic text is displayed vertically.</li><li>• horizontal-ideographic - Ideographic text is displayed horizontally.</li></ul>															
mso-direction-alt	<p>Specifies an alternate direction for text in textboxes. Overrides the direction property. The only allowed value is context.</p>															
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mso-fit-text-to-shape	<p>Specifies whether the text stretches to fit the textbox. Default is false.</p>															
mso-layout-flow-alt	<p>Specifies the alternate layout flow for text in textboxes. This property is used instead of layout-flow when the layout flow is</p>															



Attributes	Description	
		from bottom to top for non-ideographic languages. Its only value is bottom-to-top.
	mso-next-textbox	Specifies the ID of the next textbox in a series. Used to keep track of a set of linked textboxes. Default is no value.
	mso-rotate	<p>Specifies a specific rotation value for text in a textbox. Default is 0. Allowed values are:</p> <ul style="list-style-type: none"> <li>• 0</li> <li>• 90</li> <li>• 180</li> <li>• -90</li> </ul>
	mso-text-scale	Specifies the scaling factor for fitting text to shapes. Default is 0. This property is only used if mso-fit-text-to-shape is true.
	v-text-anchor	<p>Specifies the vertical anchoring of text in a textbox. Default is top. The alignment of a text anchor only becomes evident if mso-fit-text-to-shape is false. This property is different from the vertical-align CSS property, which is used for ideographic languages. Allowed values are:</p> <ul style="list-style-type: none"> <li>• top</li> <li>• middle</li> <li>• bottom</li> <li>• top-center</li> <li>• middle-center</li> <li>• bottom-center</li> <li>• top-baseline</li> <li>• bottom-baseline</li> <li>• top-center-baseline</li> <li>• bottom-center-baseline</li> </ul>
The following properties are only used by the textpath element (§19.1.2.23):		
font	Specifies a compound value of font settings. Default is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family.	
font-family	Specifies the family of the font. Default is no value. The values are the same as those of the CSS font-family property.	
font-size	Specifies the size of the font. Default is no value. The font size is defined in points. The values are the same as those of the CSS font-size property.	
font-style	Specifies the amount of slant for a font. Default is normal. The	



Attributes	Description							
		<p>values are the same as those of the CSS font-style property. Allowed values are:</p> <ul style="list-style-type: none"><li>• normal</li><li>• italic</li><li>• oblique - Treated the same as italic.</li></ul>						
	font-variant	<p>Specifies the variant style of a font. Default is normal. The values are the same as those of the CSS font-variant property. Allowed values are:</p> <ul style="list-style-type: none"><li>• normal</li><li>• small-caps</li></ul>						
	font-weight	<p>Specifies the thickness of the letters of the font. Default is normal. The values are the same as those of the CSS font-weight property. Allowed values are:</p> <table><tr><th>Value</th><th>Description</th></tr><tr><td>normal lighter 100 200 300 400</td><td>Treated as non-bold.</td></tr><tr><td>bold bolder 500 600 700 800 900</td><td>Treated as bold.</td></tr></table>	Value	Description	normal lighter 100 200 300 400	Treated as non-bold.	bold bolder 500 600 700 800 900	Treated as bold.
	Value	Description						
	normal lighter 100 200 300 400	Treated as non-bold.						
	bold bolder 500 600 700 800 900	Treated as bold.						
	mso-text-shadow	<p>Specifies whether a shadow is applied to the text on a text path. Default is false.</p>						
text-decoration	<p>Specifies the style of text decoration. Default is none. The values are the same as those of the CSS text-decoration property. Allowed values are:</p> <ul style="list-style-type: none"><li>• none</li><li>• underline</li><li>• overline</li><li>• line-through</li><li>• blink</li></ul>							
v-rotate-letters	<p>Specifies whether the letters of the text are rotated counterclockwise by 90 degrees. Default is false.</p>							
v-same-letter-heights	<p>Specifies whether all letters are the same height regardless of</p>							



Attributes	Description
	initial case. If true, the lowercase letters are stretched to the height of the uppercase letters. Default is false.
	<b>v-text-align</b> Specifies the alignment of text. Default is left. Allowed values are: <ul style="list-style-type: none"> <li>• left</li> <li>• right</li> <li>• center</li> <li>• justify</li> <li>• letter-justify - Distributes the extra space between the letters.</li> <li>• stretch-justify - Stretches the letters to fill in the space.</li> </ul>
	<b>v-text-kern</b> Specifies whether kerning is turned on. Default is false.
	<b>v-text-reverse</b> Specifies whether the layout order of rows is reversed. Default is false. This is used for vertical text layout.
	<b>v-text-spacing-mode</b> Specifies the mode for letter spacing. Default is tightening. This property determines whether space is removed between each letter (tightening) or added between each letter (tracking). The amount of letter spacing change is defined by the v-text-spacing property. Allowed values are: <ul style="list-style-type: none"> <li>• tightening</li> <li>• tracking</li> </ul>
	<b>v-text-spacing</b> Specifies the amount of spacing for text in 100ths of single line spacing. Default is 100.
<p>The line (§19.1.2.12), polyline (§19.1.2.15) and curve (§19.1.2.3) elements ignore the following properties:</p> <ul style="list-style-type: none"> <li>• top</li> <li>• left</li> <li>• width</li> <li>• height</li> </ul> <p>The following properties are not inherited by an element that references a shapetype element (§19.1.2.20) via the id attribute:</p> <ul style="list-style-type: none"> <li>• flip</li> <li>• height</li> <li>• left</li> <li>• margin-left</li> <li>• margin-top</li> <li>• position</li> </ul>	



Attributes	Description
	<ul style="list-style-type: none"> <li>• rotation</li> <li>• top</li> <li>• visibility</li> <li>• width</li> <li>• z-index</li> </ul> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[*Note:* The W3C XML Schema definition of this element’s content model ([CT\\_ShapeDefaults](#)) is located in §A.7.2. *end note*]

### 19.2.2.29 [shapelayout](#) (Shape Layout Properties)

This element contains child elements that store information used in the editing and layout of shapes.

Attributes	Description
ext (VML Extension Handling Behavior)  Namespace: urn:schemas-microsoft-com:vml	<p>Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.</p> <p>[<i>Rationale:</i> This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale</i>]</p> <p>The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).</p>

[*Note:* The W3C XML Schema definition of this element’s content model ([CT\\_ShapeLayout](#)) is located in §A.7.2. *end note*]

### 19.2.2.30 [signatureline](#) (Digital Signature Line)

This element specifies a signature line in a document. A signature line provides a visual representation of a signature in a document that is digitally signed. The signature line element indicates that the VML shape in which it appears acts as that visual representation. Typically, the VML shape is an image.

[*Example:*

```
<v:shape ... >
  <v:imagedata ... />
  <o:signatureline v:ext="edit" id="{11979195-DE54-414B-ABD6-5F63607C648B}"
    provid="{00000000-0000-0000-0000-000000000000}" o:suggestedsigner="John Doe"
    o:suggestedsigner2="Manager" o:suggestedsigneremail=johndoe@example.com
    allowcomments="t" issignatureline="t"/>
</v:shape>
```



The signature line in the document might look like this:



*end example]*

Attributes	Description
<b>addlxml</b> (Additional Signature Information)	<p>Specifies an optional string that is used to store additional information about the digital signature. Default is no value. [<i>Rationale</i>: Some digital signature software stores, for example, server and region information with the signature. <i>end rationale</i>]</p> <p>[<i>Example</i>:</p> <pre>&lt;o:signatureline ... o:addlxml="..."&gt; &lt;/o:signatureline&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>allowcomments</b> (User-specified Comments Flag)	<p>Specifies whether the user can attach comments to the signature line at signing time. Default is false.</p> <p>[<i>Example</i>:</p> <pre>&lt;o:signatureline ... allowcomments="true"&gt; &lt;/o:signatureline&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<b>ext</b> (VML Extension Handling Behavior)  Namespace: urn:schemas-microsoft-com:vm1	<p>Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.</p> <p>[<i>Rationale</i>: This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale</i>]</p> <p>The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).</p>



Attributes	Description
id (Unique ID)	<p>Specifies a unique ID for the signature line. Default is no value.</p> <p>[Example:</p> <pre>&lt;o:signatureline ...   id="{11979195-DE54-414B-ABD6-5F63607C648B}"&gt; &lt;/o:signatureline&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_Guid simple type (Part 1, §22.9.2.4).</p>
issignatureline (Signature Line Flag)	<p>Specifies whether the image is a signature line. Default is true.</p> <p>[Example:</p> <pre>&lt;o:signatureline ... issignatureline="true"&gt; &lt;/o:signatureline&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
provid (Signature Provider ID)	<p>Specifies a unique ID identifying which signature provider created the signature line. Default is no value. [Guidance The GUID is typically the CLSID of the provider COM add-in. end guidance]</p> <p>[Example:</p> <pre>&lt;o:signatureline ...   provid="{00000000-0000-0000-0000-000000000000}"&gt; &lt;/o:signatureline&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the ST_Guid simple type (Part 1, §22.9.2.4).</p>
showsigndate (Show Signed Date Flag)	<p>Specifies whether the signed signature line image generated should include the date of signing. Default is true.</p> <p>[Example:</p> <pre>&lt;o:signatureline ... showsigndate="false"&gt; &lt;/o:signatureline&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
signinginstructions (Instructions for Signing)	<p>Specifies text shown to the user at signing time. Default is no value.</p> <p>[Example:</p> <pre>&lt;o:signatureline ... o:signinginstructions="Sign here"&gt; &lt;/o:signatureline&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
signinginstructions set (Use Signing Instructions Flag)	<p>Specifies whether there is data set in the signinginstructions attribute. Default is false.</p> <p>[Example:</p> <pre>&lt;o:signatureline ... signinginstructionsset="true"&gt; &lt;/o:signatureline&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
sigprovurl (Signature Provider Download URL)	<p>Specifies the URL for downloading the signature provider. Default is no value.</p> <p>[Example:</p> <pre>&lt;o:signatureline ... o:sigprovurl="http://www.example.com"&gt; &lt;/o:signatureline&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
suggestedsigner (Suggested Signer Line 1)	<p>Specifies the first line of information of who should sign the signature line. Default is no value.</p> <p>[Example:</p> <pre>&lt;o:signatureline ... o:suggestedsigner="John Doe"&gt; &lt;/o:signatureline&gt;</pre>



Attributes	Description
	<p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
suggested signer2 (Suggested Signer Line 2)	<p>Specifies the second line of information of who should sign the signature line. Default is no value.</p> <p>[Example:</p> <pre>&lt;o:signatureline ... o:suggested signer2="Title"&gt; &lt;/o:signatureline&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
suggested signer email (Suggested Signer E-mail Address)	<p>Specifies the e-mail address of who should sign the signature line. Default is no value.</p> <p>[Example:</p> <pre>&lt;o:signatureline ... o:suggested signer email="johndoe@example.com"&gt; &lt;/o:signatureline&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[Note: The W3C XML Schema definition of this element's content model ([CT\\_SignatureLine](#)) is located in §A.7.2.  
*end note]*

### 19.2.2.31 skew (Skew Transform)

This element specifies a perspective skew effect on a shape. The skew is applied to vector graphics, not image data on the shape in picture fills or image elements. The on attribute shall be true and a permitted value assigned to the matrix attribute.

Attributes	Description
ext (VML Extension Handling Behavior)	Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.
Namespace:	[Rationale: This part of the original VML specification is included to assist applications



Attributes	Description
urn:schemas-microsoft-com:vmf	<p>that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale</i>]</p> <p>The possible values for this attribute are defined by the ST_Ext simple type (§19.1.3.2).</p>
id (Skew ID)	<p>Specifies a name that provides a unique identifier for a skew. Default is no value.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
matrix (Skew Perspective Matrix)	<p>Specifies a perspective transform of a skew. Default is "1,0,0,1,0,0".</p> <p>The matrix is given in the form "<math>s_{xx}</math>, <math>s_{xy}</math>, <math>s_{yx}</math>, <math>s_{yy}</math>, <math>p_x</math>, <math>p_y</math>" where <math>s</math> = scale and <math>p</math> = perspective. If the offset attribute is in absolute units then <math>p_x</math>, <math>p_y</math> are in 1/EMU units; otherwise they are an inverse fraction of the shape size.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
offset (Skew Offset)	<p>Specifies the amount of x,y offset from the shape's location. Default is "2pt,2pt". Positive values are measured from the upper left of the face of the shape.</p> <p>Values are specified as either an absolute measurement or a fractional value of the shape's dimensions (–0.5 to +0.5).</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
on (Skew Toggle)	<p>Specifies whether a skew is displayed. Default is <i>false</i>.</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
origin (Skew Origin)	<p>Specifies the origin of the skew. Default is "0,0".</p> <p>Values are typically a percentage of the shape's size and range from -0.5 to +0.5. Larger values are allowed that give offsets as multiples of the shape's size.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Skew](#)) is located in §A.7.2. *end note*]

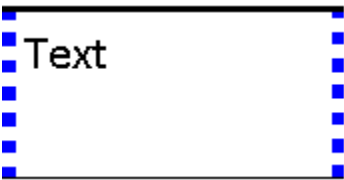


19.2.2.32 top (Text Box Top Stroke)

This element specifies the stroke properties for the top border of a text box. It entirely supercedes its parent stroke element if its on attribute is true. Thus the default value of an unspecified attribute overrides a value specified in the parent. If the on attribute is false or not specified, the border is not shown.

[Example: The text box borders are set independently. Note that the bottom border does not inherit the weight from the parent stroke element.

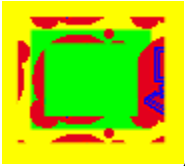

```
<v:stroke weight="2.25pt">
  <o:left v:ext="view" dashstyle="1 1" color="blue" weight="5pt" on="t"/>
  <o:top v:ext="view" color="black" weight="2.25pt" on="t"/>
  <o:right v:ext="view" dashstyle="1 1" color="blue" weight="5pt" on="t"/>
  <o:bottom v:ext="view" color="black" on="t"/>
  <o:column v:ext="view" color="#f60" on="t"/>
</v:stroke>
```





end example]

Attributes	Description
althref (Alternate Image Reference)	<p>Specifies an alternate reference for an image in Macintosh PICT format.</p> <p>[Example:</p> <pre>&lt;v:stroke ... althref="myimage.pcz" ... &gt; &lt;/v:stroke&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
color (Stroke Color)	<p>Specifies the stroke color. Overrides the strokecolor attribute of a shape. Default is black. See the fillcolor attribute for a list of supported named colors.</p> <p>[Example: The shape stroke is blue:</p> <pre>&lt;v:shape ... strokecolor="red" ... &gt;   &lt;v:stroke color="blue"/&gt; &lt;/v:shape&gt;</pre> <p>end example]</p>

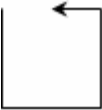

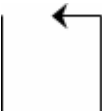


Attributes	Description
<p>color2 (Stroke Alternate Pattern Color)</p>	<p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p> <p>Specifies a second color for strokes, used when filltype is pattern. Default is no value.</p> <p>When a pattern fill is used for the stroke, the stroke color is used in colored parts of the source image. The color2 defines an alternate color to use in place of black in the source image.</p> <p>[<i>Example</i>: This unusual example is intended to demonstrate how the image and colors interact to create a patterned stroke. The yellow background shows transparency. The non-square shape and square image create an effective offset. The heavy stroke weight shows more of the image. The green shape fill shows how the stroke is overlaid on the shape.</p> <pre> &lt;v:background fillcolor="yellow"/&gt; &lt;v:shape style="width:60;height:50"   strokecolor="red" fillcolor="lime"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:stroke filltype="pattern" weight="10pt"     src="myimage.gif" color2="blue"/&gt; &lt;/v:shape&gt; </pre>  <p>, where myimage.gif is: </p> <p><i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_ColorType simple type (§20.1.2.3).</p>
<p>dashstyle (Stroke Dash Pattern)</p>	<p>Specifies the dot and dash pattern for a stroke. Default is solid. Pre-defined values are:</p> <ul style="list-style-type: none"> <li>• solid</li> <li>• shortdash</li> <li>• shortdot</li> <li>• shortdashdot</li> <li>• shortdashdotdot</li> <li>• dot</li> <li>• dash</li> <li>• longdash</li> <li>• dashdot</li> <li>• longdashdot</li> <li>• longdashdotdot</li> </ul>




Attributes	Description
	<p>A custom-defined dash pattern can also be specified using a series of numbers. These define the length of the dash (the drawn part of the stroke) and the length of the space between the dashes. The lengths are relative to the line width: a length of 1 is equal to the line width. The endcap style is applied to each dash but the arrow style is not. The string defines the length of the dash then the length of the space. This can be repeated to form complex dash styles. The string should always contain a pair of numbers; if it contains an odd number of numbers the last is disregarded. 0 implies a dot that is fourfold symmetrical (with round end caps, this is a circle).</p> <p>[Example:</p> <pre>&lt;v:stroke dashstyle="0 2" weight="3pt"   endcap="round"&gt; &lt;/v:stroke&gt;</pre>  <pre>&lt;v:stroke dashstyle="longdashdotdot"   weight="2pt"&gt; &lt;/v:stroke&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
endarrow (Line End Arrowhead)	<p>Specifies an arrowhead for the end of a line. Default is none. The path shall not be closed with the x command for the arrowhead to show. Allowed values are:</p> <ul style="list-style-type: none"> <li>• none</li> <li>• block</li> <li>• classic</li> <li>• diamond</li> <li>• oval</li> <li>• open</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke endarrow="classic"/&gt;</pre>


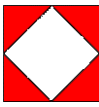


Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowType simple type (§19.1.3.8).</p>
endarrowlength (Line End Arrowhead Length)	<p>Specifies the length of the arrowhead at the end of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• short</li> <li>• medium</li> <li>• long</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... endarrowlength="long" ... /&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowLength simple type (§19.1.3.7).</p>
endarrowwidth (Line End Arrowhead Width)	<p>Specifies the width of the arrowhead at the end of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• narrow</li> <li>• medium</li> <li>• wide</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... endarrowwidth="wide" ... /&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowWidth simple</p>






Attributes	Description
<p>endcap (Line End Cap)</p>	<p>type (§19.1.3.9).</p> <p>Specifies the cap style for the end of a stroke. Default is <code>flat</code>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <code>flat</code></li> <li>• <code>square</code></li> <li>• <code>round</code></li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... endcap="round" weight="10pt" ... /&gt;</pre>  <p>endcap="flat"</p> <p>endcap="square"</p> <p>endcap="round"</p> <p>end example]</p> <p>The possible values for this attribute are defined by the <code>ST_StrokeEndCap</code> simple type (§19.1.3.10).</p>
<p>ext (VML Extension Handling Behavior)</p> <p>Namespace: urn:schemas-microsoft-com:vml</p>	<p>Specifies an optional value that indicates how applications that implement VML should interpret extensions not defined as part of the original specification of core VML.</p> <p>[<i>Rationale</i>: This part of the original VML specification is included to assist applications that leverage existing VML support in implementing the Office Open XML Format. <i>end rationale</i>]</p> <p>The possible values for this attribute are defined by the <code>ST_Ext</code> simple type (§19.1.3.2).</p>
<p>filltype (Stroke Image Style)</p>	<p>Specifies the kind of fill used for the background of a stroke. Default is <code>solid</code>. Allowed values are:</p> <ul style="list-style-type: none"> <li>• <code>solid</code> - The fill pattern is solid.</li> <li>• <code>tile</code> - The fill image is tiled.</li> <li>• <code>pattern</code> - The fill image is stretched to form a pattern.</li> <li>• <code>frame</code> - The fill image becomes a border for the shape.</li> </ul> <p>[Example:</p>

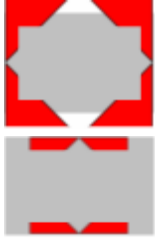


Attributes	Description
	<pre> &lt;v:shape style="width:50;height:50"   strokecolor="red"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:stroke filltype="frame" weight="10pt"     src="border.gif"/&gt; &lt;/v:shape&gt; </pre>   <p>, where border.gif is:</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_FillType simple type (§19.1.3.4).</p>
<b>forcedash (Force Dashed Outline)</b>	<p>Specifies whether a dashed outline is used to draw a shape when a shape has no line or fill. Default is false.</p> <p>Used by PresentationML placeholders to draw a dashed outline when there is no line and no fill for a shape.</p> <p>[Example:</p> <pre> &lt;v:shape ... o:forcedash="true" ... &gt; &lt;/v:shape&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
<b>href (Original Image Reference)</b>	<p>Specifies the URL to the original image file. Used only if the picture has been linked and embedded. Default is no value.</p> <p>[Example:</p> <pre> &lt;v:fill ... o:href="myimage.gif" ... &gt; &lt;/v:fill&gt; </pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
<b>imagealignshape (Stoke Image Alignment)</b>	<p>Specifies the alignment of the stroke image. If true, the image is aligned with the shape. Otherwise, it is aligned with the containing scope. Default is true.</p>





Attributes	Description								
	<p>[<i>Example</i>: The top position offset shifts the image alignment relative to the containing window:</p> <pre>&lt;v:shape fillcolor="silver"   style="top:20;width:50;height:50"   path="m 0,0 l 0,1000 1000,1000 1000,0 x e"&gt;   &lt;v:stroke imagealignshape="false" weight="20pt"     filltype="tile" src="myimage.gif"/&gt; &lt;/v:shape&gt;</pre>  <p>imagealignshape="false"</p>  <p>imagealignshape="false"</p> <p><i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>								
imageaspect (Stroke Image Aspect Ratio)	<p>Specifies how the stroke image aspect ratio is preserved. Default is ignore. Allowed values are:</p> <table><tr><th>Value</th><th>Description</th></tr><tr><td>ignore</td><td>Ignore aspect issues.</td></tr><tr><td>atleast</td><td>Image is at least as big as imagesize.</td></tr><tr><td>atmost</td><td>Image is no bigger than imagesize.</td></tr></table> <p>[<i>Example</i>:</p> <pre>&lt;v:stroke filltype="frame" weight="10pt"   src="border.gif" imagealignshape="true"   imageaspect="atleast"&gt; &lt;/v:stroke&gt;</pre>  <p>imagealignshape="ignore"</p>	Value	Description	ignore	Ignore aspect issues.	atleast	Image is at least as big as imagesize.	atmost	Image is no bigger than imagesize.
Value	Description								
ignore	Ignore aspect issues.								
atleast	Image is at least as big as imagesize.								
atmost	Image is no bigger than imagesize.								


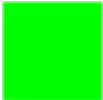



Attributes	Description
	 <p><code>imagealignshape="atleast"</code></p> <p><code>imagealignshape="atmost"</code></p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_ImageAspect simple type (§19.1.3.5).</p>
imagesize (Stroke Image Size)	<p>Specifies the size of the image for the stroke. Default is the size of the image.</p> <p><i>[Example:</i></p> <pre>&lt;v:stroke ... imagesize="10pt,10pt" ... /&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
insetpen (Inset Border From Path)	<p>Specifies that the border shall be displayed inside of the path defining the shape, rather than along the path (the default border placement), or outside of the path as might be done with an image.</p> <p><i>[Example:</i></p> <pre>&lt;v:shape ... insetpen="true" ... &gt; &lt;/v:shape&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
joinstyle (Line End Join Style))	<p>Specifies the join style for line ends. Default is round.</p> <ul style="list-style-type: none"> <li>• round</li> <li>• bevel</li> <li>• miter</li> </ul> <p><i>[Example:</i></p> <pre>&lt;v:polyline strokeweight="10pt" strokecolor="navy" points="10pt,10pt,50pt,50pt,90pt,10pt"&gt;</pre>

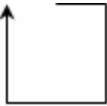


Attributes	Description
	<div><pre>&lt;v:stroke joinstyle="bevel"/&gt; &lt;/v:polyline&gt;</pre><div><div><div>joinstyle="round"</div><div>joinstyle="bevel"</div><div>joinstyle="miter"</div></div></div><p><i>end example]</i></p><p>The possible values for this attribute are defined by the ST_StrokeJoinStyle simple type (§19.1.3.11).</p></div>
linestyle (Stroke Line Style)	<div><p>Specifies the line style of the stroke. Default is single.</p><ul style="list-style-type: none"><li>• single</li><li>• thinThin</li><li>• thinThick</li><li>• thickThin</li><li>• thickBetweenThin</li></ul><p>[Example:</p><div><pre>&lt;v:stroke linestyle="thickThin" weight="5pt"&gt; &lt;/v:stroke&gt;</pre></div><p><i>end example]</i></p><p>The possible values for this attribute are defined by the ST_StrokeLineStyle simple type (§19.1.3.12).</p></div>
miterlimit (Miter Joint Limit)	<div><p>Specifies the smoothness of the miter joint, or the maximum distance between the inner point and outer point of a joint. This number is a multiple of the thickness of the line. Default is 8.</p><p>[Example:</p></div>


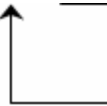


Attributes	Description
	<pre>&lt;v:stroke joinstyle="miter" weight="10pt"   miterlimit="2"&gt; &lt;/v:stroke&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema decimal datatype.</p>
on (Stroke Toggle)	<p>Specifies whether the stroke is displayed. Default is true. This attribute overrides the shape's stroke attribute.</p> <p>[Example:</p> <pre>&lt;v:rect style="width:50;height:50" stroked="true"   fillcolor="lime" strokecolor="red"&gt;   &lt;v:stroke on="false" weight="5pt"/&gt; &lt;/v:rect&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_TrueFalse simple type (§20.1.2.5).</p>
opacity (Stroke Opacity)	<p>Specifies the amount of transparency of a stroke. Default is 1.0.</p> <p>[Example:</p> <pre>&lt;v:rect style="width:50;height:50"   fillcolor="lime" strokecolor="red"&gt;   &lt;v:stroke weight="5pt" opacity="50%"/&gt; &lt;/v:rect&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string</p>



Attributes	Description
src (Stroke Image Location)	<p>datatype.</p> <p>Specifies the source image to load for a stroke fill. Default is no value.</p> <p>[Example:</p> <pre>&lt;v:stroke ... src="myimage.gif" ... &gt; &lt;/v:stroke&gt;</pre> <p>end example]</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
startarrow (Line Start Arrowhead)	<p>Specifies an arrowhead for the start of a line. Default is none. The path shall not be closed with the x command for the arrowhead to show. Allowed values are:</p> <ul style="list-style-type: none"> <li>• none</li> <li>• block</li> <li>• classic</li> <li>• diamond</li> <li>• oval</li> <li>• open</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke startarrow="classic"/&gt;</pre>  <p>end example]</p> <p>The possible values for this attribute are defined by the ST_StrokeArrowType simple type (§19.1.3.8).</p>
startarrowlength (Line Start Arrowhead Length)	<p>Specifies the length of the arrowhead at the start of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• short</li> <li>• medium</li> <li>• long</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... startarrowlength="long" ... /&gt;</pre>



Attributes	Description
	 <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowLength simple type (§19.1.3.7).</p>
startarrowwidth (Line Start Arrowhead Width)	<p>Specifies the width of the arrowhead at the start of a line. Default is medium. Allowed values are:</p> <ul style="list-style-type: none"> <li>• narrow</li> <li>• medium</li> <li>• wide</li> </ul> <p>[Example:</p> <pre>&lt;v:stroke ... startarrowwidth="wide" ... /&gt;</pre>  <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_StrokeArrowWidth simple type (§19.1.3.9).</p>
title (Stroke Title)	<p>Specifies the title of an embedded stroke image. This is typically set to the comment property of the image, which is often blank.</p> <p>[Example:</p> <pre>&lt;v:fill ... o:title="alt text" ... &gt; &lt;/v:fill&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>
weight (Stroke Weight)	<p>Specifies the thickness of a stroke. Default is 1. This attribute overrides the shape's strokeweight attribute.</p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>



[*Note:* The W3C XML Schema definition of this element’s content model ([CT\\_StrokeChild](#)) is located in §A.7.2. *end note*]

### 19.2.3 Simple Types

The following additional simple type information in the urn:schemas-microsoft-com:office:office namespace is used for documents of a transitional conformance class.

#### 19.2.3.1 ST\_AlternateMathContentType (Alternate Math Content Type)

This simple type specifies the content type of the XML markup stored within the equationxml element.

The following values are reserved:

Value	Meaning
officeopenxmlmath	Specifies that the data has been stored using the Office Open XML Math syntax defined in Part 1, §22.1.
mathml	Specifies that the data has been stored using the MathML syntax.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

[*Note:* The W3C XML Schema definition of this simple type’s content model ([ST\\_AlternateMathContentType](#)) is located in §A.7.2. *end note*]

#### 19.2.3.2 ST\_Angle (Callout Angles)

This simple type specifies values for the angle attribute of the callout element (§19.2.2.2).

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
30 (30 degrees)	30 degrees.
45 (45 degrees)	45 degrees.
60 (60 degrees)	60 degrees.
90 (90 degrees)	90 degrees.
any (Any Angle)	Unconstrained angle.
auto (Automatic Angle)	The application chooses an appropriate angle.

[*Note:* The W3C XML Schema definition of this simple type’s content model ([ST\\_Angle](#)) is located in §A.7.2. *end note*]

#### 19.2.3.3 ST\_BWMode (Black And White Modes)

This simple type specifies the ways in which a shape renders in a black and white context.



This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
auto (Automatic)	Use the bwpure or bwnormal attributes based on the type of output being generated.
black (Black)	Use black only.
blackTextAndLines (Black Text And Lines)	Use shades of gray, except for text and lines, which are black.
color (Color)	Do not use grayscale or black and white.
grayOutline (Gray Outlines)	Use gray and white only.
grayScale (Grayscale)	Use shades of gray only.
hide (Hide Object When Displayed in Black and White)	Do not display the object when rendering in only black and white.
highContrast (Black And White)	Use black and white only, no grays.
inverseGray (Inverse Grayscale)	Use shades of gray only, but invert light and dark grays.
lightGrayscale (Light grayscale)	Use light shades of gray only.
undrawn (Do Not Show)	Do not show the object.
white (White)	Use white only.

[*Note:* The W3C XML Schema definition of this simple type's content model ([ST\\_BWMode](#)) is located in §A.7.2. *end note*]

#### 19.2.3.4 [ST\\_CalloutDrop \(Callout Drop Location\)](#)

This simple type specifies location values for the drop attribute of the callout element (§19.2.2.2).

This simple type's contents are a restriction of the W3C XML Schema string datatype.

[*Note:* The W3C XML Schema definition of this simple type's content model ([ST\\_CalloutDrop](#)) is located in §A.7.2. *end note*]

#### 19.2.3.5 [ST\\_CalloutPlacement \(Callout Placement\)](#)

This type defines location values used by the drop attribute of the callout element (§19.2.2.2).

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
bottom (Bottom placement)	Bottom of the shape.
center (Center placement)	Vertical center of the shape.
top (Top placement)	Top of the shape.



Enumeration Value	Description
user (User-defined placement)	User-defined placement.

[*Note:* The W3C XML Schema definition of this simple type's content model ([ST\\_CalloutPlacement](#)) is located in §A.7.2. *end note*]

#### 19.2.3.6 ST\_ColorMode (Extrusion Color Types)

This simple type specifies ways that the extrusion color is defined.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
auto (Use Shape Fill Color)	Specifies that the color of the extrusion is the same as the fill color of the shape.
custom (Use Custom Color)	Specifies that the extrusion is the color of the color attribute.

[*Note:* The W3C XML Schema definition of this simple type's content model ([ST\\_ColorMode](#)) is located in §A.7.2. *end note*]

#### 19.2.3.7 ST\_ConnectorType (Connector Type)

This simple type specifies types of connectors.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
curved (Curved Connector)	A curved connector.
elbow (Elbow Connector)	An elbow-shaped connector.
none (No Connector)	No connector.
straight (Straight Connector)	A straight connector.

[*Note:* The W3C XML Schema definition of this simple type's content model ([ST\\_ConnectorType](#)) is located in §A.7.2. *end note*]

#### 19.2.3.8 ST\_ConnectType (Connection Locations Type)

This simple type specifies types of connection locations.

This simple type's contents are a restriction of the W3C XML Schema string datatype.



Enumeration Value	Description
custom (Custom Connections)	A custom array of connection locations.
none (No)	No connection locations.
rect (Four Connections)	Standard four connection points at midpoints of top, bottom, left, and right sides.
segments (Edit Point Connections)	The edit points of the shape are used. Edit points are the black dots in a graphical editor that are used to select parts of a shape.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_ConnectType](#)) is located in §A.7.2. *end note*]

### 19.2.3.9 [ST\\_ContentType \(Content Type\)](#)

This simple type specifies a content type.

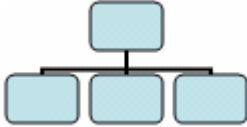
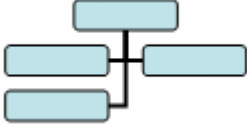
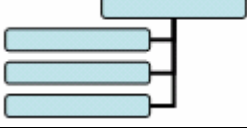
This simple type's contents are a restriction of the W3C XML Schema string datatype.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_ContentType](#)) is located in §A.7.2. *end note*]

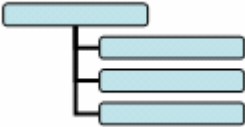
### 19.2.3.10 [ST\\_DiagramLayout \(Diagram Layout Type\)](#)

This simple type specifies the style of automatic layout to apply to a node in a diagram.

This simple type's contents are a restriction of the W3C XML Schema integer datatype.

Enumeration Value	Description
0 (Top-down Centered)	Top-down, centered layout. 
1 (Hanging Both Sides)	Hanging, both sides layout. 
2 (Hanging Right Side)	Hanging, right side layout. 
3 (Hanging Left Side)	Hanging, left side layout.



Enumeration Value	Description
	

[Note: The W3C XML Schema definition of this simple type’s content model ([ST\\_DiagramLayout](#)) is located in §A.7.2. *end note*]

19.2.3.11 [ST\\_ExtrusionPlane](#) (Extrusion Planes)

This simple type specifies three axis-aligned planes.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
XY (XY Plane)	The xy plane.
YZ (YZ Plane)	The yz plane.
ZX (ZX Plane)	The zx plane.

[Note: The W3C XML Schema definition of this simple type’s content model ([ST\\_ExtrusionPlane](#)) is located in §A.7.2. *end note*]

19.2.3.12 [ST\\_ExtrusionRender](#) (Extrusion Rendering Types)

This simple type specifies different rendering modes.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
boundingCube (Bounding Cube)	Rendering displays the bounding cube that contains the shape.
solid (Solid)	Rendering displays a solid shape.
wireFrame (Wireframe)	Rendering displays a wireframe shape.

[Note: The W3C XML Schema definition of this simple type’s content model ([ST\\_ExtrusionRender](#)) is located in §A.7.2. *end note*]

19.2.3.13 [ST\\_ExtrusionType](#) (Extrusion Type)

This simple type specifies types of extrusions.

This simple type's contents are a restriction of the W3C XML Schema string datatype.






Enumeration Value	Description
parallel (Parallel Projection)	Extrusion is rendered so that the center of projection is infinitely far away; the extrusion lines do not converge.
perspective (Perspective Projection)	Extrusion is rendered to a center of projection, which is the same as the vanishing point for unrotated objects.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_ExtrusionType](#)) is located in §A.7.2. *end note*]

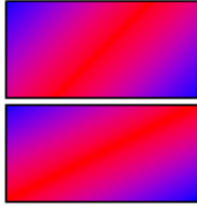

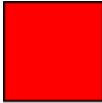

#### 19.2.3.14 ST\_FillType (Shape Fill Type)

This simple type specifies the types for fills applied to a shape.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
background (Use Background Fill)	Use the fill properties of the background of the object on which the shape exists, such as the page.
frame (Stretch Image to Fit)	The image is stretched to fill the shape. 
gradient (Linear Gradient)	The fill colors blend together in a linear gradient from bottom to top. 
gradientCenter (Centered Radial Gradient)	This indicates that the gradient runs across the center of the shape for a gradient that is defined as gradientRadial in the parent fill element (§19.1.2.5) that is defined in the VML namespace.
gradientRadial (Radial Gradient)	The fill colors blend together in a radial gradient. 
gradientUnscaled (Unscaled Gradient)	The gradient angle is not scaled relative to the aspect ratio of the shape.  [Example: The shapes below are twice as wide as they are tall. The first shape uses an unscaled gradient and the second uses a regular scaled gradient:]



Enumeration Value	Description
	 <i>end example]</i>
pattern (Image Pattern)	<p>The image is used to create a pattern using the fill colors.</p> 
solid (Solid Fill)	<p>The fill pattern is a solid color.</p> 
tile (Tiled Image)	<p>The fill image is tiled.</p> 

[*Note*: The W3C XML Schema definition of this simple type's content model ([ST\\_FillType](#)) is located in §A.7.2. *end note*]

#### 19.2.3.15 ST\_How (Alignment Type)

This simple type specifies types of alignment.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
bottom (Bottom Alignment)	Bottom vertical alignment.
center (Center Alignment)	Center horizontal alignment.
left (Left Alignment)	Left horizontal alignment.
middle (Middle Alignment)	Middle vertical alignment.
right (Right Alignment)	Right horizontal alignment.
top (Top Alignment)	Top vertical alignment.

[*Note*: The W3C XML Schema definition of this simple type's content model ([ST\\_How](#)) is located in §A.7.2. *end note*]



### 19.2.3.16 ST\_HrAlign (Alignment Type)

This simple type specifies alignments for horizontal rules.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
center (Center Alignment)	Center aligned.
left (Left Alignment)	Left aligned.
right (Right Alignment)	Right aligned.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_HrAlign](#)) is located in §A.7.2. *end note*]

### 19.2.3.17 ST\_InsetMode (Inset Margin Type)

This simple type specifies how inner text margins are obtained.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
auto (Automatic Margins)	Inner text margins are calculated by the application.
custom (Custom Margins)	Inner text margins are specified by the shape.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_InsetMode](#)) is located in §A.7.2. *end note*]

### 19.2.3.18 ST\_OLEDrawAspect ( Embedded Object Representations)

This simple type specifies the ways in which embedded objects are displayed in the application.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
Content (Snapshot)	The object's presentation is a picture of the contained document (provided by the embedded object server technology).
Icon (Icon)	The object's presentation is an icon.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_OLEDrawAspect](#)) is located in §A.7.2. *end note*]



### 19.2.3.19 ST\_OLELinkType (Embedded Object Alternate Image Request Types)

This simple type specifies the kind of image that shall be requested from the application which hosts embedded object data for a linked object. This simple type allows any image format to be specified; however, the following values are reserved:

Enumeration Value	Description
Bitmap	Specifies that a bitmap should be requested.
EnhancedMetaFile	Specifies that a metafile (non-raster) image should be requested.
Jpeg	Specifies an image which should use the JPEG format.
Picture	Specifies that any image format can be requested. <i>[Example: PNG or CGM (ISO/IEC 8632). end example]</i>
Png	Specifies an image which should use the Portable Network Graphics format.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_OLELinkType](#)) is located in §A.7.2. end note]

### 19.2.3.20 ST\_OLEType ( Embedded Connection Type)

This simple type specifies whether the embedded object is included in the package (that is, embedded) or is stored outside the package (that is, linked).

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
Embed (Embedded Object)	Embedded object.
Link (Linked Object)	Linked object.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_OLEType](#)) is located in §A.7.2. end note]

### 19.2.3.21 ST\_OLEUpdateMode ( Embedded Object Update Method Type)

This simple type specifies how an embedded object is updated.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
Always (Server Application Update)	The object is updated whenever the server application using the embedded object indicates there is new data



Enumeration Value	Description
	available.
OnCall (User Update)	The object is updated when the user chooses to update it.

[*Note: The W3C XML Schema definition of this simple type's content model ([ST\\_OLEUpdateMode](#)) is located in §A.7.2. end note*]

### 19.2.3.22 [ST\\_RType \(Rule Type\)](#)

This simple type specifies types of rules.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
align (Alignment Rule)	Alignment rule.
arc (Arc Rule)	Arc rule.
callout (Callout Rule)	Callout rule.
connector (Connector Rule)	Connector rule.

[*Note: The W3C XML Schema definition of this simple type's content model ([ST\\_RType](#)) is located in §A.7.2. end note*]

### 19.2.3.23 [ST\\_ScreenSize \(Screen Sizes Type\)](#)

This simple type specifies screen sizes.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
1024,768 (1024x768 pixels)	1024x768 pixels.
1152,862 (1152x862 pixels)	1152x862 pixels.
544,376 (544x376 pixels)	544x376 pixels.
640,480 (640x480 pixels)	640x480 pixels.
720,512 (720x512 pixels)	720x512 pixels.
800,600 (800x600 pixels)	800x600 pixels.

[*Note: The W3C XML Schema definition of this simple type's content model ([ST\\_ScreenSize](#)) is located in §A.7.2. end note*]



19.3 VML - WordprocessingML Drawing

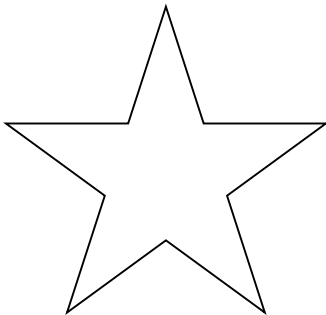
Within a WordprocessingML document, it is possible to include graphical VML objects. When these objects are present in a word processing document, it is necessary to include information about the object which is specific to their presence in a word processing document.

[Note: The VML format is a legacy format originally introduced with Office 2000 and is included and fully defined in ECMA-376 for backwards compatibility reasons. The DrawingML format is a newer and richer format created with the goal of eventually replacing any uses of VML in the Office Open XML formats. VML should be considered a transitional format included in Office Open XML for legacy reasons only and new applications that need a file format for drawings are strongly encouraged to use preferentially DrawingML. end note]

The VML WordprocessingML Drawing namespace acts in this capacity, specifying all information necessary to anchor and display VML objects within a word processing document.

All elements defined in this subclause shall only appear in a WordprocessingML document.

[Example: Consider a 5-point star added to a WordprocessingML document, for example:



This object allows surrounding text to wrap around its top and bottom, but not to either side, so this interaction with the surrounding document text (which is specific to a word processing document) is stored in the WordprocessingML Drawing namespace as follows:

```
<v:shape ... >
...
<wd:wrap wd:type="topAndBottom" />
</v:shape>
```

The wrap element specifies how surrounding WordprocessingML document content must wrap around the floating VML object - in this case, by wrapping to its top and bottom extents via the type attribute value of topAndBottom. end example]

19.3.1 Table of Contents

This subclause is informative.

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**End of informative text.**

## 19.3.2 Elements

The following elements comprise the contents of the urn:schemas-microsoft-com:office:word namespace:

[*Note*: As the VML format is a format provided for backward compatibility, those VML elements defined in the same urn:schemas-microsoft-com:office:word namespace remain in that namespace as it is already used by millions of documents already using VML. *end note*]

### 19.3.2.1 anchorlock (Anchor Location Is Locked)

This element specifies that the anchor location for this object shall not be modified at runtime when an application edits the contents of this document. [*Guidance*: An application might have automatic behaviors which reposition the anchor for a VML object based on user interaction - for example, moving it from one page to another as needed. This element must tell applications not to perform any such behaviors. *end guidance*]

If this element is omitted, then the anchor shall not be locked for the parent VML object.

[*Example*: Consider a floating VML object which must have its anchor locked at the current location. This setting is specified as follows:

```
<wd:anchorLock/>
```

The anchorLock element's presence specifies that the VML object's current anchor location must not be changed by applications editing this content. *end example*].

[*Note*: The W3C XML Schema definition of this element's content model ([CT\\_AnchorLock](#)) is located in §A.7.3. *end note*]

### 19.3.2.2 borderbottom (Bottom Border)

This element specifies the properties for the bottom border of a VML object.



Attributes	Description
shadow (Border shadow)	<p>Specifies whether this border should be modified to create the appearance of a shadow.</p> <p>For the right and bottom borders, this is accomplished by duplicating the border below and right of the normal border location. For the left and top borders, this is accomplished by moving the border down and to the right of its original location.</p> <p>If this attribute is omitted, then the border is not given the shadow effect.</p> <p>[<i>Example:</i> Consider a top border which must appear with a shadow effect, resulting in the following content:</p> <pre>&lt;wd:bordertop wd:shadow="true" ... /&gt;</pre> <p>This element's shadow attribute is <code>true</code>, indicating that the shadow effect must be applied to the border. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_BorderShadow simple type (§19.3.3.1).</p>
type (Border Style)	<p>Specifies the style of border used on this object.</p> <p>See the simple type definition for a description of each border style.</p> <p>[<i>Example:</i> Consider a left border resulting in the following WordprocessingML:</p> <pre>&lt;wd:borderleft wd:type="single" .../&gt;</pre> <p>This border's type is <code>single</code>, indicating that the border style is a single line. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_BorderType simple type (§19.3.3.2).</p>
width (Border Width)	<p>Specifies the width of the current border.</p> <p>The width of this border is specified in measurements of eighths of a point, with a minimum value of two (one-fourth of a point) and a maximum value of 96 (twelve points). Any values outside this range can be reassigned to a more appropriate value.</p> <p>[<i>Example:</i> Consider a document with a three point wide dashed line border on all sides, resulting in the following WordprocessingML markup:</p> <pre>&lt;wd:bordertop wd:type="dashed" wd:width="24" .../&gt; &lt;wd:borderleft wd:type="dashed" wd:width="24" .../&gt; &lt;wd:borderbottom wd:type="dashed" wd:width="24" .../&gt; &lt;wd:borderright wd:type="dashed" wd:width="24" .../&gt;</pre> <p>The width attribute specifies the size in eighths of a point (24 eighths of a point = 3 points). <i>end example</i>]</p>



Attributes	Description
	The possible values for this attribute are defined by the W3C XML Schema <code>positiveInteger</code> datatype.

[*Note:* The W3C XML Schema definition of this element's content model ([CT\\_Border](#)) is located in §A.7.3. *end note*]

### 19.3.2.3 `borderleft` (Left Border)

This element represents the properties for the left border of a VML object.

Attributes	Description
shadow (Border shadow)	<p>Specifies whether this border should be modified to create the appearance of a shadow.</p> <p>For the right and bottom borders, this is accomplished by duplicating the border below and right of the normal border location. For the left and top borders, this is accomplished by moving the border down and to the right of its original location.</p> <p>If this attribute is omitted, then the border is not given the shadow effect.</p> <p>[<i>Example:</i> Consider a top border which must appear with a shadow effect, resulting in the following content:</p> <pre>&lt;wd:bordertop wd:shadow="true" ... /&gt;</pre> <p>This element's shadow attribute is <code>true</code>, indicating that the shadow effect must be applied to the border. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the <code>ST_BorderShadow</code> simple type (§19.3.3.1).</p>
type (Border Style)	<p>Specifies the style of border used on this object.</p> <p>See the simple type definition for a description of each border style.</p> <p>[<i>Example:</i> Consider a left border resulting in the following WordprocessingML:</p> <pre>&lt;wd:borderleft wd:type="single" .../&gt;</pre> <p>This border's type is <code>single</code>, indicating that the border style is a single line. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the <code>ST_BorderType</code> simple type (§19.3.3.2).</p>
width (Border Width)	Specifies the width of the current border.



Attributes	Description
	<p>The width of this border is specified in measurements of eighths of a point, with a minimum value of two (one-fourth of a point) and a maximum value of 96 (twelve points). Any values outside this range can be reassigned to a more appropriate value.</p> <p>[<i>Example:</i> Consider a document with a three point wide dashed line border on all sides, resulting in the following WordprocessingML markup:</p> <pre>&lt;wd:bordertop wd:type="dashed" wd:width="24" .../&gt; &lt;wd:borderleft wd:type="dashed" wd:width="24" .../&gt; &lt;wd:borderbottom wd:type="dashed" wd:width="24" .../&gt; &lt;wd:borderright wd:type="dashed" wd:width="24" .../&gt;</pre> <p>The width attribute specifies the size in eighths of a point (24 eighths of a point = 3 points). <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema positiveInteger datatype.</p>

[*Note:* The W3C XML Schema definition of this element's content model ([CT\\_Border](#)) is located in §A.7.3. *end note*]

#### 19.3.2.4 [borderright \(Right Border\)](#)

This element specifies the properties for the right border of a VML object.

Attributes	Description
shadow (Border shadow)	<p>Specifies whether this border should be modified to create the appearance of a shadow.</p> <p>For the right and bottom borders, this is accomplished by duplicating the border below and right of the normal border location. For the left and top borders, this is accomplished by moving the border down and to the right of its original location.</p> <p>If this attribute is omitted, then the border is not given the shadow effect.</p> <p>[<i>Example:</i> Consider a top border which must appear with a shadow effect, resulting in the following content:</p> <pre>&lt;wd:bordertop wd:shadow="true" ... /&gt;</pre> <p>This element's shadow attribute is true, indicating that the shadow effect must be applied to the border. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_BorderShadow simple type (§19.3.3.1).</p>
type (Border Style)	Specifies the style of border used on this object.



Attributes	Description
	<p>See the simple type definition for a description of each border style.</p> <p>[<i>Example:</i> Consider a left border resulting in the following WordprocessingML:</p> <pre>&lt;wd:borderleft wd:type="single" .../&gt;</pre> <p>This border's type is <code>single</code>, indicating that the border style is a single line. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the <code>ST_BorderType</code> simple type (§19.3.3.2).</p>
width (Border Width)	<p>Specifies the width of the current border.</p> <p>The width of this border is specified in measurements of eighths of a point, with a minimum value of two (one-fourth of a point) and a maximum value of 96 (twelve points). Any values outside this range can be reassigned to a more appropriate value.</p> <p>[<i>Example:</i> Consider a document with a three point wide dashed line border on all sides, resulting in the following WordprocessingML markup:</p> <pre>&lt;wd:bordertop wd:type="dashed" wd:width="24" .../&gt; &lt;wd:borderleft wd:type="dashed" wd:width="24" .../&gt; &lt;wd:borderbottom wd:type="dashed" wd:width="24" .../&gt; &lt;wd:boarderright wd:type="dashed" wd:width="24" .../&gt;</pre> <p>The width attribute specifies the size in eighths of a point (24 eighths of a point = 3 points). <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema <code>positiveInteger</code> datatype.</p>

[*Note:* The W3C XML Schema definition of this element's content model (`CT_Border`) is located in §A.7.3. *end note*]

### 19.3.2.5 `bordertop` (Top Border)

This element specifies the properties for the top border of a VML object.

Attributes	Description
shadow (Border shadow)	<p>Specifies whether this border should be modified to create the appearance of a shadow.</p> <p>For the right and bottom borders, this is accomplished by duplicating the border below and right of the normal border location. For the left and top borders, this is accomplished by moving the border down and to the right of its original location.</p>



Attributes	Description
	<p>If this attribute is omitted, then the border is not given the shadow effect.</p> <p>[<i>Example:</i> Consider a top border which must appear with a shadow effect, resulting in the following content:</p> <pre>&lt;wd:bordertop wd:shadow="true" ... /&gt;</pre> <p>This element's shadow attribute is <code>true</code>, indicating that the shadow effect must be applied to the border. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_BorderShadow simple type (§19.3.3.1).</p>
type (Border Style)	<p>Specifies the style of border used on this object.</p> <p>See the simple type definition for a description of each border style.</p> <p>[<i>Example:</i> Consider a left border resulting in the following WordprocessingML:</p> <pre>&lt;wd:borderleft wd:type="single" .../&gt;</pre> <p>This border's type is <code>single</code>, indicating that the border style is a single line. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_BorderType simple type (§19.3.3.2).</p>
width (Border Width)	<p>Specifies the width of the current border.</p> <p>The width of this border is specified in measurements of eighths of a point, with a minimum value of two (one-fourth of a point) and a maximum value of 96 (twelve points). Any values outside this range can be reassigned to a more appropriate value.</p> <p>[<i>Example:</i> Consider a document with a three point wide dashed line border on all sides, resulting in the following WordprocessingML markup:</p> <pre>&lt;wd:bordertop wd:type="dashed" wd:width="24" .../&gt; &lt;wd:borderleft wd:type="dashed" wd:width="24" .../&gt; &lt;wd:borderbottom wd:type="dashed" wd:width="24" .../&gt; &lt;wd:boarderright wd:type="dashed" wd:width="24" .../&gt;</pre> <p>The width attribute specifies the size in eighths of a point (24 eighths of a point = 3 points). <i>end example</i>]</p> <p>The possible values for this attribute are defined by the W3C XML Schema <code>positiveInteger</code> datatype.</p>



[*Note:* The W3C XML Schema definition of this element's content model ([CT\\_Border](#)) is located in §A.7.3. *end note*]

### 19.3.2.6 wrap (Text Wrapping)

This element specifies the type of text wrapping which should be allowed around the contents of this VML object.

If this element is omitted, then no text wrapping shall be performed (i.e. the object shall be presented in line with text).

[*Example:* Consider the following VML object:

```
<v:shape ... >
...
  <wd:wrap wd:type="square" />
</v:shape>
```

The wrap element specifies how surrounding WordprocessingML document content must wrap around the floating VML object - in this case, by wrapping around its extents in a square via the type attribute value of square. *end example*].

Attributes	Description
anchorx (Horizontal Positioning Base)	<p>Specifies the base object from which the horizontal positioning of the object should be calculated.</p> <p>A VML object can be horizontally positioned relative to:</p> <ul style="list-style-type: none"> <li>• The vertical edge of the page before any runs of text (the left edge for left-to-right paragraphs, the right edge for right-to-left paragraphs)</li> <li>• The vertical edge of the text margin before any runs of text (the left edge for left-to-right paragraphs, the right edge for right-to-left paragraphs)</li> <li>• The vertical edge of the text in the paragraph containing the VML object</li> <li>• The position of anchor for the floating VML object in the text.</li> </ul> <p>If this attribute is omitted, then its value shall be assumed to be page.</p> <p>[<i>Example:</i> Consider a VML object which should be positioned relative to the page edges, which is specified as follows:</p> <pre>&lt;wd:wrap wd:anchorx="page" wd:anchory="page" /&gt;</pre> <p>The anchorx attribute specifies that horizontal anchoring is relative to the edge of the page. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_HorizontalAnchor simple type (§19.3.3.3).</p>



Attributes	Description
anchory (Vertical Positioning Base)	<p>Specifies the base object from which the vertical positioning of the object should be calculated.</p> <p>A VML object can be vertically positioned relative to:</p> <ul style="list-style-type: none"> <li>• The horizontal top edge of the page</li> <li>• The horizontal edge of the top text margin before any runs of text</li> <li>• The horizontal top edge of line containing the VML object</li> <li>• The horizontal top edge of the paragraph containing the text.</li> </ul> <p>If this attribute is omitted, then its value shall be assumed to be page.</p> <p>[<i>Example:</i> Consider a VML object which should be positioned relative to the page edges, which is specified as follows:</p> <pre>&lt;wd:wrap wd:anchorx="page" wd:anchory="page" /&gt;</pre> <p>The anchory attribute specifies that horizontal anchoring is relative to the edge of the page. <i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_VerticalAnchor simple type (§19.3.3.4).</p>
side (Wrapping side)	<p>Specifies how text shall wrap around the object's left and right sides.</p> <p>[<i>Example:</i> Consider a floating DrawingML object which must allow text to wrap around its left side only. This setting is specified as follows:</p> <pre>&lt;wd:wrap side="left" ... /&gt;</pre> <p>The side attribute value of left specifies that text must only wrap around the left side of the object. <i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_WrapSide simple type (§19.3.3.5).</p>
type (Wrapping type)	<p>Specifies the type of wrapping - see the simple type definition for a description of each type.</p> <p>[<i>Example:</i> Consider the following VML object:</p> <pre>&lt;v:shape ... &gt; ...   &lt;wd:wrap wd:type="topAndBottom" /&gt; &lt;/v:shape&gt;</pre> <p>The wrap element specifies how surrounding WordprocessingML document content must wrap around the floating VML object - in this case, by wrapping around its top and</p>



Attributes	Description
	bottom extents via the type attribute value of topAndBottom. <i>end example</i>  The possible values for this attribute are defined by the ST_WrapType simple type (§19.3.3.6).

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Wrap](#)) is located in §A.7.3. *end note*]

### 19.3.3 Simple Types

The following additional simple type information in the urn:schemas-microsoft-com:office:word namespace is used for documents of a transitional conformance class.

#### 19.3.3.1 ST\_BorderShadow (Border Shadow Type)

This simple type specifies logical true and false values.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
f (False)	Logical false.
false (False)	Logical false.
t (True)	Logical true.
true (True)	Logical true.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_BorderShadow](#)) is located in §A.7.3. *end note*]



#### 19.3.3.2 ST\_BorderType (Border Type)

This type defines which types of borders are supported.



This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
dash (pecifies a line border consisting of a dashed line around the parent object.)	Specifies a line border consisting of a dashed line around the parent object.
dashDotDot (Dash Dot Dot Border)	Specifies a line border consisting of a alternating dotted, dotted, dashed line around the parent object.
dashDotStroked (Stroked Dash Dot Border)	Specifies a line border consisting of a line with a series of alternating thin and thick strokes around the parent object.




Enumeration Value	Description
dashedSmall (Small Dash Border)	Specifies a line border consisting of a dashed line with small gaps around the parent object.
dot (Dotted Border)	Specifies a line border consisting of a dotted line around the parent object.
dotDash (Dot Dash Border)	Specifies a line border consisting of a alternating dotted and dashed line around the parent object.
double (Double Line Border)	Specifies a line border consisting of a double line around the parent object.
doubleWave (Double Wavy Lines Border)	Specifies a line border consisting of a double wavy line around the parent object.
hairline (Hairline Border)	Specifies a line border consisting of a very thin line.
HTMLInset (Inset Border)	<p>Specifies a line border consisting of an inset set of lines around the parent object.</p> <p>[Example:</p>  <p>end example]</p>
HTMLOutset (Outset Border)	<p>Specifies a line border consisting of an outset set of lines around the parent object.</p> <p>[Example:</p>  <p>end example]</p>
none (No Border)	Specifies that no border shall be applied to the current item.
single (Single Line Border)	Specifies a line border consisting of a single line around the parent object.
thick (Thick Line Border)	Specifies a line border consisting of a single line around the parent object.
thickBetweenThin (Thin-thick-thin Border)	Specifies a line border consisting of a thick line contained within a thin line with a medium sized intermediate gap around the parent object.
thickBetweenThinLarge (Large thin-thick-thin Border)	Specifies a line border consisting of a thin line contained within a thick line, contained within a thin line with a medium sized intermediate gap around the parent object.
thickBetweenThinSmall (Small thin-thick-thin Lines)	Specifies a line border consisting of a thin line



Enumeration Value	Description
Border)	contained within a thick line, contained within a thin line with a small intermediate gap around the parent object.
thickThin (Thick Thin Line Border)	Specifies a line border consisting of a thick line contained within a thin line with a medium sized intermediate gap around the parent object.
thickThinLarge (Thick Thin Large Gap Border)	Specifies a line border consisting of a thick line contained within a thin line with a large sized intermediate gap around the parent object.
thickThinSmall (Small thick-thin lines border)	Specifies a line border consisting of a thick line contained within a thin line with a small intermediate gap around the parent object.
thinThick (Thin Thick Line Border)	Specifies a line border consisting of a thin line contained within a thick line contained within a thick thin with a medium sized intermediate gap between each around the parent object.
thinThickLarge (Thin Thick Large Gap Border)	Specifies a line border consisting of a thin line contained within a thick line contained within a thick thin with a large sized intermediate gap between each around the parent object.
thinThickSmall (Thin Thick Small Gap Border)	Specifies a line border consisting of a thin line contained within a thick line contained within a thick thin with a small intermediate gap between each around the parent object.
threeDEmboss (3D Embossed Border)	<p>Specifies a line border consisting of three staged gradient lines around the parent object, getting darker towards the object.</p> <p>[Example:</p>  <p>end example]</p>
threeDEngrave (3D Engraved Border)	<p>Specifies a line border consisting of three staged gradient lines around the parent object, getting darker away from the object.</p> <p>[Example:</p>  <p>end example]</p>



Enumeration Value	Description
triple (Triple Line Border)	Specifies a line border consisting of a triple line around the parent object.
wave (Wavy Border)	<p>Specifies a line border consisting of a wavy line around the parent object.</p> <p>[Example:</p>  <p>end example]</p>

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_BorderType](#)) is located in §A.7.3.  
end note]

### 19.3.3.3 ST\_HorizontalAnchor (Horizontal Anchor Type)

This simple type specifies the horizontal position to which the parent object has been anchored in the document. This anchor position shall be used as the base location to determine the final horizontal position of the object in the document.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
char (Character)	Specifies that the parent object shall be horizontally anchored based on the position of the anchor within the text flow.
margin (Margin)	<p>Specifies that the parent object shall be horizontally anchored to the text margins.</p> <p>This shall be used to specify that any horizontal positioning values shall be calculated with respect to the location of the text margin.</p>
page (Page)	<p>Specifies that the parent object shall be horizontally anchored to the page edge.</p> <p>This shall be used to specify that any horizontal positioning values shall be calculated with respect to the location of the edge of the page.</p>
text (Text)	<p>Specifies that the parent object shall be horizontally anchored to the text extents.</p> <p>This shall be used to specify that any horizontal positioning values shall be calculated with respect to</p>



Enumeration Value	Description
	the location of the edge of the text in the anchor paragraph (including text indentations on that paragraph within the text margins).

[*Note:* The W3C XML Schema definition of this simple type's content model ([ST\\_HorizontalAnchor](#)) is located in §A.7.3. *end note*]

#### 19.3.3.4 ST\_VerticalAnchor (Vertical Anchor Type)

This simple type specifies the vertical position to which the parent object has been anchored in the document. This anchor position shall be used as the base location to determine the final vertical position of the object in the document.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
line (Line)	<p>Specifies that the parent object shall be vertically anchored to the line on which its anchor appears.</p> <p>This shall be used to specify that any vertical positioning values shall be calculated with respect to the location of the top edge of the anchor's line in the anchor paragraph.</p>
margin (Margin)	<p>Specifies that the parent object shall be vertically anchored to the text margins.</p> <p>This shall be used to specify that any vertical positioning values shall be calculated with respect to the location of the text margin.</p>
page (Page)	<p>Specifies that the parent object shall be vertically anchored to the page edge.</p> <p>This shall be used to specify that any vertical positioning values shall be calculated with respect to the location of the edge of the page.</p>
text (Text)	<p>Specifies that the parent object shall be vertically anchored to the text extents.</p> <p>This shall be used to specify that any vertical positioning values shall be calculated with respect to the location of the top edge of the text in the anchor paragraph.</p>



[*Note: The W3C XML Schema definition of this simple type's content model ([ST\\_VerticalAnchor](#)) is located in §A.7.3. end note*]

### 19.3.3.5 [ST\\_WrapSide](#) (Text Wrapping Side)

This simple type defines which sides text can wrap around a VML object.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
both (Both sides)	Wrap text on both sides.
largest (Largest side)	Wrap text on largest side.
left (Left side)	Wrap text on left side.
right (Right side)	Wrap text on right side.

[*Note: The W3C XML Schema definition of this simple type's content model ([ST\\_WrapSide](#)) is located in §A.7.3. end note*]

### 19.3.3.6 [ST\\_WrapType](#) (Text Wrapping Type)

This simple type specifies the type of text wrapping which shall be allowed around a VML object within a document.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
none (No wrapping)	Specifies that text shall not be allowed to wrap around the remaining space on each lines around this VML object.
square (Square wrapping)	Specifies that text shall be allowed to wrap around the remaining space on each line around this text frame in the document using a rectangle touching each of the object's furthest edges.
through (Through wrapping)	Specifies that text shall be allowed to wrap around the remaining space on each line around this text frame in the document, including any holes in the object.
tight (Tight wrapping)	Specifies that text shall be allowed to tightly wrap around the remaining space on each line around this text frame in the document.
topAndBottom (Top and bottom wrapping)	Specifies that text shall not be allowed to wrap around the remaining space on each lines around the VML object.  Any text content shall therefore be placed on the next



Enumeration Value	Description
	line following the object which does not intersect with the object's extents.

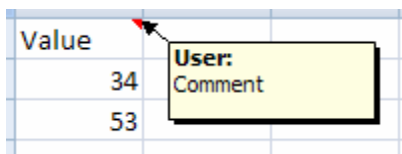
[Note: The W3C XML Schema definition of this simple type's content model ([ST WrapType](#)) is located in §A.7.3. *end note*]

## 19.4 VML - SpreadsheetML Drawing

It is possible to attach user interface controls, such as comments, combo boxes (dropdowns) and embedded controls, to a SpreadsheetML document. VML is used to define certain aspects of the control, such as size and visual appearance. Additional information describing the control shall also be included. The VML SpreadsheetML Drawing namespace provides the additional information necessary to define the object type, settings and behavior for the control.

[Note: The VML format is a legacy format originally introduced with Office 2000 and is included and fully defined in ECMA-376 for backwards compatibility reasons. The DrawingML format is a newer and richer format created with the goal of eventually replacing any uses of VML in the Office Open XML formats. VML should be considered a transitional format included in Office Open XML for legacy reasons only and new applications that need a file format for drawings are strongly encouraged to use preferentially DrawingML. *end note*]

[Example: Assume the comment below exists on a spreadsheet:



The following defines the additional information necessary to describe the comment. The ObjectType attribute describes the object as a comment. The Anchor element defines that its edges are anchored to the first and fourth rows and the second and fourth columns. The Row and Column elements indicate that it points to the cell in the first row, first column.

```
<x:ClientData ObjectType="Note">
  <x:MoveWithCells/>
  <x:SizeWithCells/>
  <x:Anchor>1, 13, 0, 12, 2, 52, 2, 10</x:Anchor>
  <x:AutoFill>False</x:AutoFill>
  <x:Row>0</x:Row>
  <x:Column>0</x:Column>
  <x:Visible/>
</x:ClientData>
```

This additional comment data exists inside the VML shape that defines the comment object:



```
<v:shape id="_x0000_s1025" type="#_x0000_t202" style='position:absolute;margin
left:57.75pt;margin-top:9pt;width:77.25pt;height:28.5pt;z-index:1;mso-wrap-
style:tight' fillcolor="#ffffe1" o:insetmode="auto">
<v:fill color2="#ffffe1"/>
<v:shadow on="t" color="black" obscured="t"/>
<v:path o:connecttype="none"/>
<v:textbox style='mso-direction-alt:auto'>
  <div style='text-align:left'></div>
</v:textbox>
<x:ClientData ObjectType="Note"> ... </x:ClientData>
</v:shape>
```

*end example]*

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End of informative text.



### 19.4.2 Elements

The following elements comprise the contents of the urn:schemas-microsoft-com:office:excel namespace:

[*Note:* As the VML format is a format provided for backward compatibility, those VML elements defined in the same urn:schemas-microsoft-com:office:excel namespace remain in that namespace as it is already used by millions of documents already using VML. *end note*]

#### 19.4.2.1 Accel (Primary Keyboard Accelerator)

This element specifies the primary keyboard accelerator for an object. The value is the decimal value of the Unicode character corresponding to the accelerator key. This element is used for buttons, checkboxes, radio buttons and group boxes.

[*Example:* The primary accelerator key is 'A' (65 is the decimal value for 'A' (U+0041))]:

```
<x:ClientData ... >
  <x:Accel>65</x:Accel>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema integer datatype.

#### 19.4.2.2 Accel2 (Secondary Keyboard Accelerator)

This element specifies the secondary keyboard accelerator for an object. The value is the decimal value of the Unicode character corresponding to the accelerator key. This element is used for buttons, checkboxes, radio buttons and group boxes.

[*Example:* The secondary accelerator key is 'A' (65 is the decimal value for 'A' (U+0041))]:

```
<x:ClientData>
  <x:Accel2>65</x:Accel2>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema integer datatype.

#### 19.4.2.3 Anchor (Anchor)

This element specifies the anchor location for the object. This is a general-use element.

The value is a comma-separated list of data written out as: LeftColumn, LeftOffset, TopRow, TopOffset, RightColumn, RightOffset, BottomRow, BottomOffset.

Value	Description
LeftColumn	The left anchor column of the object (left-most column is 0). [ <i>Example:</i>



Value	Description
	An object whose left anchor was off of the third column has a LeftColumn value of 2. <i>end example</i>
LeftOffset	The offset of the object's left edge from the left edge of the left anchor column. This value is measured in pixels.
TopRow	The top anchor row of the object (top-most column is 0). [ <i>Example</i> : An object whose top anchor was off of the fifth row has a TopRow value of 4. <i>end example</i> ]
TopOffset	The offset of the object's top edge from the top edge of the top anchor row. This value is measured in pixels.
RightColumn	The right anchor column of the object (left-most column is 0). [ <i>Example</i> : An object whose right anchor was off of the tenth column has a RightColumn value of 9. <i>end example</i> ]
RightOffset	The offset of the object's right edge from the left edge of the right anchor column. This value is measured in pixels.
BottomRow	The bottom anchor row of the object (top-most column is 0). [ <i>Example</i> : An object whose bottom anchor was off of the tenth row has a BottomRow value of 9. <i>end example</i> ]
BottomOffset	The offset of the object's bottom edge from the bottom edge of the bottom anchor row. This value is measured in pixels.

[*Example*: The left side of the object is 15 pixels to the right of the left edge of the second column. The top edge is 2 pixels below the upper edge of the first row. The right side is 15 pixels to the right of the left edge of the fourth column. The bottom edge is 16 pixels below the top of the fourth row.

```
<x:ClientData>
  <x:Anchor>1, 15, 0, 2, 3, 15, 3, 16</x:Anchor>
</x:ClientData>
```

*end example*]

The possible values for this element are defined by the W3C XML Schema string datatype.

#### 19.4.2.4 AutoFill (AutoFill)

This element specifies that the object's fill properties are automatically provided by the application and are not overridden with a specific fill color or style. [*Rationale*: An application can choose to display objects with certain visual properties that are appropriate to the application environment. *end rationale*] If this element is specified without a value, it is assumed to be true. This is a general-use element.

[*Example*:



```
<x:ClientData> ...
  <x:AutoFill>False</x:AutoFill>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[*Note:* The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note]*

#### 19.4.2.5 AutoLine (AutoLine)

This element specifies that the object's line properties are automatically provided by the application and are not overridden with a specific line color, style, or width. [*Rationale:* An application can choose to display objects with certain visual properties that are appropriate to the application environment. *end rationale]* If this element is specified without a value, it is assumed to be true. This is a general-use element.

[*Example:*

```
<x:ClientData> ...
  <x:AutoLine>False</x:AutoLine>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[*Note:* The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note]*

#### 19.4.2.6 AutoPict (Automatically Size)

This element specifies whether the object's aspect ratio is locked when rendered in different views by the application. If this element is specified without a value, it is assumed to be true. This is a general-use element for objects that use an image representation, denoted by the Pict value of ST\_ObjectType. These objects are: embedded objects, embedded controls, cameras and signature lines.

[*Example:*

```
<x:ClientData> ...
  <x:AutoPict>True</x:AutoPict>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).



[Note: The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
end note]

#### 19.4.2.7 AutoScale (Font AutoScale)

This element specifies whether the object's font is automatically scaled by the application when the object is resized. If this element is specified without a value, it is assumed to be true. This element is used for attached text. Attached text refers to a class of objects that have text associated with them. The following values defined by the ST\_ObjectType simple type are attached text objects: Button, Checkbox, Dialog, Edit, GBox, Label, Note and Radio.

[Example:

```
<x:ClientData> ...
  <x:AutoScale>True</x:AutoScale>
</x:ClientData>
```

end example]

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[Note: The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
end note]

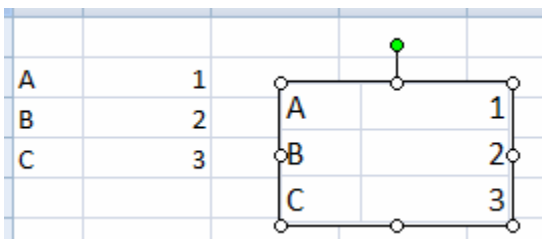
#### 19.4.2.8 Camera (Camera Tool)

This element specifies that the object is a camera object. A camera object is a shape that is filled with a live view of a cell range in the same spreadsheet, including all applied styles. The cell range is defined by the fmIaPict element (§19.4.2.28), which shall be present. Shape properties such as the position and size of the camera object are defined by the shape. The shape shall be a rectangle. The view of the cell range is scaled vertically and horizontally to fill the rectangle exactly.

If this element is specified without a value, it is assumed to be true.

[Example:

```
<x:ClientData> ...
  <x:FmIaPict>$A$2:$B$4</x:FmIaPict>
  <x:Camera>True</x:Camera>
</x:ClientData>
```





*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[Note: The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9. *end note]*

#### 19.4.2.9 Cancel (Cancel Button)

This element specifies that the object is a cancel button. If this element is specified without a value, it is assumed to be true. This element is used for buttons.

[Example:

```
<x:ClientData> ...  
  <x:Cancel/>  
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[Note: The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9. *end note]*

#### 19.4.2.10 CF (Clipboard Format)

This element specifies the clipboard format used to render the object. This is a general-use element for objects that use an image representation, such as embedded objects, embedded controls, cameras and signature lines.

[Example:

```
<x:ClientData> ...  
  <x:CF>Pict</x:CF>  
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_CF simple type (§19.4.3.1).

[Note: The W3C XML Schema definition of this element's content model ([ST\\_CF](#)) is located in §A.7.4. *end note]*

#### 19.4.2.11 Checked (Checked)

This element specifies that the checkbox is checked or the radio button is selected. This element is used for checkboxes and radio buttons. Permitted values are:

Value	Description
0	Unchecked / unselected



Value	Description
1	Checked / selected
2	Mixed selection

[Example:

```
<x:ClientData> ...
  <x:Checked>2</x:Checked>
</x:ClientData>
```

end example]

The possible values for this element are defined by the W3C XML Schema integer datatype.

#### 19.4.2.12 ClientData (Attached Object Data)

This element specifies data associated with objects attached to a spreadsheet. While this element might contain any of the child elements below, only certain combinations are meaningful. The `ObjectType` attribute determines the kind of object the element represents and which subset of child elements is appropriate. Relevant groups are identified for each child element.

[Example: The following defines additional information for a comment. Its edges are anchored to the first and fourth rows and the second and fourth columns. It points to the cell in the first row, first column.

```
<x:ClientData ObjectType="Note">
  <x:MoveWithCells/>
  <x:SizeWithCells/>
  <x:Anchor>1, 15, 0, 2, 3, 15, 3, 16</x:Anchor>
  <x:AutoFill>False</x:AutoFill>
  <x:Row>0</x:Row>
  <x:Column>0</x:Column>
  <x:Visible/>
</x:ClientData>
```

end example]

[Example: The following defines additional information for a radio button. It is the first in a series of radio buttons and selected by default. The accelerator key is 'A' (65 is the decimal value for 'A' (U+0041)) and it is linked to the cell at column A, row 1 of the first sheet.



```
<x:ClientData ObjectType=3D"Radio">
  <x:SizeWithCells/>
  <x:AutoFill>False</x:AutoFill>
  <x:AutoLine>False</x:AutoLine>
  <x:TextVAlign>Center</x:TextVAlign>
  <x:Checked>1</x:Checked>
  <x:Accel>65</x:Accel>
  <x:FmlaLink>Sheet1!$A$1</x:FmlaLink>
  <x:FirstButton/>
</x:ClientData>
```

*end example]*

Attributes	Description
ObjectType (Object type)	<ul style="list-style-type: none"><li>Specifies the kind of the object. Different sets of child elements are appropriate for different types of objects.</li></ul> <p>The possible values for this attribute are defined by the ST_ObjectType simple type (§19.4.3.2).</p>

[Note: The W3C XML Schema definition of this element’s content model ([CT\\_ClientData](#)) is located in §A.7.4. *end note*]

19.4.2.13 ColHidden (Comment's Column is Hidden)

This element specifies that the column of the cell to which this comment points is hidden. If this element is specified without a value, it is assumed to be true. This element is used for comments.

[Example:

```
<x:ClientData> ...
  <x:ColHidden>True</x:ColHidden>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[Note: The W3C XML Schema definition of this element’s content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9. *end note*]

19.4.2.14 Colored (Dropdown Color Toggle)

This element specifies that the dropdown is colored. If this element is specified without a value, it is assumed to be true. This element is used for dropdowns.

[Example:



```
<x:ClientData> ...
  <x:Colored>True</x:Colored>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[*Note:* The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note]*

#### 19.4.2.15 Column (Comment Column Target)

This element specifies the column a comment points to. The column index is 0-based. This element is used for comments.

[*Example:*

```
<x:ClientData> ...
  <x:Column>0</x:Column>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema integer datatype.

#### 19.4.2.16 DDE (Dynamic Data Exchange)

This element specifies that the object is a DDE (Dynamic Data Exchange) link. If this element is specified without a value, it is assumed to be true. This is a general-use element.

[*Example:*

```
<x:ClientData> ...
  <x:DDE>True</x:DDE>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[*Note:* The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note]*

#### 19.4.2.17 Default (Default Button)

This element specifies that the object is a default (OK) button. If this element is specified without a value, it is assumed to be true. This element is used for buttons.



[Example:

```
<x:ClientData> ...
  <x:Default>True</x:Default>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[Note: The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note]*

#### 19.4.2.18 DefaultSize (Default Size Toggle)

This element specifies that the object is at its default size. If this element is specified without a value, it is assumed to be true. This is a general-use element.

[Example:

```
<x:ClientData> ...
  <x:DefaultSize>True</x:DefaultSize>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[Note: The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note]*

#### 19.4.2.19 Disabled (Macro Disable Toggle)

This element specifies that the object cannot run an attached macro. If this element is specified without a value, it is assumed to be true. This is a general-use element.

[Example:

```
<x:ClientData> ...
  <x:Disabled>True</x:Disabled>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[Note: The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note]*



#### 19.4.2.20 Dismiss (Dismiss Button)

This element specifies that the object is a dismiss button. If this element is specified without a value, it is assumed to be true. This element is used for buttons.

[Example:

```
<x:ClientData> ...
  <x:Dismiss>True</x:Dismiss>
</x:ClientData>
```

end example]

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[Note: The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9. end note]

#### 19.4.2.21 DropLines (Dropdown Maximum Lines)

This element specifies the maximum number of lines in the dropdown before scrollbars are added. This element is used for dropdowns.

If this element is omitted, one line is shown.

[Example:

```
<x:ClientData> ...
  <x:DropLines>8</x:DropLines>
</x:ClientData>
```

end example]

The possible values for this element are defined by the W3C XML Schema integer datatype.

#### 19.4.2.22 DropStyle (Dropdown Style)

This element specifies the style of the dropdown. Allowed values are:

Value	Description
Combo	Standard combo box
ComboEdit	Editable combo box
Simple	Standard combo box with only the dropdown button visible when the box is not expanded

This element is used for dropdowns.



[Example:

```
<x:ClientData> ...
  <x:DropStyle>Combo</x:DropStyle>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema string datatype.

#### 19.4.2.23 Dx (Scroll Bar Width)

This element specifies the width of the scroll bar in screen pixels. This element is used for scroll bars and spinners. [Note: It is possible for other controls, such as combo boxes and list boxes, to use scroll bars and this element is permitted for those controls. *end note]*

[Example:

```
<x:ClientData> ...
  <x:Dx>16</x:Dx>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema integer datatype.

#### 19.4.2.24 FirstButton (First Radio Button)

This element specifies that the object is the first radio button in a set of radio buttons. If this element is specified without a value, it is assumed to be true. This element is used for radio buttons.

[Example:

```
<x:ClientData> ...
  <x:FirstButton>True</x:FirstButton>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[Note: The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9. *end note]*

#### 19.4.2.25 FmlaGroup (Linked Formula - Group Box)

This element specifies the cell the object is linked to, using standard cell reference syntax. This element is used for group boxes. This overrides the FmlaLink for any radio buttons enclosed in the group box. The value in the



linked cell and the index of the selected radio button are linked together. The formula syntax is described in Part 1, §18.17 of the SpreadsheetML reference.

[*Example:*

```
<x:ClientData> ...
  <x:FmlaGroup>$A$1</x:FmlaGroup>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema string datatype.

#### 19.4.2.26 FmlaLink (Linked Formula)

This element specifies the cell the object is linked to, using standard cell reference syntax. This element is used for checkboxes, radio buttons, scroll bars, spinners, dropdowns and list boxes. The value in the linked cell and the index of the selected item in the object are linked together. This link is ignored if the control allows multiple selections. The formula syntax is described in Part 1, §18.17 of the SpreadsheetML reference.

[*Example:*

```
<x:ClientData> ...
  <x:FmlaLink>$A$4</x:FmlaLink>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema string datatype.

#### 19.4.2.27 FmlaMacro (Reference to Custom Function)

This element specifies the custom function associated with the object. [*Example:* A macro script, add-in function, and so on. *end example]*

This element applies to objects defined by all values of the ST\_ObjectType simple type, except: LineA, Note, RectA.

The format of this string shall be application-defined, and should be ignored if not understood.

[*Example:*

```
<x:ClientData> ...
  <x:FmlaMacro>Button1_Click()</x:FmlaMacro>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema string datatype.



#### 19.4.2.28 FmlaPict (Camera Source Range)

This element specifies the range of source data cells visible in the camera object (§19.4.2.8). This element is used for cameras. The formula syntax is described in Part 1, §18.17 of the SpreadsheetML reference.

This element is ignored if the Camera element is absent.

The possible values for this element are defined by the W3C XML Schema string datatype.

#### 19.4.2.29 FmlaRange (List Items Source Range)

This element specifies the range of source data cells used to populate the list box, using standard cell reference syntax. This element is used for list boxes. The formula syntax is described in Part 1, §18.17 of the SpreadsheetML reference.

[Example:

```
<x:ClientData> ...
  <x:FmlaRange>$A$1:$A$15</x:FmlaRange>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema string datatype.

#### 19.4.2.30 FmlaTxbx (Text Formula)

This element defines the formula associated with the object's text. This element is used for attached text.

[Example:

```
<x:ClientData> ...
  <x:FmlaTxbx>$D$9</x:FmlaTxbx>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema string datatype.

#### 19.4.2.31 Help (Help Button)

This element specifies that the object is a help button. If this element is specified without a value, it is assumed to be true. This element is used for buttons.

[Example:

```
<x:ClientData> ...
  <x:Help>True</x:Help>
</x:ClientData>
```



*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[*Note:* The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note]*

#### 19.4.2.32 Horiz (Scroll Bar Orientation)

This element specifies that the scroll bar is horizontal. If omitted, the scroll bar is vertical. If this element is specified without a value, it is assumed to be true. This element is used for scroll bars and spinners.

[*Example:*

```
<x:ClientData> ...
  <x:Horiz>True</x:Horiz>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[*Note:* The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note]*

#### 19.4.2.33 Inc (Scroll Bar Increment)

This element specifies the number of lines to move the scroll bar on an increment click. If omitted, the increment is 0. This element is used for scroll bars and spinners.

[*Example:*

```
<x:ClientData> ...
  <x:Inc>1</x:Inc>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema integer datatype.

#### 19.4.2.34 JustLastX (Far East Alignment Toggle)

This element specifies that Far East alignment is set for the last line in the text. Typically, justified text in Far East environments leaves the last line unjustified. Specifying this element also justifies the last line. If this element is specified without a value, it is assumed to be true. This element is used for attached text.

[*Example:*



```
<x:ClientData> ...
  <x:JustLastX>True</x:JustLastX>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the `ST_TrueFalseBlank` simple type (§20.1.2.6).

[*Note:* The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note]*

#### 19.4.2.35 LCT (Callback Type)

This element specifies the kind of list box callback. The application should use the callback to determine how to handle user actions on the list box. The only allowed value is `Normal`. This element is used for list boxes.

[*Example:*

```
<x:ClientData> ...
  <x:LCT>Normal</x:LCT>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema string datatype.

#### 19.4.2.36 ListItem (Non-linked List Item)

This element specifies a non-linked list item that shall be persisted with the list. This element is used for list boxes. [*Rationale:* This is a place for applications to store optional information associated with the list box. For example, an item to be shown in the list box that is not linked from another set of data. *end rationale]*

[*Example:*

```
<x:ClientData> ...
  <x:ListItem>TheItem</x:ListItem>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema string datatype.

#### 19.4.2.37 Locked (Lock Toggle)

This element specifies that the object is locked when the sheet is protected. If omitted, the object is assumed to be locked. If this element is specified without a value, it is assumed to be `true`. This is a general-use element.

[*Example:*



```
<x:ClientData> ...
  <x:Locked>False</x:Locked>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[Note: The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note]*

#### 19.4.2.38 LockText (Text Lock)

This element specifies that the object's text is locked. If omitted, the object's text is assumed to be locked. If this element is specified without a value, it is assumed to be true. This element is used for attached text.

[Example:

```
<x:ClientData> ...
  <x:LockText>False</x:LockText>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[Note: The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note]*

#### 19.4.2.39 MapOCX (Embedded Control)

This element specifies that the object is an embedded control. If this element is specified without a value, it is assumed to be true. This element is used for all embedded controls.

[Example:

```
<x:ClientData>...
  <x:MapOCX>True</x:MapOCX>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[Note: The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note]*



#### 19.4.2.40 Max (Scroll Bar Maximum)

This element specifies the maximum scroll bar position as the index of the list item just above the item at the top of the view when the control is scrolled all the way down. The list indexes are 1-based. If omitted, the value is assumed to be that which allows the last item to be viewed when the control is scrolled all the way down. This element is used for scroll bars and spinners.

[*Example:* Item 21 is the first item visible in the list when the object is scrolled all the way down.]

```
<x:ClientData> ...
  <x:Max>20</x:Max>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema integer datatype.

#### 19.4.2.41 Min (Scroll Bar Minimum)

This element specifies the minimum scroll bar position as the index of the list item just above the item at the top of the view when the control is scrolled all the way up, typically 0. The list indexes are 1-based. If omitted, the value is assumed to be 0. This element is used for scroll bars and spinners.

[*Example:* The first item in the list is visible when the object is scrolled all the way up:]

```
<x:ClientData> ...
  <x:Min>0</x:Min>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema integer datatype.

#### 19.4.2.42 MoveWithCells (Move with Cells)

This element specifies that the object moves with its underlying cells. If this element is specified without a value, it is assumed to be true. This is a general-use element.

[*Example:*

```
<x:ClientData> ...
  <x:MoveWithCells>True</x:MoveWithCells>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).



[*Note:* The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note*]

#### 19.4.2.43 MultiLine (Multi-line)

This element specifies that the control is multiline. If this element is specified without a value, it is assumed to be true. This element is used for edit controls.

[*Example:*

```
<x:ClientData> ...
  <x:Multiline>True</x:Multiline>
</x:ClientData>
```

*end example*]

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[*Note:* The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note*]

#### 19.4.2.44 MultiSel (Multiple Selections)

This element specifies a comma-delimited list of selected items. This element overrides the Sel element (§19.4.2.57). This element is used for list boxes that allow multiple selections. See also the SelType element (§19.4.2.58).

[*Example:*

```
<x:ClientData> ...
  <x:MultiSel>3, 5, 6</x:MultiSel>
</x:ClientData>
```

*end example*]

The possible values for this element are defined by the W3C XML Schema string datatype.

#### 19.4.2.45 NoThreeD (Disable 3D)

This element specifies that 3D effects are disabled. If this element is specified without a value, it is assumed to be true. This element is used for checkboxes, radio buttons, group boxes and scroll bars.

[*Example:*

```
<x:ClientData> ...
  <x>NoThreeD>True</x>NoThreeD>
</x:ClientData>
```

*end example*]



The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[*Note:* The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note*]

#### 19.4.2.46 NoThreeD2 (Disable 3D)

This element specifies that 3D effects are disabled. If this element is specified without a value, it is assumed to be true. This element is used for dropdowns and list boxes.

[*Example:*

```
<x:ClientData> ...
  <x>NoThreeD2>True</x>NoThreeD2>
</x:ClientData>
```

*end example*]

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[*Note:* The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note*]

#### 19.4.2.47 Page (Scroll Bar Page Increment)

This element specifies the number of lines to move the scroll bar on a page click. This element is used for scroll bars and spinners.

[*Example:*

```
<x:ClientData> ...
  <x:Page>9</x:Page>
</x:ClientData>
```

*end example*]

The possible values for this element are defined by the W3C XML Schema integer datatype.

#### 19.4.2.48 PrintObject (Print Toggle)

This element specifies that the object is printed when the document is printed. If omitted, it is assumed the object prints when the document is printed. If this element is specified without a value, it is assumed to be true. This is a general-use element.

[*Example:*

```
<x:ClientData> ...
  <x:PrintObject>False</x:PrintObject>
</x:ClientData>
```



*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[*Note:* The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note]*

#### 19.4.2.49 RecalcAlways (Recalculation Toggle)

This element defines whether the object is always included in recalculation. If this element is specified without a value, it is assumed to be true. This is used by controls that reference cells in the spreadsheet to update themselves when the spreadsheet changes.

[*Example:*

```
<x:ClientData> ...
  <x:RecalcAlways>True</x:RecalcAlways>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[*Note:* The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note]*

#### 19.4.2.50 Row (Comment Row Target)

This element specifies the row a comment points to. The row index is 0-based. This element is used for comments.

[*Example:*

```
<x:ClientData> ...
  <x:Row>0</x:Row>
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema integer datatype.

#### 19.4.2.51 RowHidden (Comment's Row is Hidden)

This element specifies that the row of the cell to which this comment points is hidden. If this element is specified without a value, it is assumed to be true. This element is used for comments.

[*Example:*



```
<x:ClientData> ...  
  <x:RowHidden>True</x:RowHidden>  
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[*Note:* The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
*end note]*

#### 19.4.2.52 ScriptExtended (HTML Script Attributes)

This element specifies custom extended attributes associated with the HTML script tag. The language and id are not included in the extended attributes. If the document contains no HTML script, this element should be ignored.

[*Example:* The extended script attribute is " src="file.js""]:

```
<x:ClientData> ...  
  <x:ScriptExtended>src=&quot;file.js&quot;</x:ScriptExtended>  
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema string datatype.

#### 19.4.2.53 ScriptLanguage (HTML Script Language)

This element specifies the language of the custom function. If the document contains no HTML script, this element should be ignored. Allowed values are:

Value	Description
1	Java
2	Visual Basic
3	ASP
4	Other

[*Example:*

```
<x:ClientData> ...  
  <x:ScriptLanguage>1</x:ScriptLanguage>  
</x:ClientData>
```

*end example]*



The possible values for this element are defined by the W3C XML Schema nonNegativeInteger datatype.

#### 19.4.2.54 ScriptLocation (HTML Script Location)

This element specifies the location of the custom function. If the document contains no HTML script, this element should be ignored. Allowed values are:

Value	Description
1	Head
2	Body

[Example:

```
<x:ClientData> ...
  <x:ScriptLocation>2</x:ScriptLocation>
</x:ClientData>
```

end example]

The possible values for this element are defined by the W3C XML Schema nonNegativeInteger datatype.

#### 19.4.2.55 ScriptText (HTML Script Text)

This element specifies the script text (comment) associated with a block of HTML script in the document. If the document contains no HTML script, this element should be ignored.

[Example: The script text reads: "<!-- Comment -->":

```
<x:ClientData> ...
  <x:ScriptText>&lt;!-- Comment -->&gt;</x:ScriptText>
</x:ClientData>
```

end example]

The possible values for this element are defined by the W3C XML Schema string datatype.

#### 19.4.2.56 SecretEdit (Password Edit)

This element specifies that the object represents a password edit field. If this element is specified without a value, it is assumed to be true. This element is used for attached text.

[Example:

```
<x:ClientData> ...
  <x:SecretEdit>True</x:SecretEdit>
</x:ClientData>
```

end example]



The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[*Note:* The W3C XML Schema definition of this element’s content model (ST\_TrueFalseBlank) is located in §A.8.9.  
*end note*]

**19.4.2.57 Sel (Selected Entry)**

This element specifies the index of the selected item. The list indexes are 1-based. If omitted or set to a value of 0, no items are selected. This element is used for list boxes.

[*Example:*

```
<x:ClientData>...  
  <x:Sel>1</x:Sel>  
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema integer datatype.

**19.4.2.58 SelType (Selection Type)**

This element specifies the kind of selection for the list box. If omitted, the control is assumed to be Single. Allowed values are:

Value	Description
Single	The listbox shall only have one selected item.
Multi	The listbox can have multiple items selected by clicking on each item.
Extend	The listbox can have multiple items selected by holding a control key and clicking on each item.

This element is used for list boxes.

[*Example:*

```
<x:ClientData> ...  
  <x:SelType>Single</x:SelType>  
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema string datatype.

**19.4.2.59 SizeWithCells (Resize with Cells)**

This element specifies that the object resizes with its underlying cells. If this element is specified without a value, it is assumed to be true. This is a general-use element.



[Example:

```
<x:ClientData> ...
  <x:SizeWithCells>True</x:SizeWithCells>
</x:ClientData>
```

end example]

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[Note: The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
end note]

#### 19.4.2.60 TextHAlign (Horizontal Text Alignment)

This element specifies the horizontal text alignment for the object. Permitted values are Left, Justify, Center, Right and Distributed. If omitted, the alignment is assumed to be Left. This element is used for attached text.

[Example:

```
<x:ClientData> ...
  <x:TextHAlign>Right</x:TextHAlign>
</x:ClientData>
```

end example]

The possible values for this element are defined by the W3C XML Schema string datatype.

#### 19.4.2.61 TextVAlign (Vertical Text Alignment)

This element specifies the horizontal text alignment for the object. Permitted values are Top, Justify, Center, Bottom and Distributed. If omitted, the alignment is assumed to be Top. This element is used for attached text.

[Example:

```
<x:ClientData> ...
  <x:TextVAlign>Center</x:TextVAlign>
</x:ClientData>
```

end example]

The possible values for this element are defined by the W3C XML Schema string datatype.

#### 19.4.2.62 UIObj (UI Object Toggle)

This element defines whether the object is a UI object. If this element is specified without a value, it is assumed to be true. This is a general-use element.



[Example:

```
<x:ClientData> ...
  <x:UIObj>True</x:UIObj>
</x:ClientData>
```

end example]

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[Note: The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
end note]

#### 19.4.2.63 Val (Scroll bar position)

This element specifies the scroll bar position as the index of the list item just above the item at the top of the view, given the current scroll position. The list indexes are 1-based. If omitted, the value is assumed to be 0. This element is used for scroll bars and spinners.

[Example: The first list item (item 1) is just off the top of the view. The second list item is at the top of the view.

```
<x:ClientData> ...
  <x:Val>1</x:Val>
</x:ClientData>
```

end example]

The possible values for this element are defined by the W3C XML Schema integer datatype.

#### 19.4.2.64 ValidIds (Valid ID)

This element specifies that the ID of a linked object is correct. This is a general-use element.

[Example:

```
<x:ClientData> ...
  <x:ValidIds>True</x:ValidIds>
</x:ClientData>
```

end example]

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[Note: The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
end note]

#### 19.4.2.65 Visible (Comment Visibility Toggle)

This element specifies that a comment is visible. If omitted, the comment is assumed to be invisible. If this element is specified without a value, it is assumed to be true. This element is used for comments.



[Example:

```
<x:ClientData> ...
  <x:Visible>True</x:Visible>
</x:ClientData>
```

end example]

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[Note: The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
end note]

#### 19.4.2.66 VScroll (Vertical Scroll)

This element specifies that the object has a vertical scroll. If omitted, a vertical scroll is not used. If this element is specified without a value, it is assumed to be true. This element is used for edit controls.

[Example:

```
<x:ClientData> ...
  <x:VScroll>True</x:VScroll>
</x:ClientData>
```

end example]

The possible values for this element are defined by the ST\_TrueFalseBlank simple type (§20.1.2.6).

[Note: The W3C XML Schema definition of this element's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9.  
end note]

#### 19.4.2.67 VTEdit (Validation Type)

This element specifies the kind of semantic validation to use for data input to the control. If omitted, the value is assumed to be Text. Permitted values are:

Value	Description
0	Text
1	Integer
2	Number
3	Reference
4	Formula

This element is used for edit controls.

[Example:



```
<x:ClientData> ...  
  <x:VTEdit>True</x:VTEdit>  
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema integer datatype.

#### 19.4.2.68 WidthMin (Minimum Width)

This element specifies the smallest width allowed for the dropdown window in screen pixels. This element is used for list boxes and dropdowns.

[Example:

```
<x:ClientData ... > ...  
  <x:WidthMin>78</x:WidthMin>  
</x:ClientData>
```

*end example]*

The possible values for this element are defined by the W3C XML Schema integer datatype.

### 19.4.3 Simple Types

The following additional simple type information in the urn:schemas-microsoft-com:office:excel namespace is used for documents of a transitional conformance class.

#### 19.4.3.1 ST\_CF (Clipboard Format Type)

This simple type specifies the allowed clipboard formats. This simple type allows any image format to be specified; however, the following values are reserved:

Value	Description
Bitmap	Bitmap.
Jpeg	An image which should use the JPEG format.
Pict	Any picture format. [Example: SVG or JPEG. <i>end example]</i>
PictOld	Any picture format, but preferably one that is more likely to be supported by legacy applications.
PictPrint	An image rendered using the default printer's settings. This is typically of higher resolution and scaled differently compared to a picture created for on-screen rendering.
PictScreen	An image rendered using screen settings. This is typically lower resolution than an image created for printing.



Value	Description
Png	An image which should use the Portable Network Graphics format.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

[*Note:* The W3C XML Schema definition of this simple type's content model ([ST\\_CF](#)) is located in §A.7.4. *end note*]

### 19.4.3.2 ST\_ObjectType (Object Type)

This simple type specifies the objects that a ClientData element can represent.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
Button (Pushbutton)	A pushbutton control.
Checkbox (Checkbox)	A checkbox control.
Dialog (Dialog)	A dialog.
Drop (Dropdown Box)	A dropdown (combo box) control.
Edit (Editable Text Field)	An editable text field control.
GBox (Group Box)	A group box control.
Group (Group)	A group of objects, such as a group of checkboxes.
Label (Label)	A label control.
LineA (Auditing Line)	A formula auditing arrow.
List (List Box)	A list control.
Movie (Movie)	A movie object in Mac format.
Note (Comment)	A comment.
Pict (Image)	A placeholder image.
Radio (Radio Button)	A radio button control.
Rect (Plain Rectangle)	A rectangle shape that is not a control.
RectA (Auditing Rectangle)	A formula auditing rectangle.
Scroll (Scroll Bar)	A scroll bar.
Shape (Plain Shape)	A general shape that is not a control.
Spin (Spin Button)	A spin button (spinner) control.

[*Note:* The W3C XML Schema definition of this simple type's content model ([ST\\_ObjectType](#)) is located in §A.7.4. *end note*]



## 19.5 VML - PresentationML Drawing

This section describes additional information attached to VML shapes that is specific to usage with PresentationML.

[*Note:* The VML format is a legacy format originally introduced with Office 2000 and is included and fully defined in ECMA-376 for backwards compatibility reasons. The DrawingML format is a newer and richer format created with the goal of eventually replacing any uses of VML in the Office Open XML formats. VML should be considered a transitional format included in Office Open XML for legacy reasons only and new applications that need a file format for drawings are strongly encouraged to use preferentially DrawingML. *end note*]

[*Example:* Assume the following annotation was drawn on a slide during a presentation and saved into the presentation:

- Bullet point

The red circle annotation is stored as a VML shape that is an ink annotation. For brevity, the specific path and ink data are omitted.

```
<v:shape id="_x0000_s1029" style='position:absolute;left:126pt;
top:327.375pt;width:27.625pt;height:24.75pt' coordorigin="4445,11549"
coordsize="973,874" path="..." filled="f" strokecolor="red"
strokeweight="1.5pt">
  <v:stroke endcap="round"/>
  <v:path shadowok="f" o:extrusionok="f" fillok="f" insetpenok="f"/>
  <o:lock v:ext="edit" rotation="t" aspectratio="t" verticies="t" text="t"
    shapetype="t"/>
  <o:ink i="..." annotation="t"/>
  <pvm1:iscomment/>
</v:shape>
```

*end example*]

### 19.5.1 Table of Contents

This subclause is informative.

<b>19.5.2 Elements .....</b>	<b>861</b>
19.5.2.1 iscomment (Ink Annotation Flag) .....	861
19.5.2.2 textdata (VML Diagram Text) .....	861

End of informative text.



## 19.5.2 Elements

The following elements comprise the contents of the urn:schemas-microsoft-com:office:powerpoint namespace:

[*Note*: As the VML format is a format provided for backward compatibility, those VML elements defined in the same urn:schemas-microsoft-com:office:powerpoint namespace remain in that namespace as it is already used by millions of documents already using VML. *end note*]

### 19.5.2.1 iscomment (Ink Annotation Flag)

Specifies that the object was created as an ink annotation. Default is `false`. If this element is specified without a value, it is assumed to be `true`. This element is only used with PresentationML. [*Rationale* This allows an application to treat annotation ink objects as any other annotation. For example, if annotations are hidden, the application can hide the ink object. *end rationale*]

[*Example*:

```
<v:shape ... >
  <o:ink ... annotation="true"/>
  <pvm1:iscomment/>
</v:shape>
```

### • Bullet point

*end example*]

[*Note*: The W3C XML Schema definition of this element's content model ([CT\\_Empty](#)) is located in §A.7.5. *end note*]

### 19.5.2.2 textdata (VML Diagram Text)

This element specifies optional supplementary text information associated with a legacy VML shape that is a node in a VML diagram when it cannot otherwise be stored within the DrawingML framework.

[*Note*: An application could use this to preserve a specific diagram format for backward compatibility, but it is strongly recommended to upgrade all VML shapes to DrawingML shapes. *end note*]

Attributes	Description
id (Text Reference)	<p>Specifies the identifier that is used in conjunction with a corresponding relationship file to resolve the location of the diagram shape text.</p> <p>[<i>Example</i>:</p> <pre>&lt;v:shape ... o:dgmnodekind="0" &gt;   &lt;v:textbox inset="0,0,0,0"/&gt;   &lt;pvm1:textdata id="rId1"/&gt;</pre>



Attributes	Description
	<p>&lt;/v:shape&gt;</p> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the W3C XML Schema string datatype.</p>

[Note: The W3C XML Schema definition of this element's content model ([CT\\_Rel](#)) is located in §A.7.5. *end note*]



# 20. Shared MLs Reference Material

## 20.1 Shared Simple Types

### 20.1.1 Table of Contents

This subclause is informative.

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End of informative text.

### 20.1.2 Simple Types

The following additional simple type information in the <http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes> namespace is used for documents of a transitional conformance class.

#### 20.1.2.1 ST\_Algorithm (Cryptographic Algorithm Classes)

This simple type specifies the possible classes of cryptographic algorithm used by protection. [*Note*: The initial version of ECMA-376 only supports a single version - hash - but future versions may expand this as necessary. *end note*]

[*Note*: Omitting this attribute is logically equivalent to assigning it the value custom. *end note*]

[*Example*: Consider a WordprocessingML document with the following information stored in one of its protection elements:



```
<... w:cryptAlgorithmClass="hash"
      w:cryptAlgorithmType="typeAny"
      w:cryptAlgorithmSid="1"
      w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" />
```

The cryptAlgorithmClass attribute value of hash specifies that the algorithm used for the password is a hashing algorithm. *end example*

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
custom (Custom Algorithm)	Specifies that a custom algorithm class, specified within the parent element's algIdExt attribute, generated the hash value.
hash (Hashing)	Specifies that the algorithm is a hashing function, which creates a hash value for user-supplied input that is very difficult to reverse-engineer.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_AlgClass](#)) is located in §A.8.9. *end note*]

### 20.1.2.2 ST\_AlgType (Cryptographic Algorithm Types)

This simple type specifies the possible values for the type of cryptographic algorithm used by protection. [Note: The initial version of ECMA-376 only supports a single type - typeAny - but future versions may expand this as necessary. *end note*]

[Note: Omitting this attribute is logically equivalent to assigning it the value custom. *end note*]

[Example: Consider a WordprocessingML document with the following information stored in one of its protection elements:

```
<... w:cryptAlgorithmClass="hash"
      w:cryptAlgorithmType="typeAny"
      w:cryptAlgorithmSid="1"
      w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" />
```

The cryptAlgorithmType attribute value of typeAny specifies that any type of algorithm may have been used for the password. *end example*

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
custom (Custom Algorithm)	Specifies that a custom algorithm type, specified within the parent element's algIdExt attribute,



Enumeration Value	Description
	generated the hash value.
typeAny (Any Predefined Type)	Specifies that one of the predefined cryptographic algorithms, specified by the parent element's cryptAlgorithmSid attribute, generated the hash value.












[*Note:* The W3C XML Schema definition of this simple type's content model ([ST AlgType](#)) is located in §A.8.9. *end note*]

### 20.1.2.3 ST\_ColorType (Color Type)

This simple type specifies a color. Colors are specified in one of three ways - named color, hexadecimal RGB or color palette entry. An optional index can be stored in square brackets following the color and a space.

[*Rationale:* An application might store the color's index in a system color palette using this means. *end rationale*]

A named color is specified using the name of the color. The following named colors are supported:

- Black (#000000) 
- Silver (#C0C0C0) 
- Gray (#808080) 
- White (#FFFFFF) 
- Maroon (#800000) 
- Red (#FF0000) 
- Purple (#800080) 
- Fuchsia (#FF00FF) 
- Green (#008000) 
- Lime (#00FF00) 
- Olive (#808000) 
- Yellow (#FFFF00) 
- Navy (#000080) 
- Blue (#0000FF) 
- Teal (#008080) 
- Aqua (#00FFFF) 

[*Example:*

```
<... color="red" ... >
```

*end example*]

Hexadecimal RGB is specified using a hash symbol (#) followed by six hexadecimal characters, where each pair represents the red, green and blue component of the color.

[*Example:*



< ... color="#5f2726" ... >

*end example]*

A color palette entry is specified using the name of the color in the palette.

[*Example:*

<... color="buttonFace [67]" ... >

*end example]*

This simple type's contents are a restriction of the W3C XML Schema string datatype.

[*Note:* The W3C XML Schema definition of this simple type's content model ([ST\\_ColorType](#)) is located in §A.8.9.  
*end note]*

20.1.2.4      [ST\\_CryptProv \(Cryptographic Provider Types\)](#)

This simple type specifies the possible types of cryptographic providers which may be used.

[*Note:* Omitting this attribute is logically equivalent to assigning it the value custom. *end note]*

[*Example:* Consider a WordprocessingML document with the following information stored in one of its protection elements:

<... w:cryptProviderType="rsaAES"  
w:hash="9oN7nWkCAyEZib1RomSJTjmPpCY=" />

The cryptProviderType attribute value of rsaAES specifies that the cryptographic provider type shall be an Advanced Encryption Standard provider. *end example*

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
custom (Custom Provider)	Specifies that a custom algorithm type, specified within the parent element's algIdExt attribute, generated the hash value.
rsaAES (AES Provider)	Specifies that the provider shall support the Advanced Encryption Algorithm standard.
rsaFull (Any Provider)	Specifies that any suitable provider shall be used.

[*Note:* The W3C XML Schema definition of this simple type's content model ([ST\\_CryptProv](#)) is located in §A.8.9.  
*end note]*



### 20.1.2.5 ST\_TrueFalse (Boolean Value)

This type specifies logical true and false.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
f (False)	Logical false.
false (False)	Logical false.
t (True)	Logical true.
true (True)	Logical true.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_TrueFalse](#)) is located in §A.8.9. *end note*]

### 20.1.2.6 ST\_TrueFalseBlank (Boolean Value with Blank [False] State)

This simple type specifies a boolean value with a third state, using a blank attribute, which specifies that the value be false.

This simple type's contents are a restriction of the W3C XML Schema string datatype.

Enumeration Value	Description
(Blank – Logical False)	Logical false.
f (Logical False)	Logical false.
false (Logical False)	Logical false.
t (Logical True)	Logical true.
true (Logical True)	Logical true.

[Note: The W3C XML Schema definition of this simple type's content model ([ST\\_TrueFalseBlank](#)) is located in §A.8.9. *end note*]

## 20.2 Extended Properties (Part 1, §22.2)

When used in a document of the Transitional conformance class, extended properties are stored within an Extended File Properties part with a source relationship of <http://schemas.openxmlformats.org/officeDocument/2006/relationships/extended-properties>.

## 20.3 Custom Properties (Part 1, §22.3)

When used in a document of the Transitional conformance class, custom properties are stored within a Custom File Properties part with a source relationship of <http://schemas.openxmlformats.org/officeDocument/2006/relationships/custom-properties>.



## 20.4 Changed attributes

The following attributes, which are defined in subclauses within Part 1, §22, “Shared MLs Reference Material”, have different source relationships when used in documents of the Transitional conformance class:

### 20.4.1 Changed attribute for sources element (Part 1, §22.6.2.60)

Attributes	Description
SelectedStyle (Selected Style)	<p>Specifies the filename of a file which can be used to format the bibliographies and citations within this document.</p> <p>If this file is of an unknown form or cannot be located, then the other attributes on this element can be used to determine the format to use.</p> <p><i>[Example:</i></p> <pre>&lt;b:Sources SelectedStyle="\APA.XSL" StyleName="APA"   URI="http://schemas.openxmlformats.org/bibliographicStyle/APA"&gt;</pre> <p><i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_String simple type (Part 1, §22.9.2.13).</p>



# Annex A.

## (normative)

### Schemas – W3C XML Schema

#### A.1 General

This Office Open XML specification includes a family of schemas defined using the W3C XML Schema 1.0 syntax. The normative definitions of these schemas follow below, and they also reside in an accompanying file named OfficeOpenXML-XMLSchema-Transitional.zip, which is distributed in electronic form.

#### A.2 WordprocessingML

This schema is available in the file wml.xsd.

```

1 <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
2   xmlns:m="http://schemas.openxmlformats.org/officeDocument/2006/math"
3   xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
4   xmlns:sl="http://schemas.openxmlformats.org/schemaLibrary/2006/main"
5   xmlns:wp="http://schemas.openxmlformats.org/drawingml/2006/wordprocessingDrawing"
6   xmlns="http://schemas.openxmlformats.org/wordprocessingml/2006/main"
7   xmlns:s="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
8   elementFormDefault="qualified" attributeFormDefault="qualified" blockDefault="#all"
9   targetNamespace="http://schemas.openxmlformats.org/wordprocessingml/2006/main">
10   <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/wordprocessingDrawing"
11     schemaLocation="dml-wordprocessingDrawing.xsd"/>
12   <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/math"
13     schemaLocation="shared-math.xsd"/>
14   <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
15     schemaLocation="shared-relationshipReference.xsd"/>
16   <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
17     schemaLocation="shared-commonSimpleTypes.xsd"/>
18   <xsd:import namespace="http://schemas.openxmlformats.org/schemaLibrary/2006/main"
19     schemaLocation="shared-customXmlSchemaProperties.xsd"/>
20   <xsd:import namespace="http://www.w3.org/XML/1998/namespace"/>
21   <xsd:complexType name="CT_Empty"/>
22   <xsd:complexType name="CT_OnOff">
23     <xsd:attribute name="val" type="s:ST_OnOff"/>
24   </xsd:complexType>
25   <xsd:simpleType name="ST_LongHexNumber">
26     <xsd:restriction base="xsd:hexBinary">
27       <xsd:length value="4"/>
28     </xsd:restriction>
29   </xsd:simpleType>
30   <xsd:complexType name="CT_LongHexNumber">
31     <xsd:attribute name="val" type="ST_LongHexNumber" use="required"/>
32   </xsd:complexType>

```



```

33 <xsd:simpleType name="ST_ShortHexNumber">
34   <xsd:restriction base="xsd:hexBinary">
35     <xsd:length value="2"/>
36   </xsd:restriction>
37 </xsd:simpleType>
38 <xsd:simpleType name="ST_UcharHexNumber">
39   <xsd:restriction base="xsd:hexBinary">
40     <xsd:length value="1"/>
41   </xsd:restriction>
42 </xsd:simpleType>
43 <xsd:complexType name="CT_Charset">
44   <xsd:attribute name="val" type="ST_UcharHexNumber" use="optional"/>
45   <xsd:attribute name="characterSet" type="s:ST_String" use="optional" default="ISO-8859-1"/>
46 </xsd:complexType>
47 <xsd:simpleType name="ST_DecimalNumberOrPercent">
48   <xsd:union memberTypes="ST_UnqualifiedPercentage s:ST_Percentage"/>
49 </xsd:simpleType>
50 <xsd:simpleType name="ST_UnqualifiedPercentage">
51   <xsd:restriction base="xsd:integer"/>
52 </xsd:simpleType>
53 <xsd:simpleType name="ST_DecimalNumber">
54   <xsd:restriction base="xsd:integer"/>
55 </xsd:simpleType>
56 <xsd:complexType name="CT_DecimalNumber">
57   <xsd:attribute name="val" type="ST_DecimalNumber" use="required"/>
58 </xsd:complexType>
59 <xsd:complexType name="CT_UnsignedDecimalNumber">
60   <xsd:attribute name="val" type="s:ST_UnsignedDecimalNumber" use="required"/>
61 </xsd:complexType>
62 <xsd:complexType name="CT_DecimalNumberOrPercent">
63   <xsd:attribute name="val" type="ST_DecimalNumberOrPercent" use="required"/>
64 </xsd:complexType>
65 <xsd:complexType name="CT_TwipsMeasure">
66   <xsd:attribute name="val" type="s:ST_TwipsMeasure" use="required"/>
67 </xsd:complexType>
68 <xsd:simpleType name="ST_SignedTwipsMeasure">
69   <xsd:union memberTypes="xsd:integer s:ST_UniversalMeasure"/>
70 </xsd:simpleType>
71 <xsd:complexType name="CT_SignedTwipsMeasure">
72   <xsd:attribute name="val" type="ST_SignedTwipsMeasure" use="required"/>
73 </xsd:complexType>
74 <xsd:simpleType name="ST_PixelsMeasure">
75   <xsd:restriction base="s:ST_UnsignedDecimalNumber"/>
76 </xsd:simpleType>
77 <xsd:complexType name="CT_PixelsMeasure">
78   <xsd:attribute name="val" type="ST_PixelsMeasure" use="required"/>
79 </xsd:complexType>
80 <xsd:simpleType name="ST_HpsMeasure">
81   <xsd:union memberTypes="s:ST_UnsignedDecimalNumber s:ST_PositiveUniversalMeasure"/>
82 </xsd:simpleType>
83 <xsd:complexType name="CT_HpsMeasure">
84   <xsd:attribute name="val" type="ST_HpsMeasure" use="required"/>
85 </xsd:complexType>

```



```

86 <xsd:simpleType name="ST_SignedHpsMeasure">
87   <xsd:union memberTypes="xsd:integer s:ST_UniversalMeasure"/>
88 </xsd:simpleType>
89 <xsd:complexType name="CT_SignedHpsMeasure">
90   <xsd:attribute name="val" type="ST_SignedHpsMeasure" use="required"/>
91 </xsd:complexType>
92 <xsd:simpleType name="ST_DateTime">
93   <xsd:restriction base="xsd:dateTime"/>
94 </xsd:simpleType>
95 <xsd:simpleType name="ST_MacroName">
96   <xsd:restriction base="xsd:string">
97     <xsd:maxLength value="33"/>
98   </xsd:restriction>
99 </xsd:simpleType>
100 <xsd:complexType name="CT_MacroName">
101   <xsd:attribute name="val" use="required" type="ST_MacroName"/>
102 </xsd:complexType>
103 <xsd:simpleType name="ST_EighthPointMeasure">
104   <xsd:restriction base="s:ST_UnsignedDecimalNumber"/>
105 </xsd:simpleType>
106 <xsd:simpleType name="ST_PointMeasure">
107   <xsd:restriction base="s:ST_UnsignedDecimalNumber"/>
108 </xsd:simpleType>
109 <xsd:complexType name="CT_String">
110   <xsd:attribute name="val" type="s:ST_String" use="required"/>
111 </xsd:complexType>
112 <xsd:simpleType name="ST_TextScale">
113   <xsd:union memberTypes="ST_TextScalePercent ST_TextScaleDecimal"/>
114 </xsd:simpleType>
115 <xsd:simpleType name="ST_TextScalePercent">
116   <xsd:restriction base="xsd:string">
117     <xsd:pattern value="0*(600|([0-5]?[0-9]?[0-9]))%"/>
118   </xsd:restriction>
119 </xsd:simpleType>
120 <xsd:simpleType name="ST_TextScaleDecimal">
121   <xsd:restriction base="xsd:integer">
122     <xsd:minInclusive value="0"/>
123     <xsd:maxInclusive value="600"/>
124   </xsd:restriction>
125 </xsd:simpleType>
126 <xsd:complexType name="CT_TextScale">
127   <xsd:attribute name="val" type="ST_TextScale"/>
128 </xsd:complexType>
129 <xsd:simpleType name="ST_HighlightColor">
130   <xsd:restriction base="xsd:string">
131     <xsd:enumeration value="black"/>
132     <xsd:enumeration value="blue"/>
133     <xsd:enumeration value="cyan"/>
134     <xsd:enumeration value="green"/>
135     <xsd:enumeration value="magenta"/>
136     <xsd:enumeration value="red"/>
137     <xsd:enumeration value="yellow"/>
138     <xsd:enumeration value="white"/>

```



```

139     <xsd:enumeration value="darkBlue"/>
140     <xsd:enumeration value="darkCyan"/>
141     <xsd:enumeration value="darkGreen"/>
142     <xsd:enumeration value="darkMagenta"/>
143     <xsd:enumeration value="darkRed"/>
144     <xsd:enumeration value="darkYellow"/>
145     <xsd:enumeration value="darkGray"/>
146     <xsd:enumeration value="lightGray"/>
147     <xsd:enumeration value="none"/>
148   </xsd:restriction>
149 </xsd:simpleType>
150 <xsd:complexType name="CT_Highlight">
151   <xsd:attribute name="val" type="ST_HighlightColor" use="required"/>
152 </xsd:complexType>
153 <xsd:simpleType name="ST_HexColorAuto">
154   <xsd:restriction base="xsd:string">
155     <xsd:enumeration value="auto"/>
156   </xsd:restriction>
157 </xsd:simpleType>
158 <xsd:simpleType name="ST_HexColor">
159   <xsd:union memberTypes="ST_HexColorAuto s:ST_HexColorRGB"/>
160 </xsd:simpleType>
161 <xsd:complexType name="CT_Color">
162   <xsd:attribute name="val" type="ST_HexColor" use="required"/>
163   <xsd:attribute name="themeColor" type="ST_ThemeColor" use="optional"/>
164   <xsd:attribute name="themeTint" type="ST_UcharHexNumber" use="optional"/>
165   <xsd:attribute name="themeShade" type="ST_UcharHexNumber" use="optional"/>
166 </xsd:complexType>
167 <xsd:complexType name="CT_Lang">
168   <xsd:attribute name="val" type="s:ST_Lang" use="required"/>
169 </xsd:complexType>
170 <xsd:complexType name="CT_Guid">
171   <xsd:attribute name="val" type="s:ST_Guid"/>
172 </xsd:complexType>
173 <xsd:simpleType name="ST_Underline">
174   <xsd:restriction base="xsd:string">
175     <xsd:enumeration value="single"/>
176     <xsd:enumeration value="words"/>
177     <xsd:enumeration value="double"/>
178     <xsd:enumeration value="thick"/>
179     <xsd:enumeration value="dotted"/>
180     <xsd:enumeration value="dottedHeavy"/>
181     <xsd:enumeration value="dash"/>
182     <xsd:enumeration value="dashedHeavy"/>
183     <xsd:enumeration value="dashLong"/>
184     <xsd:enumeration value="dashLongHeavy"/>
185     <xsd:enumeration value="dotDash"/>
186     <xsd:enumeration value="dashDotHeavy"/>
187     <xsd:enumeration value="dotDotDash"/>
188     <xsd:enumeration value="dashDotDotHeavy"/>
189     <xsd:enumeration value="wave"/>
190     <xsd:enumeration value="wavyHeavy"/>
191     <xsd:enumeration value="wavyDouble"/>

```



```

192     <xsd:enumeration value="none"/>
193   </xsd:restriction>
194 </xsd:simpleType>
195 <xsd:complexType name="CT_Underline">
196   <xsd:attribute name="val" type="ST_Underline" use="optional"/>
197   <xsd:attribute name="color" type="ST_HexColor" use="optional" default="auto"/>
198   <xsd:attribute name="themeColor" type="ST_ThemeColor" use="optional"/>
199   <xsd:attribute name="themeTint" type="ST_UcharHexNumber" use="optional"/>
200   <xsd:attribute name="themeShade" type="ST_UcharHexNumber" use="optional"/>
201 </xsd:complexType>
202 <xsd:simpleType name="ST_TextEffect">
203   <xsd:restriction base="xsd:string">
204     <xsd:enumeration value="blinkBackground"/>
205     <xsd:enumeration value="lights"/>
206     <xsd:enumeration value="antsBlack"/>
207     <xsd:enumeration value="antsRed"/>
208     <xsd:enumeration value="shimmer"/>
209     <xsd:enumeration value="sparkle"/>
210     <xsd:enumeration value="none"/>
211   </xsd:restriction>
212 </xsd:simpleType>
213 <xsd:complexType name="CT_TextEffect">
214   <xsd:attribute name="val" type="ST_TextEffect" use="required"/>
215 </xsd:complexType>
216 <xsd:simpleType name="ST_Border">
217   <xsd:restriction base="xsd:string">
218     <xsd:enumeration value="nil"/>
219     <xsd:enumeration value="none"/>
220     <xsd:enumeration value="single"/>
221     <xsd:enumeration value="thick"/>
222     <xsd:enumeration value="double"/>
223     <xsd:enumeration value="dotted"/>
224     <xsd:enumeration value="dashed"/>
225     <xsd:enumeration value="dotDash"/>
226     <xsd:enumeration value="dotDotDash"/>
227     <xsd:enumeration value="triple"/>
228     <xsd:enumeration value="thinThickSmallGap"/>
229     <xsd:enumeration value="thickThinSmallGap"/>
230     <xsd:enumeration value="thinThickThinSmallGap"/>
231     <xsd:enumeration value="thinThickMediumGap"/>
232     <xsd:enumeration value="thickThinMediumGap"/>
233     <xsd:enumeration value="thinThickThinMediumGap"/>
234     <xsd:enumeration value="thinThickLargeGap"/>
235     <xsd:enumeration value="thickThinLargeGap"/>
236     <xsd:enumeration value="thinThickThinLargeGap"/>
237     <xsd:enumeration value="wave"/>
238     <xsd:enumeration value="doubleWave"/>
239     <xsd:enumeration value="dashSmallGap"/>
240     <xsd:enumeration value="dashDotStroked"/>
241     <xsd:enumeration value="threeDEmboss"/>
242     <xsd:enumeration value="threeDEngrave"/>
243     <xsd:enumeration value="outset"/>
244     <xsd:enumeration value="inset"/>

```



```

245      <xsd:enumeration value="apples"/>
246      <xsd:enumeration value="archedScallops"/>
247      <xsd:enumeration value="babyPacifier"/>
248      <xsd:enumeration value="babyRattle"/>
249      <xsd:enumeration value="balloons3Colors"/>
250      <xsd:enumeration value="balloonsHotAir"/>
251      <xsd:enumeration value="basicBlackDashes"/>
252      <xsd:enumeration value="basicBlackDots"/>
253      <xsd:enumeration value="basicBlackSquares"/>
254      <xsd:enumeration value="basicThinLines"/>
255      <xsd:enumeration value="basicWhiteDashes"/>
256      <xsd:enumeration value="basicWhiteDots"/>
257      <xsd:enumeration value="basicWhiteSquares"/>
258      <xsd:enumeration value="basicWideInline"/>
259      <xsd:enumeration value="basicWideMidline"/>
260      <xsd:enumeration value="basicWideOutline"/>
261      <xsd:enumeration value="bats"/>
262      <xsd:enumeration value="birds"/>
263      <xsd:enumeration value="birdsFlight"/>
264      <xsd:enumeration value="cabins"/>
265      <xsd:enumeration value="cakeSlice"/>
266      <xsd:enumeration value="candyCorn"/>
267      <xsd:enumeration value="celticKnotwork"/>
268      <xsd:enumeration value="certificateBanner"/>
269      <xsd:enumeration value="chainLink"/>
270      <xsd:enumeration value="champagneBottle"/>
271      <xsd:enumeration value="checkedBarBlack"/>
272      <xsd:enumeration value="checkedBarColor"/>
273      <xsd:enumeration value="checkered"/>
274      <xsd:enumeration value="christmasTree"/>
275      <xsd:enumeration value="circlesLines"/>
276      <xsd:enumeration value="circlesRectangles"/>
277      <xsd:enumeration value="classicalWave"/>
278      <xsd:enumeration value="clocks"/>
279      <xsd:enumeration value="compass"/>
280      <xsd:enumeration value="confetti"/>
281      <xsd:enumeration value="confettiGrays"/>
282      <xsd:enumeration value="confettiOutline"/>
283      <xsd:enumeration value="confettiStreamers"/>
284      <xsd:enumeration value="confettiWhite"/>
285      <xsd:enumeration value="cornerTriangles"/>
286      <xsd:enumeration value="couponCutoutDashes"/>
287      <xsd:enumeration value="couponCutoutDots"/>
288      <xsd:enumeration value="crazyMaze"/>
289      <xsd:enumeration value="creaturesButterfly"/>
290      <xsd:enumeration value="creaturesFish"/>
291      <xsd:enumeration value="creaturesInsects"/>
292      <xsd:enumeration value="creaturesLadyBug"/>
293      <xsd:enumeration value="crossStitch"/>
294      <xsd:enumeration value="cup"/>
295      <xsd:enumeration value="decoArch"/>
296      <xsd:enumeration value="decoArchColor"/>
297      <xsd:enumeration value="decoBlocks"/>

```



```

298     <xsd:enumeration value="diamondsGray"/>
299     <xsd:enumeration value="doubleD"/>
300     <xsd:enumeration value="doubleDiamonds"/>
301     <xsd:enumeration value="earth1"/>
302     <xsd:enumeration value="earth2"/>
303     <xsd:enumeration value="earth3"/>
304     <xsd:enumeration value="eclipsingSquares1"/>
305     <xsd:enumeration value="eclipsingSquares2"/>
306     <xsd:enumeration value="eggsBlack"/>
307     <xsd:enumeration value="fans"/>
308     <xsd:enumeration value="film"/>
309     <xsd:enumeration value="firecrackers"/>
310     <xsd:enumeration value="flowersBlockPrint"/>
311     <xsd:enumeration value="flowersDaisies"/>
312     <xsd:enumeration value="flowersModern1"/>
313     <xsd:enumeration value="flowersModern2"/>
314     <xsd:enumeration value="flowersPansy"/>
315     <xsd:enumeration value="flowersRedRose"/>
316     <xsd:enumeration value="flowersRoses"/>
317     <xsd:enumeration value="flowersTeacup"/>
318     <xsd:enumeration value="flowersTiny"/>
319     <xsd:enumeration value="gems"/>
320     <xsd:enumeration value="gingerbreadMan"/>
321     <xsd:enumeration value="gradient"/>
322     <xsd:enumeration value="handmade1"/>
323     <xsd:enumeration value="handmade2"/>
324     <xsd:enumeration value="heartBalloon"/>
325     <xsd:enumeration value="heartGray"/>
326     <xsd:enumeration value="hearts"/>
327     <xsd:enumeration value="heebieJeebies"/>
328     <xsd:enumeration value="holly"/>
329     <xsd:enumeration value="houseFunky"/>
330     <xsd:enumeration value="hypnotic"/>
331     <xsd:enumeration value="iceCreamCones"/>
332     <xsd:enumeration value="lightBulb"/>
333     <xsd:enumeration value="lightning1"/>
334     <xsd:enumeration value="lightning2"/>
335     <xsd:enumeration value="mapPins"/>
336     <xsd:enumeration value="mapleLeaf"/>
337     <xsd:enumeration value="mapleMuffins"/>
338     <xsd:enumeration value="marquee"/>
339     <xsd:enumeration value="marqueeToothed"/>
340     <xsd:enumeration value="moons"/>
341     <xsd:enumeration value="mosaic"/>
342     <xsd:enumeration value="musicNotes"/>
343     <xsd:enumeration value="northwest"/>
344     <xsd:enumeration value="ovals"/>
345     <xsd:enumeration value="packages"/>
346     <xsd:enumeration value="palmsBlack"/>
347     <xsd:enumeration value="palmsColor"/>
348     <xsd:enumeration value="paperClips"/>
349     <xsd:enumeration value="papyrus"/>
350     <xsd:enumeration value="partyFavor"/>

```



```

351      <xsd:enumeration value="partyGlass"/>
352      <xsd:enumeration value="pencils"/>
353      <xsd:enumeration value="people"/>
354      <xsd:enumeration value="peopleWaving"/>
355      <xsd:enumeration value="peopleHats"/>
356      <xsd:enumeration value="poinsettias"/>
357      <xsd:enumeration value="postageStamp"/>
358      <xsd:enumeration value="pumpkin1"/>
359      <xsd:enumeration value="pushPinNote2"/>
360      <xsd:enumeration value="pushPinNote1"/>
361      <xsd:enumeration value="pyramids"/>
362      <xsd:enumeration value="pyramidsAbove"/>
363      <xsd:enumeration value="quadrants"/>
364      <xsd:enumeration value="rings"/>
365      <xsd:enumeration value="safari"/>
366      <xsd:enumeration value="sawtooth"/>
367      <xsd:enumeration value="sawtoothGray"/>
368      <xsd:enumeration value="scaredCat"/>
369      <xsd:enumeration value="seattle"/>
370      <xsd:enumeration value="shadowedSquares"/>
371      <xsd:enumeration value="sharksTeeth"/>
372      <xsd:enumeration value="shorebirdTracks"/>
373      <xsd:enumeration value="skyrocket"/>
374      <xsd:enumeration value="snowflakeFancy"/>
375      <xsd:enumeration value="snowflakes"/>
376      <xsd:enumeration value="sombrero"/>
377      <xsd:enumeration value="southwest"/>
378      <xsd:enumeration value="stars"/>
379      <xsd:enumeration value="starsTop"/>
380      <xsd:enumeration value="stars3d"/>
381      <xsd:enumeration value="starsBlack"/>
382      <xsd:enumeration value="starsShadowed"/>
383      <xsd:enumeration value="sun"/>
384      <xsd:enumeration value="swirligig"/>
385      <xsd:enumeration value="tornPaper"/>
386      <xsd:enumeration value="tornPaperBlack"/>
387      <xsd:enumeration value="trees"/>
388      <xsd:enumeration value="triangleParty"/>
389      <xsd:enumeration value="triangles"/>
390      <xsd:enumeration value="triangle1"/>
391      <xsd:enumeration value="triangle2"/>
392      <xsd:enumeration value="triangleCircle1"/>
393      <xsd:enumeration value="triangleCircle2"/>
394      <xsd:enumeration value="shapes1"/>
395      <xsd:enumeration value="shapes2"/>
396      <xsd:enumeration value="twistedLines1"/>
397      <xsd:enumeration value="twistedLines2"/>
398      <xsd:enumeration value="vine"/>
399      <xsd:enumeration value="waveline"/>
400      <xsd:enumeration value="weavingAngles"/>
401      <xsd:enumeration value="weavingBraid"/>
402      <xsd:enumeration value="weavingRibbon"/>
403      <xsd:enumeration value="weavingStrips"/>

```



```

404         <xsd:enumeration value="whiteFlowers"/>
405         <xsd:enumeration value="woodwork"/>
406         <xsd:enumeration value="xIllusions"/>
407         <xsd:enumeration value="zanyTriangles"/>
408         <xsd:enumeration value="zigZag"/>
409         <xsd:enumeration value="zigZagStitch"/>
410         <xsd:enumeration value="custom"/>
411     </xsd:restriction>
412 </xsd:simpleType>
413 <xsd:complexType name="CT_Border">
414     <xsd:attribute name="val" type="ST_Border" use="required"/>
415     <xsd:attribute name="color" type="ST_HexColor" use="optional" default="auto"/>
416     <xsd:attribute name="themeColor" type="ST_ThemeColor" use="optional"/>
417     <xsd:attribute name="themeTint" type="ST_UcharHexNumber" use="optional"/>
418     <xsd:attribute name="themeShade" type="ST_UcharHexNumber" use="optional"/>
419     <xsd:attribute name="sz" type="ST_EighthPointMeasure" use="optional"/>
420     <xsd:attribute name="space" type="ST_PointMeasure" use="optional" default="0"/>
421     <xsd:attribute name="shadow" type="s:ST_OnOff" use="optional"/>
422     <xsd:attribute name="frame" type="s:ST_OnOff" use="optional"/>
423 </xsd:complexType>
424 <xsd:simpleType name="ST_Shd">
425     <xsd:restriction base="xsd:string">
426         <xsd:enumeration value="nil"/>
427         <xsd:enumeration value="clear"/>
428         <xsd:enumeration value="solid"/>
429         <xsd:enumeration value="horzStripe"/>
430         <xsd:enumeration value="vertStripe"/>
431         <xsd:enumeration value="reverseDiagStripe"/>
432         <xsd:enumeration value="diagStripe"/>
433         <xsd:enumeration value="horzCross"/>
434         <xsd:enumeration value="diagCross"/>
435         <xsd:enumeration value="thinHorzStripe"/>
436         <xsd:enumeration value="thinVertStripe"/>
437         <xsd:enumeration value="thinReverseDiagStripe"/>
438         <xsd:enumeration value="thinDiagStripe"/>
439         <xsd:enumeration value="thinHorzCross"/>
440         <xsd:enumeration value="thinDiagCross"/>
441         <xsd:enumeration value="pct5"/>
442         <xsd:enumeration value="pct10"/>
443         <xsd:enumeration value="pct12"/>
444         <xsd:enumeration value="pct15"/>
445         <xsd:enumeration value="pct20"/>
446         <xsd:enumeration value="pct25"/>
447         <xsd:enumeration value="pct30"/>
448         <xsd:enumeration value="pct35"/>
449         <xsd:enumeration value="pct37"/>
450         <xsd:enumeration value="pct40"/>
451         <xsd:enumeration value="pct45"/>
452         <xsd:enumeration value="pct50"/>
453         <xsd:enumeration value="pct55"/>
454         <xsd:enumeration value="pct60"/>
455         <xsd:enumeration value="pct62"/>
456         <xsd:enumeration value="pct65"/>

```



```

457         <xsd:enumeration value="pct70"/>
458         <xsd:enumeration value="pct75"/>
459         <xsd:enumeration value="pct80"/>
460         <xsd:enumeration value="pct85"/>
461         <xsd:enumeration value="pct87"/>
462         <xsd:enumeration value="pct90"/>
463         <xsd:enumeration value="pct95"/>
464     </xsd:restriction>
465 </xsd:simpleType>
466 <xsd:complexType name="CT_Shd">
467     <xsd:attribute name="val" type="ST_Shd" use="required"/>
468     <xsd:attribute name="color" type="ST_HexColor" use="optional"/>
469     <xsd:attribute name="themeColor" type="ST_ThemeColor" use="optional"/>
470     <xsd:attribute name="themeTint" type="ST_UcharHexNumber" use="optional"/>
471     <xsd:attribute name="themeShade" type="ST_UcharHexNumber" use="optional"/>
472     <xsd:attribute name="fill" type="ST_HexColor" use="optional"/>
473     <xsd:attribute name="themeFill" type="ST_ThemeColor" use="optional"/>
474     <xsd:attribute name="themeFillTint" type="ST_UcharHexNumber" use="optional"/>
475     <xsd:attribute name="themeFillShade" type="ST_UcharHexNumber" use="optional"/>
476 </xsd:complexType>
477 <xsd:complexType name="CT_VerticalAlignRun">
478     <xsd:attribute name="val" type="s:ST_VerticalAlignRun" use="required"/>
479 </xsd:complexType>
480 <xsd:complexType name="CT_FitText">
481     <xsd:attribute name="val" type="s:ST_TwipsMeasure" use="required"/>
482     <xsd:attribute name="id" type="ST_DecimalNumber" use="optional"/>
483 </xsd:complexType>
484 <xsd:simpleType name="ST_Em">
485     <xsd:restriction base="xsd:string">
486         <xsd:enumeration value="none"/>
487         <xsd:enumeration value="dot"/>
488         <xsd:enumeration value="comma"/>
489         <xsd:enumeration value="circle"/>
490         <xsd:enumeration value="underDot"/>
491     </xsd:restriction>
492 </xsd:simpleType>
493 <xsd:complexType name="CT_Em">
494     <xsd:attribute name="val" type="ST_Em" use="required"/>
495 </xsd:complexType>
496 <xsd:complexType name="CT_Language">
497     <xsd:attribute name="val" type="s:ST_Lang" use="optional"/>
498     <xsd:attribute name="eastAsia" type="s:ST_Lang" use="optional"/>
499     <xsd:attribute name="bidi" type="s:ST_Lang" use="optional"/>
500 </xsd:complexType>
501 <xsd:simpleType name="ST_CombineBrackets">
502     <xsd:restriction base="xsd:string">
503         <xsd:enumeration value="none"/>
504         <xsd:enumeration value="round"/>
505         <xsd:enumeration value="square"/>
506         <xsd:enumeration value="angle"/>
507         <xsd:enumeration value="curly"/>
508     </xsd:restriction>
509 </xsd:simpleType>

```



```

510 <xsd:complexType name="CT_EastAsianLayout">
511   <xsd:attribute name="id" type="ST_DecimalNumber" use="optional"/>
512   <xsd:attribute name="combine" type="s:ST_OnOff" use="optional"/>
513   <xsd:attribute name="combineBrackets" type="ST_CombineBrackets" use="optional"/>
514   <xsd:attribute name="vert" type="s:ST_OnOff" use="optional"/>
515   <xsd:attribute name="vertCompress" type="s:ST_OnOff" use="optional"/>
516 </xsd:complexType>
517 <xsd:simpleType name="ST_HeightRule">
518   <xsd:restriction base="xsd:string">
519     <xsd:enumeration value="auto"/>
520     <xsd:enumeration value="exact"/>
521     <xsd:enumeration value="atLeast"/>
522   </xsd:restriction>
523 </xsd:simpleType>
524 <xsd:simpleType name="ST_Wrap">
525   <xsd:restriction base="xsd:string">
526     <xsd:enumeration value="auto"/>
527     <xsd:enumeration value="notBeside"/>
528     <xsd:enumeration value="around"/>
529     <xsd:enumeration value="tight"/>
530     <xsd:enumeration value="through"/>
531     <xsd:enumeration value="none"/>
532   </xsd:restriction>
533 </xsd:simpleType>
534 <xsd:simpleType name="ST_VAnchor">
535   <xsd:restriction base="xsd:string">
536     <xsd:enumeration value="text"/>
537     <xsd:enumeration value="margin"/>
538     <xsd:enumeration value="page"/>
539   </xsd:restriction>
540 </xsd:simpleType>
541 <xsd:simpleType name="ST_HAnchor">
542   <xsd:restriction base="xsd:string">
543     <xsd:enumeration value="text"/>
544     <xsd:enumeration value="margin"/>
545     <xsd:enumeration value="page"/>
546   </xsd:restriction>
547 </xsd:simpleType>
548 <xsd:simpleType name="ST_DropCap">
549   <xsd:restriction base="xsd:string">
550     <xsd:enumeration value="none"/>
551     <xsd:enumeration value="drop"/>
552     <xsd:enumeration value="margin"/>
553   </xsd:restriction>
554 </xsd:simpleType>
555 <xsd:complexType name="CT_FramePr">
556   <xsd:attribute name="dropCap" type="ST_DropCap" use="optional"/>
557   <xsd:attribute name="lines" type="ST_DecimalNumber" use="optional"/>
558   <xsd:attribute name="w" type="s:ST_TwipsMeasure" use="optional"/>
559   <xsd:attribute name="h" type="s:ST_TwipsMeasure" use="optional"/>
560   <xsd:attribute name="vSpace" type="s:ST_TwipsMeasure" use="optional"/>
561   <xsd:attribute name="hSpace" type="s:ST_TwipsMeasure" use="optional"/>
562   <xsd:attribute name="wrap" type="ST_Wrap" use="optional"/>

```



```

563     <xsd:attribute name="hAnchor" type="ST_HAnchor" use="optional"/>
564     <xsd:attribute name="vAnchor" type="ST_VAnchor" use="optional"/>
565     <xsd:attribute name="x" type="ST_SignedTwipsMeasure" use="optional"/>
566     <xsd:attribute name="xAlign" type="s:ST_XAlign" use="optional"/>
567     <xsd:attribute name="y" type="ST_SignedTwipsMeasure" use="optional"/>
568     <xsd:attribute name="yAlign" type="s:ST_YAlign" use="optional"/>
569     <xsd:attribute name="hRule" type="ST_HeightRule" use="optional"/>
570     <xsd:attribute name="anchorLock" type="s:ST_OnOff" use="optional"/>
571 </xsd:complexType>
572 <xsd:simpleType name="ST_TabJc">
573     <xsd:restriction base="xsd:string">
574         <xsd:enumeration value="clear"/>
575         <xsd:enumeration value="start"/>
576         <xsd:enumeration value="center"/>
577         <xsd:enumeration value="end"/>
578         <xsd:enumeration value="decimal"/>
579         <xsd:enumeration value="bar"/>
580         <xsd:enumeration value="num"/>
581         <xsd:enumeration value="left"/>
582         <xsd:enumeration value="right"/>
583     </xsd:restriction>
584 </xsd:simpleType>
585 <xsd:simpleType name="ST_TabTlc">
586     <xsd:restriction base="xsd:string">
587         <xsd:enumeration value="none"/>
588         <xsd:enumeration value="dot"/>
589         <xsd:enumeration value="hyphen"/>
590         <xsd:enumeration value="underscore"/>
591         <xsd:enumeration value="heavy"/>
592         <xsd:enumeration value="middleDot"/>
593     </xsd:restriction>
594 </xsd:simpleType>
595 <xsd:complexType name="CT_TabStop">
596     <xsd:attribute name="val" type="ST_TabJc" use="required"/>
597     <xsd:attribute name="leader" type="ST_TabTlc" use="optional"/>
598     <xsd:attribute name="pos" type="ST_SignedTwipsMeasure" use="required"/>
599 </xsd:complexType>
600 <xsd:simpleType name="ST_LineSpacingRule">
601     <xsd:restriction base="xsd:string">
602         <xsd:enumeration value="auto"/>
603         <xsd:enumeration value="exact"/>
604         <xsd:enumeration value="atLeast"/>
605     </xsd:restriction>
606 </xsd:simpleType>
607 <xsd:complexType name="CT_Spacing">
608     <xsd:attribute name="before" type="s:ST_TwipsMeasure" use="optional" default="0"/>
609     <xsd:attribute name="beforeLines" type="ST_DecimalNumber" use="optional" default="0"/>
610     <xsd:attribute name="beforeAutospacing" type="s:ST_OnOff" use="optional" default="off"/>
611     <xsd:attribute name="after" type="s:ST_TwipsMeasure" use="optional" default="0"/>
612     <xsd:attribute name="afterLines" type="ST_DecimalNumber" use="optional" default="0"/>
613     <xsd:attribute name="afterAutospacing" type="s:ST_OnOff" use="optional" default="off"/>
614     <xsd:attribute name="line" type="ST_SignedTwipsMeasure" use="optional" default="0"/>
615     <xsd:attribute name="lineRule" type="ST_LineSpacingRule" use="optional" default="auto"/>

```



```

616 </xsd:complexType>
617 <xsd:complexType name="CT_Ind">
618   <xsd:attribute name="start" type="ST_SignedTwipsMeasure" use="optional"/>
619   <xsd:attribute name="startChars" type="ST_DecimalNumber" use="optional"/>
620   <xsd:attribute name="end" type="ST_SignedTwipsMeasure" use="optional"/>
621   <xsd:attribute name="endChars" type="ST_DecimalNumber" use="optional"/>
622   <xsd:attribute name="left" type="ST_SignedTwipsMeasure" use="optional"/>
623   <xsd:attribute name="leftChars" type="ST_DecimalNumber" use="optional"/>
624   <xsd:attribute name="right" type="ST_SignedTwipsMeasure" use="optional"/>
625   <xsd:attribute name="rightChars" type="ST_DecimalNumber" use="optional"/>
626   <xsd:attribute name="hanging" type="s:ST_TwipsMeasure" use="optional"/>
627   <xsd:attribute name="hangingChars" type="ST_DecimalNumber" use="optional"/>
628   <xsd:attribute name="firstLine" type="s:ST_TwipsMeasure" use="optional"/>
629   <xsd:attribute name="firstLineChars" type="ST_DecimalNumber" use="optional"/>
630 </xsd:complexType>
631 <xsd:simpleType name="ST_Jc">
632   <xsd:restriction base="xsd:string">
633     <xsd:enumeration value="start"/>
634     <xsd:enumeration value="center"/>
635     <xsd:enumeration value="end"/>
636     <xsd:enumeration value="both"/>
637     <xsd:enumeration value="mediumKashida"/>
638     <xsd:enumeration value="distribute"/>
639     <xsd:enumeration value="numTab"/>
640     <xsd:enumeration value="highKashida"/>
641     <xsd:enumeration value="lowKashida"/>
642     <xsd:enumeration value="thaiDistribute"/>
643     <xsd:enumeration value="left"/>
644     <xsd:enumeration value="right"/>
645   </xsd:restriction>
646 </xsd:simpleType>
647 <xsd:simpleType name="ST_JcTable">
648   <xsd:restriction base="xsd:string">
649     <xsd:enumeration value="center"/>
650     <xsd:enumeration value="end"/>
651     <xsd:enumeration value="left"/>
652     <xsd:enumeration value="right"/>
653     <xsd:enumeration value="start"/>
654   </xsd:restriction>
655 </xsd:simpleType>
656 <xsd:complexType name="CT_Jc">
657   <xsd:attribute name="val" type="ST_Jc" use="required"/>
658 </xsd:complexType>
659 <xsd:complexType name="CT_JcTable">
660   <xsd:attribute name="val" type="ST_JcTable" use="required"/>
661 </xsd:complexType>
662 <xsd:simpleType name="ST_View">
663   <xsd:restriction base="xsd:string">
664     <xsd:enumeration value="none"/>
665     <xsd:enumeration value="print"/>
666     <xsd:enumeration value="outline"/>
667     <xsd:enumeration value="masterPages"/>
668     <xsd:enumeration value="normal"/>

```



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669         <xsd:enumeration value="web"/>
670     </xsd:restriction>
671 </xsd:simpleType>
672 <xsd:complexType name="CT_View">
673     <xsd:attribute name="val" type="ST_View" use="required"/>
674 </xsd:complexType>
675 <xsd:simpleType name="ST_Zoom">
676     <xsd:restriction base="xsd:string">
677         <xsd:enumeration value="none"/>
678         <xsd:enumeration value="fullPage"/>
679         <xsd:enumeration value="bestFit"/>
680         <xsd:enumeration value="textFit"/>
681     </xsd:restriction>
682 </xsd:simpleType>
683 <xsd:complexType name="CT_Zoom">
684     <xsd:attribute name="val" type="ST_Zoom" use="optional"/>
685     <xsd:attribute name="percent" type="ST_DecimalNumberOrPercent" use="required"/>
686 </xsd:complexType>
687 <xsd:complexType name="CT_WritingStyle">
688     <xsd:attribute name="lang" type="s:ST_Lang" use="required"/>
689     <xsd:attribute name="vendorID" type="s:ST_String" use="required"/>
690     <xsd:attribute name="dllVersion" type="s:ST_String" use="required"/>
691     <xsd:attribute name="nlCheck" type="s:ST_OnOff" use="optional" default="off"/>
692     <xsd:attribute name="checkStyle" type="s:ST_OnOff" use="required"/>
693     <xsd:attribute name="appName" type="s:ST_String" use="required"/>
694 </xsd:complexType>
695 <xsd:simpleType name="ST_Proof">
696     <xsd:restriction base="xsd:string">
697         <xsd:enumeration value="clean"/>
698         <xsd:enumeration value="dirty"/>
699     </xsd:restriction>
700 </xsd:simpleType>
701 <xsd:complexType name="CT_Proof">
702     <xsd:attribute name="spelling" type="ST_Proof" use="optional"/>
703     <xsd:attribute name="grammar" type="ST_Proof" use="optional"/>
704 </xsd:complexType>
705 <xsd:simpleType name="ST_DocType">
706     <xsd:restriction base="xsd:string"/>
707 </xsd:simpleType>
708 <xsd:complexType name="CT_DocType">
709     <xsd:attribute name="val" type="ST_DocType" use="required"/>
710 </xsd:complexType>
711 <xsd:simpleType name="ST_DocProtect">
712     <xsd:restriction base="xsd:string">
713         <xsd:enumeration value="none"/>
714         <xsd:enumeration value="readOnly"/>
715         <xsd:enumeration value="comments"/>
716         <xsd:enumeration value="trackedChanges"/>
717         <xsd:enumeration value="forms"/>
718     </xsd:restriction>
719 </xsd:simpleType>
720 <xsd:attributeGroup name="AG_Password">
721     <xsd:attribute name="algorithmName" type="s:ST_String" use="optional"/>

```



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722     <xsd:attribute name="hashValue" type="xsd:base64Binary" use="optional"/>
723     <xsd:attribute name="saltValue" type="xsd:base64Binary" use="optional"/>
724     <xsd:attribute name="spinCount" type="ST DecimalNumber" use="optional"/>
725 </xsd:attributeGroup>
726 <xsd:attributeGroup name="AG_TransitionalPassword">
727     <xsd:attribute name="cryptProviderType" type="s:ST CryptProv"/>
728     <xsd:attribute name="cryptAlgorithmClass" type="s:ST AlgClass"/>
729     <xsd:attribute name="cryptAlgorithmType" type="s:ST AlgType"/>
730     <xsd:attribute name="cryptAlgorithmSid" type="ST DecimalNumber"/>
731     <xsd:attribute name="cryptSpinCount" type="ST DecimalNumber"/>
732     <xsd:attribute name="cryptProvider" type="s:ST String"/>
733     <xsd:attribute name="algIdExt" type="ST LongHexNumber"/>
734     <xsd:attribute name="algIdExtSource" type="s:ST String"/>
735     <xsd:attribute name="cryptProviderTypeExt" type="ST LongHexNumber"/>
736     <xsd:attribute name="cryptProviderTypeExtSource" type="s:ST String"/>
737     <xsd:attribute name="hash" type="xsd:base64Binary"/>
738     <xsd:attribute name="salt" type="xsd:base64Binary"/>
739 </xsd:attributeGroup>
740 <xsd:complexType name="CT_DocProtect">
741     <xsd:attribute name="edit" type="ST DocProtect" use="optional"/>
742     <xsd:attribute name="formatting" type="s:ST OnOff" use="optional"/>
743     <xsd:attribute name="enforcement" type="s:ST OnOff"/>
744     <xsd:attributeGroup ref="AG Password"/>
745     <xsd:attributeGroup ref="AG TransitionalPassword"/>
746 </xsd:complexType>
747 <xsd:simpleType name="ST_MailMergeDocType">
748     <xsd:restriction base="xsd:string">
749         <xsd:enumeration value="catalog"/>
750         <xsd:enumeration value="envelopes"/>
751         <xsd:enumeration value="mailingLabels"/>
752         <xsd:enumeration value="formLetters"/>
753         <xsd:enumeration value="email"/>
754         <xsd:enumeration value="fax"/>
755     </xsd:restriction>
756 </xsd:simpleType>
757 <xsd:complexType name="CT_MailMergeDocType">
758     <xsd:attribute name="val" type="ST MailMergeDocType" use="required"/>
759 </xsd:complexType>
760 <xsd:simpleType name="ST_MailMergeDataType">
761     <xsd:restriction base="xsd:string"/>
762 </xsd:simpleType>
763 <xsd:complexType name="CT_MailMergeDataType">
764     <xsd:attribute name="val" type="ST MailMergeDataType" use="required"/>
765 </xsd:complexType>
766 <xsd:simpleType name="ST_MailMergeDest">
767     <xsd:restriction base="xsd:string">
768         <xsd:enumeration value="newDocument"/>
769         <xsd:enumeration value="printer"/>
770         <xsd:enumeration value="email"/>
771         <xsd:enumeration value="fax"/>
772     </xsd:restriction>
773 </xsd:simpleType>
774 <xsd:complexType name="CT_MailMergeDest">

```



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775     <xsd:attribute name="val" type="ST MailMergeDest" use="required"/>
776 </xsd:complexType>
777 <xsd:simpleType name="ST_MailMergeOdsoFMDFieldType">
778     <xsd:restriction base="xsd:string">
779         <xsd:enumeration value="null"/>
780         <xsd:enumeration value="dbColumn"/>
781     </xsd:restriction>
782 </xsd:simpleType>
783 <xsd:complexType name="CT_MailMergeOdsoFMDFieldType">
784     <xsd:attribute name="val" type="ST MailMergeOdsoFMDFieldType" use="required"/>
785 </xsd:complexType>
786 <xsd:complexType name="CT_TrackChangesView">
787     <xsd:attribute name="markup" type="s:ST OnOff" use="optional"/>
788     <xsd:attribute name="comments" type="s:ST OnOff" use="optional"/>
789     <xsd:attribute name="insDel" type="s:ST OnOff" use="optional"/>
790     <xsd:attribute name="formatting" type="s:ST OnOff" use="optional"/>
791     <xsd:attribute name="inkAnnotations" type="s:ST OnOff" use="optional"/>
792 </xsd:complexType>
793 <xsd:complexType name="CT_Kinsoku">
794     <xsd:attribute name="lang" type="s:ST Lang" use="required"/>
795     <xsd:attribute name="val" type="s:ST String" use="required"/>
796 </xsd:complexType>
797 <xsd:simpleType name="ST_TextDirection">
798     <xsd:restriction base="xsd:string">
799         <xsd:enumeration value="tb"/>
800         <xsd:enumeration value="rl"/>
801         <xsd:enumeration value="lr"/>
802         <xsd:enumeration value="tbV"/>
803         <xsd:enumeration value="rlV"/>
804         <xsd:enumeration value="lrV"/>
805         <xsd:enumeration value="btLr"/>
806         <xsd:enumeration value="lrTb"/>
807         <xsd:enumeration value="lrTbV"/>
808         <xsd:enumeration value="tbLrV"/>
809         <xsd:enumeration value="tbRl"/>
810         <xsd:enumeration value="tbRlV"/>
811     </xsd:restriction>
812 </xsd:simpleType>
813 <xsd:complexType name="CT_TextDirection">
814     <xsd:attribute name="val" type="ST TextDirection" use="required"/>
815 </xsd:complexType>
816 <xsd:simpleType name="ST_TextAlignment">
817     <xsd:restriction base="xsd:string">
818         <xsd:enumeration value="top"/>
819         <xsd:enumeration value="center"/>
820         <xsd:enumeration value="baseline"/>
821         <xsd:enumeration value="bottom"/>
822         <xsd:enumeration value="auto"/>
823     </xsd:restriction>
824 </xsd:simpleType>
825 <xsd:complexType name="CT_TextAlignment">
826     <xsd:attribute name="val" type="ST TextAlignment" use="required"/>
827 </xsd:complexType>

```



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828 <xsd:simpleType name="ST_DisplacedByCustomXml">
829   <xsd:restriction base="xsd:string">
830     <xsd:enumeration value="next"/>
831     <xsd:enumeration value="prev"/>
832   </xsd:restriction>
833 </xsd:simpleType>
834 <xsd:simpleType name="ST_AnnotationVMerge">
835   <xsd:restriction base="xsd:string">
836     <xsd:enumeration value="cont"/>
837     <xsd:enumeration value="rest"/>
838   </xsd:restriction>
839 </xsd:simpleType>
840 <xsd:complexType name="CT_Markup">
841   <xsd:attribute name="id" type="ST_DecimalNumber" use="required"/>
842 </xsd:complexType>
843 <xsd:complexType name="CT_TrackChange">
844   <xsd:complexContent>
845     <xsd:extension base="CT_Markup">
846       <xsd:attribute name="author" type="s:ST_String" use="required"/>
847       <xsd:attribute name="date" type="ST_DateTime" use="optional"/>
848     </xsd:extension>
849   </xsd:complexContent>
850 </xsd:complexType>
851 <xsd:complexType name="CT_CellMergeTrackChange">
852   <xsd:complexContent>
853     <xsd:extension base="CT_TrackChange">
854       <xsd:attribute name="vMerge" type="ST_AnnotationVMerge" use="optional"/>
855       <xsd:attribute name="vMergeOrig" type="ST_AnnotationVMerge" use="optional"/>
856     </xsd:extension>
857   </xsd:complexContent>
858 </xsd:complexType>
859 <xsd:complexType name="CT_TrackChangeRange">
860   <xsd:complexContent>
861     <xsd:extension base="CT_TrackChange">
862       <xsd:attribute name="displacedByCustomXml" type="ST_DisplacedByCustomXml"
863         use="optional"/>
864     </xsd:extension>
865   </xsd:complexContent>
866 </xsd:complexType>
867 <xsd:complexType name="CT_MarkupRange">
868   <xsd:complexContent>
869     <xsd:extension base="CT_Markup">
870       <xsd:attribute name="displacedByCustomXml" type="ST_DisplacedByCustomXml"
871         use="optional"/>
872     </xsd:extension>
873   </xsd:complexContent>
874 </xsd:complexType>
875 <xsd:complexType name="CT_BookmarkRange">
876   <xsd:complexContent>
877     <xsd:extension base="CT_MarkupRange">
878       <xsd:attribute name="colFirst" type="ST_DecimalNumber" use="optional"/>
879       <xsd:attribute name="colLast" type="ST_DecimalNumber" use="optional"/>
880     </xsd:extension>

```



```

881     </xsd:complexContent>
882 </xsd:complexType>
883 <xsd:complexType name="CT_Bookmark">
884     <xsd:complexContent>
885         <xsd:extension base="CT_BookmarkRange">
886             <xsd:attribute name="name" type="s:ST_String" use="required"/>
887         </xsd:extension>
888     </xsd:complexContent>
889 </xsd:complexType>
890 <xsd:complexType name="CT_MoveBookmark">
891     <xsd:complexContent>
892         <xsd:extension base="CT_Bookmark">
893             <xsd:attribute name="author" type="s:ST_String" use="required"/>
894             <xsd:attribute name="date" type="ST_DateTime" use="required"/>
895         </xsd:extension>
896     </xsd:complexContent>
897 </xsd:complexType>
898 <xsd:complexType name="CT_Comment">
899     <xsd:complexContent>
900         <xsd:extension base="CT_TrackChange">
901             <xsd:sequence>
902                 <xsd:group ref="EG_BlockLevelElts" minOccurs="0" maxOccurs="unbounded"/>
903             </xsd:sequence>
904             <xsd:attribute name="initials" type="s:ST_String" use="optional"/>
905         </xsd:extension>
906     </xsd:complexContent>
907 </xsd:complexType>
908 <xsd:complexType name="CT_TrackChangeNumbering">
909     <xsd:complexContent>
910         <xsd:extension base="CT_TrackChange">
911             <xsd:attribute name="original" type="s:ST_String" use="optional"/>
912         </xsd:extension>
913     </xsd:complexContent>
914 </xsd:complexType>
915 <xsd:complexType name="CT_TblPrExChange">
916     <xsd:complexContent>
917         <xsd:extension base="CT_TrackChange">
918             <xsd:sequence>
919                 <xsd:element name="tblPrEx" type="CT_TblPrExBase" minOccurs="1"/>
920             </xsd:sequence>
921         </xsd:extension>
922     </xsd:complexContent>
923 </xsd:complexType>
924 <xsd:complexType name="CT_TcPrChange">
925     <xsd:complexContent>
926         <xsd:extension base="CT_TrackChange">
927             <xsd:sequence>
928                 <xsd:element name="tcPr" type="CT_TcPrInner" minOccurs="1"/>
929             </xsd:sequence>
930         </xsd:extension>
931     </xsd:complexContent>
932 </xsd:complexType>
933 <xsd:complexType name="CT_TrPrChange">

```



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934     <xsd:complexContent>
935         <xsd:extension base="CT_TrackChange">
936             <xsd:sequence>
937                 <xsd:element name="trPr" type="CT_TrPrBase" minOccurs="1"/>
938             </xsd:sequence>
939         </xsd:extension>
940     </xsd:complexContent>
941 </xsd:complexType>
942 <xsd:complexType name="CT_TblGridChange">
943     <xsd:complexContent>
944         <xsd:extension base="CT_Markup">
945             <xsd:sequence>
946                 <xsd:element name="tblGrid" type="CT_TblGridBase"/>
947             </xsd:sequence>
948         </xsd:extension>
949     </xsd:complexContent>
950 </xsd:complexType>
951 <xsd:complexType name="CT_TblPrChange">
952     <xsd:complexContent>
953         <xsd:extension base="CT_TrackChange">
954             <xsd:sequence>
955                 <xsd:element name="tblPr" type="CT_TblPrBase"/>
956             </xsd:sequence>
957         </xsd:extension>
958     </xsd:complexContent>
959 </xsd:complexType>
960 <xsd:complexType name="CT_SectPrChange">
961     <xsd:complexContent>
962         <xsd:extension base="CT_TrackChange">
963             <xsd:sequence>
964                 <xsd:element name="sectPr" type="CT_SectPrBase" minOccurs="0"/>
965             </xsd:sequence>
966         </xsd:extension>
967     </xsd:complexContent>
968 </xsd:complexType>
969 <xsd:complexType name="CT_PPrChange">
970     <xsd:complexContent>
971         <xsd:extension base="CT_TrackChange">
972             <xsd:sequence>
973                 <xsd:element name="pPr" type="CT_PPrBase" minOccurs="1"/>
974             </xsd:sequence>
975         </xsd:extension>
976     </xsd:complexContent>
977 </xsd:complexType>
978 <xsd:complexType name="CT_RPrChange">
979     <xsd:complexContent>
980         <xsd:extension base="CT_TrackChange">
981             <xsd:sequence>
982                 <xsd:element name="rPr" type="CT_RPrOriginal" minOccurs="1"/>
983             </xsd:sequence>
984         </xsd:extension>
985     </xsd:complexContent>
986 </xsd:complexType>

```



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987 <xsd:complexType name="CT_ParaPrChange">
988   <xsd:complexContent>
989     <xsd:extension base="CT_TrackChange">
990       <xsd:sequence>
991         <xsd:element name="rPr" type="CT_ParaPrOriginal" minOccurs="1"/>
992       </xsd:sequence>
993     </xsd:extension>
994   </xsd:complexContent>
995 </xsd:complexType>
996 <xsd:complexType name="CT_RunTrackChange">
997   <xsd:complexContent>
998     <xsd:extension base="CT_TrackChange">
999       <xsd:choice minOccurs="0" maxOccurs="unbounded">
1000         <xsd:group ref="EG_ContentRunContent"/>
1001         <xsd:group ref="m:EG_OMathMathElements"/>
1002       </xsd:choice>
1003     </xsd:extension>
1004   </xsd:complexContent>
1005 </xsd:complexType>
1006 <xsd:group name="EG_PContentMath">
1007   <xsd:choice>
1008     <xsd:group ref="EG_PContentBase" minOccurs="0" maxOccurs="unbounded" />
1009     <xsd:group ref="EG_ContentRunContentBase" minOccurs="0"
1010       maxOccurs="unbounded" />
1011   </xsd:choice>
1012 </xsd:group>
1013 <xsd:group name="EG_PContentBase">
1014   <xsd:choice>
1015     <xsd:element name="customXml" type="CT_CustomXmlRun"/>
1016     <xsd:element name="fldSimple" type="CT_SimpleField" minOccurs="0"
1017       maxOccurs="unbounded"/>
1018     <xsd:element name="hyperlink" type="CT_Hyperlink"/>
1019   </xsd:choice>
1020 </xsd:group>
1021 <xsd:group name="EG_ContentRunContentBase">
1022   <xsd:choice>
1023     <xsd:element name="smartTag" type="CT_SmartTagRun"/>
1024     <xsd:element name="sdt" type="CT_SdtRun"/>
1025     <xsd:group ref="EG_RunLevelElts" minOccurs="0" maxOccurs="unbounded" />
1026   </xsd:choice>
1027 </xsd:group>
1028 <xsd:group name="EG_CellMarkupElements">
1029   <xsd:choice>
1030     <xsd:element name="cellIns" type="CT_TrackChange" minOccurs="0"/>
1031     <xsd:element name="cellDel" type="CT_TrackChange" minOccurs="0"/>
1032     <xsd:element name="cellMerge" type="CT_CellMergeTrackChange" minOccurs="0"/>
1033   </xsd:choice>
1034 </xsd:group>
1035 <xsd:group name="EG_RangeMarkupElements">
1036   <xsd:choice>
1037     <xsd:element name="bookmarkStart" type="CT_Bookmark"/>
1038     <xsd:element name="bookmarkEnd" type="CT_MarkupRange"/>
1039     <xsd:element name="moveFromRangeStart" type="CT_MoveBookmark"/>

```



```

1040     <xsd:element name="moveFromRangeEnd" type="CT_MarkupRange"/>
1041     <xsd:element name="moveToRangeStart" type="CT_MoveBookmark"/>
1042     <xsd:element name="moveToRangeEnd" type="CT_MarkupRange"/>
1043     <xsd:element name="commentRangeStart" type="CT_MarkupRange"/>
1044     <xsd:element name="commentRangeEnd" type="CT_MarkupRange"/>
1045     <xsd:element name="customXmlInsRangeStart" type="CT_TrackChange"/>
1046     <xsd:element name="customXmlInsRangeEnd" type="CT_Markup"/>
1047     <xsd:element name="customXmlDelRangeStart" type="CT_TrackChange"/>
1048     <xsd:element name="customXmlDelRangeEnd" type="CT_Markup"/>
1049     <xsd:element name="customXmlMoveFromRangeStart" type="CT_TrackChange"/>
1050     <xsd:element name="customXmlMoveFromRangeEnd" type="CT_Markup"/>
1051     <xsd:element name="customXmlMoveToRangeStart" type="CT_TrackChange"/>
1052     <xsd:element name="customXmlMoveToRangeEnd" type="CT_Markup"/>
1053   </xsd:choice>
1054 </xsd:group>
1055 <xsd:complexType name="CT_NumPr">
1056   <xsd:sequence>
1057     <xsd:element name="ilvl" type="CT_DecimalNumber" minOccurs="0"/>
1058     <xsd:element name="numId" type="CT_DecimalNumber" minOccurs="0"/>
1059     <xsd:element name="numberingChange" type="CT_TrackChangeNumbering" minOccurs="0"/>
1060     <xsd:element name="ins" type="CT_TrackChange" minOccurs="0"/>
1061   </xsd:sequence>
1062 </xsd:complexType>
1063 <xsd:complexType name="CT_PBdr">
1064   <xsd:sequence>
1065     <xsd:element name="top" type="CT_Border" minOccurs="0"/>
1066     <xsd:element name="left" type="CT_Border" minOccurs="0"/>
1067     <xsd:element name="bottom" type="CT_Border" minOccurs="0"/>
1068     <xsd:element name="right" type="CT_Border" minOccurs="0"/>
1069     <xsd:element name="between" type="CT_Border" minOccurs="0"/>
1070     <xsd:element name="bar" type="CT_Border" minOccurs="0"/>
1071   </xsd:sequence>
1072 </xsd:complexType>
1073 <xsd:complexType name="CT_Tabs">
1074   <xsd:sequence>
1075     <xsd:element name="tab" type="CT_TabStop" minOccurs="1" maxOccurs="unbounded"/>
1076   </xsd:sequence>
1077 </xsd:complexType>
1078 <xsd:simpleType name="ST_TextboxTightWrap">
1079   <xsd:restriction base="xsd:string">
1080     <xsd:enumeration value="none"/>
1081     <xsd:enumeration value="allLines"/>
1082     <xsd:enumeration value="firstAndLastLine"/>
1083     <xsd:enumeration value="firstLineOnly"/>
1084     <xsd:enumeration value="lastLineOnly"/>
1085   </xsd:restriction>
1086 </xsd:simpleType>
1087 <xsd:complexType name="CT_TextboxTightWrap">
1088   <xsd:attribute name="val" type="ST_TextboxTightWrap" use="required"/>
1089 </xsd:complexType>
1090 <xsd:complexType name="CT_PPr">
1091   <xsd:complexContent>
1092     <xsd:extension base="CT_PPrBase">

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1093         <xsd:sequence>
1094             <xsd:element name="rPr" type="CT_ParaRPr" minOccurs="0"/>
1095             <xsd:element name="sectPr" type="CT_SectPr" minOccurs="0"/>
1096             <xsd:element name="pPrChange" type="CT_PPrChange" minOccurs="0"/>
1097         </xsd:sequence>
1098     </xsd:extension>
1099 </xsd:complexContent>
1100 </xsd:complexType>
1101 <xsd:complexType name="CT_PPrBase">
1102     <xsd:sequence>
1103         <xsd:element name="pStyle" type="CT_String" minOccurs="0"/>
1104         <xsd:element name="keepNext" type="CT_OnOff" minOccurs="0"/>
1105         <xsd:element name="keepLines" type="CT_OnOff" minOccurs="0"/>
1106         <xsd:element name="pageBreakBefore" type="CT_OnOff" minOccurs="0"/>
1107         <xsd:element name="framePr" type="CT_FramePr" minOccurs="0"/>
1108         <xsd:element name="widowControl" type="CT_OnOff" minOccurs="0"/>
1109         <xsd:element name="numPr" type="CT_NumPr" minOccurs="0"/>
1110         <xsd:element name="suppressLineNumbers" type="CT_OnOff" minOccurs="0"/>
1111         <xsd:element name="pBdr" type="CT_PBdr" minOccurs="0"/>
1112         <xsd:element name="shd" type="CT_Shdt" minOccurs="0"/>
1113         <xsd:element name="tabs" type="CT_Tabs" minOccurs="0"/>
1114         <xsd:element name="suppressAutoHyphens" type="CT_OnOff" minOccurs="0"/>
1115         <xsd:element name="kinsoku" type="CT_OnOff" minOccurs="0"/>
1116         <xsd:element name="wordWrap" type="CT_OnOff" minOccurs="0"/>
1117         <xsd:element name="overflowPunct" type="CT_OnOff" minOccurs="0"/>
1118         <xsd:element name="topLinePunct" type="CT_OnOff" minOccurs="0"/>
1119         <xsd:element name="autoSpaceDE" type="CT_OnOff" minOccurs="0"/>
1120         <xsd:element name="autoSpaceDN" type="CT_OnOff" minOccurs="0"/>
1121         <xsd:element name="bidi" type="CT_OnOff" minOccurs="0"/>
1122         <xsd:element name="adjustRightInd" type="CT_OnOff" minOccurs="0"/>
1123         <xsd:element name="snapToGrid" type="CT_OnOff" minOccurs="0"/>
1124         <xsd:element name="spacing" type="CT_Spacing" minOccurs="0"/>
1125         <xsd:element name="ind" type="CT_Ind" minOccurs="0"/>
1126         <xsd:element name="contextualSpacing" type="CT_OnOff" minOccurs="0"/>
1127         <xsd:element name="mirrorIndents" type="CT_OnOff" minOccurs="0"/>
1128         <xsd:element name="suppressOverlap" type="CT_OnOff" minOccurs="0"/>
1129         <xsd:element name="jc" type="CT_Jc" minOccurs="0"/>
1130         <xsd:element name="textDirection" type="CT_TextDirection" minOccurs="0"/>
1131         <xsd:element name="textAlignment" type="CT_TextAlignment" minOccurs="0"/>
1132         <xsd:element name="textboxTightWrap" type="CT_TextboxTightWrap" minOccurs="0"/>
1133         <xsd:element name="outlineLvl" type="CT_DecimalNumber" minOccurs="0"/>
1134         <xsd:element name="divId" type="CT_DecimalNumber" minOccurs="0"/>
1135         <xsd:element name="cnfStyle" type="CT_Cnf" minOccurs="0" maxOccurs="1"/>
1136     </xsd:sequence>
1137 </xsd:complexType>
1138 <xsd:complexType name="CT_PPrGeneral">
1139     <xsd:complexContent>
1140         <xsd:extension base="CT_PPrBase">
1141             <xsd:sequence>
1142                 <xsd:element name="pPrChange" type="CT_PPrChange" minOccurs="0"/>
1143             </xsd:sequence>
1144         </xsd:extension>
1145     </xsd:complexContent>

```



```

1146 </xsd:complexType>
1147 <xsd:complexType name="CT_Control">
1148   <xsd:attribute name="name" type="s:ST_String" use="optional"/>
1149   <xsd:attribute name="shapeid" type="s:ST_String" use="optional"/>
1150   <xsd:attribute ref="r:id" use="optional"/>
1151 </xsd:complexType>
1152 <xsd:complexType name="CT_Background">
1153   <xsd:sequence>
1154     <xsd:sequence maxOccurs="unbounded">
1155       <xsd:any processContents="lax" namespace="urn:schemas-microsoft-com:vml" minOccurs="0"
1156         maxOccurs="unbounded"/>
1157       <xsd:any processContents="lax" namespace="urn:schemas-microsoft-com:office:office"
1158         minOccurs="0" maxOccurs="unbounded"/>
1159     </xsd:sequence>
1160     <xsd:element name="drawing" type="CT_Drawing" minOccurs="0"/>
1161   </xsd:sequence>
1162   <xsd:attribute name="color" type="ST_HexColor" use="optional" default="auto"/>
1163   <xsd:attribute name="themeColor" type="ST_ThemeColor" use="optional"/>
1164   <xsd:attribute name="themeTint" type="ST_UcharHexNumber" use="optional"/>
1165   <xsd:attribute name="themeShade" type="ST_UcharHexNumber" use="optional"/>
1166 </xsd:complexType>
1167 <xsd:complexType name="CT_Rel">
1168   <xsd:attribute ref="r:id" use="required"/>
1169 </xsd:complexType>
1170 <xsd:complexType name="CT_Object">
1171   <xsd:sequence>
1172     <xsd:sequence maxOccurs="unbounded">
1173       <xsd:any processContents="lax" namespace="urn:schemas-microsoft-com:vml" minOccurs="0"
1174         maxOccurs="unbounded"/>
1175       <xsd:any processContents="lax" namespace="urn:schemas-microsoft-com:office:office"
1176         minOccurs="0" maxOccurs="unbounded"/>
1177     </xsd:sequence>
1178     <xsd:element name="drawing" type="CT_Drawing" minOccurs="0"/>
1179     <xsd:choice minOccurs="0">
1180       <xsd:element name="control" type="CT_Control"/>
1181       <xsd:element name="objectLink" type="CT_ObjectLink"/>
1182       <xsd:element name="objectEmbed" type="CT_ObjectEmbed"/>
1183       <xsd:element name="movie" type="CT_Rel"/>
1184     </xsd:choice>
1185   </xsd:sequence>
1186   <xsd:attribute name="dxaOrig" type="s:ST_TwipsMeasure" use="optional"/>
1187   <xsd:attribute name="dyaOrig" type="s:ST_TwipsMeasure" use="optional"/>
1188 </xsd:complexType>
1189 <xsd:complexType name="CT_Picture">
1190   <xsd:sequence>
1191     <xsd:sequence maxOccurs="unbounded">
1192       <xsd:any processContents="lax" namespace="urn:schemas-microsoft-com:vml" minOccurs="0"
1193         maxOccurs="unbounded"/>
1194       <xsd:any processContents="lax" namespace="urn:schemas-microsoft-com:office:office"
1195         minOccurs="0" maxOccurs="unbounded"/>
1196     </xsd:sequence>
1197     <xsd:element name="movie" type="CT_Rel" minOccurs="0"/>
1198     <xsd:element name="control" type="CT_Control" minOccurs="0"/>

```



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1199     </xsd:sequence>
1200 </xsd:complexType>
1201 <xsd:complexType name="CT_ObjectEmbed">
1202     <xsd:attribute name="drawAspect" type="ST_ObjectDrawAspect" use="optional"/>
1203     <xsd:attribute ref="r:id" use="required"/>
1204     <xsd:attribute name="progId" type="s:ST_String" use="optional"/>
1205     <xsd:attribute name="shapeId" type="s:ST_String" use="optional"/>
1206     <xsd:attribute name="fieldCodes" type="s:ST_String" use="optional"/>
1207 </xsd:complexType>
1208 <xsd:simpleType name="ST_ObjectDrawAspect">
1209     <xsd:restriction base="xsd:string">
1210         <xsd:enumeration value="content"/>
1211         <xsd:enumeration value="icon"/>
1212     </xsd:restriction>
1213 </xsd:simpleType>
1214 <xsd:complexType name="CT_ObjectLink">
1215     <xsd:complexContent>
1216         <xsd:extension base="CT_ObjectEmbed">
1217             <xsd:attribute name="updateMode" type="ST_ObjectUpdateMode" use="required"/>
1218             <xsd:attribute name="lockedField" type="s:ST_OnOff" use="optional"/>
1219         </xsd:extension>
1220     </xsd:complexContent>
1221 </xsd:complexType>
1222 <xsd:simpleType name="ST_ObjectUpdateMode">
1223     <xsd:restriction base="xsd:string">
1224         <xsd:enumeration value="always"/>
1225         <xsd:enumeration value="onCall"/>
1226     </xsd:restriction>
1227 </xsd:simpleType>
1228 <xsd:complexType name="CT_Drawing">
1229     <xsd:choice minOccurs="1" maxOccurs="unbounded">
1230         <xsd:element ref="wp:anchor" minOccurs="0"/>
1231         <xsd:element ref="wp:inline" minOccurs="0"/>
1232     </xsd:choice>
1233 </xsd:complexType>
1234 <xsd:complexType name="CT_SimpleField">
1235     <xsd:sequence>
1236         <xsd:element name="fldData" type="CT_Text" minOccurs="0" maxOccurs="1"/>
1237         <xsd:group ref="EG_PContent" minOccurs="0" maxOccurs="unbounded"/>
1238     </xsd:sequence>
1239     <xsd:attribute name="instr" type="s:ST_String" use="required"/>
1240     <xsd:attribute name="fldLock" type="s:ST_OnOff"/>
1241     <xsd:attribute name="dirty" type="s:ST_OnOff"/>
1242 </xsd:complexType>
1243 <xsd:simpleType name="ST_FldCharType">
1244     <xsd:restriction base="xsd:string">
1245         <xsd:enumeration value="begin"/>
1246         <xsd:enumeration value="separate"/>
1247         <xsd:enumeration value="end"/>
1248     </xsd:restriction>
1249 </xsd:simpleType>
1250 <xsd:simpleType name="ST_InfoTextType">
1251     <xsd:restriction base="xsd:string">

```



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1252         <xsd:enumeration value="text"/>
1253         <xsd:enumeration value="autoText"/>
1254     </xsd:restriction>
1255 </xsd:simpleType>
1256 <xsd:simpleType name="ST_FFHelpTextVal">
1257     <xsd:restriction base="xsd:string">
1258         <xsd:maxLength value="256"/>
1259     </xsd:restriction>
1260 </xsd:simpleType>
1261 <xsd:simpleType name="ST_FFStatusTextVal">
1262     <xsd:restriction base="xsd:string">
1263         <xsd:maxLength value="140"/>
1264     </xsd:restriction>
1265 </xsd:simpleType>
1266 <xsd:simpleType name="ST_FFName">
1267     <xsd:restriction base="xsd:string">
1268         <xsd:maxLength value="65"/>
1269     </xsd:restriction>
1270 </xsd:simpleType>
1271 <xsd:simpleType name="ST_FFTextType">
1272     <xsd:restriction base="xsd:string">
1273         <xsd:enumeration value="regular"/>
1274         <xsd:enumeration value="number"/>
1275         <xsd:enumeration value="date"/>
1276         <xsd:enumeration value="currentTime"/>
1277         <xsd:enumeration value="currentDate"/>
1278         <xsd:enumeration value="calculated"/>
1279     </xsd:restriction>
1280 </xsd:simpleType>
1281 <xsd:complexType name="CT_FFTextType">
1282     <xsd:attribute name="val" type="ST_FFTextType" use="required"/>
1283 </xsd:complexType>
1284 <xsd:complexType name="CT_FFName">
1285     <xsd:attribute name="val" type="ST_FFName"/>
1286 </xsd:complexType>
1287 <xsd:complexType name="CT_FldChar">
1288     <xsd:choice>
1289         <xsd:element name="fldData" type="CT_Text" minOccurs="0" maxOccurs="1"/>
1290         <xsd:element name="ffData" type="CT_FFData" minOccurs="0" maxOccurs="1"/>
1291         <xsd:element name="numberingChange" type="CT_TrackChangeNumbering" minOccurs="0"/>
1292     </xsd:choice>
1293     <xsd:attribute name="fldCharType" type="ST_FldCharType" use="required"/>
1294     <xsd:attribute name="fldLock" type="s:ST_OnOff"/>
1295     <xsd:attribute name="dirty" type="s:ST_OnOff"/>
1296 </xsd:complexType>
1297 <xsd:complexType name="CT_Hyperlink">
1298     <xsd:group ref="EG_PContent" minOccurs="0" maxOccurs="unbounded"/>
1299     <xsd:attribute name="tgtFrame" type="s:ST_String" use="optional"/>
1300     <xsd:attribute name="tooltip" type="s:ST_String" use="optional"/>
1301     <xsd:attribute name="docLocation" type="s:ST_String" use="optional"/>
1302     <xsd:attribute name="history" type="s:ST_OnOff" use="optional"/>
1303     <xsd:attribute name="anchor" type="s:ST_String" use="optional"/>
1304     <xsd:attribute ref="r:id"/>

```



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1305 </xsd:complexType>
1306 <xsd:complexType name="CT_FFData">
1307   <xsd:choice maxOccurs="unbounded">
1308     <xsd:element name="name" type="CT_FFName"/>
1309     <xsd:element name="label" type="CT_DecimalNumber" minOccurs="0"/>
1310     <xsd:element name="tabIndex" type="CT_UnsignedDecimalNumber" minOccurs="0"/>
1311     <xsd:element name="enabled" type="CT_OnOff"/>
1312     <xsd:element name="calcOnExit" type="CT_OnOff"/>
1313     <xsd:element name="entryMacro" type="CT_MacroName" minOccurs="0" maxOccurs="1"/>
1314     <xsd:element name="exitMacro" type="CT_MacroName" minOccurs="0" maxOccurs="1"/>
1315     <xsd:element name="helpText" type="CT_FFHelpText" minOccurs="0" maxOccurs="1"/>
1316     <xsd:element name="statusText" type="CT_FFStatusText" minOccurs="0" maxOccurs="1"/>
1317     <xsd:choice>
1318       <xsd:element name="checkBox" type="CT_FFCheckBox"/>
1319       <xsd:element name="ddList" type="CT_FFDDList"/>
1320       <xsd:element name="textInput" type="CT_FFTextInput"/>
1321     </xsd:choice>
1322   </xsd:choice>
1323 </xsd:complexType>
1324 <xsd:complexType name="CT_FFHelpText">
1325   <xsd:attribute name="type" type="ST_InfoTextType"/>
1326   <xsd:attribute name="val" type="ST_FFHelpTextVal"/>
1327 </xsd:complexType>
1328 <xsd:complexType name="CT_FFStatusText">
1329   <xsd:attribute name="type" type="ST_InfoTextType"/>
1330   <xsd:attribute name="val" type="ST_FFStatusTextVal"/>
1331 </xsd:complexType>
1332 <xsd:complexType name="CT_FFCheckBox">
1333   <xsd:sequence>
1334     <xsd:choice>
1335       <xsd:element name="size" type="CT_HpsMeasure"/>
1336       <xsd:element name="sizeAuto" type="CT_OnOff"/>
1337     </xsd:choice>
1338     <xsd:element name="default" type="CT_OnOff" minOccurs="0"/>
1339     <xsd:element name="checked" type="CT_OnOff" minOccurs="0"/>
1340   </xsd:sequence>
1341 </xsd:complexType>
1342 <xsd:complexType name="CT_FFDDList">
1343   <xsd:sequence>
1344     <xsd:element name="result" type="CT_DecimalNumber" minOccurs="0"/>
1345     <xsd:element name="default" type="CT_DecimalNumber" minOccurs="0"/>
1346     <xsd:element name="listEntry" type="CT_String" minOccurs="0" maxOccurs="unbounded"/>
1347   </xsd:sequence>
1348 </xsd:complexType>
1349 <xsd:complexType name="CT_FFTextInput">
1350   <xsd:sequence>
1351     <xsd:element name="type" type="CT_FFTextType" minOccurs="0"/>
1352     <xsd:element name="default" type="CT_String" minOccurs="0"/>
1353     <xsd:element name="maxLength" type="CT_DecimalNumber" minOccurs="0"/>
1354     <xsd:element name="format" type="CT_String" minOccurs="0"/>
1355   </xsd:sequence>
1356 </xsd:complexType>
1357 <xsd:simpleType name="ST_SectionMark">

```



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1358     <xsd:restriction base="xsd:string">
1359         <xsd:enumeration value="nextPage"/>
1360         <xsd:enumeration value="nextColumn"/>
1361         <xsd:enumeration value="continuous"/>
1362         <xsd:enumeration value="evenPage"/>
1363         <xsd:enumeration value="oddPage"/>
1364     </xsd:restriction>
1365 </xsd:simpleType>
1366 <xsd:complexType name="CT_SectType">
1367     <xsd:attribute name="val" type="ST_SectionMark"/>
1368 </xsd:complexType>
1369 <xsd:complexType name="CT_PaperSource">
1370     <xsd:attribute name="first" type="ST_DecimalNumber"/>
1371     <xsd:attribute name="other" type="ST_DecimalNumber"/>
1372 </xsd:complexType>
1373 <xsd:simpleType name="ST_NumberFormat">
1374     <xsd:restriction base="xsd:string">
1375         <xsd:enumeration value="decimal"/>
1376         <xsd:enumeration value="upperRoman"/>
1377         <xsd:enumeration value="lowerRoman"/>
1378         <xsd:enumeration value="upperLetter"/>
1379         <xsd:enumeration value="lowerLetter"/>
1380         <xsd:enumeration value="ordinal"/>
1381         <xsd:enumeration value="cardinalText"/>
1382         <xsd:enumeration value="ordinalText"/>
1383         <xsd:enumeration value="hex"/>
1384         <xsd:enumeration value="chicago"/>
1385         <xsd:enumeration value="ideographDigital"/>
1386         <xsd:enumeration value="japaneseCounting"/>
1387         <xsd:enumeration value="aiueo"/>
1388         <xsd:enumeration value="iroha"/>
1389         <xsd:enumeration value="decimalFullWidth"/>
1390         <xsd:enumeration value="decimalHalfWidth"/>
1391         <xsd:enumeration value="japaneseLegal"/>
1392         <xsd:enumeration value="japaneseDigitalTenThousand"/>
1393         <xsd:enumeration value="decimalEnclosedCircle"/>
1394         <xsd:enumeration value="decimalFullWidth2"/>
1395         <xsd:enumeration value="aiueoFullWidth"/>
1396         <xsd:enumeration value="irohaFullWidth"/>
1397         <xsd:enumeration value="decimalZero"/>
1398         <xsd:enumeration value="bullet"/>
1399         <xsd:enumeration value="ganada"/>
1400         <xsd:enumeration value="chosung"/>
1401         <xsd:enumeration value="decimalEnclosedFullstop"/>
1402         <xsd:enumeration value="decimalEnclosedParen"/>
1403         <xsd:enumeration value="decimalEnclosedCircleChinese"/>
1404         <xsd:enumeration value="ideographEnclosedCircle"/>
1405         <xsd:enumeration value="ideographTraditional"/>
1406         <xsd:enumeration value="ideographZodiac"/>
1407         <xsd:enumeration value="ideographZodiacTraditional"/>
1408         <xsd:enumeration value="taiwaneseCounting"/>
1409         <xsd:enumeration value="ideographLegalTraditional"/>
1410         <xsd:enumeration value="taiwaneseCountingThousand"/>

```



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1411     <xsd:enumeration value="taiwaneseDigital"/>
1412     <xsd:enumeration value="chineseCounting"/>
1413     <xsd:enumeration value="chineseLegalSimplified"/>
1414     <xsd:enumeration value="chineseCountingThousand"/>
1415     <xsd:enumeration value="koreanDigital"/>
1416     <xsd:enumeration value="koreanCounting"/>
1417     <xsd:enumeration value="koreanLegal"/>
1418     <xsd:enumeration value="koreanDigital2"/>
1419     <xsd:enumeration value="vietnameseCounting"/>
1420     <xsd:enumeration value="russianLower"/>
1421     <xsd:enumeration value="russianUpper"/>
1422     <xsd:enumeration value="none"/>
1423     <xsd:enumeration value="numberInDash"/>
1424     <xsd:enumeration value="hebrew1"/>
1425     <xsd:enumeration value="hebrew2"/>
1426     <xsd:enumeration value="arabicAlpha"/>
1427     <xsd:enumeration value="arabicAbjad"/>
1428     <xsd:enumeration value="hindiVowels"/>
1429     <xsd:enumeration value="hindiConsonants"/>
1430     <xsd:enumeration value="hindiNumbers"/>
1431     <xsd:enumeration value="hindiCounting"/>
1432     <xsd:enumeration value="thaiLetters"/>
1433     <xsd:enumeration value="thaiNumbers"/>
1434     <xsd:enumeration value="thaiCounting"/>
1435     <xsd:enumeration value="bahtText"/>
1436     <xsd:enumeration value="dollarText"/>
1437     <xsd:enumeration value="custom"/>
1438   </xsd:restriction>
1439 </xsd:simpleType>
1440 <xsd:simpleType name="ST_PageOrientation">
1441   <xsd:restriction base="xsd:string">
1442     <xsd:enumeration value="portrait"/>
1443     <xsd:enumeration value="landscape"/>
1444   </xsd:restriction>
1445 </xsd:simpleType>
1446 <xsd:complexType name="CT_PageSz">
1447   <xsd:attribute name="w" type="s:ST_TwipsMeasure"/>
1448   <xsd:attribute name="h" type="s:ST_TwipsMeasure"/>
1449   <xsd:attribute name="orient" type="ST_PageOrientation" use="optional"/>
1450   <xsd:attribute name="code" type="ST_DecimalNumber" use="optional"/>
1451 </xsd:complexType>
1452 <xsd:complexType name="CT_PageMar">
1453   <xsd:attribute name="top" type="ST_SignedTwipsMeasure" use="required"/>
1454   <xsd:attribute name="right" type="s:ST_TwipsMeasure" use="required"/>
1455   <xsd:attribute name="bottom" type="ST_SignedTwipsMeasure" use="required"/>
1456   <xsd:attribute name="left" type="s:ST_TwipsMeasure" use="required"/>
1457   <xsd:attribute name="header" type="s:ST_TwipsMeasure" use="required"/>
1458   <xsd:attribute name="footer" type="s:ST_TwipsMeasure" use="required"/>
1459   <xsd:attribute name="gutter" type="s:ST_TwipsMeasure" use="required"/>
1460 </xsd:complexType>
1461 <xsd:simpleType name="ST_PageBorderZOrder">
1462   <xsd:restriction base="xsd:string">
1463     <xsd:enumeration value="front"/>

```



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1464         <xsd:enumeration value="back"/>
1465     </xsd:restriction>
1466 </xsd:simpleType>
1467 <xsd:simpleType name="ST_PageBorderDisplay">
1468     <xsd:restriction base="xsd:string">
1469         <xsd:enumeration value="allPages"/>
1470         <xsd:enumeration value="firstPage"/>
1471         <xsd:enumeration value="notFirstPage"/>
1472     </xsd:restriction>
1473 </xsd:simpleType>
1474 <xsd:simpleType name="ST_PageBorderOffset">
1475     <xsd:restriction base="xsd:string">
1476         <xsd:enumeration value="page"/>
1477         <xsd:enumeration value="text"/>
1478     </xsd:restriction>
1479 </xsd:simpleType>
1480 <xsd:complexType name="CT_PageBorders">
1481     <xsd:sequence>
1482         <xsd:element name="top" type="CT_TopPageBorder" minOccurs="0"/>
1483         <xsd:element name="left" type="CT_PageBorder" minOccurs="0"/>
1484         <xsd:element name="bottom" type="CT_BottomPageBorder" minOccurs="0"/>
1485         <xsd:element name="right" type="CT_PageBorder" minOccurs="0"/>
1486     </xsd:sequence>
1487     <xsd:attribute name="zOrder" type="ST_PageBorderZOrder" use="optional" default="front"/>
1488     <xsd:attribute name="display" type="ST_PageBorderDisplay" use="optional"/>
1489     <xsd:attribute name="offsetFrom" type="ST_PageBorderOffset" use="optional" default="text"/>
1490 </xsd:complexType>
1491 <xsd:complexType name="CT_PageBorder">
1492     <xsd:complexContent>
1493         <xsd:extension base="CT_Border">
1494             <xsd:attribute ref="r:id" use="optional"/>
1495         </xsd:extension>
1496     </xsd:complexContent>
1497 </xsd:complexType>
1498 <xsd:complexType name="CT_BottomPageBorder">
1499     <xsd:complexContent>
1500         <xsd:extension base="CT_PageBorder">
1501             <xsd:attribute ref="r:bottomLeft" use="optional"/>
1502             <xsd:attribute ref="r:bottomRight" use="optional"/>
1503         </xsd:extension>
1504     </xsd:complexContent>
1505 </xsd:complexType>
1506 <xsd:complexType name="CT_TopPageBorder">
1507     <xsd:complexContent>
1508         <xsd:extension base="CT_PageBorder">
1509             <xsd:attribute ref="r:topLeft" use="optional"/>
1510             <xsd:attribute ref="r:topRight" use="optional"/>
1511         </xsd:extension>
1512     </xsd:complexContent>
1513 </xsd:complexType>
1514 <xsd:simpleType name="ST_ChapterSep">
1515     <xsd:restriction base="xsd:string">
1516         <xsd:enumeration value="hyphen"/>

```



```

1517         <xsd:enumeration value="period"/>
1518         <xsd:enumeration value="colon"/>
1519         <xsd:enumeration value="emDash"/>
1520         <xsd:enumeration value="enDash"/>
1521     </xsd:restriction>
1522 </xsd:simpleType>
1523 <xsd:simpleType name="ST_LineNumberRestart">
1524     <xsd:restriction base="xsd:string">
1525         <xsd:enumeration value="newPage"/>
1526         <xsd:enumeration value="newSection"/>
1527         <xsd:enumeration value="continuous"/>
1528     </xsd:restriction>
1529 </xsd:simpleType>
1530 <xsd:complexType name="CT_LineNumber">
1531     <xsd:attribute name="countBy" type="ST_DecimalNumber" use="optional"/>
1532     <xsd:attribute name="start" type="ST_DecimalNumber" use="optional" default="1"/>
1533     <xsd:attribute name="distance" type="s:ST_TwipsMeasure" use="optional"/>
1534     <xsd:attribute name="restart" type="ST_LineNumberRestart" use="optional" default="newPage"/>
1535 </xsd:complexType>
1536 <xsd:complexType name="CT_PageNumber">
1537     <xsd:attribute name="fmt" type="ST_NumberFormat" use="optional" default="decimal"/>
1538     <xsd:attribute name="start" type="ST_DecimalNumber" use="optional"/>
1539     <xsd:attribute name="chapStyle" type="ST_DecimalNumber" use="optional"/>
1540     <xsd:attribute name="chapSep" type="ST_ChapterSep" use="optional" default="hyphen"/>
1541 </xsd:complexType>
1542 <xsd:complexType name="CT_Column">
1543     <xsd:attribute name="w" type="s:ST_TwipsMeasure" use="optional"/>
1544     <xsd:attribute name="space" type="s:ST_TwipsMeasure" use="optional" default="0"/>
1545 </xsd:complexType>
1546 <xsd:complexType name="CT_Columns">
1547     <xsd:sequence minOccurs="0">
1548         <xsd:element name="col" type="CT_Column" maxOccurs="45"/>
1549     </xsd:sequence>
1550     <xsd:attribute name="equalWidth" type="s:ST_OnOff" use="optional"/>
1551     <xsd:attribute name="space" type="s:ST_TwipsMeasure" use="optional" default="720"/>
1552     <xsd:attribute name="num" type="ST_DecimalNumber" use="optional" default="1"/>
1553     <xsd:attribute name="sep" type="s:ST_OnOff" use="optional"/>
1554 </xsd:complexType>
1555 <xsd:simpleType name="ST_VerticalJc">
1556     <xsd:restriction base="xsd:string">
1557         <xsd:enumeration value="top"/>
1558         <xsd:enumeration value="center"/>
1559         <xsd:enumeration value="both"/>
1560         <xsd:enumeration value="bottom"/>
1561     </xsd:restriction>
1562 </xsd:simpleType>
1563 <xsd:complexType name="CT_VerticalJc">
1564     <xsd:attribute name="val" type="ST_VerticalJc" use="required"/>
1565 </xsd:complexType>
1566 <xsd:simpleType name="ST_DocGrid">
1567     <xsd:restriction base="xsd:string">
1568         <xsd:enumeration value="default"/>
1569         <xsd:enumeration value="lines"/>

```



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1570     <xsd:enumeration value="linesAndChars"/>
1571     <xsd:enumeration value="snapToChars"/>
1572 </xsd:restriction>
1573 </xsd:simpleType>
1574 <xsd:complexType name="CT_DocGrid">
1575     <xsd:attribute name="type" type="ST_DocGrid"/>
1576     <xsd:attribute name="linePitch" type="ST_DecimalNumber"/>
1577     <xsd:attribute name="charSpace" type="ST_DecimalNumber"/>
1578 </xsd:complexType>
1579 <xsd:simpleType name="ST_HdrFtr">
1580     <xsd:restriction base="xsd:string">
1581         <xsd:enumeration value="even"/>
1582         <xsd:enumeration value="default"/>
1583         <xsd:enumeration value="first"/>
1584     </xsd:restriction>
1585 </xsd:simpleType>
1586 <xsd:simpleType name="ST_FtnEdn">
1587     <xsd:restriction base="xsd:string">
1588         <xsd:enumeration value="normal"/>
1589         <xsd:enumeration value="separator"/>
1590         <xsd:enumeration value="continuationSeparator"/>
1591         <xsd:enumeration value="continuationNotice"/>
1592     </xsd:restriction>
1593 </xsd:simpleType>
1594 <xsd:complexType name="CT_HdrFtrRef">
1595     <xsd:complexContent>
1596         <xsd:extension base="CT_Rel">
1597             <xsd:attribute name="type" type="ST_HdrFtr" use="required"/>
1598         </xsd:extension>
1599     </xsd:complexContent>
1600 </xsd:complexType>
1601 <xsd:group name="EG_HdrFtrReferences">
1602     <xsd:choice>
1603         <xsd:element name="headerReference" type="CT_HdrFtrRef" minOccurs="0"/>
1604         <xsd:element name="footerReference" type="CT_HdrFtrRef" minOccurs="0"/>
1605     </xsd:choice>
1606 </xsd:group>
1607 <xsd:complexType name="CT_HdrFtr">
1608     <xsd:group ref="EG_BlockLevelElts" minOccurs="1" maxOccurs="unbounded"/>
1609 </xsd:complexType>
1610 <xsd:group name="EG_SectPrContents">
1611     <xsd:sequence>
1612         <xsd:element name="footnotePr" type="CT_FtnProps" minOccurs="0"/>
1613         <xsd:element name="endnotePr" type="CT_EdnProps" minOccurs="0"/>
1614         <xsd:element name="type" type="CT_SectType" minOccurs="0"/>
1615         <xsd:element name="pgSz" type="CT_PageSz" minOccurs="0"/>
1616         <xsd:element name="pgMar" type="CT_PageMar" minOccurs="0"/>
1617         <xsd:element name="paperSrc" type="CT_PaperSource" minOccurs="0"/>
1618         <xsd:element name="pgBorders" type="CT_PageBorders" minOccurs="0"/>
1619         <xsd:element name="lnNumType" type="CT_LineNumber" minOccurs="0"/>
1620         <xsd:element name="pgNumType" type="CT_PageNumber" minOccurs="0"/>
1621         <xsd:element name="cols" type="CT_Columns" minOccurs="0"/>
1622         <xsd:element name="formProt" type="CT_OnOff" minOccurs="0"/>

```



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1623     <xsd:element name="vAlign" type="CT_VericalJc" minOccurs="0"/>
1624     <xsd:element name="noEndnote" type="CT_OnOff" minOccurs="0"/>
1625     <xsd:element name="titlePg" type="CT_OnOff" minOccurs="0"/>
1626     <xsd:element name="textDirection" type="CT_TextDirection" minOccurs="0"/>
1627     <xsd:element name="bidi" type="CT_OnOff" minOccurs="0"/>
1628     <xsd:element name="rtlGutter" type="CT_OnOff" minOccurs="0"/>
1629     <xsd:element name="docGrid" type="CT_DocGrid" minOccurs="0"/>
1630     <xsd:element name="printerSettings" type="CT_Rel" minOccurs="0"/>
1631   </xsd:sequence>
1632 </xsd:group>
1633 <xsd:attributeGroup name="AG_SectPrAttributes">
1634   <xsd:attribute name="rsidRPr" type="ST_LongHexNumber"/>
1635   <xsd:attribute name="rsidDel" type="ST_LongHexNumber"/>
1636   <xsd:attribute name="rsidR" type="ST_LongHexNumber"/>
1637   <xsd:attribute name="rsidSect" type="ST_LongHexNumber"/>
1638 </xsd:attributeGroup>
1639 <xsd:complexType name="CT_SectPrBase">
1640   <xsd:sequence>
1641     <xsd:group ref="EG_SectPrContents" minOccurs="0"/>
1642   </xsd:sequence>
1643   <xsd:attributeGroup ref="AG_SectPrAttributes"/>
1644 </xsd:complexType>
1645 <xsd:complexType name="CT_SectPr">
1646   <xsd:sequence>
1647     <xsd:group ref="EG_HdrFtrReferences" minOccurs="0" maxOccurs="6"/>
1648     <xsd:group ref="EG_SectPrContents" minOccurs="0"/>
1649     <xsd:element name="sectPrChange" type="CT_SectPrChange" minOccurs="0"/>
1650   </xsd:sequence>
1651   <xsd:attributeGroup ref="AG_SectPrAttributes"/>
1652 </xsd:complexType>
1653 <xsd:simpleType name="ST_BrType">
1654   <xsd:restriction base="xsd:string">
1655     <xsd:enumeration value="page"/>
1656     <xsd:enumeration value="column"/>
1657     <xsd:enumeration value="textWrapping"/>
1658   </xsd:restriction>
1659 </xsd:simpleType>
1660 <xsd:simpleType name="ST_BrClear">
1661   <xsd:restriction base="xsd:string">
1662     <xsd:enumeration value="none"/>
1663     <xsd:enumeration value="left"/>
1664     <xsd:enumeration value="right"/>
1665     <xsd:enumeration value="all"/>
1666   </xsd:restriction>
1667 </xsd:simpleType>
1668 <xsd:complexType name="CT_Br">
1669   <xsd:attribute name="type" type="ST_BrType" use="optional"/>
1670   <xsd:attribute name="clear" type="ST_BrClear" use="optional"/>
1671 </xsd:complexType>
1672 <xsd:simpleType name="ST_PTabAlignment">
1673   <xsd:restriction base="xsd:string">
1674     <xsd:enumeration value="left"/>
1675     <xsd:enumeration value="center"/>

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1676         <xsd:enumeration value="right"/>
1677     </xsd:restriction>
1678 </xsd:simpleType>
1679 <xsd:simpleType name="ST_PTabRelativeTo">
1680     <xsd:restriction base="xsd:string">
1681         <xsd:enumeration value="margin"/>
1682         <xsd:enumeration value="indent"/>
1683     </xsd:restriction>
1684 </xsd:simpleType>
1685 <xsd:simpleType name="ST_PTabLeader">
1686     <xsd:restriction base="xsd:string">
1687         <xsd:enumeration value="none"/>
1688         <xsd:enumeration value="dot"/>
1689         <xsd:enumeration value="hyphen"/>
1690         <xsd:enumeration value="underscore"/>
1691         <xsd:enumeration value="middleDot"/>
1692     </xsd:restriction>
1693 </xsd:simpleType>
1694 <xsd:complexType name="CT_PTab">
1695     <xsd:attribute name="alignment" type="ST_PTabAlignment" use="required"/>
1696     <xsd:attribute name="relativeTo" type="ST_PTabRelativeTo" use="required"/>
1697     <xsd:attribute name="leader" type="ST_PTabLeader" use="required"/>
1698 </xsd:complexType>
1699 <xsd:complexType name="CT_Sym">
1700     <xsd:attribute name="font" type="s:ST_String"/>
1701     <xsd:attribute name="char" type="ST_ShortHexNumber"/>
1702 </xsd:complexType>
1703 <xsd:simpleType name="ST_ProofErr">
1704     <xsd:restriction base="xsd:string">
1705         <xsd:enumeration value="spellStart"/>
1706         <xsd:enumeration value="spellEnd"/>
1707         <xsd:enumeration value="gramStart"/>
1708         <xsd:enumeration value="gramEnd"/>
1709     </xsd:restriction>
1710 </xsd:simpleType>
1711 <xsd:complexType name="CT_ProofErr">
1712     <xsd:attribute name="type" type="ST_ProofErr" use="required"/>
1713 </xsd:complexType>
1714 <xsd:simpleType name="ST_EdGrp">
1715     <xsd:restriction base="xsd:string">
1716         <xsd:enumeration value="none"/>
1717         <xsd:enumeration value="everyone"/>
1718         <xsd:enumeration value="administrators"/>
1719         <xsd:enumeration value="contributors"/>
1720         <xsd:enumeration value="editors"/>
1721         <xsd:enumeration value="owners"/>
1722         <xsd:enumeration value="current"/>
1723     </xsd:restriction>
1724 </xsd:simpleType>
1725 <xsd:complexType name="CT_Perm">
1726     <xsd:attribute name="id" type="s:ST_String" use="required"/>
1727     <xsd:attribute name="displacedByCustomXml" type="ST_DisplacedByCustomXml" use="optional"/>
1728 </xsd:complexType>

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1729 <xsd:complexType name="CT_PermStart">
1730   <xsd:complexContent>
1731     <xsd:extension base="CT_Perm">
1732       <xsd:attribute name="edGrp" type="ST_EdGrp" use="optional"/>
1733       <xsd:attribute name="ed" type="s:ST_String" use="optional"/>
1734       <xsd:attribute name="colFirst" type="ST_DecimalNumber" use="optional"/>
1735       <xsd:attribute name="colLast" type="ST_DecimalNumber" use="optional"/>
1736     </xsd:extension>
1737   </xsd:complexContent>
1738 </xsd:complexType>
1739 <xsd:complexType name="CT_Text">
1740   <xsd:simpleContent>
1741     <xsd:extension base="s:ST_String">
1742       <xsd:attribute ref="xml:space" use="optional"/>
1743     </xsd:extension>
1744   </xsd:simpleContent>
1745 </xsd:complexType>
1746 <xsd:group name="EG_RunInnerContent">
1747   <xsd:choice>
1748     <xsd:element name="br" type="CT_Br"/>
1749     <xsd:element name="t" type="CT_Text"/>
1750     <xsd:element name="contentPart" type="CT_Rel"/>
1751     <xsd:element name="delText" type="CT_Text"/>
1752     <xsd:element name="instrText" type="CT_Text"/>
1753     <xsd:element name="delInstrText" type="CT_Text"/>
1754     <xsd:element name="noBreakHyphen" type="CT_Empty"/>
1755     <xsd:element name="softHyphen" type="CT_Empty" minOccurs="0"/>
1756     <xsd:element name="dayShort" type="CT_Empty" minOccurs="0"/>
1757     <xsd:element name="monthShort" type="CT_Empty" minOccurs="0"/>
1758     <xsd:element name="yearShort" type="CT_Empty" minOccurs="0"/>
1759     <xsd:element name="dayLong" type="CT_Empty" minOccurs="0"/>
1760     <xsd:element name="monthLong" type="CT_Empty" minOccurs="0"/>
1761     <xsd:element name="yearLong" type="CT_Empty" minOccurs="0"/>
1762     <xsd:element name="annotationRef" type="CT_Empty" minOccurs="0"/>
1763     <xsd:element name="footnoteRef" type="CT_Empty" minOccurs="0"/>
1764     <xsd:element name="endnoteRef" type="CT_Empty" minOccurs="0"/>
1765     <xsd:element name="separator" type="CT_Empty" minOccurs="0"/>
1766     <xsd:element name="continuationSeparator" type="CT_Empty" minOccurs="0"/>
1767     <xsd:element name="sym" type="CT_Sym" minOccurs="0"/>
1768     <xsd:element name="pgNum" type="CT_Empty" minOccurs="0"/>
1769     <xsd:element name="cr" type="CT_Empty" minOccurs="0"/>
1770     <xsd:element name="tab" type="CT_Empty" minOccurs="0"/>
1771     <xsd:element name="object" type="CT_Object"/>
1772     <xsd:element name="pict" type="CT_Picture"/>
1773     <xsd:element name="fldChar" type="CT_FldChar"/>
1774     <xsd:element name="ruby" type="CT_Ruby"/>
1775     <xsd:element name="footnoteReference" type="CT_FtnEdnRef"/>
1776     <xsd:element name="endnoteReference" type="CT_FtnEdnRef"/>
1777     <xsd:element name="commentReference" type="CT_Markup"/>
1778     <xsd:element name="drawing" type="CT_Drawing"/>
1779     <xsd:element name="ptab" type="CT_PTab" minOccurs="0"/>
1780     <xsd:element name="lastRenderedPageBreak" type="CT_Empty" minOccurs="0" maxOccurs="1"/>
1781   </xsd:choice>

```



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1782 </xsd:group>
1783 <xsd:complexType name="CT_R">
1784   <xsd:sequence>
1785     <xsd:group ref="EG_RPr" minOccurs="0"/>
1786     <xsd:group ref="EG_RunInnerContent" minOccurs="0" maxOccurs="unbounded"/>
1787   </xsd:sequence>
1788   <xsd:attribute name="rsidRPr" type="ST_LongHexNumber"/>
1789   <xsd:attribute name="rsidDel" type="ST_LongHexNumber"/>
1790   <xsd:attribute name="rsidR" type="ST_LongHexNumber"/>
1791 </xsd:complexType>
1792 <xsd:simpleType name="ST_Hint">
1793   <xsd:restriction base="xsd:string">
1794     <xsd:enumeration value="default"/>
1795     <xsd:enumeration value="eastAsia"/>
1796     <xsd:enumeration value="cs"/>
1797   </xsd:restriction>
1798 </xsd:simpleType>
1799 <xsd:simpleType name="ST_Theme">
1800   <xsd:restriction base="xsd:string">
1801     <xsd:enumeration value="majorEastAsia"/>
1802     <xsd:enumeration value="majorBidi"/>
1803     <xsd:enumeration value="majorAscii"/>
1804     <xsd:enumeration value="majorHAnsi"/>
1805     <xsd:enumeration value="minorEastAsia"/>
1806     <xsd:enumeration value="minorBidi"/>
1807     <xsd:enumeration value="minorAscii"/>
1808     <xsd:enumeration value="minorHAnsi"/>
1809   </xsd:restriction>
1810 </xsd:simpleType>
1811 <xsd:complexType name="CT_Fonts">
1812   <xsd:attribute name="hint" type="ST_Hint"/>
1813   <xsd:attribute name="ascii" type="s:ST_String"/>
1814   <xsd:attribute name="hAnsi" type="s:ST_String"/>
1815   <xsd:attribute name="eastAsia" type="s:ST_String"/>
1816   <xsd:attribute name="cs" type="s:ST_String"/>
1817   <xsd:attribute name="asciiTheme" type="ST_Theme"/>
1818   <xsd:attribute name="hAnsiTheme" type="ST_Theme"/>
1819   <xsd:attribute name="eastAsiaTheme" type="ST_Theme"/>
1820   <xsd:attribute name="cstheme" type="ST_Theme"/>
1821 </xsd:complexType>
1822 <xsd:group name="EG_RPrBase">
1823   <xsd:choice>
1824     <xsd:element name="rStyle" type="CT_String"/>
1825     <xsd:element name="rFonts" type="CT_Fonts"/>
1826     <xsd:element name="b" type="CT_OnOff"/>
1827     <xsd:element name="bCs" type="CT_OnOff"/>
1828     <xsd:element name="i" type="CT_OnOff"/>
1829     <xsd:element name="iCs" type="CT_OnOff"/>
1830     <xsd:element name="caps" type="CT_OnOff"/>
1831     <xsd:element name="smallCaps" type="CT_OnOff"/>
1832     <xsd:element name="strike" type="CT_OnOff"/>
1833     <xsd:element name="dstrike" type="CT_OnOff"/>
1834     <xsd:element name="outline" type="CT_OnOff"/>

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1835     <xsd:element name="shadow" type="CT_OnOff"/>
1836     <xsd:element name="emboss" type="CT_OnOff"/>
1837     <xsd:element name="imprint" type="CT_OnOff"/>
1838     <xsd:element name="noProof" type="CT_OnOff"/>
1839     <xsd:element name="snapToGrid" type="CT_OnOff"/>
1840     <xsd:element name="vanish" type="CT_OnOff"/>
1841     <xsd:element name="webHidden" type="CT_OnOff"/>
1842     <xsd:element name="color" type="CT_Color"/>
1843     <xsd:element name="spacing" type="CT_SignedTwipsMeasure"/>
1844     <xsd:element name="w" type="CT_TextScale"/>
1845     <xsd:element name="kern" type="CT_HpsMeasure"/>
1846     <xsd:element name="position" type="CT_SignedHpsMeasure"/>
1847     <xsd:element name="sz" type="CT_HpsMeasure"/>
1848     <xsd:element name="szCs" type="CT_HpsMeasure"/>
1849     <xsd:element name="highlight" type="CT_Highlight"/>
1850     <xsd:element name="u" type="CT_Underline"/>
1851     <xsd:element name="effect" type="CT_TextEffect"/>
1852     <xsd:element name="bdr" type="CT_Border"/>
1853     <xsd:element name="shd" type="CT_Shd"/>
1854     <xsd:element name="fitText" type="CT_FitText"/>
1855     <xsd:element name="vertAlign" type="CT_VerticalAlignRun"/>
1856     <xsd:element name="rtl" type="CT_OnOff"/>
1857     <xsd:element name="cs" type="CT_OnOff"/>
1858     <xsd:element name="em" type="CT_Em"/>
1859     <xsd:element name="lang" type="CT_Language"/>
1860     <xsd:element name="eastAsianLayout" type="CT_EastAsianLayout"/>
1861     <xsd:element name="specVanish" type="CT_OnOff"/>
1862     <xsd:element name="oMath" type="CT_OnOff"/>
1863   </xsd:choice>
1864 </xsd:group>
1865 <xsd:group name="EG_RPrContent">
1866   <xsd:sequence>
1867     <xsd:group ref="EG_RPrBase" minOccurs="0"/>
1868     <xsd:element name="rPrChange" type="CT_RPrChange" minOccurs="0"/>
1869   </xsd:sequence>
1870 </xsd:group>
1871 <xsd:complexType name="CT_RPr">
1872   <xsd:sequence>
1873     <xsd:group ref="EG_RPrContent" minOccurs="0"/>
1874   </xsd:sequence>
1875 </xsd:complexType>
1876 <xsd:group name="EG_RPr">
1877   <xsd:sequence>
1878     <xsd:element name="rPr" type="CT_RPr" minOccurs="0"/>
1879   </xsd:sequence>
1880 </xsd:group>
1881 <xsd:group name="EG_RPrMath">
1882   <xsd:choice>
1883     <xsd:group ref="EG_RPr"/>
1884     <xsd:element name="ins" type="CT_MathCtrlIns"/>
1885     <xsd:element name="del" type="CT_MathCtrlDel"/>
1886   </xsd:choice>
1887 </xsd:group>

```



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1888 <xsd:complexType name="CT_MathCtrlIns">
1889   <xsd:complexContent>
1890     <xsd:extension base="CT_TrackChange">
1891       <xsd:choice minOccurs="0">
1892         <xsd:element name="del" type="CT_RPrChange" minOccurs="1"/>
1893         <xsd:element name="rPr" type="CT_RPr" minOccurs="1"/>
1894       </xsd:choice>
1895     </xsd:extension>
1896   </xsd:complexContent>
1897 </xsd:complexType>
1898 <xsd:complexType name="CT_MathCtrlDel">
1899   <xsd:complexContent>
1900     <xsd:extension base="CT_TrackChange">
1901       <xsd:choice minOccurs="0">
1902         <xsd:element name="rPr" type="CT_RPr" minOccurs="1"/>
1903       </xsd:choice>
1904     </xsd:extension>
1905   </xsd:complexContent>
1906 </xsd:complexType>
1907 <xsd:complexType name="CT_RPrOriginal">
1908   <xsd:sequence>
1909     <xsd:group ref="EG_RPrBase" minOccurs="0" maxOccurs="unbounded"/>
1910   </xsd:sequence>
1911 </xsd:complexType>
1912 <xsd:complexType name="CT_ParaRPrOriginal">
1913   <xsd:sequence>
1914     <xsd:group ref="EG_ParaRPrTrackChanges" minOccurs="0"/>
1915     <xsd:group ref="EG_RPrBase" minOccurs="0" maxOccurs="unbounded"/>
1916   </xsd:sequence>
1917 </xsd:complexType>
1918 <xsd:complexType name="CT_ParaRPr">
1919   <xsd:sequence>
1920     <xsd:group ref="EG_ParaRPrTrackChanges" minOccurs="0"/>
1921     <xsd:group ref="EG_RPrBase" minOccurs="0" maxOccurs="unbounded"/>
1922     <xsd:element name="rPrChange" type="CT_ParaRPrChange" minOccurs="0"/>
1923   </xsd:sequence>
1924 </xsd:complexType>
1925 <xsd:group name="EG_ParaRPrTrackChanges">
1926   <xsd:sequence>
1927     <xsd:element name="ins" type="CT_TrackChange" minOccurs="0"/>
1928     <xsd:element name="del" type="CT_TrackChange" minOccurs="0"/>
1929     <xsd:element name="moveFrom" type="CT_TrackChange" minOccurs="0"/>
1930     <xsd:element name="moveTo" type="CT_TrackChange" minOccurs="0"/>
1931   </xsd:sequence>
1932 </xsd:group>
1933 <xsd:complexType name="CT_AltChunk">
1934   <xsd:sequence>
1935     <xsd:element name="altChunkPr" type="CT_AltChunkPr" minOccurs="0" maxOccurs="1"/>
1936   </xsd:sequence>
1937   <xsd:attribute ref="r:id" use="optional"/>
1938 </xsd:complexType>
1939 <xsd:complexType name="CT_AltChunkPr">
1940   <xsd:sequence>

```



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1941     <xsd:element name="matchSrc" type="CT_OnOff" minOccurs="0" maxOccurs="1"/>
1942   </xsd:sequence>
1943 </xsd:complexType>
1944 <xsd:simpleType name="ST_RubyAlign">
1945   <xsd:restriction base="xsd:string">
1946     <xsd:enumeration value="center"/>
1947     <xsd:enumeration value="distributeLetter"/>
1948     <xsd:enumeration value="distributeSpace"/>
1949     <xsd:enumeration value="left"/>
1950     <xsd:enumeration value="right"/>
1951     <xsd:enumeration value="rightVertical"/>
1952   </xsd:restriction>
1953 </xsd:simpleType>
1954 <xsd:complexType name="CT_RubyAlign">
1955   <xsd:attribute name="val" type="ST_RubyAlign" use="required"/>
1956 </xsd:complexType>
1957 <xsd:complexType name="CT_RubyPr">
1958   <xsd:sequence>
1959     <xsd:element name="rubyAlign" type="CT_RubyAlign"/>
1960     <xsd:element name="hps" type="CT_HpsMeasure"/>
1961     <xsd:element name="hpsRaise" type="CT_HpsMeasure"/>
1962     <xsd:element name="hpsBaseText" type="CT_HpsMeasure"/>
1963     <xsd:element name="lid" type="CT_Lang"/>
1964     <xsd:element name="dirty" type="CT_OnOff" minOccurs="0"/>
1965   </xsd:sequence>
1966 </xsd:complexType>
1967 <xsd:group name="EG_RubyContent">
1968   <xsd:choice>
1969     <xsd:element name="r" type="CT_R"/>
1970     <xsd:group ref="EG_RunLevelElts" minOccurs="0" maxOccurs="unbounded"/>
1971   </xsd:choice>
1972 </xsd:group>
1973 <xsd:complexType name="CT_RubyContent">
1974   <xsd:group ref="EG_RubyContent" minOccurs="0" maxOccurs="unbounded"/>
1975 </xsd:complexType>
1976 <xsd:complexType name="CT_Ruby">
1977   <xsd:sequence>
1978     <xsd:element name="rubyPr" type="CT_RubyPr"/>
1979     <xsd:element name="rt" type="CT_RubyContent"/>
1980     <xsd:element name="rubyBase" type="CT_RubyContent"/>
1981   </xsd:sequence>
1982 </xsd:complexType>
1983 <xsd:simpleType name="ST_Lock">
1984   <xsd:restriction base="xsd:string">
1985     <xsd:enumeration value="sdtLocked"/>
1986     <xsd:enumeration value="contentLocked"/>
1987     <xsd:enumeration value="unlocked"/>
1988     <xsd:enumeration value="sdtContentLocked"/>
1989   </xsd:restriction>
1990 </xsd:simpleType>
1991 <xsd:complexType name="CT_Lock">
1992   <xsd:attribute name="val" type="ST_Lock"/>
1993 </xsd:complexType>

```



```

1994 <xsd:complexType name="CT_SdtListItem">
1995   <xsd:attribute name="displayText" type="s:ST String"/>
1996   <xsd:attribute name="value" type="s:ST String"/>
1997 </xsd:complexType>
1998 <xsd:simpleType name="ST_SdtDateMappingType">
1999   <xsd:restriction base="xsd:string">
2000     <xsd:enumeration value="text"/>
2001     <xsd:enumeration value="date"/>
2002     <xsd:enumeration value="dateTime"/>
2003   </xsd:restriction>
2004 </xsd:simpleType>
2005 <xsd:complexType name="CT_SdtDateMappingType">
2006   <xsd:attribute name="val" type="ST_SdtDateMappingType"/>
2007 </xsd:complexType>
2008 <xsd:complexType name="CT_CalendarType">
2009   <xsd:attribute name="val" type="s:ST_CalendarType"/>
2010 </xsd:complexType>
2011 <xsd:complexType name="CT_SdtDate">
2012   <xsd:sequence>
2013     <xsd:element name="dateFormat" type="CT String" minOccurs="0"/>
2014     <xsd:element name="lid" type="CT Lang" minOccurs="0"/>
2015     <xsd:element name="storeMappedDataAs" type="CT_SdtDateMappingType" minOccurs="0"/>
2016     <xsd:element name="calendar" type="CT_CalendarType" minOccurs="0"/>
2017   </xsd:sequence>
2018   <xsd:attribute name="fullDate" type="ST DateTime" use="optional"/>
2019 </xsd:complexType>
2020 <xsd:complexType name="CT_SdtComboBox">
2021   <xsd:sequence>
2022     <xsd:element name="listItem" type="CT_SdtListItem" minOccurs="0" maxOccurs="unbounded"/>
2023   </xsd:sequence>
2024   <xsd:attribute name="lastValue" type="s:ST String" use="optional" default=""/>
2025 </xsd:complexType>
2026 <xsd:complexType name="CT_SdtDocPart">
2027   <xsd:sequence>
2028     <xsd:element name="docPartGallery" type="CT String" minOccurs="0"/>
2029     <xsd:element name="docPartCategory" type="CT String" minOccurs="0"/>
2030     <xsd:element name="docPartUnique" type="CT OnOff" minOccurs="0"/>
2031   </xsd:sequence>
2032 </xsd:complexType>
2033 <xsd:complexType name="CT_SdtDropDownList">
2034   <xsd:sequence>
2035     <xsd:element name="listItem" type="CT_SdtListItem" minOccurs="0" maxOccurs="unbounded"/>
2036   </xsd:sequence>
2037   <xsd:attribute name="lastValue" type="s:ST String" use="optional" default=""/>
2038 </xsd:complexType>
2039 <xsd:complexType name="CT_Placeholder">
2040   <xsd:sequence>
2041     <xsd:element name="docPart" type="CT String"/>
2042   </xsd:sequence>
2043 </xsd:complexType>
2044 <xsd:complexType name="CT_SdtText">
2045   <xsd:attribute name="multiLine" type="s:ST OnOff"/>
2046 </xsd:complexType>

```



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2047 <xsd:complexType name="CT_DataBinding">
2048   <xsd:attribute name="prefixMappings" type="s:ST_String"/>
2049   <xsd:attribute name="xpath" type="s:ST_String" use="required"/>
2050   <xsd:attribute name="storeItemID" type="s:ST_String" use="required"/>
2051 </xsd:complexType>
2052 <xsd:complexType name="CT_SdtPr">
2053   <xsd:sequence>
2054     <xsd:element name="rPr" type="CT_RPr" minOccurs="0"/>
2055     <xsd:element name="alias" type="CT_String" minOccurs="0"/>
2056     <xsd:element name="tag" type="CT_String" minOccurs="0"/>
2057     <xsd:element name="id" type="CT_DecimalNumber" minOccurs="0"/>
2058     <xsd:element name="lock" type="CT_Lock" minOccurs="0"/>
2059     <xsd:element name="placeholder" type="CT_Placeholder" minOccurs="0"/>
2060     <xsd:element name="temporary" type="CT_OnOff" minOccurs="0"/>
2061     <xsd:element name="showingPlcHdr" type="CT_OnOff" minOccurs="0"/>
2062     <xsd:element name="dataBinding" type="CT_DataBinding" minOccurs="0"/>
2063     <xsd:element name="label" type="CT_DecimalNumber" minOccurs="0"/>
2064     <xsd:element name="tabIndex" type="CT_UnsignedDecimalNumber" minOccurs="0"/>
2065     <xsd:choice minOccurs="0" maxOccurs="1">
2066       <xsd:element name="equation" type="CT_Empty"/>
2067       <xsd:element name="comboBox" type="CT_SdtComboBox"/>
2068       <xsd:element name="date" type="CT_SdtDate"/>
2069       <xsd:element name="docPartObj" type="CT_SdtDocPart"/>
2070       <xsd:element name="docPartList" type="CT_SdtDocPart"/>
2071       <xsd:element name="dropDownList" type="CT_SdtDropDownList"/>
2072       <xsd:element name="picture" type="CT_Empty"/>
2073       <xsd:element name="richText" type="CT_Empty"/>
2074       <xsd:element name="text" type="CT_SdtText"/>
2075       <xsd:element name="citation" type="CT_Empty"/>
2076       <xsd:element name="group" type="CT_Empty"/>
2077       <xsd:element name="bibliography" type="CT_Empty"/>
2078     </xsd:choice>
2079   </xsd:sequence>
2080 </xsd:complexType>
2081 <xsd:complexType name="CT_SdtEndPr">
2082   <xsd:choice maxOccurs="unbounded">
2083     <xsd:element name="rPr" type="CT_RPr" minOccurs="0"/>
2084   </xsd:choice>
2085 </xsd:complexType>
2086 <xsd:group name="EG_ContentRunContent">
2087   <xsd:choice>
2088     <xsd:element name="customXml" type="CT_CustomXmlRun"/>
2089     <xsd:element name="smartTag" type="CT_SmartTagRun"/>
2090     <xsd:element name="sdt" type="CT_SdtRun"/>
2091     <xsd:element name="dir" type="CT_DirContentRun"/>
2092     <xsd:element name="bdo" type="CT_BdoContentRun"/>
2093     <xsd:element name="r" type="CT_R"/>
2094     <xsd:group ref="EG_RunLevelElts" minOccurs="0" maxOccurs="unbounded"/>
2095   </xsd:choice>
2096 </xsd:group>
2097 <xsd:complexType name="CT_DirContentRun">
2098   <xsd:group ref="EG_PContent" minOccurs="0" maxOccurs="unbounded"/>
2099   <xsd:attribute name="val" type="ST_Direction" use="optional"/>

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2100 </xsd:complexType>
2101 <xsd:complexType name="CT_BdoContentRun">
2102   <xsd:group ref="EG PContent" minOccurs="0" maxOccurs="unbounded"/>
2103   <xsd:attribute name="val" type="ST_Direction" use="optional"/>
2104 </xsd:complexType>
2105 <xsd:simpleType name="ST_Direction">
2106   <xsd:restriction base="xsd:string">
2107     <xsd:enumeration value="ltr"/>
2108     <xsd:enumeration value="rtl"/>
2109   </xsd:restriction>
2110 </xsd:simpleType>
2111 <xsd:complexType name="CT_SdtContentRun">
2112   <xsd:group ref="EG PContent" minOccurs="0" maxOccurs="unbounded"/>
2113 </xsd:complexType>
2114 <xsd:group name="EG_ContentBlockContent">
2115   <xsd:choice>
2116     <xsd:element name="customXml" type="CT_CustomXmlBlock"/>
2117     <xsd:element name="sdt" type="CT_SdtBlock"/>
2118     <xsd:element name="p" type="CT_P" minOccurs="0" maxOccurs="unbounded"/>
2119     <xsd:element name="tbl" type="CT_Tbl" minOccurs="0" maxOccurs="unbounded"/>
2120     <xsd:group ref="EG_RunLevelElts" minOccurs="0" maxOccurs="unbounded"/>
2121   </xsd:choice>
2122 </xsd:group>
2123 <xsd:complexType name="CT_SdtContentBlock">
2124   <xsd:group ref="EG_ContentBlockContent" minOccurs="0" maxOccurs="unbounded"/>
2125 </xsd:complexType>
2126 <xsd:group name="EG_ContentRowContent">
2127   <xsd:choice>
2128     <xsd:element name="tr" type="CT_Row" minOccurs="0" maxOccurs="unbounded"/>
2129     <xsd:element name="customXml" type="CT_CustomXmlRow"/>
2130     <xsd:element name="sdt" type="CT_SdtRow"/>
2131     <xsd:group ref="EG_RunLevelElts" minOccurs="0" maxOccurs="unbounded"/>
2132   </xsd:choice>
2133 </xsd:group>
2134 <xsd:complexType name="CT_SdtContentRow">
2135   <xsd:group ref="EG_ContentRowContent" minOccurs="0" maxOccurs="unbounded"/>
2136 </xsd:complexType>
2137 <xsd:group name="EG_ContentCellContent">
2138   <xsd:choice>
2139     <xsd:element name="tc" type="CT_Tc" minOccurs="0" maxOccurs="unbounded"/>
2140     <xsd:element name="customXml" type="CT_CustomXmlCell"/>
2141     <xsd:element name="sdt" type="CT_SdtCell"/>
2142     <xsd:group ref="EG_RunLevelElts" minOccurs="0" maxOccurs="unbounded"/>
2143   </xsd:choice>
2144 </xsd:group>
2145 <xsd:complexType name="CT_SdtContentCell">
2146   <xsd:group ref="EG_ContentCellContent" minOccurs="0" maxOccurs="unbounded"/>
2147 </xsd:complexType>
2148 <xsd:complexType name="CT_SdtBlock">
2149   <xsd:sequence>
2150     <xsd:element name="sdtPr" type="CT_SdtPr" minOccurs="0" maxOccurs="1"/>
2151     <xsd:element name="sdtEndPr" type="CT_SdtEndPr" minOccurs="0" maxOccurs="1"/>
2152     <xsd:element name="sdtContent" type="CT_SdtContentBlock" minOccurs="0" maxOccurs="1"/>

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2153     </xsd:sequence>
2154 </xsd:complexType>
2155 <xsd:complexType name="CT_SdtRun">
2156     <xsd:sequence>
2157         <xsd:element name="sdtPr" type="CT_SdtPr" minOccurs="0" maxOccurs="1"/>
2158         <xsd:element name="sdtEndPr" type="CT_SdtEndPr" minOccurs="0" maxOccurs="1"/>
2159         <xsd:element name="sdtContent" type="CT_SdtContentRun" minOccurs="0" maxOccurs="1"/>
2160     </xsd:sequence>
2161 </xsd:complexType>
2162 <xsd:complexType name="CT_SdtCell">
2163     <xsd:sequence>
2164         <xsd:element name="sdtPr" type="CT_SdtPr" minOccurs="0" maxOccurs="1"/>
2165         <xsd:element name="sdtEndPr" type="CT_SdtEndPr" minOccurs="0" maxOccurs="1"/>
2166         <xsd:element name="sdtContent" type="CT_SdtContentCell" minOccurs="0" maxOccurs="1"/>
2167     </xsd:sequence>
2168 </xsd:complexType>
2169 <xsd:complexType name="CT_SdtRow">
2170     <xsd:sequence>
2171         <xsd:element name="sdtPr" type="CT_SdtPr" minOccurs="0" maxOccurs="1"/>
2172         <xsd:element name="sdtEndPr" type="CT_SdtEndPr" minOccurs="0" maxOccurs="1"/>
2173         <xsd:element name="sdtContent" type="CT_SdtContentRow" minOccurs="0" maxOccurs="1"/>
2174     </xsd:sequence>
2175 </xsd:complexType>
2176 <xsd:complexType name="CT_Attr">
2177     <xsd:attribute name="uri" type="s:ST_String"/>
2178     <xsd:attribute name="name" type="s:ST_String" use="required"/>
2179     <xsd:attribute name="val" type="s:ST_String" use="required"/>
2180 </xsd:complexType>
2181 <xsd:complexType name="CT_CustomXmlRun">
2182     <xsd:sequence>
2183         <xsd:element name="customXmlPr" type="CT_CustomXmlPr" minOccurs="0" maxOccurs="1"/>
2184         <xsd:group ref="EG_PContent" minOccurs="0" maxOccurs="unbounded"/>
2185     </xsd:sequence>
2186     <xsd:attribute name="uri" type="s:ST_String"/>
2187     <xsd:attribute name="element" type="s:ST_XmlName" use="required"/>
2188 </xsd:complexType>
2189 <xsd:complexType name="CT_SmartTagRun">
2190     <xsd:sequence>
2191         <xsd:element name="smartTagPr" type="CT_SmartTagPr" minOccurs="0" maxOccurs="1"/>
2192         <xsd:group ref="EG_PContent" minOccurs="0" maxOccurs="unbounded"/>
2193     </xsd:sequence>
2194     <xsd:attribute name="uri" type="s:ST_String"/>
2195     <xsd:attribute name="element" type="s:ST_XmlName" use="required"/>
2196 </xsd:complexType>
2197 <xsd:complexType name="CT_CustomXmlBlock">
2198     <xsd:sequence>
2199         <xsd:element name="customXmlPr" type="CT_CustomXmlPr" minOccurs="0" maxOccurs="1"/>
2200         <xsd:group ref="EG_ContentBlockContent" minOccurs="0" maxOccurs="unbounded"/>
2201     </xsd:sequence>
2202     <xsd:attribute name="uri" type="s:ST_String"/>
2203     <xsd:attribute name="element" type="s:ST_XmlName" use="required"/>
2204 </xsd:complexType>
2205 <xsd:complexType name="CT_CustomXmlPr">

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2206     <xsd:sequence>
2207         <xsd:element name="placeholder" type="CT_String" minOccurs="0"/>
2208         <xsd:element name="attr" type="CT_Attr" minOccurs="0" maxOccurs="unbounded"/>
2209     </xsd:sequence>
2210 </xsd:complexType>
2211 <xsd:complexType name="CT_CustomXmlRow">
2212     <xsd:sequence>
2213         <xsd:element name="customXmlPr" type="CT_CustomXmlPr" minOccurs="0" maxOccurs="1"/>
2214         <xsd:group ref="EG_ContentRowContent" minOccurs="0" maxOccurs="unbounded"/>
2215     </xsd:sequence>
2216     <xsd:attribute name="uri" type="s:ST_String"/>
2217     <xsd:attribute name="element" type="s:ST_XmlName" use="required"/>
2218 </xsd:complexType>
2219 <xsd:complexType name="CT_CustomXmlCell">
2220     <xsd:sequence>
2221         <xsd:element name="customXmlPr" type="CT_CustomXmlPr" minOccurs="0" maxOccurs="1"/>
2222         <xsd:group ref="EG_ContentCellContent" minOccurs="0" maxOccurs="unbounded"/>
2223     </xsd:sequence>
2224     <xsd:attribute name="uri" type="s:ST_String"/>
2225     <xsd:attribute name="element" type="s:ST_XmlName" use="required"/>
2226 </xsd:complexType>
2227 <xsd:complexType name="CT_SmartTagPr">
2228     <xsd:sequence>
2229         <xsd:element name="attr" type="CT_Attr" minOccurs="0" maxOccurs="unbounded"/>
2230     </xsd:sequence>
2231 </xsd:complexType>
2232 <xsd:group name="EG_PContent">
2233     <xsd:choice>
2234         <xsd:group ref="EG_ContentRunContent" minOccurs="0" maxOccurs="unbounded"/>
2235         <xsd:element name="fldSimple" type="CT_SimpleField" minOccurs="0" maxOccurs="unbounded"/>
2236         <xsd:element name="hyperlink" type="CT_Hyperlink"/>
2237         <xsd:element name="subDoc" type="CT_Rel"/>
2238     </xsd:choice>
2239 </xsd:group>
2240 <xsd:complexType name="CT_P">
2241     <xsd:sequence>
2242         <xsd:element name="pPr" type="CT_PPr" minOccurs="0"/>
2243         <xsd:group ref="EG_PContent" minOccurs="0" maxOccurs="unbounded"/>
2244     </xsd:sequence>
2245     <xsd:attribute name="rsidRPr" type="ST_LongHexNumber"/>
2246     <xsd:attribute name="rsidR" type="ST_LongHexNumber"/>
2247     <xsd:attribute name="rsidDel" type="ST_LongHexNumber"/>
2248     <xsd:attribute name="rsidP" type="ST_LongHexNumber"/>
2249     <xsd:attribute name="rsidRDefault" type="ST_LongHexNumber"/>
2250 </xsd:complexType>
2251 <xsd:simpleType name="ST_TblWidth">
2252     <xsd:restriction base="xsd:string">
2253         <xsd:enumeration value="nil"/>
2254         <xsd:enumeration value="pct"/>
2255         <xsd:enumeration value="dxa"/>
2256         <xsd:enumeration value="auto"/>
2257     </xsd:restriction>
2258 </xsd:simpleType>

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2259 <xsd:complexType name="CT_Height">
2260   <xsd:attribute name="val" type="s:ST_TwipsMeasure"/>
2261   <xsd:attribute name="hRule" type="ST_HeightRule"/>
2262 </xsd:complexType>
2263 <xsd:simpleType name="ST_MeasurementOrPercent">
2264   <xsd:union memberTypes="ST_DecimalNumberOrPercent s:ST_UniversalMeasure"/>
2265 </xsd:simpleType>
2266 <xsd:complexType name="CT_TblWidth">
2267   <xsd:attribute name="w" type="ST_MeasurementOrPercent"/>
2268   <xsd:attribute name="type" type="ST_TblWidth"/>
2269 </xsd:complexType>
2270 <xsd:complexType name="CT_TblGridCol">
2271   <xsd:attribute name="w" type="s:ST_TwipsMeasure"/>
2272 </xsd:complexType>
2273 <xsd:complexType name="CT_TblGridBase">
2274   <xsd:sequence>
2275     <xsd:element name="gridCol" type="CT_TblGridCol" minOccurs="0" maxOccurs="unbounded"/>
2276   </xsd:sequence>
2277 </xsd:complexType>
2278 <xsd:complexType name="CT_TblGrid">
2279   <xsd:complexContent>
2280     <xsd:extension base="CT_TblGridBase">
2281       <xsd:sequence>
2282         <xsd:element name="tblGridChange" type="CT_TblGridChange" minOccurs="0"/>
2283       </xsd:sequence>
2284     </xsd:extension>
2285   </xsd:complexContent>
2286 </xsd:complexType>
2287 <xsd:complexType name="CT_TcBorders">
2288   <xsd:sequence>
2289     <xsd:element name="top" type="CT_Border" minOccurs="0"/>
2290     <xsd:element name="start" type="CT_Border" minOccurs="0"/>
2291     <xsd:element name="left" type="CT_Border" minOccurs="0"/>
2292     <xsd:element name="bottom" type="CT_Border" minOccurs="0"/>
2293     <xsd:element name="end" type="CT_Border" minOccurs="0"/>
2294     <xsd:element name="right" type="CT_Border" minOccurs="0"/>
2295     <xsd:element name="insideH" type="CT_Border" minOccurs="0"/>
2296     <xsd:element name="insideV" type="CT_Border" minOccurs="0"/>
2297     <xsd:element name="tl2br" type="CT_Border" minOccurs="0"/>
2298     <xsd:element name="tr2bl" type="CT_Border" minOccurs="0"/>
2299   </xsd:sequence>
2300 </xsd:complexType>
2301 <xsd:complexType name="CT_TcMar">
2302   <xsd:sequence>
2303     <xsd:element name="top" type="CT_TblWidth" minOccurs="0" maxOccurs="1"/>
2304     <xsd:element name="start" type="CT_TblWidth" minOccurs="0" maxOccurs="1"/>
2305     <xsd:element name="left" type="CT_TblWidth" minOccurs="0"/>
2306     <xsd:element name="bottom" type="CT_TblWidth" minOccurs="0" maxOccurs="1"/>
2307     <xsd:element name="end" type="CT_TblWidth" minOccurs="0" maxOccurs="1"/>
2308     <xsd:element name="right" type="CT_TblWidth" minOccurs="0"/>
2309   </xsd:sequence>
2310 </xsd:complexType>
2311 <xsd:simpleType name="ST_Merge">

```



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2312     <xsd:restriction base="xsd:string">
2313         <xsd:enumeration value="continue"/>
2314         <xsd:enumeration value="restart"/>
2315     </xsd:restriction>
2316 </xsd:simpleType>
2317 <xsd:complexType name="CT_VMerge">
2318     <xsd:attribute name="val" type="ST_Merge"/>
2319 </xsd:complexType>
2320 <xsd:complexType name="CT_HMerge">
2321     <xsd:attribute name="val" type="ST_Merge"/>
2322 </xsd:complexType>
2323 <xsd:complexType name="CT_TcPrBase">
2324     <xsd:sequence>
2325         <xsd:element name="cnfStyle" type="CT_Cnf" minOccurs="0" maxOccurs="1"/>
2326         <xsd:element name="tcW" type="CT_TblWidth" minOccurs="0" maxOccurs="1"/>
2327         <xsd:element name="gridSpan" type="CT_DecimalNumber" minOccurs="0"/>
2328         <xsd:element name="hMerge" type="CT_HMerge" minOccurs="0"/>
2329         <xsd:element name="vMerge" type="CT_VMerge" minOccurs="0"/>
2330         <xsd:element name="tcBorders" type="CT_TcBorders" minOccurs="0" maxOccurs="1"/>
2331         <xsd:element name="shd" type="CT_Shd" minOccurs="0"/>
2332         <xsd:element name="noWrap" type="CT_OnOff" minOccurs="0"/>
2333         <xsd:element name="tcMar" type="CT_TcMar" minOccurs="0" maxOccurs="1"/>
2334         <xsd:element name="textDirection" type="CT_TextDirection" minOccurs="0" maxOccurs="1"/>
2335         <xsd:element name="tcFitText" type="CT_OnOff" minOccurs="0" maxOccurs="1"/>
2336         <xsd:element name="vAlign" type="CT_VerticalJc" minOccurs="0"/>
2337         <xsd:element name="hideMark" type="CT_OnOff" minOccurs="0"/>
2338         <xsd:element name="headers" type="CT_Headers" minOccurs="0"/>
2339     </xsd:sequence>
2340 </xsd:complexType>
2341 <xsd:complexType name="CT_TcPr">
2342     <xsd:complexContent>
2343         <xsd:extension base="CT_TcPrInner">
2344             <xsd:sequence>
2345                 <xsd:element name="tcPrChange" type="CT_TcPrChange" minOccurs="0"/>
2346             </xsd:sequence>
2347         </xsd:extension>
2348     </xsd:complexContent>
2349 </xsd:complexType>
2350 <xsd:complexType name="CT_TcPrInner">
2351     <xsd:complexContent>
2352         <xsd:extension base="CT_TcPrBase">
2353             <xsd:sequence>
2354                 <xsd:group ref="EG_CellMarkupElements" minOccurs="0" maxOccurs="1"/>
2355             </xsd:sequence>
2356         </xsd:extension>
2357     </xsd:complexContent>
2358 </xsd:complexType>
2359 <xsd:complexType name="CT_Tc">
2360     <xsd:sequence>
2361         <xsd:element name="tcPr" type="CT_TcPr" minOccurs="0" maxOccurs="1"/>
2362         <xsd:group ref="EG_BlockLevelElts" minOccurs="1" maxOccurs="unbounded"/>
2363     </xsd:sequence>
2364     <xsd:attribute name="id" type="s:ST_String" use="optional"/>

```



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2365 </xsd:complexType>
2366 <xsd:simpleType name="ST_Cnf">
2367   <xsd:restriction base="xsd:string">
2368     <xsd:length value="12"/>
2369     <xsd:pattern value="[01]*"/>
2370   </xsd:restriction>
2371 </xsd:simpleType>
2372 <xsd:complexType name="CT_Cnf">
2373   <xsd:attribute name="val" type="ST_Cnf"/>
2374   <xsd:attribute name="firstRow" type="s:ST_OnOff"/>
2375   <xsd:attribute name="lastRow" type="s:ST_OnOff"/>
2376   <xsd:attribute name="firstColumn" type="s:ST_OnOff"/>
2377   <xsd:attribute name="lastColumn" type="s:ST_OnOff"/>
2378   <xsd:attribute name="oddVBand" type="s:ST_OnOff"/>
2379   <xsd:attribute name="evenVBand" type="s:ST_OnOff"/>
2380   <xsd:attribute name="oddHBand" type="s:ST_OnOff"/>
2381   <xsd:attribute name="evenHBand" type="s:ST_OnOff"/>
2382   <xsd:attribute name="firstRowFirstColumn" type="s:ST_OnOff"/>
2383   <xsd:attribute name="firstRowLastColumn" type="s:ST_OnOff"/>
2384   <xsd:attribute name="lastRowFirstColumn" type="s:ST_OnOff"/>
2385   <xsd:attribute name="lastRowLastColumn" type="s:ST_OnOff"/>
2386 </xsd:complexType>
2387 <xsd:complexType name="CT_Headers">
2388   <xsd:sequence minOccurs="0" maxOccurs="unbounded">
2389     <xsd:element name="header" type="CT_String"/>
2390   </xsd:sequence>
2391 </xsd:complexType>
2392 <xsd:complexType name="CT_TrPrBase">
2393   <xsd:choice maxOccurs="unbounded">
2394     <xsd:element name="cnfStyle" type="CT_Cnf" minOccurs="0" maxOccurs="1"/>
2395     <xsd:element name="divId" type="CT_DecimalNumber" minOccurs="0"/>
2396     <xsd:element name="gridBefore" type="CT_DecimalNumber" minOccurs="0"/>
2397     <xsd:element name="gridAfter" type="CT_DecimalNumber" minOccurs="0"/>
2398     <xsd:element name="wBefore" type="CT_TblWidth" minOccurs="0" maxOccurs="1"/>
2399     <xsd:element name="wAfter" type="CT_TblWidth" minOccurs="0" maxOccurs="1"/>
2400     <xsd:element name="cantSplit" type="CT_OnOff" minOccurs="0"/>
2401     <xsd:element name="trHeight" type="CT_Height" minOccurs="0"/>
2402     <xsd:element name="tblHeader" type="CT_OnOff" minOccurs="0"/>
2403     <xsd:element name="tblCellSpacing" type="CT_TblWidth" minOccurs="0" maxOccurs="1"/>
2404     <xsd:element name="jc" type="CT_JcTable" minOccurs="0" maxOccurs="1"/>
2405     <xsd:element name="hidden" type="CT_OnOff" minOccurs="0"/>
2406   </xsd:choice>
2407 </xsd:complexType>
2408 <xsd:complexType name="CT_TrPr">
2409   <xsd:complexContent>
2410     <xsd:extension base="CT_TrPrBase">
2411       <xsd:sequence>
2412         <xsd:element name="ins" type="CT_TrackChange" minOccurs="0"/>
2413         <xsd:element name="del" type="CT_TrackChange" minOccurs="0"/>
2414         <xsd:element name="trPrChange" type="CT_TrPrChange" minOccurs="0"/>
2415       </xsd:sequence>
2416     </xsd:extension>
2417   </xsd:complexContent>

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2418 </xsd:complexType>
2419 <xsd:complexType name="CT_Row">
2420   <xsd:sequence>
2421     <xsd:element name="tblPrEx" type="CT_TblPrEx" minOccurs="0" maxOccurs="1"/>
2422     <xsd:element name="trPr" type="CT_TrPr" minOccurs="0" maxOccurs="1"/>
2423     <xsd:group ref="EG_ContentCellContent" minOccurs="0" maxOccurs="unbounded"/>
2424   </xsd:sequence>
2425   <xsd:attribute name="rsidRPr" type="ST_LongHexNumber"/>
2426   <xsd:attribute name="rsidR" type="ST_LongHexNumber"/>
2427   <xsd:attribute name="rsidDel" type="ST_LongHexNumber"/>
2428   <xsd:attribute name="rsidTr" type="ST_LongHexNumber"/>
2429 </xsd:complexType>
2430 <xsd:simpleType name="ST_TblLayoutType">
2431   <xsd:restriction base="xsd:string">
2432     <xsd:enumeration value="fixed"/>
2433     <xsd:enumeration value="autofit"/>
2434   </xsd:restriction>
2435 </xsd:simpleType>
2436 <xsd:complexType name="CT_TblLayoutType">
2437   <xsd:attribute name="type" type="ST_TblLayoutType"/>
2438 </xsd:complexType>
2439 <xsd:simpleType name="ST_TblOverlap">
2440   <xsd:restriction base="xsd:string">
2441     <xsd:enumeration value="never"/>
2442     <xsd:enumeration value="overlap"/>
2443   </xsd:restriction>
2444 </xsd:simpleType>
2445 <xsd:complexType name="CT_TblOverlap">
2446   <xsd:attribute name="val" type="ST_TblOverlap" use="required"/>
2447 </xsd:complexType>
2448 <xsd:complexType name="CT_TblPPr">
2449   <xsd:attribute name="leftFromText" type="s:ST_TwipsMeasure"/>
2450   <xsd:attribute name="rightFromText" type="s:ST_TwipsMeasure"/>
2451   <xsd:attribute name="topFromText" type="s:ST_TwipsMeasure"/>
2452   <xsd:attribute name="bottomFromText" type="s:ST_TwipsMeasure"/>
2453   <xsd:attribute name="vertAnchor" type="ST_VAnchor"/>
2454   <xsd:attribute name="horzAnchor" type="ST_HAnchor"/>
2455   <xsd:attribute name="tblpXSpec" type="s:ST_XAlign"/>
2456   <xsd:attribute name="tblpX" type="ST_SignedTwipsMeasure"/>
2457   <xsd:attribute name="tblpYSpec" type="s:ST_YAlign"/>
2458   <xsd:attribute name="tblpY" type="ST_SignedTwipsMeasure"/>
2459 </xsd:complexType>
2460 <xsd:complexType name="CT_TblCellMar">
2461   <xsd:sequence>
2462     <xsd:element name="top" type="CT_TblWidth" minOccurs="0" maxOccurs="1"/>
2463     <xsd:element name="start" type="CT_TblWidth" minOccurs="0" maxOccurs="1"/>
2464     <xsd:element name="left" type="CT_TblWidth" minOccurs="0"/>
2465     <xsd:element name="bottom" type="CT_TblWidth" minOccurs="0" maxOccurs="1"/>
2466     <xsd:element name="end" type="CT_TblWidth" minOccurs="0" maxOccurs="1"/>
2467     <xsd:element name="right" type="CT_TblWidth" minOccurs="0"/>
2468   </xsd:sequence>
2469 </xsd:complexType>
2470 <xsd:complexType name="CT_TblBorders">

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2471     <xsd:sequence>
2472       <xsd:element name="top" type="CT_Border" minOccurs="0"/>
2473       <xsd:element name="start" type="CT_Border" minOccurs="0"/>
2474       <xsd:element name="left" type="CT_Border" minOccurs="0"/>
2475       <xsd:element name="bottom" type="CT_Border" minOccurs="0"/>
2476       <xsd:element name="end" type="CT_Border" minOccurs="0"/>
2477       <xsd:element name="right" type="CT_Border" minOccurs="0"/>
2478       <xsd:element name="insideH" type="CT_Border" minOccurs="0"/>
2479       <xsd:element name="insideV" type="CT_Border" minOccurs="0"/>
2480     </xsd:sequence>
2481   </xsd:complexType>
2482   <xsd:complexType name="CT_TblPrBase">
2483     <xsd:sequence>
2484       <xsd:element name="tblStyle" type="CT_String" minOccurs="0"/>
2485       <xsd:element name="tblpPr" type="CT_TblPPr" minOccurs="0" maxOccurs="1"/>
2486       <xsd:element name="tblOverlap" type="CT_TblOverlap" minOccurs="0" maxOccurs="1"/>
2487       <xsd:element name="bidiVisual" type="CT_OnOff" minOccurs="0" maxOccurs="1"/>
2488       <xsd:element name="tblStyleRowBandSize" type="CT_DecimalNumber" minOccurs="0"
2489         maxOccurs="1"/>
2490       <xsd:element name="tblStyleColBandSize" type="CT_DecimalNumber" minOccurs="0"
2491         maxOccurs="1"/>
2492       <xsd:element name="tblW" type="CT_TblWidth" minOccurs="0" maxOccurs="1"/>
2493       <xsd:element name="jc" type="CT_JcTable" minOccurs="0" maxOccurs="1"/>
2494       <xsd:element name="tblCellSpacing" type="CT_TblWidth" minOccurs="0" maxOccurs="1"/>
2495       <xsd:element name="tblInd" type="CT_TblWidth" minOccurs="0" maxOccurs="1"/>
2496       <xsd:element name="tblBorders" type="CT_TblBorders" minOccurs="0" maxOccurs="1"/>
2497       <xsd:element name="shd" type="CT_Shd" minOccurs="0" maxOccurs="1"/>
2498       <xsd:element name="tblLayout" type="CT_TblLayoutType" minOccurs="0" maxOccurs="1"/>
2499       <xsd:element name="tblCellMar" type="CT_TblCellMar" minOccurs="0" maxOccurs="1"/>
2500       <xsd:element name="tblLook" type="CT_TblLook" minOccurs="0" maxOccurs="1"/>
2501       <xsd:element name="tblCaption" type="CT_String" minOccurs="0" maxOccurs="1"/>
2502       <xsd:element name="tblDescription" type="CT_String" minOccurs="0" maxOccurs="1"/>
2503     </xsd:sequence>
2504   </xsd:complexType>
2505   <xsd:complexType name="CT_TblPr">
2506     <xsd:complexContent>
2507       <xsd:extension base="CT_TblPrBase">
2508         <xsd:sequence>
2509           <xsd:element name="tblPrChange" type="CT_TblPrChange" minOccurs="0"/>
2510         </xsd:sequence>
2511       </xsd:extension>
2512     </xsd:complexContent>
2513   </xsd:complexType>
2514   <xsd:complexType name="CT_TblPrExBase">
2515     <xsd:sequence>
2516       <xsd:element name="tblW" type="CT_TblWidth" minOccurs="0" maxOccurs="1"/>
2517       <xsd:element name="jc" type="CT_JcTable" minOccurs="0" maxOccurs="1"/>
2518       <xsd:element name="tblCellSpacing" type="CT_TblWidth" minOccurs="0" maxOccurs="1"/>
2519       <xsd:element name="tblInd" type="CT_TblWidth" minOccurs="0" maxOccurs="1"/>
2520       <xsd:element name="tblBorders" type="CT_TblBorders" minOccurs="0" maxOccurs="1"/>
2521       <xsd:element name="shd" type="CT_Shd" minOccurs="0" maxOccurs="1"/>
2522       <xsd:element name="tblLayout" type="CT_TblLayoutType" minOccurs="0" maxOccurs="1"/>
2523       <xsd:element name="tblCellMar" type="CT_TblCellMar" minOccurs="0" maxOccurs="1"/>

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2524     <xsd:element name="tblLook" type="CT_TblLook" minOccurs="0" maxOccurs="1"/>
2525   </xsd:sequence>
2526 </xsd:complexType>
2527 <xsd:complexType name="CT_TblPrEx">
2528   <xsd:complexContent>
2529     <xsd:extension base="CT_TblPrExBase">
2530       <xsd:sequence>
2531         <xsd:element name="tblPrExChange" type="CT_TblPrExChange" minOccurs="0"/>
2532       </xsd:sequence>
2533     </xsd:extension>
2534   </xsd:complexContent>
2535 </xsd:complexType>
2536 <xsd:complexType name="CT_Tbl">
2537   <xsd:sequence>
2538     <xsd:group ref="EG_RangeMarkupElements" minOccurs="0" maxOccurs="unbounded"/>
2539     <xsd:element name="tblPr" type="CT_TblPr"/>
2540     <xsd:element name="tblGrid" type="CT_TblGrid"/>
2541     <xsd:group ref="EG_ContentRowContent" minOccurs="0" maxOccurs="unbounded"/>
2542   </xsd:sequence>
2543 </xsd:complexType>
2544 <xsd:complexType name="CT_TblLook">
2545   <xsd:attribute name="firstRow" type="s:ST_OnOff"/>
2546   <xsd:attribute name="lastRow" type="s:ST_OnOff"/>
2547   <xsd:attribute name="firstColumn" type="s:ST_OnOff"/>
2548   <xsd:attribute name="lastColumn" type="s:ST_OnOff"/>
2549   <xsd:attribute name="noHBand" type="s:ST_OnOff"/>
2550   <xsd:attribute name="noVBand" type="s:ST_OnOff"/>
2551   <xsd:attribute name="val" type="ST_ShortHexNumber"/>
2552 </xsd:complexType>
2553 <xsd:simpleType name="ST_FtnPos">
2554   <xsd:restriction base="xsd:string">
2555     <xsd:enumeration value="pageBottom"/>
2556     <xsd:enumeration value="beneathText"/>
2557     <xsd:enumeration value="sectEnd"/>
2558     <xsd:enumeration value="docEnd"/>
2559   </xsd:restriction>
2560 </xsd:simpleType>
2561 <xsd:complexType name="CT_FtnPos">
2562   <xsd:attribute name="val" type="ST_FtnPos" use="required"/>
2563 </xsd:complexType>
2564 <xsd:simpleType name="ST_EdnPos">
2565   <xsd:restriction base="xsd:string">
2566     <xsd:enumeration value="sectEnd"/>
2567     <xsd:enumeration value="docEnd"/>
2568   </xsd:restriction>
2569 </xsd:simpleType>
2570 <xsd:complexType name="CT_EdnPos">
2571   <xsd:attribute name="val" type="ST_EdnPos" use="required"/>
2572 </xsd:complexType>
2573 <xsd:complexType name="CT_NumFmt">
2574   <xsd:attribute name="val" type="ST_NumberFormat" use="required"/>
2575   <xsd:attribute name="format" type="s:ST_String" use="optional"/>
2576 </xsd:complexType>

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2577 <xsd:simpleType name="ST_RestartNumber">
2578   <xsd:restriction base="xsd:string">
2579     <xsd:enumeration value="continuous"/>
2580     <xsd:enumeration value="eachSect"/>
2581     <xsd:enumeration value="eachPage"/>
2582   </xsd:restriction>
2583 </xsd:simpleType>
2584 <xsd:complexType name="CT_NumRestart">
2585   <xsd:attribute name="val" type="ST_RestartNumber" use="required"/>
2586 </xsd:complexType>
2587 <xsd:complexType name="CT_FtnEdnRef">
2588   <xsd:attribute name="customMarkFollows" type="s:ST_OnOff" use="optional"/>
2589   <xsd:attribute name="id" use="required" type="ST_DecimalNumber"/>
2590 </xsd:complexType>
2591 <xsd:complexType name="CT_FtnEdnSepRef">
2592   <xsd:attribute name="id" type="ST_DecimalNumber" use="required"/>
2593 </xsd:complexType>
2594 <xsd:complexType name="CT_FtnEdn">
2595   <xsd:sequence>
2596     <xsd:group ref="EG_BlockLevelElts" minOccurs="1" maxOccurs="unbounded"/>
2597   </xsd:sequence>
2598   <xsd:attribute name="type" type="ST_FtnEdn" use="optional"/>
2599   <xsd:attribute name="id" type="ST_DecimalNumber" use="required"/>
2600 </xsd:complexType>
2601 <xsd:group name="EG_FtnEdnNumProps">
2602   <xsd:sequence>
2603     <xsd:element name="numStart" type="CT_DecimalNumber" minOccurs="0"/>
2604     <xsd:element name="numRestart" type="CT_NumRestart" minOccurs="0"/>
2605   </xsd:sequence>
2606 </xsd:group>
2607 <xsd:complexType name="CT_FtnProps">
2608   <xsd:sequence>
2609     <xsd:element name="pos" type="CT_FtnPos" minOccurs="0"/>
2610     <xsd:element name="numFmt" type="CT_NumFmt" minOccurs="0"/>
2611     <xsd:group ref="EG_FtnEdnNumProps" minOccurs="0"/>
2612   </xsd:sequence>
2613 </xsd:complexType>
2614 <xsd:complexType name="CT_EdnProps">
2615   <xsd:sequence>
2616     <xsd:element name="pos" type="CT_EdnPos" minOccurs="0"/>
2617     <xsd:element name="numFmt" type="CT_NumFmt" minOccurs="0"/>
2618     <xsd:group ref="EG_FtnEdnNumProps" minOccurs="0"/>
2619   </xsd:sequence>
2620 </xsd:complexType>
2621 <xsd:complexType name="CT_FtnDocProps">
2622   <xsd:complexContent>
2623     <xsd:extension base="CT_FtnProps">
2624       <xsd:sequence>
2625         <xsd:element name="footnote" type="CT_FtnEdnSepRef" minOccurs="0" maxOccurs="3"/>
2626       </xsd:sequence>
2627     </xsd:extension>
2628   </xsd:complexContent>
2629 </xsd:complexType>

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2630 <xsd:complexType name="CT_EdnDocProps">
2631   <xsd:complexContent>
2632     <xsd:extension base="CT_EdnProps">
2633       <xsd:sequence>
2634         <xsd:element name="endnote" type="CT_FtnEdnSepRef" minOccurs="0" maxOccurs="3"/>
2635       </xsd:sequence>
2636     </xsd:extension>
2637   </xsd:complexContent>
2638 </xsd:complexType>
2639 <xsd:complexType name="CT_RecipientData">
2640   <xsd:sequence>
2641     <xsd:element name="active" type="CT_OnOff" minOccurs="0"/>
2642     <xsd:element name="column" type="CT_DecimalNumber" minOccurs="1"/>
2643     <xsd:element name="uniqueTag" type="CT_Base64Binary" minOccurs="1"/>
2644   </xsd:sequence>
2645 </xsd:complexType>
2646 <xsd:complexType name="CT_Base64Binary">
2647   <xsd:attribute name="val" type="xsd:base64Binary" use="required">
2648   </xsd:attribute>
2649 </xsd:complexType>
2650 <xsd:complexType name="CT_Recipients">
2651   <xsd:sequence>
2652     <xsd:element name="recipientData" type="CT_RecipientData" minOccurs="1"
2653       maxOccurs="unbounded"/>
2654   </xsd:sequence>
2655 </xsd:complexType>
2656 <xsd:element name="recipients" type="CT_Recipients"/>
2657 <xsd:complexType name="CT_OdsoFieldMapData">
2658   <xsd:sequence>
2659     <xsd:element name="type" type="CT_MailMergeOdsoFMDFieldType" minOccurs="0"/>
2660     <xsd:element name="name" type="CT_String" minOccurs="0"/>
2661     <xsd:element name="mappedName" type="CT_String" minOccurs="0"/>
2662     <xsd:element name="column" type="CT_DecimalNumber" minOccurs="0"/>
2663     <xsd:element name="lid" type="CT_Lang" minOccurs="0"/>
2664     <xsd:element name="dynamicAddress" type="CT_OnOff" minOccurs="0"/>
2665   </xsd:sequence>
2666 </xsd:complexType>
2667 <xsd:simpleType name="ST_MailMergeSourceType">
2668   <xsd:restriction base="xsd:string">
2669     <xsd:enumeration value="database"/>
2670     <xsd:enumeration value="addressBook"/>
2671     <xsd:enumeration value="document1"/>
2672     <xsd:enumeration value="document2"/>
2673     <xsd:enumeration value="text"/>
2674     <xsd:enumeration value="email"/>
2675     <xsd:enumeration value="native"/>
2676     <xsd:enumeration value="legacy"/>
2677     <xsd:enumeration value="master"/>
2678   </xsd:restriction>
2679 </xsd:simpleType>
2680 <xsd:complexType name="CT_MailMergeSourceType">
2681   <xsd:attribute name="val" use="required" type="ST_MailMergeSourceType"/>
2682 </xsd:complexType>

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2683 <xsd:complexType name="CT_Odso">
2684   <xsd:sequence>
2685     <xsd:element name="udl" type="CT_String" minOccurs="0"/>
2686     <xsd:element name="table" type="CT_String" minOccurs="0"/>
2687     <xsd:element name="src" type="CT_Rel" minOccurs="0"/>
2688     <xsd:element name="colDelim" type="CT_DecimalNumber" minOccurs="0"/>
2689     <xsd:element name="type" type="CT_MailMergeSourceType" minOccurs="0"/>
2690     <xsd:element name="fHdr" type="CT_OnOff" minOccurs="0"/>
2691     <xsd:element name="fieldMapData" type="CT_OdsoFieldMapData" minOccurs="0"
2692       maxOccurs="unbounded"/>
2693     <xsd:element name="recipientData" type="CT_Rel" minOccurs="0" maxOccurs="unbounded"/>
2694   </xsd:sequence>
2695 </xsd:complexType>
2696 <xsd:complexType name="CT_MailMerge">
2697   <xsd:sequence>
2698     <xsd:element name="mainDocumentType" type="CT_MailMergeDocType" minOccurs="1"/>
2699     <xsd:element name="linkToQuery" type="CT_OnOff" minOccurs="0"/>
2700     <xsd:element name="dataType" type="CT_MailMergeDataType" minOccurs="1"/>
2701     <xsd:element name="connectString" type="CT_String" minOccurs="0"/>
2702     <xsd:element name="query" type="CT_String" minOccurs="0"/>
2703     <xsd:element name="dataSource" type="CT_Rel" minOccurs="0"/>
2704     <xsd:element name="headerSource" type="CT_Rel" minOccurs="0"/>
2705     <xsd:element name="doNotSuppressBlankLines" type="CT_OnOff" minOccurs="0"/>
2706     <xsd:element name="destination" type="CT_MailMergeDest" minOccurs="0"/>
2707     <xsd:element name="addressFieldName" type="CT_String" minOccurs="0"/>
2708     <xsd:element name="mailSubject" type="CT_String" minOccurs="0"/>
2709     <xsd:element name="mailAsAttachment" type="CT_OnOff" minOccurs="0"/>
2710     <xsd:element name="viewMergedData" type="CT_OnOff" minOccurs="0"/>
2711     <xsd:element name="activeRecord" type="CT_DecimalNumber" minOccurs="0"/>
2712     <xsd:element name="checkErrors" type="CT_DecimalNumber" minOccurs="0"/>
2713     <xsd:element name="odso" type="CT_Odso" minOccurs="0"/>
2714   </xsd:sequence>
2715 </xsd:complexType>
2716 <xsd:simpleType name="ST_TargetScreenSz">
2717   <xsd:restriction base="xsd:string">
2718     <xsd:enumeration value="544x376"/>
2719     <xsd:enumeration value="640x480"/>
2720     <xsd:enumeration value="720x512"/>
2721     <xsd:enumeration value="800x600"/>
2722     <xsd:enumeration value="1024x768"/>
2723     <xsd:enumeration value="1152x882"/>
2724     <xsd:enumeration value="1152x900"/>
2725     <xsd:enumeration value="1280x1024"/>
2726     <xsd:enumeration value="1600x1200"/>
2727     <xsd:enumeration value="1800x1440"/>
2728     <xsd:enumeration value="1920x1200"/>
2729   </xsd:restriction>
2730 </xsd:simpleType>
2731 <xsd:complexType name="CT_TargetScreenSz">
2732   <xsd:attribute name="val" type="ST_TargetScreenSz" use="required"/>
2733 </xsd:complexType>
2734 <xsd:complexType name="CT_Compat">
2735   <xsd:sequence>

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2736 <xsd:element name="useSingleBorderforContiguousCells" type="CT_OnOff" minOccurs="0"/>
2737 <xsd:element name="wpJustification" type="CT_OnOff" minOccurs="0"/>
2738 <xsd:element name="noTabHangInd" type="CT_OnOff" minOccurs="0"/>
2739 <xsd:element name="noLeading" type="CT_OnOff" minOccurs="0"/>
2740 <xsd:element name="spaceForUL" type="CT_OnOff" minOccurs="0"/>
2741 <xsd:element name="noColumnBalance" type="CT_OnOff" minOccurs="0"/>
2742 <xsd:element name="balanceSingleByteDoubleByteWidth" type="CT_OnOff" minOccurs="0"/>
2743 <xsd:element name="noExtraLineSpacing" type="CT_OnOff" minOccurs="0"/>
2744 <xsd:element name="doNotLeaveBackslashAlone" type="CT_OnOff" minOccurs="0"/>
2745 <xsd:element name="ulTrailSpace" type="CT_OnOff" minOccurs="0"/>
2746 <xsd:element name="doNotExpandShiftReturn" type="CT_OnOff" minOccurs="0"/>
2747 <xsd:element name="spacingInWholePoints" type="CT_OnOff" minOccurs="0"/>
2748 <xsd:element name="lineWrapLikeWord6" type="CT_OnOff" minOccurs="0"/>
2749 <xsd:element name="printBodyTextBeforeHeader" type="CT_OnOff" minOccurs="0"/>
2750 <xsd:element name="printColBlack" type="CT_OnOff" minOccurs="0"/>
2751 <xsd:element name="wpSpaceWidth" type="CT_OnOff" minOccurs="0"/>
2752 <xsd:element name="showBreaksInFrames" type="CT_OnOff" minOccurs="0"/>
2753 <xsd:element name="subFontBySize" type="CT_OnOff" minOccurs="0"/>
2754 <xsd:element name="suppressBottomSpacing" type="CT_OnOff" minOccurs="0"/>
2755 <xsd:element name="suppressTopSpacing" type="CT_OnOff" minOccurs="0"/>
2756 <xsd:element name="suppressSpacingAtTopOfPage" type="CT_OnOff" minOccurs="0"/>
2757 <xsd:element name="suppressTopSpacingWP" type="CT_OnOff" minOccurs="0"/>
2758 <xsd:element name="suppressSpBfAfterPgBrk" type="CT_OnOff" minOccurs="0"/>
2759 <xsd:element name="swapBordersFacingPages" type="CT_OnOff" minOccurs="0"/>
2760 <xsd:element name="convMailMergeEsc" type="CT_OnOff" minOccurs="0"/>
2761 <xsd:element name="truncateFontHeightsLikeWP6" type="CT_OnOff" minOccurs="0"/>
2762 <xsd:element name="mwSmallCaps" type="CT_OnOff" minOccurs="0"/>
2763 <xsd:element name="usePrinterMetrics" type="CT_OnOff" minOccurs="0"/>
2764 <xsd:element name="doNotSuppressParagraphBorders" type="CT_OnOff" minOccurs="0"/>
2765 <xsd:element name="wrapTrailSpaces" type="CT_OnOff" minOccurs="0"/>
2766 <xsd:element name="footnoteLayoutLikeWW8" type="CT_OnOff" minOccurs="0"/>
2767 <xsd:element name="shapeLayoutLikeWW8" type="CT_OnOff" minOccurs="0"/>
2768 <xsd:element name="alignTablesRowByRow" type="CT_OnOff" minOccurs="0"/>
2769 <xsd:element name="forgetLastTabAlignment" type="CT_OnOff" minOccurs="0"/>
2770 <xsd:element name="adjustLineHeightInTable" type="CT_OnOff" minOccurs="0"/>
2771 <xsd:element name="autoSpaceLikeWord95" type="CT_OnOff" minOccurs="0"/>
2772 <xsd:element name="noSpaceRaiseLower" type="CT_OnOff" minOccurs="0"/>
2773 <xsd:element name="doNotUseHTMLParagraphAutoSpacing" type="CT_OnOff" minOccurs="0"/>
2774 <xsd:element name="layoutRawTableWidth" type="CT_OnOff" minOccurs="0"/>
2775 <xsd:element name="layoutTableRowsApart" type="CT_OnOff" minOccurs="0"/>
2776 <xsd:element name="useWord97LineBreakRules" type="CT_OnOff" minOccurs="0"/>
2777 <xsd:element name="doNotBreakWrappedTables" type="CT_OnOff" minOccurs="0"/>
2778 <xsd:element name="doNotSnapToGridInCell" type="CT_OnOff" minOccurs="0"/>
2779 <xsd:element name="selectFldWithFirstOrLastChar" type="CT_OnOff" minOccurs="0"/>
2780 <xsd:element name="applyBreakingRules" type="CT_OnOff" minOccurs="0"/>
2781 <xsd:element name="doNotWrapTextWithPunct" type="CT_OnOff" minOccurs="0"/>
2782 <xsd:element name="doNotUseEastAsianBreakRules" type="CT_OnOff" minOccurs="0"/>
2783 <xsd:element name="useWord2002TableStyleRules" type="CT_OnOff" minOccurs="0"/>
2784 <xsd:element name="growAutofit" type="CT_OnOff" minOccurs="0"/>
2785 <xsd:element name="useFELayout" type="CT_OnOff" minOccurs="0"/>
2786 <xsd:element name="useNormalStyleForList" type="CT_OnOff" minOccurs="0"/>
2787 <xsd:element name="doNotUseIndentAsNumberingTabStop" type="CT_OnOff" minOccurs="0"/>
2788 <xsd:element name="useAltKinsokuLineBreakRules" type="CT_OnOff" minOccurs="0"/>

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2789     <xsd:element name="allowSpaceOfSameStyleInTable" type="CT_OnOff" minOccurs="0"/>
2790     <xsd:element name="doNotSuppressIndentation" type="CT_OnOff" minOccurs="0"/>
2791     <xsd:element name="doNotAutofitConstrainedTables" type="CT_OnOff" minOccurs="0"/>
2792     <xsd:element name="autofitToFirstFixedWidthCell" type="CT_OnOff" minOccurs="0"/>
2793     <xsd:element name="underlineTabInNumList" type="CT_OnOff" minOccurs="0"/>
2794     <xsd:element name="displayHangulFixedWidth" type="CT_OnOff" minOccurs="0"/>
2795     <xsd:element name="splitPgBreakAndParaMark" type="CT_OnOff" minOccurs="0"/>
2796     <xsd:element name="doNotVertAlignCellWithSp" type="CT_OnOff" minOccurs="0"/>
2797     <xsd:element name="doNotBreakConstrainedForcedTable" type="CT_OnOff" minOccurs="0"/>
2798     <xsd:element name="doNotVertAlignInTxbx" type="CT_OnOff" minOccurs="0"/>
2799     <xsd:element name="useAnsiKerningPairs" type="CT_OnOff" minOccurs="0"/>
2800     <xsd:element name="cachedColBalance" type="CT_OnOff" minOccurs="0"/>
2801     <xsd:element name="compatSetting" type="CT_CompatSetting" minOccurs="0"
2802         maxOccurs="unbounded"/>
2803 </xsd:sequence>
2804 </xsd:complexType>
2805 <xsd:complexType name="CT_CompatSetting">
2806     <xsd:attribute name="name" type="s:ST_String"/>
2807     <xsd:attribute name="uri" type="s:ST_String"/>
2808     <xsd:attribute name="val" type="s:ST_String"/>
2809 </xsd:complexType>
2810 <xsd:complexType name="CT_DocVar">
2811     <xsd:attribute name="name" type="s:ST_String" use="required"/>
2812     <xsd:attribute name="val" type="s:ST_String" use="required"/>
2813 </xsd:complexType>
2814 <xsd:complexType name="CT_DocVars">
2815     <xsd:sequence>
2816         <xsd:element name="docVar" type="CT_DocVar" minOccurs="0" maxOccurs="unbounded"/>
2817     </xsd:sequence>
2818 </xsd:complexType>
2819 <xsd:complexType name="CT_DocRsids">
2820     <xsd:sequence>
2821         <xsd:element name="rsidRoot" type="CT_LongHexNumber" minOccurs="0" maxOccurs="1"/>
2822         <xsd:element name="rsid" type="CT_LongHexNumber" minOccurs="0" maxOccurs="unbounded"/>
2823     </xsd:sequence>
2824 </xsd:complexType>
2825 <xsd:simpleType name="ST_CharacterSpacing">
2826     <xsd:restriction base="xsd:string">
2827         <xsd:enumeration value="doNotCompress"/>
2828         <xsd:enumeration value="compressPunctuation"/>
2829         <xsd:enumeration value="compressPunctuationAndJapaneseKana"/>
2830     </xsd:restriction>
2831 </xsd:simpleType>
2832 <xsd:complexType name="CT_CharacterSpacing">
2833     <xsd:attribute name="val" type="ST_CharacterSpacing" use="required"/>
2834 </xsd:complexType>
2835 <xsd:complexType name="CT_SaveThroughXslt">
2836     <xsd:attribute ref="r:id" use="optional"/>
2837     <xsd:attribute name="solutionID" type="s:ST_String" use="optional"/>
2838 </xsd:complexType>
2839 <xsd:complexType name="CT_RPrDefault">
2840     <xsd:sequence>
2841         <xsd:element name="rPr" type="CT_RPr" minOccurs="0"/>

```



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2842     </xsd:sequence>
2843 </xsd:complexType>
2844 <xsd:complexType name="CT_PPrDefault">
2845     <xsd:sequence>
2846         <xsd:element name="pPr" type="CT_PPrGeneral" minOccurs="0"/>
2847     </xsd:sequence>
2848 </xsd:complexType>
2849 <xsd:complexType name="CT_DocDefaults">
2850     <xsd:sequence>
2851         <xsd:element name="rPrDefault" type="CT_RPrDefault" minOccurs="0"/>
2852         <xsd:element name="pPrDefault" type="CT_PPrDefault" minOccurs="0"/>
2853     </xsd:sequence>
2854 </xsd:complexType>
2855 <xsd:simpleType name="ST_WmlColorSchemeIndex">
2856     <xsd:restriction base="xsd:string">
2857         <xsd:enumeration value="dark1"/>
2858         <xsd:enumeration value="light1"/>
2859         <xsd:enumeration value="dark2"/>
2860         <xsd:enumeration value="light2"/>
2861         <xsd:enumeration value="accent1"/>
2862         <xsd:enumeration value="accent2"/>
2863         <xsd:enumeration value="accent3"/>
2864         <xsd:enumeration value="accent4"/>
2865         <xsd:enumeration value="accent5"/>
2866         <xsd:enumeration value="accent6"/>
2867         <xsd:enumeration value="hyperlink"/>
2868         <xsd:enumeration value="followedHyperlink"/>
2869     </xsd:restriction>
2870 </xsd:simpleType>
2871 <xsd:complexType name="CT_ColorSchemeMapping">
2872     <xsd:attribute name="bg1" type="ST_WmlColorSchemeIndex"/>
2873     <xsd:attribute name="t1" type="ST_WmlColorSchemeIndex"/>
2874     <xsd:attribute name="bg2" type="ST_WmlColorSchemeIndex"/>
2875     <xsd:attribute name="t2" type="ST_WmlColorSchemeIndex"/>
2876     <xsd:attribute name="accent1" type="ST_WmlColorSchemeIndex"/>
2877     <xsd:attribute name="accent2" type="ST_WmlColorSchemeIndex"/>
2878     <xsd:attribute name="accent3" type="ST_WmlColorSchemeIndex"/>
2879     <xsd:attribute name="accent4" type="ST_WmlColorSchemeIndex"/>
2880     <xsd:attribute name="accent5" type="ST_WmlColorSchemeIndex"/>
2881     <xsd:attribute name="accent6" type="ST_WmlColorSchemeIndex"/>
2882     <xsd:attribute name="hyperlink" type="ST_WmlColorSchemeIndex"/>
2883     <xsd:attribute name="followedHyperlink" type="ST_WmlColorSchemeIndex"/>
2884 </xsd:complexType>
2885 <xsd:complexType name="CT_ReadingModeInkLockDown">
2886     <xsd:attribute name="actualPg" type="s:ST_OnOff" use="required"/>
2887     <xsd:attribute name="w" type="ST_PixelsMeasure" use="required"/>
2888     <xsd:attribute name="h" type="ST_PixelsMeasure" use="required"/>
2889     <xsd:attribute name="fontSz" type="ST_DecimalNumberOrPercent" use="required"/>
2890 </xsd:complexType>
2891 <xsd:complexType name="CT_WriteProtection">
2892     <xsd:attribute name="recommended" type="s:ST_OnOff" use="optional"/>
2893     <xsd:attributeGroup ref="AG_Password"/>
2894     <xsd:attributeGroup ref="AG_TransitionalPassword"/>

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2895 </xsd:complexType>
2896 <xsd:complexType name="CT_Settings">
2897   <xsd:sequence>
2898     <xsd:element name="writeProtection" type="CT_WriteProtection" minOccurs="0"/>
2899     <xsd:element name="view" type="CT_View" minOccurs="0"/>
2900     <xsd:element name="zoom" type="CT_Zoom" minOccurs="0"/>
2901     <xsd:element name="removePersonalInformation" type="CT_OnOff" minOccurs="0"/>
2902     <xsd:element name="removeDateAndTime" type="CT_OnOff" minOccurs="0"/>
2903     <xsd:element name="doNotDisplayPageBoundaries" type="CT_OnOff" minOccurs="0"/>
2904     <xsd:element name="displayBackgroundShape" type="CT_OnOff" minOccurs="0"/>
2905     <xsd:element name="printPostScriptOverText" type="CT_OnOff" minOccurs="0"/>
2906     <xsd:element name="printFractionalCharacterWidth" type="CT_OnOff" minOccurs="0"/>
2907     <xsd:element name="printFormsData" type="CT_OnOff" minOccurs="0"/>
2908     <xsd:element name="embedTrueTypeFonts" type="CT_OnOff" minOccurs="0"/>
2909     <xsd:element name="embedSystemFonts" type="CT_OnOff" minOccurs="0"/>
2910     <xsd:element name="saveSubsetFonts" type="CT_OnOff" minOccurs="0"/>
2911     <xsd:element name="saveFormsData" type="CT_OnOff" minOccurs="0"/>
2912     <xsd:element name="mirrorMargins" type="CT_OnOff" minOccurs="0"/>
2913     <xsd:element name="alignBordersAndEdges" type="CT_OnOff" minOccurs="0"/>
2914     <xsd:element name="bordersDoNotSurroundHeader" type="CT_OnOff" minOccurs="0"/>
2915     <xsd:element name="bordersDoNotSurroundFooter" type="CT_OnOff" minOccurs="0"/>
2916     <xsd:element name="gutterAtTop" type="CT_OnOff" minOccurs="0"/>
2917     <xsd:element name="hideSpellingErrors" type="CT_OnOff" minOccurs="0"/>
2918     <xsd:element name="hideGrammaticalErrors" type="CT_OnOff" minOccurs="0"/>
2919     <xsd:element name="activeWritingStyle" type="CT_WritingStyle" minOccurs="0"
2920       maxOccurs="unbounded"/>
2921     <xsd:element name="proofState" type="CT_Proof" minOccurs="0"/>
2922     <xsd:element name="formsDesign" type="CT_OnOff" minOccurs="0"/>
2923     <xsd:element name="attachedTemplate" type="CT_Rel" minOccurs="0"/>
2924     <xsd:element name="linkStyles" type="CT_OnOff" minOccurs="0"/>
2925     <xsd:element name="stylePaneFormatFilter" type="CT_StylePaneFilter" minOccurs="0"/>
2926     <xsd:element name="stylePaneSortMethod" type="CT_StyleSort" minOccurs="0"/>
2927     <xsd:element name="documentType" type="CT_DocType" minOccurs="0"/>
2928     <xsd:element name="mailMerge" type="CT_MailMerge" minOccurs="0"/>
2929     <xsd:element name="revisionView" type="CT_TrackChangesView" minOccurs="0"/>
2930     <xsd:element name="trackRevisions" type="CT_OnOff" minOccurs="0"/>
2931     <xsd:element name="doNotTrackMoves" type="CT_OnOff" minOccurs="0"/>
2932     <xsd:element name="doNotTrackFormatting" type="CT_OnOff" minOccurs="0"/>
2933     <xsd:element name="documentProtection" type="CT_DocProtect" minOccurs="0"/>
2934     <xsd:element name="autoFormatOverride" type="CT_OnOff" minOccurs="0"/>
2935     <xsd:element name="styleLockTheme" type="CT_OnOff" minOccurs="0"/>
2936     <xsd:element name="styleLockQFSet" type="CT_OnOff" minOccurs="0"/>
2937     <xsd:element name="defaultTabStop" type="CT_TwipsMeasure" minOccurs="0"/>
2938     <xsd:element name="autoHyphenation" type="CT_OnOff" minOccurs="0"/>
2939     <xsd:element name="consecutiveHyphenLimit" type="CT_DecimalNumber" minOccurs="0"/>
2940     <xsd:element name="hyphenationZone" type="CT_TwipsMeasure" minOccurs="0"/>
2941     <xsd:element name="doNotHyphenateCaps" type="CT_OnOff" minOccurs="0"/>
2942     <xsd:element name="showEnvelope" type="CT_OnOff" minOccurs="0"/>
2943     <xsd:element name="summaryLength" type="CT_DecimalNumberOrPrecent" minOccurs="0"/>
2944     <xsd:element name="clickAndTypeStyle" type="CT_String" minOccurs="0"/>
2945     <xsd:element name="defaultTableStyle" type="CT_String" minOccurs="0"/>
2946     <xsd:element name="evenAndOddHeaders" type="CT_OnOff" minOccurs="0"/>
2947     <xsd:element name="bookFoldRevPrinting" type="CT_OnOff" minOccurs="0"/>

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2948 <xsd:element name="bookFoldPrinting" type="CT_OnOff" minOccurs="0"/>
2949 <xsd:element name="bookFoldPrintingSheets" type="CT_DecimalNumber" minOccurs="0"/>
2950 <xsd:element name="drawingGridHorizontalSpacing" type="CT_TwipsMeasure" minOccurs="0"/>
2951 <xsd:element name="drawingGridVerticalSpacing" type="CT_TwipsMeasure" minOccurs="0"/>
2952 <xsd:element name="displayHorizontalDrawingGridEvery" type="CT_DecimalNumber"
2953     minOccurs="0"/>
2954 <xsd:element name="displayVerticalDrawingGridEvery" type="CT_DecimalNumber"
2955     minOccurs="0"/>
2956 <xsd:element name="doNotUseMarginsForDrawingGridOrigin" type="CT_OnOff" minOccurs="0"/>
2957 <xsd:element name="drawingGridHorizontalOrigin" type="CT_TwipsMeasure" minOccurs="0"/>
2958 <xsd:element name="drawingGridVerticalOrigin" type="CT_TwipsMeasure" minOccurs="0"/>
2959 <xsd:element name="doNotShadeFormData" type="CT_OnOff" minOccurs="0"/>
2960 <xsd:element name="noPunctuationKerning" type="CT_OnOff" minOccurs="0"/>
2961 <xsd:element name="characterSpacingControl" type="CT_CharacterSpacing" minOccurs="0"/>
2962 <xsd:element name="printTwoOnOne" type="CT_OnOff" minOccurs="0"/>
2963 <xsd:element name="strictFirstAndLastChars" type="CT_OnOff" minOccurs="0"/>
2964 <xsd:element name="noLineBreaksAfter" type="CT_Kinsoku" minOccurs="0"/>
2965 <xsd:element name="noLineBreaksBefore" type="CT_Kinsoku" minOccurs="0"/>
2966 <xsd:element name="savePreviewPicture" type="CT_OnOff" minOccurs="0"/>
2967 <xsd:element name="doNotValidateAgainstSchema" type="CT_OnOff" minOccurs="0"/>
2968 <xsd:element name="saveInvalidXml" type="CT_OnOff" minOccurs="0"/>
2969 <xsd:element name="ignoreMixedContent" type="CT_OnOff" minOccurs="0"/>
2970 <xsd:element name="alwaysShowPlaceholderText" type="CT_OnOff" minOccurs="0"/>
2971 <xsd:element name="doNotDemarcateInvalidXml" type="CT_OnOff" minOccurs="0"/>
2972 <xsd:element name="saveXmlDataOnly" type="CT_OnOff" minOccurs="0"/>
2973 <xsd:element name="useXSLTWhenSaving" type="CT_OnOff" minOccurs="0"/>
2974 <xsd:element name="saveThroughXslt" type="CT_SaveThroughXslt" minOccurs="0"/>
2975 <xsd:element name="showXMLTags" type="CT_OnOff" minOccurs="0"/>
2976 <xsd:element name="alwaysMergeEmptyNamespace" type="CT_OnOff" minOccurs="0"/>
2977 <xsd:element name="updateFields" type="CT_OnOff" minOccurs="0"/>
2978 <xsd:element name="hdrShapeDefaults" type="CT_ShapeDefaults" minOccurs="0"/>
2979 <xsd:element name="footnotePr" type="CT_FtnDocProps" minOccurs="0"/>
2980 <xsd:element name="endnotePr" type="CT_EdnDocProps" minOccurs="0"/>
2981 <xsd:element name="compat" type="CT_Compat" minOccurs="0"/>
2982 <xsd:element name="docVars" type="CT_DocVars" minOccurs="0"/>
2983 <xsd:element name="rsids" type="CT_DocRsids" minOccurs="0"/>
2984 <xsd:element ref="m:mathPr" minOccurs="0" maxOccurs="1"/>
2985 <xsd:element name="attachedSchema" type="CT_String" minOccurs="0" maxOccurs="unbounded"/>
2986 <xsd:element name="themeFontLang" type="CT_Language" minOccurs="0" maxOccurs="1"/>
2987 <xsd:element name="clrSchemeMapping" type="CT_ColorSchemeMapping" minOccurs="0"/>
2988 <xsd:element name="doNotIncludeSubdocsInStats" type="CT_OnOff" minOccurs="0"/>
2989 <xsd:element name="doNotAutoCompressPictures" type="CT_OnOff" minOccurs="0"/>
2990 <xsd:element name="forceUpgrade" type="CT_Empty" minOccurs="0" maxOccurs="1"/>
2991 <xsd:element name="captions" type="CT_Captions" minOccurs="0" maxOccurs="1"/>
2992 <xsd:element name="readModeInkLockDown" type="CT_ReadingModeInkLockDown" minOccurs="0"/>
2993 <xsd:element name="smartTagType" type="CT_SmartTagType" minOccurs="0"
2994     maxOccurs="unbounded"/>
2995 <xsd:element ref="sl:schemaLibrary" minOccurs="0" maxOccurs="1"/>
2996 <xsd:element name="shapeDefaults" type="CT_ShapeDefaults" minOccurs="0"/>
2997 <xsd:element name="doNotEmbedSmartTags" type="CT_OnOff" minOccurs="0"/>
2998 <xsd:element name="decimalSymbol" type="CT_String" minOccurs="0" maxOccurs="1"/>
2999 <xsd:element name="listSeparator" type="CT_String" minOccurs="0" maxOccurs="1"/>
3000 </xsd:sequence>

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3001 </xsd:complexType>
3002 <xsd:complexType name="CT_StyleSort">
3003   <xsd:attribute name="val" type="ST_StyleSort" use="required"/>
3004 </xsd:complexType>
3005 <xsd:complexType name="CT_StylePaneFilter">
3006   <xsd:attribute name="allStyles" type="s:ST_OnOff"/>
3007   <xsd:attribute name="customStyles" type="s:ST_OnOff"/>
3008   <xsd:attribute name="latentStyles" type="s:ST_OnOff"/>
3009   <xsd:attribute name="stylesInUse" type="s:ST_OnOff"/>
3010   <xsd:attribute name="headingStyles" type="s:ST_OnOff"/>
3011   <xsd:attribute name="numberingStyles" type="s:ST_OnOff"/>
3012   <xsd:attribute name="tableStyles" type="s:ST_OnOff"/>
3013   <xsd:attribute name="directFormattingOnRuns" type="s:ST_OnOff"/>
3014   <xsd:attribute name="directFormattingOnParagraphs" type="s:ST_OnOff"/>
3015   <xsd:attribute name="directFormattingOnNumbering" type="s:ST_OnOff"/>
3016   <xsd:attribute name="directFormattingOnTables" type="s:ST_OnOff"/>
3017   <xsd:attribute name="clearFormatting" type="s:ST_OnOff"/>
3018   <xsd:attribute name="top3HeadingStyles" type="s:ST_OnOff"/>
3019   <xsd:attribute name="visibleStyles" type="s:ST_OnOff"/>
3020   <xsd:attribute name="alternateStyleNames" type="s:ST_OnOff"/>
3021   <xsd:attribute name="val" type="ST_ShortHexNumber"/>
3022 </xsd:complexType>
3023 <xsd:simpleType name="ST_StyleSort">
3024   <xsd:restriction base="xsd:string">
3025     <xsd:enumeration value="name"/>
3026     <xsd:enumeration value="priority"/>
3027     <xsd:enumeration value="default"/>
3028     <xsd:enumeration value="font"/>
3029     <xsd:enumeration value="basedOn"/>
3030     <xsd:enumeration value="type"/>
3031     <xsd:enumeration value="0000"/>
3032     <xsd:enumeration value="0001"/>
3033     <xsd:enumeration value="0002"/>
3034     <xsd:enumeration value="0003"/>
3035     <xsd:enumeration value="0004"/>
3036     <xsd:enumeration value="0005"/>
3037   </xsd:restriction>
3038 </xsd:simpleType>
3039 <xsd:complexType name="CT_WebSettings">
3040   <xsd:sequence>
3041     <xsd:element name="frameset" type="CT_Frameset" minOccurs="0"/>
3042     <xsd:element name="divs" type="CT_Divs" minOccurs="0"/>
3043     <xsd:element name="encoding" type="CT_String" minOccurs="0"/>
3044     <xsd:element name="optimizeForBrowser" type="CT_OptimizeForBrowser" minOccurs="0"/>
3045     <xsd:element name="relyOnVML" type="CT_OnOff" minOccurs="0"/>
3046     <xsd:element name="allowPNG" type="CT_OnOff" minOccurs="0"/>
3047     <xsd:element name="doNotRelyOnCSS" type="CT_OnOff" minOccurs="0"/>
3048     <xsd:element name="doNotSaveAsSingleFile" type="CT_OnOff" minOccurs="0"/>
3049     <xsd:element name="doNotOrganizeInFolder" type="CT_OnOff" minOccurs="0"/>
3050     <xsd:element name="doNotUseLongFileNames" type="CT_OnOff" minOccurs="0"/>
3051     <xsd:element name="pixelsPerInch" type="CT_DecimalNumber" minOccurs="0"/>
3052     <xsd:element name="targetScreenSz" type="CT_TargetScreenSz" minOccurs="0"/>
3053     <xsd:element name="saveSmartTagsAsXml" type="CT_OnOff" minOccurs="0"/>

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3054     </xsd:sequence>
3055 </xsd:complexType>
3056 <xsd:simpleType name="ST_FrameScrollbar">
3057     <xsd:restriction base="xsd:string">
3058         <xsd:enumeration value="on"/>
3059         <xsd:enumeration value="off"/>
3060         <xsd:enumeration value="auto"/>
3061     </xsd:restriction>
3062 </xsd:simpleType>
3063 <xsd:complexType name="CT_FrameScrollbar">
3064     <xsd:attribute name="val" type="ST_FrameScrollbar" use="required"/>
3065 </xsd:complexType>
3066 <xsd:complexType name="CT_OptimizeForBrowser">
3067     <xsd:complexContent>
3068         <xsd:extension base="CT_OnOff">
3069             <xsd:attribute name="target" type="s:ST_String" use="optional"/>
3070         </xsd:extension>
3071     </xsd:complexContent>
3072 </xsd:complexType>
3073 <xsd:complexType name="CT_Frame">
3074     <xsd:sequence>
3075         <xsd:element name="sz" type="CT_String" minOccurs="0"/>
3076         <xsd:element name="name" type="CT_String" minOccurs="0"/>
3077         <xsd:element name="title" type="CT_String" minOccurs="0"/>
3078         <xsd:element name="longDesc" type="CT_Rel" minOccurs="0"/>
3079         <xsd:element name="sourceFileName" type="CT_Rel" minOccurs="0"/>
3080         <xsd:element name="marW" type="CT_PixelsMeasure" minOccurs="0"/>
3081         <xsd:element name="marH" type="CT_PixelsMeasure" minOccurs="0"/>
3082         <xsd:element name="scrollbar" type="CT_FrameScrollbar" minOccurs="0"/>
3083         <xsd:element name="noResizeAllowed" type="CT_OnOff" minOccurs="0"/>
3084         <xsd:element name="linkedToFile" type="CT_OnOff" minOccurs="0"/>
3085     </xsd:sequence>
3086 </xsd:complexType>
3087 <xsd:simpleType name="ST_FrameLayout">
3088     <xsd:restriction base="xsd:string">
3089         <xsd:enumeration value="rows"/>
3090         <xsd:enumeration value="cols"/>
3091         <xsd:enumeration value="none"/>
3092     </xsd:restriction>
3093 </xsd:simpleType>
3094 <xsd:complexType name="CT_FrameLayout">
3095     <xsd:attribute name="val" type="ST_FrameLayout" use="required"/>
3096 </xsd:complexType>
3097 <xsd:complexType name="CT_FramesetSplitbar">
3098     <xsd:sequence>
3099         <xsd:element name="w" type="CT_TwipsMeasure" minOccurs="0"/>
3100         <xsd:element name="color" type="CT_Color" minOccurs="0"/>
3101         <xsd:element name="noBorder" type="CT_OnOff" minOccurs="0"/>
3102         <xsd:element name="flatBorders" type="CT_OnOff" minOccurs="0"/>
3103     </xsd:sequence>
3104 </xsd:complexType>
3105 <xsd:complexType name="CT_Frameset">
3106     <xsd:sequence>

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3107     <xsd:element name="sz" type="CT_String" minOccurs="0"/>
3108     <xsd:element name="framesetSplitbar" type="CT_FramesetSplitbar" minOccurs="0"/>
3109     <xsd:element name="frameLayout" type="CT_FrameLayout" minOccurs="0"/>
3110     <xsd:element name="title" type="CT_String" minOccurs="0"/>
3111     <xsd:choice minOccurs="0" maxOccurs="unbounded">
3112         <xsd:element name="frameset" type="CT_Frameset" minOccurs="0" maxOccurs="unbounded"/>
3113         <xsd:element name="frame" type="CT_Frame" minOccurs="0" maxOccurs="unbounded"/>
3114     </xsd:choice>
3115 </xsd:sequence>
3116 </xsd:complexType>
3117 <xsd:complexType name="CT_NumPicBullet">
3118     <xsd:choice>
3119         <xsd:element name="pict" type="CT_Picture"/>
3120         <xsd:element name="drawing" type="CT_Drawing"/>
3121     </xsd:choice>
3122     <xsd:attribute name="numPicBulletId" type="ST_DecimalNumber" use="required"/>
3123 </xsd:complexType>
3124 <xsd:simpleType name="ST_LevelSuffix">
3125     <xsd:restriction base="xsd:string">
3126         <xsd:enumeration value="tab"/>
3127         <xsd:enumeration value="space"/>
3128         <xsd:enumeration value="nothing"/>
3129     </xsd:restriction>
3130 </xsd:simpleType>
3131 <xsd:complexType name="CT_LevelSuffix">
3132     <xsd:attribute name="val" type="ST_LevelSuffix" use="required"/>
3133 </xsd:complexType>
3134 <xsd:complexType name="CT_LevelText">
3135     <xsd:attribute name="val" type="s:ST_String" use="optional"/>
3136     <xsd:attribute name="null" type="s:ST_OnOff" use="optional"/>
3137 </xsd:complexType>
3138 <xsd:complexType name="CT_LvlLegacy">
3139     <xsd:attribute name="legacy" type="s:ST_OnOff" use="optional"/>
3140     <xsd:attribute name="legacySpace" type="s:ST_TwipsMeasure" use="optional"/>
3141     <xsd:attribute name="legacyIndent" type="ST_SignedTwipsMeasure" use="optional"/>
3142 </xsd:complexType>
3143 <xsd:complexType name="CT_Lvl">
3144     <xsd:sequence>
3145         <xsd:element name="start" type="CT_DecimalNumber" minOccurs="0"/>
3146         <xsd:element name="numFmt" type="CT_NumFmt" minOccurs="0"/>
3147         <xsd:element name="lvlRestart" type="CT_DecimalNumber" minOccurs="0"/>
3148         <xsd:element name="pStyle" type="CT_String" minOccurs="0"/>
3149         <xsd:element name="isLgl" type="CT_OnOff" minOccurs="0"/>
3150         <xsd:element name="suff" type="CT_LevelSuffix" minOccurs="0"/>
3151         <xsd:element name="lvlText" type="CT_LevelText" minOccurs="0"/>
3152         <xsd:element name="lvlPicBulletId" type="CT_DecimalNumber" minOccurs="0"/>
3153         <xsd:element name="legacy" type="CT_LvlLegacy" minOccurs="0"/>
3154         <xsd:element name="lvlJc" type="CT_Jc" minOccurs="0"/>
3155         <xsd:element name="pPr" type="CT_PPrGeneral" minOccurs="0"/>
3156         <xsd:element name="rPr" type="CT_RPr" minOccurs="0"/>
3157     </xsd:sequence>
3158     <xsd:attribute name="ilvl" type="ST_DecimalNumber" use="required"/>
3159     <xsd:attribute name="tplc" type="ST_LongHexNumber" use="optional"/>

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3160     <xsd:attribute name="tentative" type="s:ST_OnOff" use="optional"/>
3161 </xsd:complexType>
3162 <xsd:simpleType name="ST_MultiLevelType">
3163     <xsd:restriction base="xsd:string">
3164         <xsd:enumeration value="singleLevel"/>
3165         <xsd:enumeration value="multilevel"/>
3166         <xsd:enumeration value="hybridMultilevel"/>
3167     </xsd:restriction>
3168 </xsd:simpleType>
3169 <xsd:complexType name="CT_MultiLevelType">
3170     <xsd:attribute name="val" type="ST_MultiLevelType" use="required"/>
3171 </xsd:complexType>
3172 <xsd:complexType name="CT_AbstractNum">
3173     <xsd:sequence>
3174         <xsd:element name="nsid" type="CT_LongHexNumber" minOccurs="0"/>
3175         <xsd:element name="multiLevelType" type="CT_MultiLevelType" minOccurs="0"/>
3176         <xsd:element name="tpl" type="CT_LongHexNumber" minOccurs="0"/>
3177         <xsd:element name="name" type="CT_String" minOccurs="0"/>
3178         <xsd:element name="styleLink" type="CT_String" minOccurs="0"/>
3179         <xsd:element name="numStyleLink" type="CT_String" minOccurs="0"/>
3180         <xsd:element name="lvl" type="CT_Lvl" minOccurs="0" maxOccurs="9"/>
3181     </xsd:sequence>
3182     <xsd:attribute name="abstractNumId" type="ST_DecimalNumber" use="required"/>
3183 </xsd:complexType>
3184 <xsd:complexType name="CT_NumLvl">
3185     <xsd:sequence>
3186         <xsd:element name="startOverride" type="CT_DecimalNumber" minOccurs="0"/>
3187         <xsd:element name="lvl" type="CT_Lvl" minOccurs="0" maxOccurs="1"/>
3188     </xsd:sequence>
3189     <xsd:attribute name="ilvl" type="ST_DecimalNumber" use="required"/>
3190 </xsd:complexType>
3191 <xsd:complexType name="CT_Num">
3192     <xsd:sequence>
3193         <xsd:element name="abstractNumId" type="CT_DecimalNumber" minOccurs="1"/>
3194         <xsd:element name="lvlOverride" type="CT_NumLvl" minOccurs="0" maxOccurs="9"/>
3195     </xsd:sequence>
3196     <xsd:attribute name="numId" type="ST_DecimalNumber" use="required"/>
3197 </xsd:complexType>
3198 <xsd:complexType name="CT_Numbering">
3199     <xsd:sequence>
3200         <xsd:element name="numPicBullet" type="CT_NumPicBullet" minOccurs="0"
3201             maxOccurs="unbounded"/>
3202         <xsd:element name="abstractNum" type="CT_AbstractNum" minOccurs="0"
3203             maxOccurs="unbounded"/>
3204         <xsd:element name="num" type="CT_Num" minOccurs="0" maxOccurs="unbounded"/>
3205         <xsd:element name="numIdMacAtCleanup" type="CT_DecimalNumber" minOccurs="0"/>
3206     </xsd:sequence>
3207 </xsd:complexType>
3208 <xsd:simpleType name="ST_TblStyleOverrideType">
3209     <xsd:restriction base="xsd:string">
3210         <xsd:enumeration value="wholeTable"/>
3211         <xsd:enumeration value="firstRow"/>
3212         <xsd:enumeration value="lastRow"/>

```



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3213     <xsd:enumeration value="firstCol"/>
3214     <xsd:enumeration value="lastCol"/>
3215     <xsd:enumeration value="band1Vert"/>
3216     <xsd:enumeration value="band2Vert"/>
3217     <xsd:enumeration value="band1Horz"/>
3218     <xsd:enumeration value="band2Horz"/>
3219     <xsd:enumeration value="neCell"/>
3220     <xsd:enumeration value="nwCell"/>
3221     <xsd:enumeration value="seCell"/>
3222     <xsd:enumeration value="swCell"/>
3223   </xsd:restriction>
3224 </xsd:simpleType>
3225 <xsd:complexType name="CT_TblStylePr">
3226   <xsd:sequence>
3227     <xsd:element name="pPr" type="CT_PPrGeneral" minOccurs="0"/>
3228     <xsd:element name="rPr" type="CT_RPr" minOccurs="0"/>
3229     <xsd:element name="tblPr" type="CT_TblPrBase" minOccurs="0"/>
3230     <xsd:element name="trPr" type="CT_TrPr" minOccurs="0" maxOccurs="1"/>
3231     <xsd:element name="tcPr" type="CT_TcPr" minOccurs="0" maxOccurs="1"/>
3232   </xsd:sequence>
3233   <xsd:attribute name="type" type="ST_TblStyleOverrideType" use="required"/>
3234 </xsd:complexType>
3235 <xsd:simpleType name="ST_StyleType">
3236   <xsd:restriction base="xsd:string">
3237     <xsd:enumeration value="paragraph"/>
3238     <xsd:enumeration value="character"/>
3239     <xsd:enumeration value="table"/>
3240     <xsd:enumeration value="numbering"/>
3241   </xsd:restriction>
3242 </xsd:simpleType>
3243 <xsd:complexType name="CT_Style">
3244   <xsd:sequence>
3245     <xsd:element name="name" type="CT_String" minOccurs="0" maxOccurs="1"/>
3246     <xsd:element name="aliases" type="CT_String" minOccurs="0"/>
3247     <xsd:element name="basedOn" type="CT_String" minOccurs="0"/>
3248     <xsd:element name="next" type="CT_String" minOccurs="0"/>
3249     <xsd:element name="link" type="CT_String" minOccurs="0"/>
3250     <xsd:element name="autoRedefine" type="CT_OnOff" minOccurs="0"/>
3251     <xsd:element name="hidden" type="CT_OnOff" minOccurs="0"/>
3252     <xsd:element name="uiPriority" type="CT_DecimalNumber" minOccurs="0"/>
3253     <xsd:element name="semiHidden" type="CT_OnOff" minOccurs="0"/>
3254     <xsd:element name="unhideWhenUsed" type="CT_OnOff" minOccurs="0"/>
3255     <xsd:element name="qFormat" type="CT_OnOff" minOccurs="0"/>
3256     <xsd:element name="locked" type="CT_OnOff" minOccurs="0"/>
3257     <xsd:element name="personal" type="CT_OnOff" minOccurs="0"/>
3258     <xsd:element name="personalCompose" type="CT_OnOff" minOccurs="0"/>
3259     <xsd:element name="personalReply" type="CT_OnOff" minOccurs="0"/>
3260     <xsd:element name="rsid" type="CT_LongHexNumber" minOccurs="0"/>
3261     <xsd:element name="pPr" type="CT_PPrGeneral" minOccurs="0" maxOccurs="1"/>
3262     <xsd:element name="rPr" type="CT_RPr" minOccurs="0" maxOccurs="1"/>
3263     <xsd:element name="tblPr" type="CT_TblPrBase" minOccurs="0" maxOccurs="1"/>
3264     <xsd:element name="trPr" type="CT_TrPr" minOccurs="0" maxOccurs="1"/>
3265     <xsd:element name="tcPr" type="CT_TcPr" minOccurs="0" maxOccurs="1"/>

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3266     <xsd:element name="tblStylePr" type="CT_TblStylePr" minOccurs="0" maxOccurs="unbounded"/>
3267 </xsd:sequence>
3268 <xsd:attribute name="type" type="ST_StyleType" use="optional"/>
3269 <xsd:attribute name="styleId" type="s:ST_String" use="optional"/>
3270 <xsd:attribute name="default" type="s:ST_OnOff" use="optional"/>
3271 <xsd:attribute name="customStyle" type="s:ST_OnOff" use="optional"/>
3272 </xsd:complexType>
3273 <xsd:complexType name="CT_LsdException">
3274     <xsd:attribute name="name" type="s:ST_String" use="required"/>
3275     <xsd:attribute name="locked" type="s:ST_OnOff"/>
3276     <xsd:attribute name="uiPriority" type="ST_DecimalNumber"/>
3277     <xsd:attribute name="semiHidden" type="s:ST_OnOff"/>
3278     <xsd:attribute name="unhideWhenUsed" type="s:ST_OnOff"/>
3279     <xsd:attribute name="qFormat" type="s:ST_OnOff"/>
3280 </xsd:complexType>
3281 <xsd:complexType name="CT_LatentStyles">
3282     <xsd:sequence>
3283         <xsd:element name="lsdException" type="CT_LsdException" minOccurs="0"
3284             maxOccurs="unbounded"/>
3285     </xsd:sequence>
3286     <xsd:attribute name="defLockedState" type="s:ST_OnOff"/>
3287     <xsd:attribute name="defUIPriority" type="ST_DecimalNumber"/>
3288     <xsd:attribute name="defSemiHidden" type="s:ST_OnOff"/>
3289     <xsd:attribute name="defUnhideWhenUsed" type="s:ST_OnOff"/>
3290     <xsd:attribute name="defQFormat" type="s:ST_OnOff"/>
3291     <xsd:attribute name="count" type="ST_DecimalNumber"/>
3292 </xsd:complexType>
3293 <xsd:complexType name="CT_Styles">
3294     <xsd:sequence>
3295         <xsd:element name="docDefaults" type="CT_DocDefaults" minOccurs="0"/>
3296         <xsd:element name="latentStyles" type="CT_LatentStyles" minOccurs="0" maxOccurs="1"/>
3297         <xsd:element name="style" type="CT_Style" minOccurs="0" maxOccurs="unbounded"/>
3298     </xsd:sequence>
3299 </xsd:complexType>
3300 <xsd:complexType name="CT_Panose">
3301     <xsd:attribute name="val" type="s:ST_Panose" use="required"/>
3302 </xsd:complexType>
3303 <xsd:simpleType name="ST_FontFamily">
3304     <xsd:restriction base="xsd:string">
3305         <xsd:enumeration value="decorative"/>
3306         <xsd:enumeration value="modern"/>
3307         <xsd:enumeration value="roman"/>
3308         <xsd:enumeration value="script"/>
3309         <xsd:enumeration value="swiss"/>
3310         <xsd:enumeration value="auto"/>
3311     </xsd:restriction>
3312 </xsd:simpleType>
3313 <xsd:complexType name="CT_FontFamily">
3314     <xsd:attribute name="val" type="ST_FontFamily" use="required"/>
3315 </xsd:complexType>
3316 <xsd:simpleType name="ST_Pitch">
3317     <xsd:restriction base="xsd:string">
3318         <xsd:enumeration value="fixed"/>

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3319         <xsd:enumeration value="variable"/>
3320         <xsd:enumeration value="default"/>
3321     </xsd:restriction>
3322 </xsd:simpleType>
3323 <xsd:complexType name="CT_Pitch">
3324     <xsd:attribute name="val" type="ST_Pitch" use="required"/>
3325 </xsd:complexType>
3326 <xsd:complexType name="CT_FontSig">
3327     <xsd:attribute name="usb0" use="required" type="ST_LongHexNumber"/>
3328     <xsd:attribute name="usb1" use="required" type="ST_LongHexNumber"/>
3329     <xsd:attribute name="usb2" use="required" type="ST_LongHexNumber"/>
3330     <xsd:attribute name="usb3" use="required" type="ST_LongHexNumber"/>
3331     <xsd:attribute name="csb0" use="required" type="ST_LongHexNumber"/>
3332     <xsd:attribute name="csb1" use="required" type="ST_LongHexNumber"/>
3333 </xsd:complexType>
3334 <xsd:complexType name="CT_FontRel">
3335     <xsd:complexContent>
3336         <xsd:extension base="CT_Rel">
3337             <xsd:attribute name="fontKey" type="s:ST_Guid"/>
3338             <xsd:attribute name="subsetting" type="s:ST_OnOff"/>
3339         </xsd:extension>
3340     </xsd:complexContent>
3341 </xsd:complexType>
3342 <xsd:complexType name="CT_Font">
3343     <xsd:sequence>
3344         <xsd:element name="altName" type="CT_String" minOccurs="0" maxOccurs="1"/>
3345         <xsd:element name="panose1" type="CT_Panose" minOccurs="0" maxOccurs="1"/>
3346         <xsd:element name="charset" type="CT_Charset" minOccurs="0" maxOccurs="1"/>
3347         <xsd:element name="family" type="CT_FontFamily" minOccurs="0" maxOccurs="1"/>
3348         <xsd:element name="notTrueType" type="CT_OnOff" minOccurs="0" maxOccurs="1"/>
3349         <xsd:element name="pitch" type="CT_Pitch" minOccurs="0" maxOccurs="1"/>
3350         <xsd:element name="sig" type="CT_FontSig" minOccurs="0" maxOccurs="1"/>
3351         <xsd:element name="embedRegular" type="CT_FontRel" minOccurs="0" maxOccurs="1"/>
3352         <xsd:element name="embedBold" type="CT_FontRel" minOccurs="0" maxOccurs="1"/>
3353         <xsd:element name="embedItalic" type="CT_FontRel" minOccurs="0" maxOccurs="1"/>
3354         <xsd:element name="embedBoldItalic" type="CT_FontRel" minOccurs="0" maxOccurs="1"/>
3355     </xsd:sequence>
3356     <xsd:attribute name="name" type="s:ST_String" use="required"/>
3357 </xsd:complexType>
3358 <xsd:complexType name="CT_FontsList">
3359     <xsd:sequence>
3360         <xsd:element name="font" type="CT_Font" minOccurs="0" maxOccurs="unbounded"/>
3361     </xsd:sequence>
3362 </xsd:complexType>
3363 <xsd:complexType name="CT_DivBdr">
3364     <xsd:sequence>
3365         <xsd:element name="top" type="CT_Border" minOccurs="0"/>
3366         <xsd:element name="left" type="CT_Border" minOccurs="0"/>
3367         <xsd:element name="bottom" type="CT_Border" minOccurs="0"/>
3368         <xsd:element name="right" type="CT_Border" minOccurs="0"/>
3369     </xsd:sequence>
3370 </xsd:complexType>
3371 <xsd:complexType name="CT_Div">

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3372     <xsd:sequence>
3373         <xsd:element name="blockQuote" type="CT_OnOff" minOccurs="0"/>
3374         <xsd:element name="bodyDiv" type="CT_OnOff" minOccurs="0"/>
3375         <xsd:element name="marLeft" type="CT_SignedTwipsMeasure"/>
3376         <xsd:element name="marRight" type="CT_SignedTwipsMeasure"/>
3377         <xsd:element name="marTop" type="CT_SignedTwipsMeasure"/>
3378         <xsd:element name="marBottom" type="CT_SignedTwipsMeasure"/>
3379         <xsd:element name="divBdr" type="CT_DivBdr" minOccurs="0"/>
3380         <xsd:element name="divsChild" type="CT_Divs" minOccurs="0" maxOccurs="unbounded"/>
3381     </xsd:sequence>
3382     <xsd:attribute name="id" type="ST_DecimalNumber" use="required"/>
3383 </xsd:complexType>
3384 <xsd:complexType name="CT_Divs">
3385     <xsd:sequence minOccurs="1" maxOccurs="unbounded">
3386         <xsd:element name="div" type="CT_Div"/>
3387     </xsd:sequence>
3388 </xsd:complexType>
3389 <xsd:complexType name="CT_TxbxContent">
3390     <xsd:group ref="EG_BlockLevelElts" minOccurs="1" maxOccurs="unbounded"/>
3391 </xsd:complexType>
3392 <xsd:element name="txbxContent" type="CT_TxbxContent"/>
3393 <xsd:group name="EG_MathContent">
3394     <xsd:choice>
3395         <xsd:element ref="m:oMathPara"/>
3396         <xsd:element ref="m:oMath"/>
3397     </xsd:choice>
3398 </xsd:group>
3399 <xsd:group name="EG_BlockLevelChunkElts">
3400     <xsd:choice>
3401         <xsd:group ref="EG_ContentBlockContent" minOccurs="0" maxOccurs="unbounded"/>
3402     </xsd:choice>
3403 </xsd:group>
3404 <xsd:group name="EG_BlockLevelElts">
3405     <xsd:choice>
3406         <xsd:group ref="EG_BlockLevelChunkElts" minOccurs="0" maxOccurs="unbounded"/>
3407         <xsd:element name="altChunk" type="CT_AltChunk" minOccurs="0" maxOccurs="unbounded"/>
3408     </xsd:choice>
3409 </xsd:group>
3410 <xsd:group name="EG_RunLevelElts">
3411     <xsd:choice>
3412         <xsd:element name="proofErr" minOccurs="0" type="CT_ProofErr"/>
3413         <xsd:element name="permStart" minOccurs="0" type="CT_PermStart"/>
3414         <xsd:element name="permEnd" minOccurs="0" type="CT_Perm"/>
3415         <xsd:group ref="EG_RangeMarkupElements" minOccurs="0" maxOccurs="unbounded"/>
3416         <xsd:element name="ins" type="CT_RunTrackChange" minOccurs="0"/>
3417         <xsd:element name="del" type="CT_RunTrackChange" minOccurs="0"/>
3418         <xsd:element name="moveFrom" type="CT_RunTrackChange"/>
3419         <xsd:element name="moveTo" type="CT_RunTrackChange"/>
3420         <xsd:group ref="EG_MathContent" minOccurs="0" maxOccurs="unbounded"/>
3421     </xsd:choice>
3422 </xsd:group>
3423 <xsd:complexType name="CT_Body">
3424     <xsd:sequence>

```



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3425     <xsd:group ref="EG_BlockLevelElts" minOccurs="0" maxOccurs="unbounded"/>
3426     <xsd:element name="sectPr" minOccurs="0" maxOccurs="1" type="CT_SectPr"/>
3427   </xsd:sequence>
3428 </xsd:complexType>
3429 <xsd:complexType name="CT_ShapeDefaults">
3430   <xsd:choice maxOccurs="unbounded">
3431     <xsd:any processContents="lax" namespace="urn:schemas-microsoft-com:office:office"
3432       minOccurs="0" maxOccurs="unbounded"/>
3433   </xsd:choice>
3434 </xsd:complexType>
3435 <xsd:complexType name="CT_Comments">
3436   <xsd:sequence>
3437     <xsd:element name="comment" type="CT_Comment" minOccurs="0" maxOccurs="unbounded"/>
3438   </xsd:sequence>
3439 </xsd:complexType>
3440 <xsd:element name="comments" type="CT_Comments"/>
3441 <xsd:complexType name="CT_Footnotes">
3442   <xsd:sequence maxOccurs="unbounded">
3443     <xsd:element name="footnote" type="CT_FtnEdn" minOccurs="0"/>
3444   </xsd:sequence>
3445 </xsd:complexType>
3446 <xsd:element name="footnotes" type="CT_Footnotes"/>
3447 <xsd:complexType name="CT_Endnotes">
3448   <xsd:sequence maxOccurs="unbounded">
3449     <xsd:element name="endnote" type="CT_FtnEdn" minOccurs="0"/>
3450   </xsd:sequence>
3451 </xsd:complexType>
3452 <xsd:element name="endnotes" type="CT_Endnotes"/>
3453 <xsd:element name="hdr" type="CT_HdrFtr"/>
3454 <xsd:element name="ftr" type="CT_HdrFtr"/>
3455 <xsd:complexType name="CT_SmartTagType">
3456   <xsd:attribute name="namespaceuri" type="s:ST_String"/>
3457   <xsd:attribute name="name" type="s:ST_String"/>
3458   <xsd:attribute name="url" type="s:ST_String"/>
3459 </xsd:complexType>
3460 <xsd:simpleType name="ST_ThemeColor">
3461   <xsd:restriction base="xsd:string">
3462     <xsd:enumeration value="dark1"/>
3463     <xsd:enumeration value="light1"/>
3464     <xsd:enumeration value="dark2"/>
3465     <xsd:enumeration value="light2"/>
3466     <xsd:enumeration value="accent1"/>
3467     <xsd:enumeration value="accent2"/>
3468     <xsd:enumeration value="accent3"/>
3469     <xsd:enumeration value="accent4"/>
3470     <xsd:enumeration value="accent5"/>
3471     <xsd:enumeration value="accent6"/>
3472     <xsd:enumeration value="hyperlink"/>
3473     <xsd:enumeration value="followedHyperlink"/>
3474     <xsd:enumeration value="none"/>
3475     <xsd:enumeration value="background1"/>
3476     <xsd:enumeration value="text1"/>
3477     <xsd:enumeration value="background2"/>

```



```

3478         <xsd:enumeration value="text2"/>
3479     </xsd:restriction>
3480 </xsd:simpleType>
3481 <xsd:simpleType name="ST_DocPartBehavior">
3482     <xsd:restriction base="xsd:string">
3483         <xsd:enumeration value="content"/>
3484         <xsd:enumeration value="p"/>
3485         <xsd:enumeration value="pg"/>
3486     </xsd:restriction>
3487 </xsd:simpleType>
3488 <xsd:complexType name="CT_DocPartBehavior">
3489     <xsd:attribute name="val" use="required" type="ST_DocPartBehavior"/>
3490 </xsd:complexType>
3491 <xsd:complexType name="CT_DocPartBehaviors">
3492     <xsd:choice>
3493         <xsd:element name="behavior" type="CT_DocPartBehavior" maxOccurs="unbounded"/>
3494     </xsd:choice>
3495 </xsd:complexType>
3496 <xsd:simpleType name="ST_DocPartType">
3497     <xsd:restriction base="xsd:string">
3498         <xsd:enumeration value="none"/>
3499         <xsd:enumeration value="normal"/>
3500         <xsd:enumeration value="autoExp"/>
3501         <xsd:enumeration value="toolbar"/>
3502         <xsd:enumeration value="speller"/>
3503         <xsd:enumeration value="formFld"/>
3504         <xsd:enumeration value="bbPlcHdr"/>
3505     </xsd:restriction>
3506 </xsd:simpleType>
3507 <xsd:complexType name="CT_DocPartType">
3508     <xsd:attribute name="val" use="required" type="ST_DocPartType"/>
3509 </xsd:complexType>
3510 <xsd:complexType name="CT_DocPartTypes">
3511     <xsd:choice>
3512         <xsd:element name="type" type="CT_DocPartType" maxOccurs="unbounded"/>
3513     </xsd:choice>
3514     <xsd:attribute name="all" type="s:ST_OnOff" use="optional"/>
3515 </xsd:complexType>
3516 <xsd:simpleType name="ST_DocPartGallery">
3517     <xsd:restriction base="xsd:string">
3518         <xsd:enumeration value="placeholder"/>
3519         <xsd:enumeration value="any"/>
3520         <xsd:enumeration value="default"/>
3521         <xsd:enumeration value="docParts"/>
3522         <xsd:enumeration value="coverPg"/>
3523         <xsd:enumeration value="eq"/>
3524         <xsd:enumeration value="ftrs"/>
3525         <xsd:enumeration value="hdrs"/>
3526         <xsd:enumeration value="pgNum"/>
3527         <xsd:enumeration value="tbls"/>
3528         <xsd:enumeration value="watermarks"/>
3529         <xsd:enumeration value="autoTxt"/>
3530         <xsd:enumeration value="txtBox"/>

```



```

3531      <xsd:enumeration value="pgNumT"/>
3532      <xsd:enumeration value="pgNumB"/>
3533      <xsd:enumeration value="pgNumMargins"/>
3534      <xsd:enumeration value="tblOfContents"/>
3535      <xsd:enumeration value="bib"/>
3536      <xsd:enumeration value="custQuickParts"/>
3537      <xsd:enumeration value="custCoverPg"/>
3538      <xsd:enumeration value="custEq"/>
3539      <xsd:enumeration value="custFtrs"/>
3540      <xsd:enumeration value="custHdrs"/>
3541      <xsd:enumeration value="custPgNum"/>
3542      <xsd:enumeration value="custTbls"/>
3543      <xsd:enumeration value="custWatermarks"/>
3544      <xsd:enumeration value="custAutoTxt"/>
3545      <xsd:enumeration value="custTxtBox"/>
3546      <xsd:enumeration value="custPgNumT"/>
3547      <xsd:enumeration value="custPgNumB"/>
3548      <xsd:enumeration value="custPgNumMargins"/>
3549      <xsd:enumeration value="custTblOfContents"/>
3550      <xsd:enumeration value="custBib"/>
3551      <xsd:enumeration value="custom1"/>
3552      <xsd:enumeration value="custom2"/>
3553      <xsd:enumeration value="custom3"/>
3554      <xsd:enumeration value="custom4"/>
3555      <xsd:enumeration value="custom5"/>
3556    </xsd:restriction>
3557  </xsd:simpleType>
3558  <xsd:complexType name="CT_DocPartGallery">
3559    <xsd:attribute name="val" type="ST_DocPartGallery" use="required"/>
3560  </xsd:complexType>
3561  <xsd:complexType name="CT_DocPartCategory">
3562    <xsd:sequence>
3563      <xsd:element name="name" type="CT_String" minOccurs="1" maxOccurs="1"/>
3564      <xsd:element name="gallery" type="CT_DocPartGallery" minOccurs="1" maxOccurs="1"/>
3565    </xsd:sequence>
3566  </xsd:complexType>
3567  <xsd:complexType name="CT_DocPartName">
3568    <xsd:attribute name="val" type="s:ST_String" use="required"/>
3569    <xsd:attribute name="decorated" type="s:ST_OnOff" use="optional"/>
3570  </xsd:complexType>
3571  <xsd:complexType name="CT_DocPartPr">
3572    <xsd:all>
3573      <xsd:element name="style" type="CT_String" minOccurs="0"/>
3574      <xsd:element name="category" type="CT_DocPartCategory" minOccurs="0"/>
3575      <xsd:element name="types" type="CT_DocPartTypes" minOccurs="0"/>
3576      <xsd:element name="behaviors" type="CT_DocPartBehaviors" minOccurs="0"/>
3577      <xsd:element name="description" type="CT_String" minOccurs="0"/>
3578      <xsd:element name="guid" type="CT_Guid" minOccurs="0"/>
3579    </xsd:all>
3580  </xsd:complexType>
3581  <xsd:complexType name="CT_DocPart">
3582    <xsd:sequence>
3583      <xsd:element name="docPartPr" type="CT_DocPartPr" minOccurs="0"/>

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3584     <xsd:element name="docPartBody" type="CT_Body" minOccurs="0"/>
3585   </xsd:sequence>
3586 </xsd:complexType>
3587 <xsd:complexType name="CT_DocParts">
3588   <xsd:choice>
3589     <xsd:element name="docPart" type="CT_DocPart" minOccurs="1" maxOccurs="unbounded"/>
3590   </xsd:choice>
3591 </xsd:complexType>
3592 <xsd:element name="settings" type="CT_Settings"/>
3593 <xsd:element name="webSettings" type="CT_WebSettings"/>
3594 <xsd:element name="fonts" type="CT_FontsList"/>
3595 <xsd:element name="numbering" type="CT_Numbering"/>
3596 <xsd:element name="styles" type="CT_Styles"/>
3597 <xsd:simpleType name="ST_CaptionPos">
3598   <xsd:restriction base="xsd:string">
3599     <xsd:enumeration value="above"/>
3600     <xsd:enumeration value="below"/>
3601     <xsd:enumeration value="left"/>
3602     <xsd:enumeration value="right"/>
3603   </xsd:restriction>
3604 </xsd:simpleType>
3605 <xsd:complexType name="CT_Caption">
3606   <xsd:attribute name="name" type="s:ST_String" use="required"/>
3607   <xsd:attribute name="pos" type="ST_CaptionPos" use="optional"/>
3608   <xsd:attribute name="chapNum" type="s:ST_OnOff" use="optional"/>
3609   <xsd:attribute name="heading" type="ST_DecimalNumber" use="optional"/>
3610   <xsd:attribute name="noLabel" type="s:ST_OnOff" use="optional"/>
3611   <xsd:attribute name="numFmt" type="ST_NumberFormat" use="optional"/>
3612   <xsd:attribute name="sep" type="ST_ChapterSep" use="optional"/>
3613 </xsd:complexType>
3614 <xsd:complexType name="CT_AutoCaption">
3615   <xsd:attribute name="name" type="s:ST_String" use="required"/>
3616   <xsd:attribute name="caption" type="s:ST_String" use="required"/>
3617 </xsd:complexType>
3618 <xsd:complexType name="CT_AutoCaptions">
3619   <xsd:sequence>
3620     <xsd:element name="autoCaption" type="CT_AutoCaption" minOccurs="1"
3621       maxOccurs="unbounded"/>
3622   </xsd:sequence>
3623 </xsd:complexType>
3624 <xsd:complexType name="CT_Captions">
3625   <xsd:sequence>
3626     <xsd:element name="caption" type="CT_Caption" minOccurs="1" maxOccurs="unbounded"/>
3627     <xsd:element name="autoCaptions" type="CT_AutoCaptions" minOccurs="0" maxOccurs="1"/>
3628   </xsd:sequence>
3629 </xsd:complexType>
3630 <xsd:complexType name="CT_DocumentBase">
3631   <xsd:sequence>
3632     <xsd:element name="background" type="CT_Background" minOccurs="0"/>
3633   </xsd:sequence>
3634 </xsd:complexType>
3635 <xsd:complexType name="CT_Document">
3636   <xsd:complexContent>

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3637     <xsd:extension base="CT_DocumentBase">
3638         <xsd:sequence>
3639             <xsd:element name="body" type="CT_Body" minOccurs="0" maxOccurs="1"/>
3640         </xsd:sequence>
3641         <xsd:attribute name="conformance" type="s:ST_ConformanceClass"/>
3642     </xsd:extension>
3643 </xsd:complexContent>
3644 </xsd:complexType>
3645 <xsd:complexType name="CT_GlossaryDocument">
3646     <xsd:complexContent>
3647         <xsd:extension base="CT_DocumentBase">
3648             <xsd:sequence>
3649                 <xsd:element name="docParts" type="CT_DocParts" minOccurs="0"/>
3650             </xsd:sequence>
3651         </xsd:extension>
3652     </xsd:complexContent>
3653 </xsd:complexType>
3654 <xsd:element name="document" type="CT_Document"/>
3655 <xsd:element name="glossaryDocument" type="CT_GlossaryDocument"/>
3656 </xsd:schema>

```

### A.3 SpreadsheetML

This schema is available in the file sml.xsd.

```

1  <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
2    xmlns="http://schemas.openxmlformats.org/spreadsheetml/2006/main"
3    xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
4    xmlns:xdr="http://schemas.openxmlformats.org/drawingml/2006/spreadsheetDrawing"
5    xmlns:s="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
6    targetNamespace="http://schemas.openxmlformats.org/spreadsheetml/2006/main"
7    elementFormDefault="qualified">
8    <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
9      schemaLocation="shared-relationshipReference.xsd"/>
10   <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
11     schemaLocation="shared-commonSimpleTypes.xsd"/>
12   <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/spreadsheetDrawing"
13     schemaLocation="dml-spreadsheetDrawing.xsd"/>
14   <xsd:complexType name="CT_AutoFilter">
15     <xsd:sequence>
16       <xsd:element name="filterColumn" minOccurs="0" maxOccurs="unbounded"
17         type="CT_FilterColumn"/>
18       <xsd:element name="sortState" minOccurs="0" maxOccurs="1" type="CT_SortState"/>
19       <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
20     </xsd:sequence>
21     <xsd:attribute name="ref" type="ST_Ref"/>
22   </xsd:complexType>
23   <xsd:complexType name="CT_FilterColumn">
24     <xsd:choice minOccurs="0" maxOccurs="1">
25       <xsd:element name="filters" type="CT_Filters" minOccurs="0" maxOccurs="1"/>
26       <xsd:element name="top10" type="CT_Top10" minOccurs="0" maxOccurs="1"/>
27       <xsd:element name="customFilters" type="CT_CustomFilters" minOccurs="0" maxOccurs="1"/>
28       <xsd:element name="dynamicFilter" type="CT_DynamicFilter" minOccurs="0" maxOccurs="1"/>

```



```

29     <xsd:element name="colorFilter" type="CT_ColorFilter" minOccurs="0" maxOccurs="1"/>
30     <xsd:element name="iconFilter" minOccurs="0" maxOccurs="1" type="CT_IconFilter"/>
31     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
32 </xsd:choice>
33 <xsd:attribute name="colId" type="xsd:unsignedInt" use="required"/>
34 <xsd:attribute name="hiddenButton" type="xsd:boolean" use="optional" default="false"/>
35 <xsd:attribute name="showButton" type="xsd:boolean" use="optional" default="true"/>
36 </xsd:complexType>
37 <xsd:complexType name="CT_Filters">
38     <xsd:sequence>
39         <xsd:element name="filter" type="CT_Filter" minOccurs="0" maxOccurs="unbounded"/>
40         <xsd:element name="dateGroupItem" type="CT_DateGroupItem" minOccurs="0"
41             maxOccurs="unbounded"/>
42     </xsd:sequence>
43     <xsd:attribute name="blank" type="xsd:boolean" use="optional" default="false"/>
44     <xsd:attribute name="calendarType" type="s:ST_CalendarType" use="optional" default="none"/>
45 </xsd:complexType>
46 <xsd:complexType name="CT_Filter">
47     <xsd:attribute name="val" type="s:ST_Xstring"/>
48 </xsd:complexType>
49 <xsd:complexType name="CT_CustomFilters">
50     <xsd:sequence>
51         <xsd:element name="customFilter" type="CT_CustomFilter" minOccurs="1" maxOccurs="2"/>
52     </xsd:sequence>
53     <xsd:attribute name="and" type="xsd:boolean" use="optional" default="false"/>
54 </xsd:complexType>
55 <xsd:complexType name="CT_CustomFilter">
56     <xsd:attribute name="operator" type="ST_FilterOperator" default="equal" use="optional"/>
57     <xsd:attribute name="val" type="s:ST_Xstring"/>
58 </xsd:complexType>
59 <xsd:complexType name="CT_Top10">
60     <xsd:attribute name="top" type="xsd:boolean" use="optional" default="true"/>
61     <xsd:attribute name="percent" type="xsd:boolean" use="optional" default="false"/>
62     <xsd:attribute name="val" type="xsd:double" use="required"/>
63     <xsd:attribute name="filterVal" type="xsd:double" use="optional"/>
64 </xsd:complexType>
65 <xsd:complexType name="CT_ColorFilter">
66     <xsd:attribute name="dxId" type="ST_DxfId" use="optional"/>
67     <xsd:attribute name="cellColor" type="xsd:boolean" use="optional" default="true"/>
68 </xsd:complexType>
69 <xsd:complexType name="CT_IconFilter">
70     <xsd:attribute name="iconSet" type="ST_IconSetType" use="required"/>
71     <xsd:attribute name="iconId" type="xsd:unsignedInt" use="optional"/>
72 </xsd:complexType>
73 <xsd:simpleType name="ST_FilterOperator">
74     <xsd:restriction base="xsd:string">
75         <xsd:enumeration value="equal"/>
76         <xsd:enumeration value="lessThan"/>
77         <xsd:enumeration value="lessThanOrEqual"/>
78         <xsd:enumeration value="notEqual"/>
79         <xsd:enumeration value="greaterThanOrEqual"/>
80         <xsd:enumeration value="greaterThan"/>
81     </xsd:restriction>

```



```

82 </xsd:simpleType>
83 <xsd:complexType name="CT_DynamicFilter">
84   <xsd:attribute name="type" type="ST_DynamicFilterType" use="required"/>
85   <xsd:attribute name="val" type="xsd:double" use="optional"/>
86   <xsd:attribute name="valIso" type="xsd:dateTime" use="optional"/>
87   <xsd:attribute name="maxVal" type="xsd:double" use="optional"/>
88   <xsd:attribute name="maxValIso" type="xsd:dateTime" use="optional"/>
89 </xsd:complexType>
90 <xsd:simpleType name="ST_DynamicFilterType">
91   <xsd:restriction base="xsd:string">
92     <xsd:enumeration value="null"/>
93     <xsd:enumeration value="aboveAverage"/>
94     <xsd:enumeration value="belowAverage"/>
95     <xsd:enumeration value="tomorrow"/>
96     <xsd:enumeration value="today"/>
97     <xsd:enumeration value="yesterday"/>
98     <xsd:enumeration value="nextWeek"/>
99     <xsd:enumeration value="thisWeek"/>
100    <xsd:enumeration value="lastWeek"/>
101    <xsd:enumeration value="nextMonth"/>
102    <xsd:enumeration value="thisMonth"/>
103    <xsd:enumeration value="lastMonth"/>
104    <xsd:enumeration value="nextQuarter"/>
105    <xsd:enumeration value="thisQuarter"/>
106    <xsd:enumeration value="lastQuarter"/>
107    <xsd:enumeration value="nextYear"/>
108    <xsd:enumeration value="thisYear"/>
109    <xsd:enumeration value="lastYear"/>
110    <xsd:enumeration value="yearToDate"/>
111    <xsd:enumeration value="Q1"/>
112    <xsd:enumeration value="Q2"/>
113    <xsd:enumeration value="Q3"/>
114    <xsd:enumeration value="Q4"/>
115    <xsd:enumeration value="M1"/>
116    <xsd:enumeration value="M2"/>
117    <xsd:enumeration value="M3"/>
118    <xsd:enumeration value="M4"/>
119    <xsd:enumeration value="M5"/>
120    <xsd:enumeration value="M6"/>
121    <xsd:enumeration value="M7"/>
122    <xsd:enumeration value="M8"/>
123    <xsd:enumeration value="M9"/>
124    <xsd:enumeration value="M10"/>
125    <xsd:enumeration value="M11"/>
126    <xsd:enumeration value="M12"/>
127   </xsd:restriction>
128 </xsd:simpleType>
129 <xsd:simpleType name="ST_IconSetType">
130   <xsd:restriction base="xsd:string">
131     <xsd:enumeration value="3Arrows"/>
132     <xsd:enumeration value="3ArrowsGray"/>
133     <xsd:enumeration value="3Flags"/>
134     <xsd:enumeration value="3TrafficLights1"/>

```



```

135     <xsd:enumeration value="3TrafficLights2"/>
136     <xsd:enumeration value="3Signs"/>
137     <xsd:enumeration value="3Symbols"/>
138     <xsd:enumeration value="3Symbols2"/>
139     <xsd:enumeration value="4Arrows"/>
140     <xsd:enumeration value="4ArrowsGray"/>
141     <xsd:enumeration value="4RedToBlack"/>
142     <xsd:enumeration value="4Rating"/>
143     <xsd:enumeration value="4TrafficLights"/>
144     <xsd:enumeration value="5Arrows"/>
145     <xsd:enumeration value="5ArrowsGray"/>
146     <xsd:enumeration value="5Rating"/>
147     <xsd:enumeration value="5Quarters"/>
148   </xsd:restriction>
149 </xsd:simpleType>
150 <xsd:complexType name="CT_SortState">
151   <xsd:sequence>
152     <xsd:element name="sortCondition" minOccurs="0" maxOccurs="64" type="CT_SortCondition"/>
153     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
154   </xsd:sequence>
155   <xsd:attribute name="columnSort" type="xsd:boolean" use="optional" default="false"/>
156   <xsd:attribute name="caseSensitive" type="xsd:boolean" use="optional" default="false"/>
157   <xsd:attribute name="sortMethod" type="ST_SortMethod" use="optional" default="none"/>
158   <xsd:attribute name="ref" type="ST_Ref" use="required"/>
159 </xsd:complexType>
160 <xsd:complexType name="CT_SortCondition">
161   <xsd:attribute name="descending" type="xsd:boolean" use="optional" default="false"/>
162   <xsd:attribute name="sortBy" type="ST_SortBy" use="optional" default="value"/>
163   <xsd:attribute name="ref" type="ST_Ref" use="required"/>
164   <xsd:attribute name="customList" type="s:ST_Xstring" use="optional"/>
165   <xsd:attribute name="dxfId" type="ST_DxfId" use="optional"/>
166   <xsd:attribute name="iconSet" type="ST_IconSetType" use="optional" default="3Arrows"/>
167   <xsd:attribute name="iconId" type="xsd:unsignedInt" use="optional"/>
168 </xsd:complexType>
169 <xsd:simpleType name="ST_SortBy">
170   <xsd:restriction base="xsd:string">
171     <xsd:enumeration value="value"/>
172     <xsd:enumeration value="cellColor"/>
173     <xsd:enumeration value="fontColor"/>
174     <xsd:enumeration value="icon"/>
175   </xsd:restriction>
176 </xsd:simpleType>
177 <xsd:simpleType name="ST_SortMethod">
178   <xsd:restriction base="xsd:string">
179     <xsd:enumeration value="stroke"/>
180     <xsd:enumeration value="pinYin"/>
181     <xsd:enumeration value="none"/>
182   </xsd:restriction>
183 </xsd:simpleType>
184 <xsd:complexType name="CT_DateGroupItem">
185   <xsd:attribute name="year" type="xsd:unsignedShort" use="required"/>
186   <xsd:attribute name="month" type="xsd:unsignedShort" use="optional"/>
187   <xsd:attribute name="day" type="xsd:unsignedShort" use="optional"/>

```



```

188     <xsd:attribute name="hour" type="xsd:unsignedShort" use="optional"/>
189     <xsd:attribute name="minute" type="xsd:unsignedShort" use="optional"/>
190     <xsd:attribute name="second" type="xsd:unsignedShort" use="optional"/>
191     <xsd:attribute name="dateTimeGrouping" type="ST_DateTimeGrouping" use="required"/>
192 </xsd:complexType>
193 <xsd:simpleType name="ST_DateTimeGrouping">
194     <xsd:restriction base="xsd:string">
195         <xsd:enumeration value="year"/>
196         <xsd:enumeration value="month"/>
197         <xsd:enumeration value="day"/>
198         <xsd:enumeration value="hour"/>
199         <xsd:enumeration value="minute"/>
200         <xsd:enumeration value="second"/>
201     </xsd:restriction>
202 </xsd:simpleType>
203 <xsd:simpleType name="ST_CellRef">
204     <xsd:restriction base="xsd:string"/>
205 </xsd:simpleType>
206 <xsd:simpleType name="ST_Ref">
207     <xsd:restriction base="xsd:string"/>
208 </xsd:simpleType>
209 <xsd:simpleType name="ST_RefA">
210     <xsd:restriction base="xsd:string"/>
211 </xsd:simpleType>
212 <xsd:simpleType name="ST_Sqref">
213     <xsd:list itemType="ST_Ref"/>
214 </xsd:simpleType>
215 <xsd:simpleType name="ST_Formula">
216     <xsd:restriction base="s:ST_Xstring"/>
217 </xsd:simpleType>
218 <xsd:simpleType name="ST_UnsignedIntHex">
219     <xsd:restriction base="xsd:hexBinary">
220         <xsd:length value="4"/>
221     </xsd:restriction>
222 </xsd:simpleType>
223 <xsd:simpleType name="ST_UnsignedShortHex">
224     <xsd:restriction base="xsd:hexBinary">
225         <xsd:length value="2"/>
226     </xsd:restriction>
227 </xsd:simpleType>
228 <xsd:complexType name="CT_XStringElement">
229     <xsd:attribute name="v" type="s:ST_Xstring" use="required"/>
230 </xsd:complexType>
231 <xsd:complexType name="CT_Extension">
232     <xsd:sequence>
233         <xsd:any processContents="lax"/>
234     </xsd:sequence>
235     <xsd:attribute name="uri" type="xsd:token"/>
236 </xsd:complexType>
237 <xsd:complexType name="CT_ObjectAnchor">
238     <xsd:sequence>
239         <xsd:element ref="xdr:from" minOccurs="1" maxOccurs="1"/>
240         <xsd:element ref="xdr:to" minOccurs="1" maxOccurs="1"/>

```



```

241     </xsd:sequence>
242     <xsd:attribute name="moveWithCells" type="xsd:boolean" use="optional" default="false"/>
243     <xsd:attribute name="sizeWithCells" type="xsd:boolean" use="optional" default="false"/>
244 </xsd:complexType>
245 <xsd:group name="EG_ExtensionList">
246     <xsd:sequence>
247         <xsd:element name="ext" type="CT_Extension" minOccurs="0" maxOccurs="unbounded"/>
248     </xsd:sequence>
249 </xsd:group>
250 <xsd:complexType name="CT_ExtensionList">
251     <xsd:sequence>
252         <xsd:group ref="EG_ExtensionList" minOccurs="0"/>
253     </xsd:sequence>
254 </xsd:complexType>
255 <xsd:element name="calcChain" type="CT_CalcChain"/>
256 <xsd:complexType name="CT_CalcChain">
257     <xsd:sequence>
258         <xsd:element name="c" type="CT_CalcCell" minOccurs="1" maxOccurs="unbounded"/>
259         <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
260     </xsd:sequence>
261 </xsd:complexType>
262 <xsd:complexType name="CT_CalcCell">
263     <xsd:attribute name="r" type="ST_CellRef" use="optional"/>
264     <xsd:attribute name="ref" type="ST_CellRef" use="optional"/>
265     <xsd:attribute name="i" type="xsd:int" use="optional" default="0"/>
266     <xsd:attribute name="s" type="xsd:boolean" use="optional" default="false"/>
267     <xsd:attribute name="l" type="xsd:boolean" use="optional" default="false"/>
268     <xsd:attribute name="t" type="xsd:boolean" use="optional" default="false"/>
269     <xsd:attribute name="a" type="xsd:boolean" use="optional" default="false"/>
270 </xsd:complexType>
271 <xsd:element name="comments" type="CT_Comments"/>
272 <xsd:complexType name="CT_Comments">
273     <xsd:sequence>
274         <xsd:element name="authors" type="CT_Authors" minOccurs="1" maxOccurs="1"/>
275         <xsd:element name="commentList" type="CT_CommentList" minOccurs="1" maxOccurs="1"/>
276         <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
277     </xsd:sequence>
278 </xsd:complexType>
279 <xsd:complexType name="CT_Authors">
280     <xsd:sequence>
281         <xsd:element name="author" type="s:ST_Xstring" minOccurs="0" maxOccurs="unbounded"/>
282     </xsd:sequence>
283 </xsd:complexType>
284 <xsd:complexType name="CT_CommentList">
285     <xsd:sequence>
286         <xsd:element name="comment" type="CT_Comment" minOccurs="0" maxOccurs="unbounded"/>
287     </xsd:sequence>
288 </xsd:complexType>
289 <xsd:complexType name="CT_Comment">
290     <xsd:sequence>
291         <xsd:element name="text" type="CT_Rst" minOccurs="1" maxOccurs="1"/>
292         <xsd:element name="commentPr" type="CT_CommentPr" minOccurs="0" maxOccurs="1"/>
293     </xsd:sequence>

```



```

294     <xsd:attribute name="ref" type="ST_Ref" use="required"/>
295     <xsd:attribute name="authorId" type="xsd:unsignedInt" use="required"/>
296     <xsd:attribute name="guid" type="s:ST_Guid" use="optional"/>
297     <xsd:attribute name="shapeId" type="xsd:unsignedInt" use="optional"/>
298 </xsd:complexType>
299 <xsd:complexType name="CT_CommentPr">
300     <xsd:sequence>
301         <xsd:element name="anchor" type="CT_ObjectAnchor" minOccurs="1" maxOccurs="1"/>
302     </xsd:sequence>
303     <xsd:attribute name="locked" type="xsd:boolean" use="optional" default="true"/>
304     <xsd:attribute name="defaultSize" type="xsd:boolean" use="optional" default="true"/>
305     <xsd:attribute name="print" type="xsd:boolean" use="optional" default="true"/>
306     <xsd:attribute name="disabled" type="xsd:boolean" use="optional" default="false"/>
307     <xsd:attribute name="autoFill" type="xsd:boolean" use="optional" default="true"/>
308     <xsd:attribute name="autoLine" type="xsd:boolean" use="optional" default="true"/>
309     <xsd:attribute name="altText" type="s:ST_Xstring" use="optional"/>
310     <xsd:attribute name="textHAlign" type="ST_TextHAlign" use="optional" default="left"/>
311     <xsd:attribute name="textVAlign" type="ST_TextVAlign" use="optional" default="top"/>
312     <xsd:attribute name="lockText" type="xsd:boolean" use="optional" default="true"/>
313     <xsd:attribute name="justLastX" type="xsd:boolean" use="optional" default="false"/>
314     <xsd:attribute name="autoScale" type="xsd:boolean" use="optional" default="false"/>
315 </xsd:complexType>
316 <xsd:simpleType name="ST_TextHAlign">
317     <xsd:restriction base="xsd:string">
318         <xsd:enumeration value="left"/>
319         <xsd:enumeration value="center"/>
320         <xsd:enumeration value="right"/>
321         <xsd:enumeration value="justify"/>
322         <xsd:enumeration value="distributed"/>
323     </xsd:restriction>
324 </xsd:simpleType>
325 <xsd:simpleType name="ST_TextVAlign">
326     <xsd:restriction base="xsd:string">
327         <xsd:enumeration value="top"/>
328         <xsd:enumeration value="center"/>
329         <xsd:enumeration value="bottom"/>
330         <xsd:enumeration value="justify"/>
331         <xsd:enumeration value="distributed"/>
332     </xsd:restriction>
333 </xsd:simpleType>
334 <xsd:element name="MapInfo" type="CT_MapInfo"/>
335 <xsd:complexType name="CT_MapInfo">
336     <xsd:sequence>
337         <xsd:element name="Schema" type="CT_Schema" minOccurs="1" maxOccurs="unbounded"/>
338         <xsd:element name="Map" type="CT_Map" minOccurs="1" maxOccurs="unbounded"/>
339     </xsd:sequence>
340     <xsd:attribute name="SelectionNamespaces" type="xsd:string" use="required"/>
341 </xsd:complexType>
342 <xsd:complexType name="CT_Schema" mixed="true">
343     <xsd:sequence>
344         <xsd:any/>
345     </xsd:sequence>
346     <xsd:attribute name="ID" type="xsd:string" use="required"/>

```



```

347     <xsd:attribute name="SchemaRef" type="xsd:string" use="optional"/>
348     <xsd:attribute name="Namespace" type="xsd:string" use="optional"/>
349     <xsd:attribute name="SchemaLanguage" type="xsd:token" use="optional"/>
350 </xsd:complexType>
351 <xsd:complexType name="CT_Map">
352     <xsd:sequence>
353         <xsd:element name="DataBinding" type="CT_DataBinding" minOccurs="0" maxOccurs="1"/>
354     </xsd:sequence>
355     <xsd:attribute name="ID" type="xsd:unsignedInt" use="required"/>
356     <xsd:attribute name="Name" type="xsd:string" use="required"/>
357     <xsd:attribute name="RootElement" type="xsd:string" use="required"/>
358     <xsd:attribute name="SchemaID" type="xsd:string" use="required"/>
359     <xsd:attribute name="ShowImportExportValidationErrors" type="xsd:boolean" use="required"/>
360     <xsd:attribute name="AutoFit" type="xsd:boolean" use="required"/>
361     <xsd:attribute name="Append" type="xsd:boolean" use="required"/>
362     <xsd:attribute name="PreserveSortAFLayout" type="xsd:boolean" use="required"/>
363     <xsd:attribute name="PreserveFormat" type="xsd:boolean" use="required"/>
364 </xsd:complexType>
365 <xsd:complexType name="CT_DataBinding">
366     <xsd:sequence>
367         <xsd:any/>
368     </xsd:sequence>
369     <xsd:attribute name="DataBindingName" type="xsd:string" use="optional"/>
370     <xsd:attribute name="FileBinding" type="xsd:boolean" use="optional"/>
371     <xsd:attribute name="ConnectionID" type="xsd:unsignedInt" use="optional"/>
372     <xsd:attribute name="FileBindingName" type="xsd:string" use="optional"/>
373     <xsd:attribute name="DataBindingLoadMode" type="xsd:unsignedInt" use="required"/>
374 </xsd:complexType>
375 <xsd:element name="connections" type="CT_Connections"/>
376 <xsd:complexType name="CT_Connections">
377     <xsd:sequence>
378         <xsd:element name="connection" minOccurs="1" maxOccurs="unbounded" type="CT_Connection"/>
379     </xsd:sequence>
380 </xsd:complexType>
381 <xsd:complexType name="CT_Connection">
382     <xsd:sequence>
383         <xsd:element name="dbPr" minOccurs="0" maxOccurs="1" type="CT_DbPr"/>
384         <xsd:element name="olapPr" minOccurs="0" maxOccurs="1" type="CT_OlapPr"/>
385         <xsd:element name="webPr" minOccurs="0" maxOccurs="1" type="CT_WebPr"/>
386         <xsd:element name="textPr" minOccurs="0" maxOccurs="1" type="CT_TextPr"/>
387         <xsd:element name="parameters" minOccurs="0" maxOccurs="1" type="CT_Parameters"/>
388         <xsd:element name="extLst" minOccurs="0" maxOccurs="1" type="CT_ExtensionList"/>
389     </xsd:sequence>
390     <xsd:attribute name="id" use="required" type="xsd:unsignedInt"/>
391     <xsd:attribute name="sourceFile" use="optional" type="s:ST_Xstring"/>
392     <xsd:attribute name="odcFile" use="optional" type="s:ST_Xstring"/>
393     <xsd:attribute name="keepAlive" use="optional" type="xsd:boolean" default="false"/>
394     <xsd:attribute name="interval" use="optional" type="xsd:unsignedInt" default="0"/>
395     <xsd:attribute name="name" use="optional" type="s:ST_Xstring"/>
396     <xsd:attribute name="description" use="optional" type="s:ST_Xstring"/>
397     <xsd:attribute name="type" use="optional" type="xsd:unsignedInt"/>
398     <xsd:attribute name="reconnectionMethod" use="optional" type="xsd:unsignedInt" default="1"/>
399     <xsd:attribute name="refreshedVersion" use="required" type="xsd:unsignedByte"/>

```



```

400     <xsd:attribute name="minRefreshableVersion" use="optional" type="xsd:unsignedByte"
401       default="0"/>
402     <xsd:attribute name="savePassword" use="optional" type="xsd:boolean" default="false"/>
403     <xsd:attribute name="new" use="optional" type="xsd:boolean" default="false"/>
404     <xsd:attribute name="deleted" use="optional" type="xsd:boolean" default="false"/>
405     <xsd:attribute name="onlyUseConnectionFile" use="optional" type="xsd:boolean"
406       default="false"/>
407     <xsd:attribute name="background" use="optional" type="xsd:boolean" default="false"/>
408     <xsd:attribute name="refreshOnLoad" use="optional" type="xsd:boolean" default="false"/>
409     <xsd:attribute name="saveData" use="optional" type="xsd:boolean" default="false"/>
410     <xsd:attribute name="credentials" use="optional" type="ST_CredMethod" default="integrated"/>
411     <xsd:attribute name="singleSignOnId" use="optional" type="s:ST_Xstring"/>
412   </xsd:complexType>
413   <xsd:simpleType name="ST_CredMethod">
414     <xsd:restriction base="xsd:string">
415       <xsd:enumeration value="integrated"/>
416       <xsd:enumeration value="none"/>
417       <xsd:enumeration value="stored"/>
418       <xsd:enumeration value="prompt"/>
419     </xsd:restriction>
420   </xsd:simpleType>
421   <xsd:complexType name="CT_DbPr">
422     <xsd:attribute name="connection" use="required" type="s:ST_Xstring"/>
423     <xsd:attribute name="command" use="optional" type="s:ST_Xstring"/>
424     <xsd:attribute name="serverCommand" use="optional" type="s:ST_Xstring"/>
425     <xsd:attribute name="commandType" use="optional" type="xsd:unsignedInt" default="2"/>
426   </xsd:complexType>
427   <xsd:complexType name="CT_OlapPr">
428     <xsd:attribute name="local" use="optional" type="xsd:boolean" default="false"/>
429     <xsd:attribute name="localConnection" use="optional" type="s:ST_Xstring"/>
430     <xsd:attribute name="localRefresh" use="optional" type="xsd:boolean" default="true"/>
431     <xsd:attribute name="sendLocale" use="optional" type="xsd:boolean" default="false"/>
432     <xsd:attribute name="rowDrillCount" use="optional" type="xsd:unsignedInt"/>
433     <xsd:attribute name="serverFill" use="optional" type="xsd:boolean" default="true"/>
434     <xsd:attribute name="serverNumberFormat" use="optional" type="xsd:boolean" default="true"/>
435     <xsd:attribute name="serverFont" use="optional" type="xsd:boolean" default="true"/>
436     <xsd:attribute name="serverFontColor" use="optional" type="xsd:boolean" default="true"/>
437   </xsd:complexType>
438   <xsd:complexType name="CT_WebPr">
439     <xsd:sequence>
440       <xsd:element name="tables" minOccurs="0" maxOccurs="1" type="CT_Tables"/>
441     </xsd:sequence>
442     <xsd:attribute name="xml" use="optional" type="xsd:boolean" default="false"/>
443     <xsd:attribute name="sourceData" use="optional" type="xsd:boolean" default="false"/>
444     <xsd:attribute name="parsePre" use="optional" type="xsd:boolean" default="false"/>
445     <xsd:attribute name="consecutive" use="optional" type="xsd:boolean" default="false"/>
446     <xsd:attribute name="firstRow" use="optional" type="xsd:boolean" default="false"/>
447     <xsd:attribute name="xl97" use="optional" type="xsd:boolean" default="false"/>
448     <xsd:attribute name="textDates" use="optional" type="xsd:boolean" default="false"/>
449     <xsd:attribute name="xl2000" use="optional" type="xsd:boolean" default="false"/>
450     <xsd:attribute name="url" use="optional" type="s:ST_Xstring"/>
451     <xsd:attribute name="post" use="optional" type="s:ST_Xstring"/>
452     <xsd:attribute name="htmlTables" use="optional" type="xsd:boolean" default="false"/>

```



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453     <xsd:attribute name="htmlFormat" use="optional" type="ST_HtmlFmt" default="none"/>
454     <xsd:attribute name="editPage" use="optional" type="s:ST_Xstring"/>
455 </xsd:complexType>
456 <xsd:simpleType name="ST_HtmlFmt">
457     <xsd:restriction base="xsd:string">
458         <xsd:enumeration value="none"/>
459         <xsd:enumeration value="rtf"/>
460         <xsd:enumeration value="all"/>
461     </xsd:restriction>
462 </xsd:simpleType>
463 <xsd:complexType name="CT_Parameters">
464     <xsd:sequence>
465         <xsd:element name="parameter" minOccurs="1" maxOccurs="unbounded" type="CT_Parameter"/>
466     </xsd:sequence>
467     <xsd:attribute name="count" use="optional" type="xsd:unsignedInt"/>
468 </xsd:complexType>
469 <xsd:complexType name="CT_Parameter">
470     <xsd:attribute name="name" use="optional" type="s:ST_Xstring"/>
471     <xsd:attribute name="sqlType" use="optional" type="xsd:int" default="0"/>
472     <xsd:attribute name="parameterType" use="optional" type="ST_ParameterType" default="prompt"/>
473     <xsd:attribute name="refreshOnChange" use="optional" type="xsd:boolean" default="false"/>
474     <xsd:attribute name="prompt" use="optional" type="s:ST_Xstring"/>
475     <xsd:attribute name="boolean" use="optional" type="xsd:boolean"/>
476     <xsd:attribute name="double" use="optional" type="xsd:double"/>
477     <xsd:attribute name="integer" use="optional" type="xsd:int"/>
478     <xsd:attribute name="string" use="optional" type="s:ST_Xstring"/>
479     <xsd:attribute name="cell" use="optional" type="s:ST_Xstring"/>
480 </xsd:complexType>
481 <xsd:simpleType name="ST_ParameterType">
482     <xsd:restriction base="xsd:string">
483         <xsd:enumeration value="prompt"/>
484         <xsd:enumeration value="value"/>
485         <xsd:enumeration value="cell"/>
486     </xsd:restriction>
487 </xsd:simpleType>
488 <xsd:complexType name="CT_Tables">
489     <xsd:choice minOccurs="1" maxOccurs="unbounded">
490         <xsd:element name="m" type="CT_TableMissing"/>
491         <xsd:element name="s" type="CT_XStringElement"/>
492         <xsd:element name="x" type="CT_Index"/>
493     </xsd:choice>
494     <xsd:attribute name="count" use="optional" type="xsd:unsignedInt"/>
495 </xsd:complexType>
496 <xsd:complexType name="CT_TableMissing"/>
497 <xsd:complexType name="CT_TextPr">
498     <xsd:sequence>
499         <xsd:element name="textFields" minOccurs="0" maxOccurs="1" type="CT_TextFields"/>
500     </xsd:sequence>
501     <xsd:attribute name="prompt" use="optional" type="xsd:boolean" default="true"/>
502     <xsd:attribute name="fileType" use="optional" type="ST_FileType" default="win"/>
503     <xsd:attribute name="codePage" use="optional" type="xsd:unsignedInt" default="1252"/>
504     <xsd:attribute name="characterSet" use="optional" type="xsd:string"/>
505     <xsd:attribute name="firstRow" use="optional" type="xsd:unsignedInt" default="1"/>

```



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506 <xsd:attribute name="sourceFile" use="optional" type="s:ST Xstring" default=""/>
507 <xsd:attribute name="delimited" use="optional" type="xsd:boolean" default="true"/>
508 <xsd:attribute name="decimal" use="optional" type="s:ST Xstring" default="."/>
509 <xsd:attribute name="thousands" use="optional" type="s:ST Xstring" default=","/>
510 <xsd:attribute name="tab" use="optional" type="xsd:boolean" default="true"/>
511 <xsd:attribute name="space" use="optional" type="xsd:boolean" default="false"/>
512 <xsd:attribute name="comma" use="optional" type="xsd:boolean" default="false"/>
513 <xsd:attribute name="semicolon" use="optional" type="xsd:boolean" default="false"/>
514 <xsd:attribute name="consecutive" use="optional" type="xsd:boolean" default="false"/>
515 <xsd:attribute name="qualifier" use="optional" type="ST Qualifier" default="doubleQuote"/>
516 <xsd:attribute name="delimiter" use="optional" type="s:ST Xstring"/>
517 </xsd:complexType>
518 <xsd:simpleType name="ST_FileType">
519   <xsd:restriction base="xsd:string">
520     <xsd:enumeration value="mac"/>
521     <xsd:enumeration value="win"/>
522     <xsd:enumeration value="dos"/>
523     <xsd:enumeration value="lin"/>
524     <xsd:enumeration value="other"/>
525   </xsd:restriction>
526 </xsd:simpleType>
527 <xsd:simpleType name="ST_Qualifier">
528   <xsd:restriction base="xsd:string">
529     <xsd:enumeration value="doubleQuote"/>
530     <xsd:enumeration value="singleQuote"/>
531     <xsd:enumeration value="none"/>
532   </xsd:restriction>
533 </xsd:simpleType>
534 <xsd:complexType name="CT_TextFields">
535   <xsd:sequence>
536     <xsd:element name="textField" minOccurs="1" maxOccurs="unbounded" type="CT_TextField"/>
537   </xsd:sequence>
538   <xsd:attribute name="count" use="optional" type="xsd:unsignedInt" default="1"/>
539 </xsd:complexType>
540 <xsd:complexType name="CT_TextField">
541   <xsd:attribute name="type" use="optional" type="ST_ExternalConnectionType" default="general"/>
542   <xsd:attribute name="position" use="optional" type="xsd:unsignedInt" default="0"/>
543 </xsd:complexType>
544 <xsd:simpleType name="ST_ExternalConnectionType">
545   <xsd:restriction base="xsd:string">
546     <xsd:enumeration value="general"/>
547     <xsd:enumeration value="text"/>
548     <xsd:enumeration value="MDY"/>
549     <xsd:enumeration value="DMY"/>
550     <xsd:enumeration value="YMD"/>
551     <xsd:enumeration value="MYD"/>
552     <xsd:enumeration value="DYM"/>
553     <xsd:enumeration value="YDM"/>
554     <xsd:enumeration value="skip"/>
555     <xsd:enumeration value="EMD"/>
556   </xsd:restriction>
557 </xsd:simpleType>
558 <xsd:element name="pivotCacheDefinition" type="CT_PivotCacheDefinition"/>

```



```

559 <xsd:element name="pivotCacheRecords" type="CT_PivotCacheRecords"/>
560 <xsd:element name="pivotTableDefinition" type="CT_pivotTableDefinition"/>
561 <xsd:complexType name="CT_PivotCacheDefinition">
562   <xsd:sequence>
563     <xsd:element name="cacheSource" type="CT_CacheSource" minOccurs="1" maxOccurs="1"/>
564     <xsd:element name="cacheFields" type="CT_CacheFields" minOccurs="1" maxOccurs="1"/>
565     <xsd:element name="cacheHierarchies" minOccurs="0" type="CT_CacheHierarchies"/>
566     <xsd:element name="kpis" minOccurs="0" type="CT_PCDKPIs"/>
567     <xsd:element name="tupleCache" minOccurs="0" type="CT_TupleCache"/>
568     <xsd:element name="calculatedItems" minOccurs="0" type="CT_CalculatedItems"/>
569     <xsd:element name="calculatedMembers" type="CT_CalculatedMembers" minOccurs="0"/>
570     <xsd:element name="dimensions" type="CT_Dimensions" minOccurs="0"/>
571     <xsd:element name="measureGroups" type="CT_MeasureGroups" minOccurs="0"/>
572     <xsd:element name="maps" type="CT_MeasureDimensionMaps" minOccurs="0"/>
573     <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
574   </xsd:sequence>
575   <xsd:attribute ref="r:id" use="optional"/>
576   <xsd:attribute name="invalid" type="xsd:boolean" use="optional" default="false"/>
577   <xsd:attribute name="saveData" type="xsd:boolean" use="optional" default="true"/>
578   <xsd:attribute name="refreshOnLoad" type="xsd:boolean" use="optional" default="false"/>
579   <xsd:attribute name="optimizeMemory" type="xsd:boolean" use="optional" default="false"/>
580   <xsd:attribute name="enableRefresh" type="xsd:boolean" use="optional" default="true"/>
581   <xsd:attribute name="refreshedBy" type="s:ST_Xstring" use="optional"/>
582   <xsd:attribute name="refreshedDate" type="xsd:double" use="optional"/>
583   <xsd:attribute name="refreshedDateIso" type="xsd:dateTime" use="optional"/>
584   <xsd:attribute name="backgroundQuery" type="xsd:boolean" default="false"/>
585   <xsd:attribute name="missingItemsLimit" type="xsd:unsignedInt" use="optional"/>
586   <xsd:attribute name="createdVersion" type="xsd:unsignedByte" use="optional" default="0"/>
587   <xsd:attribute name="refreshedVersion" type="xsd:unsignedByte" use="optional" default="0"/>
588   <xsd:attribute name="minRefreshableVersion" type="xsd:unsignedByte" use="optional"
589     default="0"/>
590   <xsd:attribute name="recordCount" type="xsd:unsignedInt" use="optional"/>
591   <xsd:attribute name="upgradeOnRefresh" type="xsd:boolean" use="optional" default="false"/>
592   <xsd:attribute name="tupleCache" type="xsd:boolean" use="optional" default="false"/>
593   <xsd:attribute name="supportSubquery" type="xsd:boolean" use="optional" default="false"/>
594   <xsd:attribute name="supportAdvancedDrill" type="xsd:boolean" use="optional" default="false"/>
595 </xsd:complexType>
596 <xsd:complexType name="CT_CacheFields">
597   <xsd:sequence>
598     <xsd:element name="cacheField" type="CT_CacheField" minOccurs="0" maxOccurs="unbounded"/>
599   </xsd:sequence>
600   <xsd:attribute name="count" type="xsd:unsignedInt"/>
601 </xsd:complexType>
602 <xsd:complexType name="CT_CacheField">
603   <xsd:sequence>
604     <xsd:element name="sharedItems" type="CT_SharedItems" minOccurs="0" maxOccurs="1"/>
605     <xsd:element name="fieldGroup" minOccurs="0" type="CT_FieldGroup"/>
606     <xsd:element name="mpMap" minOccurs="0" maxOccurs="unbounded" type="CT_X"/>
607     <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
608   </xsd:sequence>
609   <xsd:attribute name="name" type="s:ST_Xstring" use="required"/>
610   <xsd:attribute name="caption" type="s:ST_Xstring" use="optional"/>
611   <xsd:attribute name="propertyName" type="s:ST_Xstring" use="optional"/>

```



```

612     <xsd:attribute name="serverField" type="xsd:boolean" use="optional" default="false"/>
613     <xsd:attribute name="uniqueList" type="xsd:boolean" use="optional" default="true"/>
614     <xsd:attribute name="numFmtId" type="ST_NumFmtId" use="optional"/>
615     <xsd:attribute name="formula" type="s:ST_Xstring" use="optional"/>
616     <xsd:attribute name="sqlType" type="xsd:int" use="optional" default="0"/>
617     <xsd:attribute name="hierarchy" type="xsd:int" use="optional" default="0"/>
618     <xsd:attribute name="level" type="xsd:unsignedInt" use="optional" default="0"/>
619     <xsd:attribute name="databaseField" type="xsd:boolean" default="true"/>
620     <xsd:attribute name="mappingCount" type="xsd:unsignedInt" use="optional"/>
621     <xsd:attribute name="memberPropertyField" type="xsd:boolean" use="optional" default="false"/>
622 </xsd:complexType>
623 <xsd:complexType name="CT_CacheSource">
624     <xsd:choice minOccurs="0" maxOccurs="1">
625         <xsd:element name="worksheetSource" type="CT_WorksheetSource" minOccurs="1"
626             maxOccurs="1"/>
627         <xsd:element name="consolidation" type="CT_Consolidation" minOccurs="1" maxOccurs="1"/>
628         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0"/>
629     </xsd:choice>
630     <xsd:attribute name="type" type="ST_SourceType" use="required"/>
631     <xsd:attribute name="connectionId" type="xsd:unsignedInt" default="0" use="optional"/>
632 </xsd:complexType>
633 <xsd:simpleType name="ST_SourceType">
634     <xsd:restriction base="xsd:string">
635         <xsd:enumeration value="worksheet"/>
636         <xsd:enumeration value="external"/>
637         <xsd:enumeration value="consolidation"/>
638         <xsd:enumeration value="scenario"/>
639     </xsd:restriction>
640 </xsd:simpleType>
641 <xsd:complexType name="CT_WorksheetSource">
642     <xsd:attribute name="ref" type="ST_Ref" use="optional"/>
643     <xsd:attribute name="name" type="s:ST_Xstring" use="optional"/>
644     <xsd:attribute name="sheet" type="s:ST_Xstring" use="optional"/>
645     <xsd:attribute ref="r:id" use="optional"/>
646 </xsd:complexType>
647 <xsd:complexType name="CT_Consolidation">
648     <xsd:sequence>
649         <xsd:element name="pages" type="CT_Pages" minOccurs="0" maxOccurs="1"/>
650         <xsd:element name="rangeSets" type="CT_RangeSets" minOccurs="1" maxOccurs="1"/>
651     </xsd:sequence>
652     <xsd:attribute name="autoPage" type="xsd:boolean" default="true" use="optional"/>
653 </xsd:complexType>
654 <xsd:complexType name="CT_Pages">
655     <xsd:sequence>
656         <xsd:element name="page" type="CT_PCDSCPage" minOccurs="1" maxOccurs="4"/>
657     </xsd:sequence>
658     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
659 </xsd:complexType>
660 <xsd:complexType name="CT_PCDSCPage">
661     <xsd:sequence>
662         <xsd:element name="pageItem" type="CT_PageItem" minOccurs="0" maxOccurs="unbounded"/>
663     </xsd:sequence>
664     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>

```



```

665 </xsd:complexType>
666 <xsd:complexType name="CT_PageItem">
667   <xsd:attribute name="name" type="s:ST_Xstring" use="required"/>
668 </xsd:complexType>
669 <xsd:complexType name="CT_RangeSets">
670   <xsd:sequence>
671     <xsd:element name="rangeSet" type="CT_RangeSet" minOccurs="1" maxOccurs="unbounded"/>
672   </xsd:sequence>
673   <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
674 </xsd:complexType>
675 <xsd:complexType name="CT_RangeSet">
676   <xsd:attribute name="i1" type="xsd:unsignedInt" use="optional"/>
677   <xsd:attribute name="i2" type="xsd:unsignedInt" use="optional"/>
678   <xsd:attribute name="i3" type="xsd:unsignedInt" use="optional"/>
679   <xsd:attribute name="i4" type="xsd:unsignedInt" use="optional"/>
680   <xsd:attribute name="ref" type="ST_Ref" use="optional"/>
681   <xsd:attribute name="name" type="s:ST_Xstring" use="optional"/>
682   <xsd:attribute name="sheet" type="s:ST_Xstring" use="optional"/>
683   <xsd:attribute ref="r:id" use="optional"/>
684 </xsd:complexType>
685 <xsd:complexType name="CT_SharedItems">
686   <xsd:choice minOccurs="0" maxOccurs="unbounded">
687     <xsd:element name="m" type="CT_Missing" minOccurs="1" maxOccurs="1"/>
688     <xsd:element name="n" type="CT_Number" minOccurs="1" maxOccurs="1"/>
689     <xsd:element name="b" type="CT_Boolean" minOccurs="1" maxOccurs="1"/>
690     <xsd:element name="e" type="CT_Error" minOccurs="1" maxOccurs="1"/>
691     <xsd:element name="s" type="CT_String" minOccurs="1" maxOccurs="1"/>
692     <xsd:element name="d" type="CT_DateTime" minOccurs="1" maxOccurs="1"/>
693   </xsd:choice>
694   <xsd:attribute name="containsSemiMixedTypes" type="xsd:boolean" use="optional"
695     default="true"/>
696   <xsd:attribute name="containsNonDate" type="xsd:boolean" use="optional" default="true"/>
697   <xsd:attribute name="containsDate" type="xsd:boolean" use="optional" default="false"/>
698   <xsd:attribute name="containsString" type="xsd:boolean" use="optional" default="true"/>
699   <xsd:attribute name="containsBlank" type="xsd:boolean" use="optional" default="false"/>
700   <xsd:attribute name="containsMixedTypes" type="xsd:boolean" use="optional" default="false"/>
701   <xsd:attribute name="containsNumber" type="xsd:boolean" use="optional" default="false"/>
702   <xsd:attribute name="containsInteger" type="xsd:boolean" use="optional" default="false"/>
703   <xsd:attribute name="minValue" type="xsd:double" use="optional"/>
704   <xsd:attribute name="maxValue" type="xsd:double" use="optional"/>
705   <xsd:attribute name="minDate" type="xsd:dateTime" use="optional"/>
706   <xsd:attribute name="maxDate" type="xsd:dateTime" use="optional"/>
707   <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
708   <xsd:attribute name="longText" type="xsd:boolean" use="optional" default="false"/>
709 </xsd:complexType>
710 <xsd:complexType name="CT_Missing">
711   <xsd:sequence>
712     <xsd:element name="tpls" minOccurs="0" maxOccurs="unbounded" type="CT_Tuples"/>
713     <xsd:element name="x" minOccurs="0" maxOccurs="unbounded" type="CT_X"/>
714   </xsd:sequence>
715   <xsd:attribute name="u" type="xsd:boolean"/>
716   <xsd:attribute name="f" type="xsd:boolean"/>
717   <xsd:attribute name="c" type="s:ST_Xstring"/>

```



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718     <xsd:attribute name="cp" type="xsd:unsignedInt"/>
719     <xsd:attribute name="in" type="xsd:unsignedInt" use="optional"/>
720     <xsd:attribute name="bc" type="ST UnsignedIntHex" use="optional"/>
721     <xsd:attribute name="fc" type="ST UnsignedIntHex" use="optional"/>
722     <xsd:attribute name="i" type="xsd:boolean" use="optional" default="false"/>
723     <xsd:attribute name="un" type="xsd:boolean" use="optional" default="false"/>
724     <xsd:attribute name="st" type="xsd:boolean" use="optional" default="false"/>
725     <xsd:attribute name="b" type="xsd:boolean" use="optional" default="false"/>
726 </xsd:complexType>
727 <xsd:complexType name="CT_Number">
728     <xsd:sequence>
729         <xsd:element name="tpls" minOccurs="0" maxOccurs="unbounded" type="CT_Tuples"/>
730         <xsd:element name="x" minOccurs="0" maxOccurs="unbounded" type="CT_X"/>
731     </xsd:sequence>
732     <xsd:attribute name="v" use="required" type="xsd:double"/>
733     <xsd:attribute name="u" type="xsd:boolean"/>
734     <xsd:attribute name="f" type="xsd:boolean"/>
735     <xsd:attribute name="c" type="s:ST Xstring"/>
736     <xsd:attribute name="cp" type="xsd:unsignedInt"/>
737     <xsd:attribute name="in" type="xsd:unsignedInt" use="optional"/>
738     <xsd:attribute name="bc" type="ST UnsignedIntHex" use="optional"/>
739     <xsd:attribute name="fc" type="ST UnsignedIntHex" use="optional"/>
740     <xsd:attribute name="i" type="xsd:boolean" use="optional" default="false"/>
741     <xsd:attribute name="un" type="xsd:boolean" use="optional" default="false"/>
742     <xsd:attribute name="st" type="xsd:boolean" use="optional" default="false"/>
743     <xsd:attribute name="b" type="xsd:boolean" use="optional" default="false"/>
744 </xsd:complexType>
745 <xsd:complexType name="CT_Boolean">
746     <xsd:sequence>
747         <xsd:element name="x" minOccurs="0" maxOccurs="unbounded" type="CT_X"/>
748     </xsd:sequence>
749     <xsd:attribute name="v" use="required" type="xsd:boolean"/>
750     <xsd:attribute name="u" type="xsd:boolean"/>
751     <xsd:attribute name="f" type="xsd:boolean"/>
752     <xsd:attribute name="c" type="s:ST Xstring"/>
753     <xsd:attribute name="cp" type="xsd:unsignedInt"/>
754 </xsd:complexType>
755 <xsd:complexType name="CT_Error">
756     <xsd:sequence>
757         <xsd:element name="tpls" minOccurs="0" type="CT_Tuples"/>
758         <xsd:element name="x" minOccurs="0" maxOccurs="unbounded" type="CT_X"/>
759     </xsd:sequence>
760     <xsd:attribute name="v" use="required" type="s:ST Xstring"/>
761     <xsd:attribute name="u" type="xsd:boolean"/>
762     <xsd:attribute name="f" type="xsd:boolean"/>
763     <xsd:attribute name="c" type="s:ST Xstring"/>
764     <xsd:attribute name="cp" type="xsd:unsignedInt"/>
765     <xsd:attribute name="in" type="xsd:unsignedInt" use="optional"/>
766     <xsd:attribute name="bc" type="ST UnsignedIntHex" use="optional"/>
767     <xsd:attribute name="fc" type="ST UnsignedIntHex" use="optional"/>
768     <xsd:attribute name="i" type="xsd:boolean" use="optional" default="false"/>
769     <xsd:attribute name="un" type="xsd:boolean" use="optional" default="false"/>
770     <xsd:attribute name="st" type="xsd:boolean" use="optional" default="false"/>

```



```

771     <xsd:attribute name="b" type="xsd:boolean" use="optional" default="false"/>
772 </xsd:complexType>
773 <xsd:complexType name="CT_String">
774     <xsd:sequence>
775         <xsd:element name="tpls" minOccurs="0" maxOccurs="unbounded" type="CT_Tuples"/>
776         <xsd:element name="x" minOccurs="0" maxOccurs="unbounded" type="CT_X"/>
777     </xsd:sequence>
778     <xsd:attribute name="v" use="required" type="s:ST_Xstring"/>
779     <xsd:attribute name="u" type="xsd:boolean"/>
780     <xsd:attribute name="f" type="xsd:boolean"/>
781     <xsd:attribute name="c" type="s:ST_Xstring"/>
782     <xsd:attribute name="cp" type="xsd:unsignedInt"/>
783     <xsd:attribute name="in" type="xsd:unsignedInt" use="optional"/>
784     <xsd:attribute name="bc" type="ST_UnsignedIntHex" use="optional"/>
785     <xsd:attribute name="fc" type="ST_UnsignedIntHex" use="optional"/>
786     <xsd:attribute name="i" type="xsd:boolean" use="optional" default="false"/>
787     <xsd:attribute name="un" type="xsd:boolean" use="optional" default="false"/>
788     <xsd:attribute name="st" type="xsd:boolean" use="optional" default="false"/>
789     <xsd:attribute name="b" type="xsd:boolean" use="optional" default="false"/>
790 </xsd:complexType>
791 <xsd:complexType name="CT_DateTime">
792     <xsd:sequence>
793         <xsd:element name="x" minOccurs="0" maxOccurs="unbounded" type="CT_X"/>
794     </xsd:sequence>
795     <xsd:attribute name="v" use="required" type="xsd:dateTime"/>
796     <xsd:attribute name="u" type="xsd:boolean"/>
797     <xsd:attribute name="f" type="xsd:boolean"/>
798     <xsd:attribute name="c" type="s:ST_Xstring"/>
799     <xsd:attribute name="cp" type="xsd:unsignedInt"/>
800 </xsd:complexType>
801 <xsd:complexType name="CT_FieldGroup">
802     <xsd:sequence>
803         <xsd:element name="rangePr" minOccurs="0" type="CT_RangePr"/>
804         <xsd:element name="discretePr" minOccurs="0" type="CT_DiscretePr"/>
805         <xsd:element name="groupItems" minOccurs="0" type="CT_GroupItems"/>
806     </xsd:sequence>
807     <xsd:attribute name="par" type="xsd:unsignedInt" use="optional"/>
808     <xsd:attribute name="base" type="xsd:unsignedInt" use="optional"/>
809 </xsd:complexType>
810 <xsd:complexType name="CT_RangePr">
811     <xsd:attribute name="autoStart" type="xsd:boolean" default="true"/>
812     <xsd:attribute name="autoEnd" type="xsd:boolean" default="true"/>
813     <xsd:attribute name="groupBy" type="ST_GroupBy" default="range"/>
814     <xsd:attribute name="startNum" type="xsd:double"/>
815     <xsd:attribute name="endNum" type="xsd:double"/>
816     <xsd:attribute name="startDate" type="xsd:dateTime"/>
817     <xsd:attribute name="endDate" type="xsd:dateTime"/>
818     <xsd:attribute name="groupInterval" type="xsd:double" default="1"/>
819 </xsd:complexType>
820 <xsd:simpleType name="ST_GroupBy">
821     <xsd:restriction base="xsd:string">
822         <xsd:enumeration value="range"/>
823         <xsd:enumeration value="seconds"/>

```



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824         <xsd:enumeration value="minutes"/>
825         <xsd:enumeration value="hours"/>
826         <xsd:enumeration value="days"/>
827         <xsd:enumeration value="months"/>
828         <xsd:enumeration value="quarters"/>
829         <xsd:enumeration value="years"/>
830     </xsd:restriction>
831 </xsd:simpleType>
832 <xsd:complexType name="CT_DiscretePr">
833     <xsd:sequence>
834         <xsd:element name="x" maxOccurs="unbounded" type="CT_Index"/>
835     </xsd:sequence>
836     <xsd:attribute name="count" type="xsd:unsignedInt"/>
837 </xsd:complexType>
838 <xsd:complexType name="CT_GroupItems">
839     <xsd:choice maxOccurs="unbounded">
840         <xsd:element name="m" type="CT_Missing"/>
841         <xsd:element name="n" type="CT_Number"/>
842         <xsd:element name="b" type="CT_Boolean"/>
843         <xsd:element name="e" type="CT_Error"/>
844         <xsd:element name="s" type="CT_String"/>
845         <xsd:element name="d" type="CT_DateTime"/>
846     </xsd:choice>
847     <xsd:attribute name="count" type="xsd:unsignedInt"/>
848 </xsd:complexType>
849 <xsd:complexType name="CT_PivotCacheRecords">
850     <xsd:sequence>
851         <xsd:element name="r" minOccurs="0" maxOccurs="unbounded" type="CT_Record"/>
852         <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
853     </xsd:sequence>
854     <xsd:attribute name="count" type="xsd:unsignedInt"/>
855 </xsd:complexType>
856 <xsd:complexType name="CT_Record">
857     <xsd:choice maxOccurs="unbounded">
858         <xsd:element name="m" type="CT_Missing"/>
859         <xsd:element name="n" type="CT_Number"/>
860         <xsd:element name="b" type="CT_Boolean"/>
861         <xsd:element name="e" type="CT_Error"/>
862         <xsd:element name="s" type="CT_String"/>
863         <xsd:element name="d" type="CT_DateTime"/>
864         <xsd:element name="x" type="CT_Index"/>
865     </xsd:choice>
866 </xsd:complexType>
867 <xsd:complexType name="CT_PCDKPIs">
868     <xsd:sequence>
869         <xsd:element name="kpi" minOccurs="0" maxOccurs="unbounded" type="CT_PCDKPI"/>
870     </xsd:sequence>
871     <xsd:attribute name="count" type="xsd:unsignedInt"/>
872 </xsd:complexType>
873 <xsd:complexType name="CT_PCDKPI">
874     <xsd:attribute name="uniqueName" use="required" type="s:ST_Xstring"/>
875     <xsd:attribute name="caption" use="optional" type="s:ST_Xstring"/>
876     <xsd:attribute name="displayFolder" type="s:ST_Xstring"/>

```



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877 <xsd:attribute name="measureGroup" type="s:ST Xstring"/>
878 <xsd:attribute name="parent" type="s:ST Xstring"/>
879 <xsd:attribute name="value" use="required" type="s:ST Xstring"/>
880 <xsd:attribute name="goal" type="s:ST Xstring"/>
881 <xsd:attribute name="status" type="s:ST Xstring"/>
882 <xsd:attribute name="trend" type="s:ST Xstring"/>
883 <xsd:attribute name="weight" type="s:ST Xstring"/>
884 <xsd:attribute name="time" type="s:ST Xstring"/>
885 </xsd:complexType>
886 <xsd:complexType name="CT_CacheHierarchies">
887 <xsd:sequence>
888 <xsd:element name="cacheHierarchy" minOccurs="0" maxOccurs="unbounded"
889 type="CT_CacheHierarchy"/>
890 </xsd:sequence>
891 <xsd:attribute name="count" type="xsd:unsignedInt"/>
892 </xsd:complexType>
893 <xsd:complexType name="CT_CacheHierarchy">
894 <xsd:sequence>
895 <xsd:element name="fieldsUsage" minOccurs="0" type="CT_FieldsUsage"/>
896 <xsd:element name="groupLevels" minOccurs="0" type="CT_GroupLevels"/>
897 <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
898 </xsd:sequence>
899 <xsd:attribute name="uniqueName" use="required" type="s:ST Xstring"/>
900 <xsd:attribute name="caption" use="optional" type="s:ST Xstring"/>
901 <xsd:attribute name="measure" type="xsd:boolean" default="false"/>
902 <xsd:attribute name="set" type="xsd:boolean" default="false"/>
903 <xsd:attribute name="parentSet" type="xsd:unsignedInt" use="optional"/>
904 <xsd:attribute name="iconSet" type="xsd:int" default="0"/>
905 <xsd:attribute name="attribute" type="xsd:boolean" default="false"/>
906 <xsd:attribute name="time" type="xsd:boolean" default="false"/>
907 <xsd:attribute name="keyAttribute" type="xsd:boolean" default="false"/>
908 <xsd:attribute name="defaultMemberUniqueName" type="s:ST Xstring"/>
909 <xsd:attribute name="allUniqueName" type="s:ST Xstring"/>
910 <xsd:attribute name="allCaption" type="s:ST Xstring"/>
911 <xsd:attribute name="dimensionUniqueName" type="s:ST Xstring"/>
912 <xsd:attribute name="displayFolder" type="s:ST Xstring"/>
913 <xsd:attribute name="measureGroup" type="s:ST Xstring"/>
914 <xsd:attribute name="measures" type="xsd:boolean" default="false"/>
915 <xsd:attribute name="count" use="required" type="xsd:unsignedInt"/>
916 <xsd:attribute name="oneField" type="xsd:boolean" default="false"/>
917 <xsd:attribute name="memberValueDatatype" use="optional" type="xsd:unsignedShort"/>
918 <xsd:attribute name="unbalanced" use="optional" type="xsd:boolean"/>
919 <xsd:attribute name="unbalancedGroup" use="optional" type="xsd:boolean"/>
920 <xsd:attribute name="hidden" type="xsd:boolean" default="false"/>
921 </xsd:complexType>
922 <xsd:complexType name="CT_FieldsUsage">
923 <xsd:sequence>
924 <xsd:element name="fieldUsage" minOccurs="0" maxOccurs="unbounded" type="CT_FieldUsage"/>
925 </xsd:sequence>
926 <xsd:attribute name="count" type="xsd:unsignedInt"/>
927 </xsd:complexType>
928 <xsd:complexType name="CT_FieldUsage">
929 <xsd:attribute name="x" use="required" type="xsd:int"/>

```



```

930 </xsd:complexType>
931 <xsd:complexType name="CT_GroupLevels">
932   <xsd:sequence>
933     <xsd:element name="groupLevel" maxOccurs="unbounded" type="CT_GroupLevel1"/>
934   </xsd:sequence>
935   <xsd:attribute name="count" type="xsd:unsignedInt"/>
936 </xsd:complexType>
937 <xsd:complexType name="CT_GroupLevel">
938   <xsd:sequence>
939     <xsd:element name="groups" minOccurs="0" type="CT_Groups"/>
940     <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
941   </xsd:sequence>
942   <xsd:attribute name="uniqueName" use="required" type="s:ST_Xstring"/>
943   <xsd:attribute name="caption" use="required" type="s:ST_Xstring"/>
944   <xsd:attribute name="user" type="xsd:boolean" default="false"/>
945   <xsd:attribute name="customRollUp" type="xsd:boolean" default="false"/>
946 </xsd:complexType>
947 <xsd:complexType name="CT_Groups">
948   <xsd:sequence>
949     <xsd:element name="group" maxOccurs="unbounded" type="CT_LevelGroup"/>
950   </xsd:sequence>
951   <xsd:attribute name="count" type="xsd:unsignedInt"/>
952 </xsd:complexType>
953 <xsd:complexType name="CT_LevelGroup">
954   <xsd:sequence>
955     <xsd:element name="groupMembers" type="CT_GroupMembers"/>
956   </xsd:sequence>
957   <xsd:attribute name="name" use="required" type="s:ST_Xstring"/>
958   <xsd:attribute name="uniqueName" use="required" type="s:ST_Xstring"/>
959   <xsd:attribute name="caption" use="required" type="s:ST_Xstring"/>
960   <xsd:attribute name="uniqueParent" type="s:ST_Xstring"/>
961   <xsd:attribute name="id" type="xsd:int"/>
962 </xsd:complexType>
963 <xsd:complexType name="CT_GroupMembers">
964   <xsd:sequence>
965     <xsd:element name="groupMember" maxOccurs="unbounded" type="CT_GroupMember"/>
966   </xsd:sequence>
967   <xsd:attribute name="count" type="xsd:unsignedInt"/>
968 </xsd:complexType>
969 <xsd:complexType name="CT_GroupMember">
970   <xsd:attribute name="uniqueName" use="required" type="s:ST_Xstring"/>
971   <xsd:attribute name="group" type="xsd:boolean" default="false"/>
972 </xsd:complexType>
973 <xsd:complexType name="CT_TupleCache">
974   <xsd:sequence>
975     <xsd:element name="entries" minOccurs="0" type="CT_PCSDTCEntries"/>
976     <xsd:element name="sets" minOccurs="0" type="CT_Sets"/>
977     <xsd:element name="queryCache" minOccurs="0" type="CT_QueryCache"/>
978     <xsd:element name="serverFormats" minOccurs="0" maxOccurs="1" type="CT_ServerFormats"/>
979     <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
980   </xsd:sequence>
981 </xsd:complexType>
982 <xsd:complexType name="CT_ServerFormat">

```



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983     <xsd:attribute name="culture" use="optional" type="s:ST Xstring"/>
984     <xsd:attribute name="format" use="optional" type="s:ST Xstring"/>
985 </xsd:complexType>
986 <xsd:complexType name="CT_ServerFormats">
987     <xsd:sequence>
988         <xsd:element name="serverFormat" type="CT_ServerFormat" minOccurs="0"
989             maxOccurs="unbounded"/>
990     </xsd:sequence>
991     <xsd:attribute name="count" type="xsd:unsignedInt"/>
992 </xsd:complexType>
993 <xsd:complexType name="CT_PCSDSTCEntries">
994     <xsd:choice maxOccurs="unbounded">
995         <xsd:element name="m" type="CT_Missing"/>
996         <xsd:element name="n" type="CT_Number"/>
997         <xsd:element name="e" type="CT_Error"/>
998         <xsd:element name="s" type="CT_String"/>
999     </xsd:choice>
1000     <xsd:attribute name="count" type="xsd:unsignedInt"/>
1001 </xsd:complexType>
1002 <xsd:complexType name="CT_Tuples">
1003     <xsd:sequence>
1004         <xsd:element name="tpl" type="CT_Tuple" minOccurs="1" maxOccurs="unbounded"/>
1005     </xsd:sequence>
1006     <xsd:attribute name="c" type="xsd:unsignedInt" use="optional"/>
1007 </xsd:complexType>
1008 <xsd:complexType name="CT_Tuple">
1009     <xsd:attribute name="fld" type="xsd:unsignedInt"/>
1010     <xsd:attribute name="hier" type="xsd:unsignedInt"/>
1011     <xsd:attribute name="item" type="xsd:unsignedInt" use="required"/>
1012 </xsd:complexType>
1013 <xsd:complexType name="CT_Sets">
1014     <xsd:sequence>
1015         <xsd:element name="set" maxOccurs="unbounded" type="CT_Set"/>
1016     </xsd:sequence>
1017     <xsd:attribute name="count" type="xsd:unsignedInt"/>
1018 </xsd:complexType>
1019 <xsd:complexType name="CT_Set">
1020     <xsd:sequence>
1021         <xsd:element name="tpls" minOccurs="0" maxOccurs="unbounded" type="CT_Tuples"/>
1022         <xsd:element name="sortByTuple" minOccurs="0" type="CT_Tuples"/>
1023     </xsd:sequence>
1024     <xsd:attribute name="count" type="xsd:unsignedInt"/>
1025     <xsd:attribute name="maxRank" use="required" type="xsd:int"/>
1026     <xsd:attribute name="setDefinition" use="required" type="s:ST Xstring"/>
1027     <xsd:attribute name="sortType" type="ST_SortType" default="none"/>
1028     <xsd:attribute name="queryFailed" type="xsd:boolean" default="false"/>
1029 </xsd:complexType>
1030 <xsd:simpleType name="ST_SortType">
1031     <xsd:restriction base="xsd:string">
1032         <xsd:enumeration value="none"/>
1033         <xsd:enumeration value="ascending"/>
1034         <xsd:enumeration value="descending"/>
1035         <xsd:enumeration value="ascendingAlpha"/>

```



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1036         <xsd:enumeration value="descendingAlpha"/>
1037         <xsd:enumeration value="ascendingNatural"/>
1038         <xsd:enumeration value="descendingNatural"/>
1039     </xsd:restriction>
1040 </xsd:simpleType>
1041 <xsd:complexType name="CT_QueryCache">
1042     <xsd:sequence>
1043         <xsd:element name="query" maxOccurs="unbounded" type="CT_Query"/>
1044     </xsd:sequence>
1045     <xsd:attribute name="count" type="xsd:unsignedInt"/>
1046 </xsd:complexType>
1047 <xsd:complexType name="CT_Query">
1048     <xsd:sequence>
1049         <xsd:element name="tpls" minOccurs="0" type="CT_Tuples"/>
1050     </xsd:sequence>
1051     <xsd:attribute name="mdx" use="required" type="s:ST_Xstring"/>
1052 </xsd:complexType>
1053 <xsd:complexType name="CT_CalculatedItems">
1054     <xsd:sequence>
1055         <xsd:element name="calculatedItem" maxOccurs="unbounded" type="CT_CalculatedItem"/>
1056     </xsd:sequence>
1057     <xsd:attribute name="count" type="xsd:unsignedInt"/>
1058 </xsd:complexType>
1059 <xsd:complexType name="CT_CalculatedItem">
1060     <xsd:sequence>
1061         <xsd:element name="pivotArea" type="CT_PivotArea"/>
1062         <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
1063     </xsd:sequence>
1064     <xsd:attribute name="field" type="xsd:unsignedInt" use="optional"/>
1065     <xsd:attribute name="formula" type="s:ST_Xstring"/>
1066 </xsd:complexType>
1067 <xsd:complexType name="CT_CalculatedMembers">
1068     <xsd:sequence>
1069         <xsd:element name="calculatedMember" maxOccurs="unbounded" type="CT_CalculatedMember"/>
1070     </xsd:sequence>
1071     <xsd:attribute name="count" type="xsd:unsignedInt"/>
1072 </xsd:complexType>
1073 <xsd:complexType name="CT_CalculatedMember">
1074     <xsd:sequence minOccurs="0">
1075         <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
1076     </xsd:sequence>
1077     <xsd:attribute name="name" use="required" type="s:ST_Xstring"/>
1078     <xsd:attribute name="mdx" use="required" type="s:ST_Xstring"/>
1079     <xsd:attribute name="memberName" type="s:ST_Xstring"/>
1080     <xsd:attribute name="hierarchy" type="s:ST_Xstring"/>
1081     <xsd:attribute name="parent" type="s:ST_Xstring"/>
1082     <xsd:attribute name="solveOrder" type="xsd:int" default="0"/>
1083     <xsd:attribute name="set" type="xsd:boolean" default="false"/>
1084 </xsd:complexType>
1085 <xsd:complexType name="CT_pivotTableDefinition">
1086     <xsd:sequence>
1087         <xsd:element name="location" type="CT_Location"/>
1088         <xsd:element name="pivotFields" type="CT_PivotFields" minOccurs="0"/>

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1089     <xsd:element name="rowFields" type="CT RowFields" minOccurs="0"/>
1090     <xsd:element name="rowItems" type="CT rowItems" minOccurs="0"/>
1091     <xsd:element name="colFields" type="CT ColFields" minOccurs="0"/>
1092     <xsd:element name="colItems" type="CT colItems" minOccurs="0"/>
1093     <xsd:element name="pageFields" type="CT PageFields" minOccurs="0"/>
1094     <xsd:element name="dataFields" type="CT DataFields" minOccurs="0"/>
1095     <xsd:element name="formats" type="CT Formats" minOccurs="0"/>
1096     <xsd:element name="conditionalFormats" type="CT ConditionalFormats" minOccurs="0"/>
1097     <xsd:element name="chartFormats" type="CT ChartFormats" minOccurs="0"/>
1098     <xsd:element name="pivotHierarchies" type="CT PivotHierarchies" minOccurs="0"/>
1099     <xsd:element name="pivotTableStyleInfo" minOccurs="0" maxOccurs="1"
1100         type="CT PivotTableStyle"/>
1101     <xsd:element name="filters" minOccurs="0" maxOccurs="1" type="CT PivotFilters"/>
1102     <xsd:element name="rowHierarchiesUsage" type="CT RowHierarchiesUsage" minOccurs="0"
1103         maxOccurs="1"/>
1104     <xsd:element name="colHierarchiesUsage" type="CT ColHierarchiesUsage" minOccurs="0"
1105         maxOccurs="1"/>
1106     <xsd:element name="extLst" minOccurs="0" type="CT ExtensionList"/>
1107 </xsd:sequence>
1108 <xsd:attribute name="name" use="required" type="s:ST Xstring"/>
1109 <xsd:attribute name="cacheId" use="required" type="xsd:unsignedInt"/>
1110 <xsd:attribute name="dataOnRows" type="xsd:boolean" default="false"/>
1111 <xsd:attribute name="dataPosition" type="xsd:unsignedInt" use="optional"/>
1112 <xsd:attributeGroup ref="AG AutoFormat"/>
1113 <xsd:attribute name="dataCaption" use="required" type="s:ST Xstring"/>
1114 <xsd:attribute name="grandTotalCaption" type="s:ST Xstring"/>
1115 <xsd:attribute name="errorCaption" type="s:ST Xstring"/>
1116 <xsd:attribute name="showError" type="xsd:boolean" default="false"/>
1117 <xsd:attribute name="missingCaption" type="s:ST Xstring"/>
1118 <xsd:attribute name="showMissing" type="xsd:boolean" default="true"/>
1119 <xsd:attribute name="pageStyle" type="s:ST Xstring"/>
1120 <xsd:attribute name="pivotTableStyle" type="s:ST Xstring"/>
1121 <xsd:attribute name="vacatedStyle" type="s:ST Xstring"/>
1122 <xsd:attribute name="tag" type="s:ST Xstring"/>
1123 <xsd:attribute name="updatedVersion" type="xsd:unsignedByte" default="0"/>
1124 <xsd:attribute name="minRefreshableVersion" type="xsd:unsignedByte" default="0"/>
1125 <xsd:attribute name="asteriskTotals" type="xsd:boolean" default="false"/>
1126 <xsd:attribute name="showItems" type="xsd:boolean" default="true"/>
1127 <xsd:attribute name="editData" type="xsd:boolean" default="false"/>
1128 <xsd:attribute name="disableFieldList" type="xsd:boolean" default="false"/>
1129 <xsd:attribute name="showCalcMbrs" type="xsd:boolean" default="true"/>
1130 <xsd:attribute name="visualTotals" type="xsd:boolean" default="true"/>
1131 <xsd:attribute name="showMultipleLabel" type="xsd:boolean" default="true"/>
1132 <xsd:attribute name="showDataDropDown" type="xsd:boolean" default="true"/>
1133 <xsd:attribute name="showDrill" type="xsd:boolean" default="true"/>
1134 <xsd:attribute name="printDrill" type="xsd:boolean" default="false"/>
1135 <xsd:attribute name="showMemberPropertyTips" type="xsd:boolean" default="true"/>
1136 <xsd:attribute name="showDataTips" type="xsd:boolean" default="true"/>
1137 <xsd:attribute name="enableWizard" type="xsd:boolean" default="true"/>
1138 <xsd:attribute name="enableDrill" type="xsd:boolean" default="true"/>
1139 <xsd:attribute name="enableFieldProperties" type="xsd:boolean" default="true"/>
1140 <xsd:attribute name="preserveFormatting" type="xsd:boolean" default="true"/>
1141 <xsd:attribute name="useAutoFormatting" type="xsd:boolean" default="false"/>

```



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1142 <xsd:attribute name="pageWrap" type="xsd:unsignedInt" default="0"/>
1143 <xsd:attribute name="pageOverThenDown" type="xsd:boolean" default="false"/>
1144 <xsd:attribute name="subtotalHiddenItems" type="xsd:boolean" default="false"/>
1145 <xsd:attribute name="rowGrandTotals" type="xsd:boolean" default="true"/>
1146 <xsd:attribute name="colGrandTotals" type="xsd:boolean" default="true"/>
1147 <xsd:attribute name="fieldPrintTitles" type="xsd:boolean" default="false"/>
1148 <xsd:attribute name="itemPrintTitles" type="xsd:boolean" default="false"/>
1149 <xsd:attribute name="mergeItem" type="xsd:boolean" default="false"/>
1150 <xsd:attribute name="showDropZones" type="xsd:boolean" default="true"/>
1151 <xsd:attribute name="createdVersion" type="xsd:unsignedByte" default="0"/>
1152 <xsd:attribute name="indent" type="xsd:unsignedInt" default="1"/>
1153 <xsd:attribute name="showEmptyRow" type="xsd:boolean" default="false"/>
1154 <xsd:attribute name="showEmptyCol" type="xsd:boolean" default="false"/>
1155 <xsd:attribute name="showHeaders" type="xsd:boolean" default="true"/>
1156 <xsd:attribute name="compact" type="xsd:boolean" default="true"/>
1157 <xsd:attribute name="outline" type="xsd:boolean" default="false"/>
1158 <xsd:attribute name="outlineData" type="xsd:boolean" default="false"/>
1159 <xsd:attribute name="compactData" type="xsd:boolean" default="true"/>
1160 <xsd:attribute name="published" type="xsd:boolean" default="false"/>
1161 <xsd:attribute name="gridDropZones" type="xsd:boolean" default="false"/>
1162 <xsd:attribute name="immersive" type="xsd:boolean" default="true"/>
1163 <xsd:attribute name="multipleFieldFilters" type="xsd:boolean" default="true"/>
1164 <xsd:attribute name="chartFormat" type="xsd:unsignedInt" default="0"/>
1165 <xsd:attribute name="rowHeaderCaption" type="s:ST Xstring"/>
1166 <xsd:attribute name="colHeaderCaption" type="s:ST Xstring"/>
1167 <xsd:attribute name="fieldListSortAscending" type="xsd:boolean" default="false"/>
1168 <xsd:attribute name="mdxSubqueries" type="xsd:boolean" default="false"/>
1169 <xsd:attribute name="customListSort" type="xsd:boolean" use="optional" default="true"/>
1170 </xsd:complexType>
1171 <xsd:complexType name="CT_Location">
1172 <xsd:attribute name="ref" use="required" type="ST Ref"/>
1173 <xsd:attribute name="firstHeaderRow" use="required" type="xsd:unsignedInt"/>
1174 <xsd:attribute name="firstDataRow" use="required" type="xsd:unsignedInt"/>
1175 <xsd:attribute name="firstDataCol" use="required" type="xsd:unsignedInt"/>
1176 <xsd:attribute name="rowPageCount" type="xsd:unsignedInt" default="0"/>
1177 <xsd:attribute name="colPageCount" type="xsd:unsignedInt" default="0"/>
1178 </xsd:complexType>
1179 <xsd:complexType name="CT_PivotFields">
1180 <xsd:sequence>
1181 <xsd:element name="pivotField" maxOccurs="unbounded" type="CT_PivotField"/>
1182 </xsd:sequence>
1183 <xsd:attribute name="count" type="xsd:unsignedInt"/>
1184 </xsd:complexType>
1185 <xsd:complexType name="CT_PivotField">
1186 <xsd:sequence>
1187 <xsd:element name="items" minOccurs="0" type="CT_Items"/>
1188 <xsd:element name="autoSortScope" minOccurs="0" type="CT_AutoSortScope"/>
1189 <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
1190 </xsd:sequence>
1191 <xsd:attribute name="name" type="s:ST Xstring"/>
1192 <xsd:attribute name="axis" use="optional" type="ST Axis"/>
1193 <xsd:attribute name="dataField" type="xsd:boolean" default="false"/>
1194 <xsd:attribute name="subtotalCaption" type="s:ST Xstring"/>

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1195 <xsd:attribute name="showDropDowns" type="xsd:boolean" default="true"/>
1196 <xsd:attribute name="hiddenLevel" type="xsd:boolean" default="false"/>
1197 <xsd:attribute name="uniqueMemberProperty" type="s:ST_Xstring"/>
1198 <xsd:attribute name="compact" type="xsd:boolean" default="true"/>
1199 <xsd:attribute name="allDrilled" type="xsd:boolean" default="false"/>
1200 <xsd:attribute name="numFmtId" type="ST_NumFmtId" use="optional"/>
1201 <xsd:attribute name="outline" type="xsd:boolean" default="true"/>
1202 <xsd:attribute name="subtotalTop" type="xsd:boolean" default="true"/>
1203 <xsd:attribute name="dragToRow" type="xsd:boolean" default="true"/>
1204 <xsd:attribute name="dragToCol" type="xsd:boolean" default="true"/>
1205 <xsd:attribute name="multipleItemSelectionAllowed" type="xsd:boolean" default="false"/>
1206 <xsd:attribute name="dragToPage" type="xsd:boolean" default="true"/>
1207 <xsd:attribute name="dragToData" type="xsd:boolean" default="true"/>
1208 <xsd:attribute name="dragOff" type="xsd:boolean" default="true"/>
1209 <xsd:attribute name="showAll" type="xsd:boolean" default="true"/>
1210 <xsd:attribute name="insertBlankRow" type="xsd:boolean" default="false"/>
1211 <xsd:attribute name="serverField" type="xsd:boolean" default="false"/>
1212 <xsd:attribute name="insertPageBreak" type="xsd:boolean" default="false"/>
1213 <xsd:attribute name="autoShow" type="xsd:boolean" default="false"/>
1214 <xsd:attribute name="topAutoShow" type="xsd:boolean" default="true"/>
1215 <xsd:attribute name="hideNewItem" type="xsd:boolean" default="false"/>
1216 <xsd:attribute name="measureFilter" type="xsd:boolean" default="false"/>
1217 <xsd:attribute name="includeNewItemInFilter" type="xsd:boolean" default="false"/>
1218 <xsd:attribute name="itemPageCount" type="xsd:unsignedInt" default="10"/>
1219 <xsd:attribute name="sortType" type="ST_FieldSortType" default="manual"/>
1220 <xsd:attribute name="dataSourceSort" type="xsd:boolean" use="optional"/>
1221 <xsd:attribute name="nonAutoSortDefault" type="xsd:boolean" default="false"/>
1222 <xsd:attribute name="rankBy" type="xsd:unsignedInt" use="optional"/>
1223 <xsd:attribute name="defaultSubtotal" type="xsd:boolean" default="true"/>
1224 <xsd:attribute name="sumSubtotal" type="xsd:boolean" default="false"/>
1225 <xsd:attribute name="countASubtotal" type="xsd:boolean" default="false"/>
1226 <xsd:attribute name="avgSubtotal" type="xsd:boolean" default="false"/>
1227 <xsd:attribute name="maxSubtotal" type="xsd:boolean" default="false"/>
1228 <xsd:attribute name="minSubtotal" type="xsd:boolean" default="false"/>
1229 <xsd:attribute name="productSubtotal" type="xsd:boolean" default="false"/>
1230 <xsd:attribute name="countSubtotal" type="xsd:boolean" default="false"/>
1231 <xsd:attribute name="stdDevSubtotal" type="xsd:boolean" default="false"/>
1232 <xsd:attribute name="stdDevPSubtotal" type="xsd:boolean" default="false"/>
1233 <xsd:attribute name="varSubtotal" type="xsd:boolean" default="false"/>
1234 <xsd:attribute name="varPSubtotal" type="xsd:boolean" default="false"/>
1235 <xsd:attribute name="showPropCell" type="xsd:boolean" use="optional" default="false"/>
1236 <xsd:attribute name="showPropTip" type="xsd:boolean" use="optional" default="false"/>
1237 <xsd:attribute name="showPropAsCaption" type="xsd:boolean" use="optional" default="false"/>
1238 <xsd:attribute name="defaultAttributeDrillState" type="xsd:boolean" use="optional"
1239     default="false"/>
1240 </xsd:complexType>
1241 <xsd:complexType name="CT_AutoSortScope">
1242     <xsd:sequence>
1243         <xsd:element name="pivotArea" type="CT_PivotArea"/>
1244     </xsd:sequence>
1245 </xsd:complexType>
1246 <xsd:complexType name="CT_Items">
1247     <xsd:sequence>

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1248     <xsd:element name="item" maxOccurs="unbounded" type="CT_Item"/>
1249   </xsd:sequence>
1250   <xsd:attribute name="count" type="xsd:unsignedInt"/>
1251 </xsd:complexType>
1252 <xsd:complexType name="CT_Item">
1253   <xsd:attribute name="n" type="s:ST_Xstring"/>
1254   <xsd:attribute name="t" type="ST_ItemType" default="data"/>
1255   <xsd:attribute name="h" type="xsd:boolean" default="false"/>
1256   <xsd:attribute name="s" type="xsd:boolean" default="false"/>
1257   <xsd:attribute name="sd" type="xsd:boolean" default="true"/>
1258   <xsd:attribute name="f" type="xsd:boolean" default="false"/>
1259   <xsd:attribute name="m" type="xsd:boolean" default="false"/>
1260   <xsd:attribute name="c" type="xsd:boolean" default="false"/>
1261   <xsd:attribute name="x" type="xsd:unsignedInt" use="optional"/>
1262   <xsd:attribute name="d" type="xsd:boolean" default="false"/>
1263   <xsd:attribute name="e" type="xsd:boolean" default="true"/>
1264 </xsd:complexType>
1265 <xsd:complexType name="CT_PageFields">
1266   <xsd:sequence>
1267     <xsd:element name="pageField" maxOccurs="unbounded" type="CT_PageField"/>
1268   </xsd:sequence>
1269   <xsd:attribute name="count" type="xsd:unsignedInt"/>
1270 </xsd:complexType>
1271 <xsd:complexType name="CT_PageField">
1272   <xsd:sequence minOccurs="0">
1273     <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
1274   </xsd:sequence>
1275   <xsd:attribute name="fld" use="required" type="xsd:int"/>
1276   <xsd:attribute name="item" use="optional" type="xsd:unsignedInt"/>
1277   <xsd:attribute name="hier" type="xsd:int"/>
1278   <xsd:attribute name="name" type="s:ST_Xstring"/>
1279   <xsd:attribute name="cap" type="s:ST_Xstring"/>
1280 </xsd:complexType>
1281 <xsd:complexType name="CT_DataFields">
1282   <xsd:sequence>
1283     <xsd:element name="dataField" maxOccurs="unbounded" type="CT_DataField"/>
1284   </xsd:sequence>
1285   <xsd:attribute name="count" type="xsd:unsignedInt"/>
1286 </xsd:complexType>
1287 <xsd:complexType name="CT_DataField">
1288   <xsd:sequence>
1289     <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
1290   </xsd:sequence>
1291   <xsd:attribute name="name" use="optional" type="s:ST_Xstring"/>
1292   <xsd:attribute name="fld" type="xsd:unsignedInt" use="required"/>
1293   <xsd:attribute name="subtotal" type="ST_DataConsolidateFunction" default="sum"/>
1294   <xsd:attribute name="showDataAs" type="ST_ShowDataAs" default="normal"/>
1295   <xsd:attribute name="baseField" type="xsd:int" default="-1"/>
1296   <xsd:attribute name="baseItem" type="xsd:unsignedInt" default="1048832"/>
1297   <xsd:attribute name="numFmtId" type="ST_NumFmtId" use="optional"/>
1298 </xsd:complexType>
1299 <xsd:complexType name="CT_rowItems">
1300   <xsd:sequence>

```



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1301     <xsd:element name="i" maxOccurs="unbounded" type="CT_I"/>
1302   </xsd:sequence>
1303   <xsd:attribute name="count" type="xsd:unsignedInt"/>
1304 </xsd:complexType>
1305 <xsd:complexType name="CT_colItems">
1306   <xsd:sequence>
1307     <xsd:element name="i" maxOccurs="unbounded" type="CT_I"/>
1308   </xsd:sequence>
1309   <xsd:attribute name="count" type="xsd:unsignedInt"/>
1310 </xsd:complexType>
1311 <xsd:complexType name="CT_I">
1312   <xsd:sequence>
1313     <xsd:element name="x" minOccurs="0" maxOccurs="unbounded" type="CT_X"/>
1314   </xsd:sequence>
1315   <xsd:attribute name="t" type="ST_ItemType" default="data"/>
1316   <xsd:attribute name="r" type="xsd:unsignedInt" default="0"/>
1317   <xsd:attribute name="i" type="xsd:unsignedInt" default="0"/>
1318 </xsd:complexType>
1319 <xsd:complexType name="CT_X">
1320   <xsd:attribute name="v" type="xsd:int" default="0"/>
1321 </xsd:complexType>
1322 <xsd:complexType name="CT_RowFields">
1323   <xsd:sequence>
1324     <xsd:element name="field" maxOccurs="unbounded" type="CT_Field"/>
1325   </xsd:sequence>
1326   <xsd:attribute name="count" type="xsd:unsignedInt" default="0"/>
1327 </xsd:complexType>
1328 <xsd:complexType name="CT_ColFields">
1329   <xsd:sequence>
1330     <xsd:element name="field" maxOccurs="unbounded" type="CT_Field"/>
1331   </xsd:sequence>
1332   <xsd:attribute name="count" type="xsd:unsignedInt" default="0"/>
1333 </xsd:complexType>
1334 <xsd:complexType name="CT_Field">
1335   <xsd:attribute name="x" type="xsd:int" use="required"/>
1336 </xsd:complexType>
1337 <xsd:complexType name="CT_Formats">
1338   <xsd:sequence>
1339     <xsd:element name="format" maxOccurs="unbounded" type="CT_Format"/>
1340   </xsd:sequence>
1341   <xsd:attribute name="count" type="xsd:unsignedInt" default="0"/>
1342 </xsd:complexType>
1343 <xsd:complexType name="CT_Format">
1344   <xsd:sequence>
1345     <xsd:element name="pivotArea" type="CT_PivotArea"/>
1346     <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
1347   </xsd:sequence>
1348   <xsd:attribute name="action" type="ST_FormatAction" default="formatting"/>
1349   <xsd:attribute name="dxId" type="ST_DxfId" use="optional"/>
1350 </xsd:complexType>
1351 <xsd:complexType name="CT_ConditionalFormats">
1352   <xsd:sequence>
1353     <xsd:element name="conditionalFormat" maxOccurs="unbounded" type="CT_ConditionalFormat"/>

```



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1354     </xsd:sequence>
1355     <xsd:attribute name="count" type="xsd:unsignedInt" default="0"/>
1356 </xsd:complexType>
1357 <xsd:complexType name="CT_ConditionalFormat">
1358     <xsd:sequence>
1359         <xsd:element name="pivotAreas" type="CT_PivotAreas"/>
1360         <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
1361     </xsd:sequence>
1362     <xsd:attribute name="scope" type="ST_Scope" default="selection"/>
1363     <xsd:attribute name="type" type="ST_Type" default="none"/>
1364     <xsd:attribute name="priority" use="required" type="xsd:unsignedInt"/>
1365 </xsd:complexType>
1366 <xsd:complexType name="CT_PivotAreas">
1367     <xsd:sequence>
1368         <xsd:element name="pivotArea" minOccurs="0" maxOccurs="unbounded" type="CT_PivotArea"/>
1369     </xsd:sequence>
1370     <xsd:attribute name="count" type="xsd:unsignedInt"/>
1371 </xsd:complexType>
1372 <xsd:simpleType name="ST_Scope">
1373     <xsd:restriction base="xsd:string">
1374         <xsd:enumeration value="selection"/>
1375         <xsd:enumeration value="data"/>
1376         <xsd:enumeration value="field"/>
1377     </xsd:restriction>
1378 </xsd:simpleType>
1379 <xsd:simpleType name="ST_Type">
1380     <xsd:restriction base="xsd:string">
1381         <xsd:enumeration value="none"/>
1382         <xsd:enumeration value="all"/>
1383         <xsd:enumeration value="row"/>
1384         <xsd:enumeration value="column"/>
1385     </xsd:restriction>
1386 </xsd:simpleType>
1387 <xsd:complexType name="CT_ChartFormats">
1388     <xsd:sequence>
1389         <xsd:element name="chartFormat" maxOccurs="unbounded" type="CT_ChartFormat"/>
1390     </xsd:sequence>
1391     <xsd:attribute name="count" type="xsd:unsignedInt" default="0"/>
1392 </xsd:complexType>
1393 <xsd:complexType name="CT_ChartFormat">
1394     <xsd:sequence>
1395         <xsd:element name="pivotArea" type="CT_PivotArea"/>
1396     </xsd:sequence>
1397     <xsd:attribute name="chart" use="required" type="xsd:unsignedInt"/>
1398     <xsd:attribute name="format" use="required" type="xsd:unsignedInt"/>
1399     <xsd:attribute name="series" type="xsd:boolean" default="false"/>
1400 </xsd:complexType>
1401 <xsd:complexType name="CT_PivotHierarchies">
1402     <xsd:sequence>
1403         <xsd:element name="pivotHierarchy" maxOccurs="unbounded" type="CT_PivotHierarchy"/>
1404     </xsd:sequence>
1405     <xsd:attribute name="count" type="xsd:unsignedInt"/>
1406 </xsd:complexType>

```



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1407 <xsd:complexType name="CT_PivotHierarchy">
1408     <xsd:sequence>
1409         <xsd:element name="mps" minOccurs="0" type="CT_MemberProperties"/>
1410         <xsd:element name="members" minOccurs="0" maxOccurs="unbounded" type="CT_Members"/>
1411         <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
1412     </xsd:sequence>
1413     <xsd:attribute name="outline" type="xsd:boolean" default="false"/>
1414     <xsd:attribute name="multipleItemSelectionAllowed" type="xsd:boolean" default="false"/>
1415     <xsd:attribute name="subtotalTop" type="xsd:boolean" default="false"/>
1416     <xsd:attribute name="showInFieldList" type="xsd:boolean" default="true"/>
1417     <xsd:attribute name="dragToRow" type="xsd:boolean" default="true"/>
1418     <xsd:attribute name="dragToCol" type="xsd:boolean" default="true"/>
1419     <xsd:attribute name="dragToPage" type="xsd:boolean" default="true"/>
1420     <xsd:attribute name="dragToData" type="xsd:boolean" default="false"/>
1421     <xsd:attribute name="dragOff" type="xsd:boolean" default="true"/>
1422     <xsd:attribute name="includeNewItemInFilter" type="xsd:boolean" default="false"/>
1423     <xsd:attribute name="caption" type="s:ST_Xstring" use="optional"/>
1424 </xsd:complexType>
1425 <xsd:complexType name="CT_RowHierarchiesUsage">
1426     <xsd:sequence>
1427         <xsd:element name="rowHierarchyUsage" minOccurs="1" maxOccurs="unbounded"
1428             type="CT_HierarchyUsage"/>
1429     </xsd:sequence>
1430     <xsd:attribute name="count" type="xsd:unsignedInt"/>
1431 </xsd:complexType>
1432 <xsd:complexType name="CT_ColHierarchiesUsage">
1433     <xsd:sequence>
1434         <xsd:element name="colHierarchyUsage" minOccurs="1" maxOccurs="unbounded"
1435             type="CT_HierarchyUsage"/>
1436     </xsd:sequence>
1437     <xsd:attribute name="count" type="xsd:unsignedInt"/>
1438 </xsd:complexType>
1439 <xsd:complexType name="CT_HierarchyUsage">
1440     <xsd:attribute name="hierarchyUsage" type="xsd:int" use="required"/>
1441 </xsd:complexType>
1442 <xsd:complexType name="CT_MemberProperties">
1443     <xsd:sequence>
1444         <xsd:element name="mp" maxOccurs="unbounded" type="CT_MemberProperty"/>
1445     </xsd:sequence>
1446     <xsd:attribute name="count" type="xsd:unsignedInt"/>
1447 </xsd:complexType>
1448 <xsd:complexType name="CT_MemberProperty">
1449     <xsd:attribute name="name" type="s:ST_Xstring" use="optional"/>
1450     <xsd:attribute name="showCell" type="xsd:boolean" use="optional" default="false"/>
1451     <xsd:attribute name="showTip" type="xsd:boolean" use="optional" default="false"/>
1452     <xsd:attribute name="showAsCaption" type="xsd:boolean" use="optional" default="false"/>
1453     <xsd:attribute name="nameLen" type="xsd:unsignedInt" use="optional"/>
1454     <xsd:attribute name="pPos" type="xsd:unsignedInt" use="optional"/>
1455     <xsd:attribute name="pLen" type="xsd:unsignedInt" use="optional"/>
1456     <xsd:attribute name="level" type="xsd:unsignedInt" use="optional"/>
1457     <xsd:attribute name="field" use="required" type="xsd:unsignedInt"/>
1458 </xsd:complexType>
1459 <xsd:complexType name="CT_Members">

```



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1460     <xsd:sequence>
1461         <xsd:element name="member" maxOccurs="unbounded" type="CT_Member"/>
1462     </xsd:sequence>
1463     <xsd:attribute name="count" type="xsd:unsignedInt"/>
1464     <xsd:attribute name="level" use="optional" type="xsd:unsignedInt"/>
1465 </xsd:complexType>
1466 <xsd:complexType name="CT_Member">
1467     <xsd:attribute name="name" use="required" type="s:ST_Xstring"/>
1468 </xsd:complexType>
1469 <xsd:complexType name="CT_Dimensions">
1470     <xsd:sequence>
1471         <xsd:element name="dimension" minOccurs="0" maxOccurs="unbounded"
1472             type="CT_PivotDimension"/>
1473     </xsd:sequence>
1474     <xsd:attribute name="count" type="xsd:unsignedInt"/>
1475 </xsd:complexType>
1476 <xsd:complexType name="CT_PivotDimension">
1477     <xsd:attribute name="measure" type="xsd:boolean" default="false"/>
1478     <xsd:attribute name="name" use="required" type="s:ST_Xstring"/>
1479     <xsd:attribute name="uniqueName" use="required" type="s:ST_Xstring"/>
1480     <xsd:attribute name="caption" use="required" type="s:ST_Xstring"/>
1481 </xsd:complexType>
1482 <xsd:complexType name="CT_MeasureGroups">
1483     <xsd:sequence>
1484         <xsd:element name="measureGroup" minOccurs="0" maxOccurs="unbounded"
1485             type="CT_MeasureGroup"/>
1486     </xsd:sequence>
1487     <xsd:attribute name="count" type="xsd:unsignedInt"/>
1488 </xsd:complexType>
1489 <xsd:complexType name="CT_MeasureDimensionMaps">
1490     <xsd:sequence>
1491         <xsd:element name="map" minOccurs="0" maxOccurs="unbounded"
1492             type="CT_MeasureDimensionMap"/>
1493     </xsd:sequence>
1494     <xsd:attribute name="count" type="xsd:unsignedInt"/>
1495 </xsd:complexType>
1496 <xsd:complexType name="CT_MeasureGroup">
1497     <xsd:attribute name="name" use="required" type="s:ST_Xstring"/>
1498     <xsd:attribute name="caption" use="required" type="s:ST_Xstring"/>
1499 </xsd:complexType>
1500 <xsd:complexType name="CT_MeasureDimensionMap">
1501     <xsd:attribute name="measureGroup" use="optional" type="xsd:unsignedInt"/>
1502     <xsd:attribute name="dimension" use="optional" type="xsd:unsignedInt"/>
1503 </xsd:complexType>
1504 <xsd:complexType name="CT_PivotTableStyle">
1505     <xsd:attribute name="name" type="xsd:string"/>
1506     <xsd:attribute name="showRowHeaders" type="xsd:boolean"/>
1507     <xsd:attribute name="showColHeaders" type="xsd:boolean"/>
1508     <xsd:attribute name="showRowStripes" type="xsd:boolean"/>
1509     <xsd:attribute name="showColStripes" type="xsd:boolean"/>
1510     <xsd:attribute name="showLastColumn" type="xsd:boolean" use="optional"/>
1511 </xsd:complexType>
1512 <xsd:complexType name="CT_PivotFilters">

```



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1513     <xsd:sequence>
1514         <xsd:element name="filter" minOccurs="0" maxOccurs="unbounded" type="CT_PivotFilter"/>
1515     </xsd:sequence>
1516     <xsd:attribute name="count" type="xsd:unsignedInt" default="0"/>
1517 </xsd:complexType>
1518 <xsd:complexType name="CT_PivotFilter">
1519     <xsd:sequence>
1520         <xsd:element name="autoFilter" minOccurs="1" maxOccurs="1" type="CT_AutoFilter"/>
1521         <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
1522     </xsd:sequence>
1523     <xsd:attribute name="fld" use="required" type="xsd:unsignedInt"/>
1524     <xsd:attribute name="mpFld" type="xsd:unsignedInt" use="optional"/>
1525     <xsd:attribute name="type" use="required" type="ST_PivotFilterType"/>
1526     <xsd:attribute name="evalOrder" use="optional" type="xsd:int" default="0"/>
1527     <xsd:attribute name="id" use="required" type="xsd:unsignedInt"/>
1528     <xsd:attribute name="iMeasureHier" use="optional" type="xsd:unsignedInt"/>
1529     <xsd:attribute name="iMeasureFld" use="optional" type="xsd:unsignedInt"/>
1530     <xsd:attribute name="name" type="s:ST_Xstring"/>
1531     <xsd:attribute name="description" type="s:ST_Xstring"/>
1532     <xsd:attribute name="stringValue1" type="s:ST_Xstring"/>
1533     <xsd:attribute name="stringValue2" type="s:ST_Xstring"/>
1534 </xsd:complexType>
1535 <xsd:simpleType name="ST_ShowDataAs">
1536     <xsd:restriction base="xsd:string">
1537         <xsd:enumeration value="normal"/>
1538         <xsd:enumeration value="difference"/>
1539         <xsd:enumeration value="percent"/>
1540         <xsd:enumeration value="percentDiff"/>
1541         <xsd:enumeration value="runTotal"/>
1542         <xsd:enumeration value="percentOfRow"/>
1543         <xsd:enumeration value="percentOfCol"/>
1544         <xsd:enumeration value="percentOfTotal"/>
1545         <xsd:enumeration value="index"/>
1546     </xsd:restriction>
1547 </xsd:simpleType>
1548 <xsd:simpleType name="ST_ItemType">
1549     <xsd:restriction base="xsd:string">
1550         <xsd:enumeration value="data"/>
1551         <xsd:enumeration value="default"/>
1552         <xsd:enumeration value="sum"/>
1553         <xsd:enumeration value="countA"/>
1554         <xsd:enumeration value="avg"/>
1555         <xsd:enumeration value="max"/>
1556         <xsd:enumeration value="min"/>
1557         <xsd:enumeration value="product"/>
1558         <xsd:enumeration value="count"/>
1559         <xsd:enumeration value="stdDev"/>
1560         <xsd:enumeration value="stdDevP"/>
1561         <xsd:enumeration value="var"/>
1562         <xsd:enumeration value="varP"/>
1563         <xsd:enumeration value="grand"/>
1564         <xsd:enumeration value="blank"/>
1565     </xsd:restriction>

```



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1566 </xsd:simpleType>
1567 <xsd:simpleType name="ST_FormatAction">
1568   <xsd:restriction base="xsd:string">
1569     <xsd:enumeration value="blank"/>
1570     <xsd:enumeration value="formatting"/>
1571     <xsd:enumeration value="drill"/>
1572     <xsd:enumeration value="formula"/>
1573   </xsd:restriction>
1574 </xsd:simpleType>
1575 <xsd:simpleType name="ST_FieldSortType">
1576   <xsd:restriction base="xsd:string">
1577     <xsd:enumeration value="manual"/>
1578     <xsd:enumeration value="ascending"/>
1579     <xsd:enumeration value="descending"/>
1580   </xsd:restriction>
1581 </xsd:simpleType>
1582 <xsd:simpleType name="ST_PivotFilterType">
1583   <xsd:restriction base="xsd:string">
1584     <xsd:enumeration value="unknown"/>
1585     <xsd:enumeration value="count"/>
1586     <xsd:enumeration value="percent"/>
1587     <xsd:enumeration value="sum"/>
1588     <xsd:enumeration value="captionEqual"/>
1589     <xsd:enumeration value="captionNotEqual"/>
1590     <xsd:enumeration value="captionBeginsWith"/>
1591     <xsd:enumeration value="captionNotBeginsWith"/>
1592     <xsd:enumeration value="captionEndsWith"/>
1593     <xsd:enumeration value="captionNotEndsWith"/>
1594     <xsd:enumeration value="captionContains"/>
1595     <xsd:enumeration value="captionNotContains"/>
1596     <xsd:enumeration value="captionGreaterThan"/>
1597     <xsd:enumeration value="captionGreaterThanOrEqual"/>
1598     <xsd:enumeration value="captionLessThan"/>
1599     <xsd:enumeration value="captionLessThanOrEqual"/>
1600     <xsd:enumeration value="captionBetween"/>
1601     <xsd:enumeration value="captionNotBetween"/>
1602     <xsd:enumeration value="valueEqual"/>
1603     <xsd:enumeration value="valueNotEqual"/>
1604     <xsd:enumeration value="valueGreaterThan"/>
1605     <xsd:enumeration value="valueGreaterThanOrEqual"/>
1606     <xsd:enumeration value="valueLessThan"/>
1607     <xsd:enumeration value="valueLessThanOrEqual"/>
1608     <xsd:enumeration value="valueBetween"/>
1609     <xsd:enumeration value="valueNotBetween"/>
1610     <xsd:enumeration value="dateEqual"/>
1611     <xsd:enumeration value="dateNotEqual"/>
1612     <xsd:enumeration value="dateOlderThan"/>
1613     <xsd:enumeration value="dateOlderThanOrEqual"/>
1614     <xsd:enumeration value="dateNewerThan"/>
1615     <xsd:enumeration value="dateNewerThanOrEqual"/>
1616     <xsd:enumeration value="dateBetween"/>
1617     <xsd:enumeration value="dateNotBetween"/>
1618     <xsd:enumeration value="tomorrow"/>

```



```

1619         <xsd:enumeration value="today"/>
1620         <xsd:enumeration value="yesterday"/>
1621         <xsd:enumeration value="nextWeek"/>
1622         <xsd:enumeration value="thisWeek"/>
1623         <xsd:enumeration value="lastWeek"/>
1624         <xsd:enumeration value="nextMonth"/>
1625         <xsd:enumeration value="thisMonth"/>
1626         <xsd:enumeration value="lastMonth"/>
1627         <xsd:enumeration value="nextQuarter"/>
1628         <xsd:enumeration value="thisQuarter"/>
1629         <xsd:enumeration value="lastQuarter"/>
1630         <xsd:enumeration value="nextYear"/>
1631         <xsd:enumeration value="thisYear"/>
1632         <xsd:enumeration value="lastYear"/>
1633         <xsd:enumeration value="yearToDate"/>
1634         <xsd:enumeration value="Q1"/>
1635         <xsd:enumeration value="Q2"/>
1636         <xsd:enumeration value="Q3"/>
1637         <xsd:enumeration value="Q4"/>
1638         <xsd:enumeration value="M1"/>
1639         <xsd:enumeration value="M2"/>
1640         <xsd:enumeration value="M3"/>
1641         <xsd:enumeration value="M4"/>
1642         <xsd:enumeration value="M5"/>
1643         <xsd:enumeration value="M6"/>
1644         <xsd:enumeration value="M7"/>
1645         <xsd:enumeration value="M8"/>
1646         <xsd:enumeration value="M9"/>
1647         <xsd:enumeration value="M10"/>
1648         <xsd:enumeration value="M11"/>
1649         <xsd:enumeration value="M12"/>
1650     </xsd:restriction>
1651 </xsd:simpleType>
1652 <xsd:complexType name="CT_PivotArea">
1653     <xsd:sequence>
1654         <xsd:element name="references" minOccurs="0" type="CT_PivotAreaReferences"/>
1655         <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
1656     </xsd:sequence>
1657     <xsd:attribute name="field" use="optional" type="xsd:int"/>
1658     <xsd:attribute name="type" type="ST_PivotAreaType" default="normal"/>
1659     <xsd:attribute name="dataOnly" type="xsd:boolean" default="true"/>
1660     <xsd:attribute name="labelOnly" type="xsd:boolean" default="false"/>
1661     <xsd:attribute name="grandRow" type="xsd:boolean" default="false"/>
1662     <xsd:attribute name="grandCol" type="xsd:boolean" default="false"/>
1663     <xsd:attribute name="cacheIndex" type="xsd:boolean" default="false"/>
1664     <xsd:attribute name="outline" type="xsd:boolean" default="true"/>
1665     <xsd:attribute name="offset" type="ST_Ref"/>
1666     <xsd:attribute name="collapsedLevelsAreSubtotals" type="xsd:boolean" default="false"/>
1667     <xsd:attribute name="axis" type="ST_Axis" use="optional"/>
1668     <xsd:attribute name="fieldPosition" type="xsd:unsignedInt" use="optional"/>
1669 </xsd:complexType>
1670 <xsd:simpleType name="ST_PivotAreaType">
1671     <xsd:restriction base="xsd:string">

```



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1672     <xsd:enumeration value="none"/>
1673     <xsd:enumeration value="normal"/>
1674     <xsd:enumeration value="data"/>
1675     <xsd:enumeration value="all"/>
1676     <xsd:enumeration value="origin"/>
1677     <xsd:enumeration value="button"/>
1678     <xsd:enumeration value="topEnd"/>
1679     <xsd:enumeration value="topRight"/>
1680   </xsd:restriction>
1681 </xsd:simpleType>
1682 <xsd:complexType name="CT_PivotAreaReferences">
1683   <xsd:sequence>
1684     <xsd:element name="reference" maxOccurs="unbounded" type="CT_PivotAreaReference"/>
1685   </xsd:sequence>
1686   <xsd:attribute name="count" type="xsd:unsignedInt"/>
1687 </xsd:complexType>
1688 <xsd:complexType name="CT_PivotAreaReference">
1689   <xsd:sequence>
1690     <xsd:element name="x" minOccurs="0" maxOccurs="unbounded" type="CT_Index"/>
1691     <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
1692   </xsd:sequence>
1693   <xsd:attribute name="field" use="optional" type="xsd:unsignedInt"/>
1694   <xsd:attribute name="count" type="xsd:unsignedInt"/>
1695   <xsd:attribute name="selected" type="xsd:boolean" default="true"/>
1696   <xsd:attribute name="byPosition" type="xsd:boolean" default="false"/>
1697   <xsd:attribute name="relative" type="xsd:boolean" default="false"/>
1698   <xsd:attribute name="defaultSubtotal" type="xsd:boolean" default="false"/>
1699   <xsd:attribute name="sumSubtotal" type="xsd:boolean" default="false"/>
1700   <xsd:attribute name="countASubtotal" type="xsd:boolean" default="false"/>
1701   <xsd:attribute name="avgSubtotal" type="xsd:boolean" default="false"/>
1702   <xsd:attribute name="maxSubtotal" type="xsd:boolean" default="false"/>
1703   <xsd:attribute name="minSubtotal" type="xsd:boolean" default="false"/>
1704   <xsd:attribute name="productSubtotal" type="xsd:boolean" default="false"/>
1705   <xsd:attribute name="countSubtotal" type="xsd:boolean" default="false"/>
1706   <xsd:attribute name="stdDevSubtotal" type="xsd:boolean" default="false"/>
1707   <xsd:attribute name="stdDevPSubtotal" type="xsd:boolean" default="false"/>
1708   <xsd:attribute name="varSubtotal" type="xsd:boolean" default="false"/>
1709   <xsd:attribute name="varPSubtotal" type="xsd:boolean" default="false"/>
1710 </xsd:complexType>
1711 <xsd:complexType name="CT_Index">
1712   <xsd:attribute name="v" use="required" type="xsd:unsignedInt"/>
1713 </xsd:complexType>
1714 <xsd:simpleType name="ST_Axis">
1715   <xsd:restriction base="xsd:string">
1716     <xsd:enumeration value="axisRow"/>
1717     <xsd:enumeration value="axisCol"/>
1718     <xsd:enumeration value="axisPage"/>
1719     <xsd:enumeration value="axisValues"/>
1720   </xsd:restriction>
1721 </xsd:simpleType>
1722 <xsd:element name="queryTable" type="CT_QueryTable"/>
1723 <xsd:complexType name="CT_QueryTable">
1724   <xsd:sequence>

```



```

1725     <xsd:element name="queryTableRefresh" type="CT_QueryTableRefresh" minOccurs="0"
1726         maxOccurs="1"/>
1727     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1728 </xsd:sequence>
1729 <xsd:attribute name="name" type="s:ST_Xstring" use="required"/>
1730 <xsd:attribute name="headers" type="xsd:boolean" use="optional" default="true"/>
1731 <xsd:attribute name="rowNumbers" type="xsd:boolean" use="optional" default="false"/>
1732 <xsd:attribute name="disableRefresh" type="xsd:boolean" use="optional" default="false"/>
1733 <xsd:attribute name="backgroundRefresh" type="xsd:boolean" use="optional" default="true"/>
1734 <xsd:attribute name="firstBackgroundRefresh" type="xsd:boolean" use="optional"
1735     default="false"/>
1736 <xsd:attribute name="refreshOnLoad" type="xsd:boolean" use="optional" default="false"/>
1737 <xsd:attribute name="growShrinkType" type="ST_GrowShrinkType" use="optional"
1738     default="insertDelete"/>
1739 <xsd:attribute name="fillFormulas" type="xsd:boolean" use="optional" default="false"/>
1740 <xsd:attribute name="removeDataOnSave" type="xsd:boolean" use="optional" default="false"/>
1741 <xsd:attribute name="disableEdit" type="xsd:boolean" use="optional" default="false"/>
1742 <xsd:attribute name="preserveFormatting" type="xsd:boolean" use="optional" default="true"/>
1743 <xsd:attribute name="adjustColumnWidth" type="xsd:boolean" use="optional" default="true"/>
1744 <xsd:attribute name="intermediate" type="xsd:boolean" use="optional" default="false"/>
1745 <xsd:attribute name="connectionId" type="xsd:unsignedInt" use="required"/>
1746 <xsd:attributeGroup ref="AG_AutoFormat"/>
1747 </xsd:complexType>
1748 <xsd:complexType name="CT_QueryTableRefresh">
1749     <xsd:sequence>
1750         <xsd:element name="queryTableFields" type="CT_QueryTableFields" minOccurs="1"
1751             maxOccurs="1"/>
1752         <xsd:element name="queryTableDeletedFields" type="CT_QueryTableDeletedFields"
1753             minOccurs="0" maxOccurs="1"/>
1754         <xsd:element name="sortState" minOccurs="0" maxOccurs="1" type="CT_SortState"/>
1755         <xsd:element name="extLst" minOccurs="0" maxOccurs="1" type="CT_ExtensionList"/>
1756     </xsd:sequence>
1757     <xsd:attribute name="preserveSortFilterLayout" type="xsd:boolean" use="optional"
1758         default="true"/>
1759     <xsd:attribute name="fieldIdWrapped" type="xsd:boolean" use="optional" default="false"/>
1760     <xsd:attribute name="headersInLastRefresh" type="xsd:boolean" use="optional" default="true"/>
1761     <xsd:attribute name="minimumVersion" type="xsd:unsignedByte" use="optional" default="0"/>
1762     <xsd:attribute name="nextId" type="xsd:unsignedInt" use="optional" default="1"/>
1763     <xsd:attribute name="unboundColumnsLeft" type="xsd:unsignedInt" use="optional" default="0"/>
1764     <xsd:attribute name="unboundColumnsRight" type="xsd:unsignedInt" use="optional" default="0"/>
1765 </xsd:complexType>
1766 <xsd:complexType name="CT_QueryTableDeletedFields">
1767     <xsd:sequence>
1768         <xsd:element name="deletedField" type="CT_DeletedField" minOccurs="1"
1769             maxOccurs="unbounded"/>
1770     </xsd:sequence>
1771     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
1772 </xsd:complexType>
1773 <xsd:complexType name="CT_DeletedField">
1774     <xsd:attribute name="name" type="s:ST_Xstring" use="required"/>
1775 </xsd:complexType>
1776 <xsd:complexType name="CT_QueryTableFields">
1777     <xsd:sequence>

```



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1778     <xsd:element name="queryTableField" type="CT_QueryTableField" minOccurs="0"
1779         maxOccurs="unbounded"/>
1780 </xsd:sequence>
1781     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional" default="0"/>
1782 </xsd:complexType>
1783 <xsd:complexType name="CT_QueryTableField">
1784     <xsd:sequence minOccurs="0">
1785         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1786     </xsd:sequence>
1787     <xsd:attribute name="id" type="xsd:unsignedInt" use="required"/>
1788     <xsd:attribute name="name" type="s:ST_Xstring" use="optional"/>
1789     <xsd:attribute name="dataBound" type="xsd:boolean" use="optional" default="true"/>
1790     <xsd:attribute name="rowNumbers" type="xsd:boolean" use="optional" default="false"/>
1791     <xsd:attribute name="fillFormulas" type="xsd:boolean" use="optional" default="false"/>
1792     <xsd:attribute name="clipped" type="xsd:boolean" use="optional" default="false"/>
1793     <xsd:attribute name="tableColumnId" type="xsd:unsignedInt" default="0"/>
1794 </xsd:complexType>
1795 <xsd:simpleType name="ST_GrowShrinkType">
1796     <xsd:restriction base="xsd:string">
1797         <xsd:enumeration value="insertDelete"/>
1798         <xsd:enumeration value="insertClear"/>
1799         <xsd:enumeration value="overwriteClear"/>
1800     </xsd:restriction>
1801 </xsd:simpleType>
1802 <xsd:element name="sst" type="CT_Sst"/>
1803 <xsd:complexType name="CT_Sst">
1804     <xsd:sequence>
1805         <xsd:element name="si" type="CT_Rst" minOccurs="0" maxOccurs="unbounded"/>
1806         <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
1807     </xsd:sequence>
1808     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
1809     <xsd:attribute name="uniqueCount" type="xsd:unsignedInt" use="optional"/>
1810 </xsd:complexType>
1811 <xsd:simpleType name="ST_PhoneticType">
1812     <xsd:restriction base="xsd:string">
1813         <xsd:enumeration value="halfwidthKatakana"/>
1814         <xsd:enumeration value="fullwidthKatakana"/>
1815         <xsd:enumeration value="Hiragana"/>
1816         <xsd:enumeration value="noConversion"/>
1817     </xsd:restriction>
1818 </xsd:simpleType>
1819 <xsd:simpleType name="ST_PhoneticAlignment">
1820     <xsd:restriction base="xsd:string">
1821         <xsd:enumeration value="noControl"/>
1822         <xsd:enumeration value="left"/>
1823         <xsd:enumeration value="center"/>
1824         <xsd:enumeration value="distributed"/>
1825     </xsd:restriction>
1826 </xsd:simpleType>
1827 <xsd:complexType name="CT_PhoneticRun">
1828     <xsd:sequence>
1829         <xsd:element name="t" type="s:ST_Xstring" minOccurs="1" maxOccurs="1"/>
1830     </xsd:sequence>

```



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1831     <xsd:attribute name="sb" type="xsd:unsignedInt" use="required"/>
1832     <xsd:attribute name="eb" type="xsd:unsignedInt" use="required"/>
1833 </xsd:complexType>
1834 <xsd:complexType name="CT_RElt">
1835     <xsd:sequence>
1836         <xsd:element name="rPr" type="CT_RPrElt" minOccurs="0" maxOccurs="1"/>
1837         <xsd:element name="t" type="s:ST_Xstring" minOccurs="1" maxOccurs="1"/>
1838     </xsd:sequence>
1839 </xsd:complexType>
1840 <xsd:complexType name="CT_RPrElt">
1841     <xsd:choice maxOccurs="unbounded">
1842         <xsd:element name="rFont" type="CT_FontName" minOccurs="0" maxOccurs="1"/>
1843         <xsd:element name="charset" type="CT_IntProperty" minOccurs="0" maxOccurs="1"/>
1844         <xsd:element name="family" type="CT_IntProperty" minOccurs="0" maxOccurs="1"/>
1845         <xsd:element name="b" type="CT_BooleanProperty" minOccurs="0" maxOccurs="1"/>
1846         <xsd:element name="i" type="CT_BooleanProperty" minOccurs="0" maxOccurs="1"/>
1847         <xsd:element name="strike" type="CT_BooleanProperty" minOccurs="0" maxOccurs="1"/>
1848         <xsd:element name="outline" type="CT_BooleanProperty" minOccurs="0" maxOccurs="1"/>
1849         <xsd:element name="shadow" type="CT_BooleanProperty" minOccurs="0" maxOccurs="1"/>
1850         <xsd:element name="condense" type="CT_BooleanProperty" minOccurs="0" maxOccurs="1"/>
1851         <xsd:element name="extend" type="CT_BooleanProperty" minOccurs="0" maxOccurs="1"/>
1852         <xsd:element name="color" type="CT_Color" minOccurs="0" maxOccurs="1"/>
1853         <xsd:element name="sz" type="CT_FontSize" minOccurs="0" maxOccurs="1"/>
1854         <xsd:element name="u" type="CT_UnderlineProperty" minOccurs="0" maxOccurs="1"/>
1855         <xsd:element name="vertAlign" type="CT_VerticalAlignFontProperty" minOccurs="0"
1856             maxOccurs="1"/>
1857         <xsd:element name="scheme" type="CT_FontScheme" minOccurs="0" maxOccurs="1"/>
1858     </xsd:choice>
1859 </xsd:complexType>
1860 <xsd:complexType name="CT_Rst">
1861     <xsd:sequence>
1862         <xsd:element name="t" type="s:ST_Xstring" minOccurs="0" maxOccurs="1"/>
1863         <xsd:element name="r" type="CT_RElt" minOccurs="0" maxOccurs="unbounded"/>
1864         <xsd:element name="rPh" type="CT_PhoneticRun" minOccurs="0" maxOccurs="unbounded"/>
1865         <xsd:element name="phoneticPr" minOccurs="0" maxOccurs="1" type="CT_PhoneticPr"/>
1866     </xsd:sequence>
1867 </xsd:complexType>
1868 <xsd:complexType name="CT_PhoneticPr">
1869     <xsd:attribute name="fontId" type="ST_FontId" use="required"/>
1870     <xsd:attribute name="type" type="ST_PhoneticType" use="optional" default="fullwidthKatakana"/>
1871     <xsd:attribute name="alignment" type="ST_PhoneticAlignment" use="optional" default="left"/>
1872 </xsd:complexType>
1873 <xsd:element name="headers" type="CT_RevisionHeaders"/>
1874 <xsd:element name="revisions" type="CT_Revisions"/>
1875 <xsd:complexType name="CT_RevisionHeaders">
1876     <xsd:sequence>
1877         <xsd:element name="header" type="CT_RevisionHeader" minOccurs="1" maxOccurs="unbounded"/>
1878     </xsd:sequence>
1879     <xsd:attribute name="guid" type="s:ST_Guid" use="required"/>
1880     <xsd:attribute name="lastGuid" type="s:ST_Guid" use="optional"/>
1881     <xsd:attribute name="shared" type="xsd:boolean" default="true"/>
1882     <xsd:attribute name="diskRevisions" type="xsd:boolean" default="false"/>
1883     <xsd:attribute name="history" type="xsd:boolean" default="true"/>

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1884 <xsd:attribute name="trackRevisions" type="xsd:boolean" default="true"/>
1885 <xsd:attribute name="exclusive" type="xsd:boolean" default="false"/>
1886 <xsd:attribute name="revisionId" type="xsd:unsignedInt" default="0"/>
1887 <xsd:attribute name="version" type="xsd:int" default="1"/>
1888 <xsd:attribute name="keepChangeHistory" type="xsd:boolean" use="optional" default="true"/>
1889 <xsd:attribute name="protected" type="xsd:boolean" use="optional" default="false"/>
1890 <xsd:attribute name="preserveHistory" type="xsd:unsignedInt" default="30"/>
1891 </xsd:complexType>
1892 <xsd:complexType name="CT_Revisions">
1893   <xsd:choice maxOccurs="unbounded">
1894     <xsd:element name="rrc" type="CT_RevisionRowColumn" minOccurs="0" maxOccurs="unbounded"/>
1895     <xsd:element name="rm" type="CT_RevisionMove" minOccurs="0" maxOccurs="unbounded"/>
1896     <xsd:element name="rcv" type="CT_RevisionCustomView" minOccurs="0" maxOccurs="unbounded"/>
1897     <xsd:element name="rsnm" type="CT_RevisionSheetRename" minOccurs="0"
1898       maxOccurs="unbounded"/>
1899     <xsd:element name="ris" type="CT_RevisionInsertSheet" minOccurs="0"
1900       maxOccurs="unbounded"/>
1901     <xsd:element name="rcc" type="CT_RevisionCellChange" minOccurs="0" maxOccurs="unbounded"/>
1902     <xsd:element name="rfmt" type="CT_RevisionFormatting" minOccurs="0"
1903       maxOccurs="unbounded"/>
1904     <xsd:element name="raf" type="CT_RevisionAutoFormatting" minOccurs="0"
1905       maxOccurs="unbounded"/>
1906     <xsd:element name="rdn" type="CT_RevisionDefinedName" minOccurs="0"
1907       maxOccurs="unbounded"/>
1908     <xsd:element name="rcmt" type="CT_RevisionComment" minOccurs="0" maxOccurs="unbounded"/>
1909     <xsd:element name="rqt" type="CT_RevisionQueryTableField" minOccurs="0"
1910       maxOccurs="unbounded"/>
1911     <xsd:element name="rcft" type="CT_RevisionConflict" minOccurs="0" maxOccurs="unbounded"/>
1912   </xsd:choice>
1913 </xsd:complexType>
1914 <xsd:attributeGroup name="AG_RevData">
1915   <xsd:attribute name="rId" type="xsd:unsignedInt" use="required"/>
1916   <xsd:attribute name="ua" type="xsd:boolean" use="optional" default="false"/>
1917   <xsd:attribute name="ra" type="xsd:boolean" use="optional" default="false"/>
1918 </xsd:attributeGroup>
1919 <xsd:complexType name="CT_RevisionHeader">
1920   <xsd:sequence>
1921     <xsd:element name="sheetIdMap" minOccurs="1" maxOccurs="1" type="CT_SheetIdMap"/>
1922     <xsd:element name="reviewedList" minOccurs="0" maxOccurs="1" type="CT_ReviewedRevisions"/>
1923     <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
1924   </xsd:sequence>
1925   <xsd:attribute name="guid" type="s:ST_Guid" use="required"/>
1926   <xsd:attribute name="dateTime" type="xsd:dateTime" use="required"/>
1927   <xsd:attribute name="maxSheetId" type="xsd:unsignedInt" use="required"/>
1928   <xsd:attribute name="userName" type="s:ST_Xstring" use="required"/>
1929   <xsd:attribute ref="r:id" use="required"/>
1930   <xsd:attribute name="minRId" type="xsd:unsignedInt" use="optional"/>
1931   <xsd:attribute name="maxRId" type="xsd:unsignedInt" use="optional"/>
1932 </xsd:complexType>
1933 <xsd:complexType name="CT_SheetIdMap">
1934   <xsd:sequence>
1935     <xsd:element name="sheetId" type="CT_SheetId" minOccurs="1" maxOccurs="unbounded"/>
1936   </xsd:sequence>

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1937     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
1938 </xsd:complexType>
1939 <xsd:complexType name="CT_SheetId">
1940     <xsd:attribute name="val" type="xsd:unsignedInt" use="required"/>
1941 </xsd:complexType>
1942 <xsd:complexType name="CT_ReviewedRevisions">
1943     <xsd:sequence>
1944         <xsd:element name="reviewed" type="CT_Reviewed" minOccurs="1" maxOccurs="unbounded"/>
1945     </xsd:sequence>
1946     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
1947 </xsd:complexType>
1948 <xsd:complexType name="CT_Reviewed">
1949     <xsd:attribute name="rId" type="xsd:unsignedInt" use="required"/>
1950 </xsd:complexType>
1951 <xsd:complexType name="CT_UndoInfo">
1952     <xsd:attribute name="index" type="xsd:unsignedInt" use="required"/>
1953     <xsd:attribute name="exp" type="ST_FormulaExpression" use="required"/>
1954     <xsd:attribute name="ref3D" type="xsd:boolean" use="optional" default="false"/>
1955     <xsd:attribute name="array" type="xsd:boolean" use="optional" default="false"/>
1956     <xsd:attribute name="v" type="xsd:boolean" use="optional" default="false"/>
1957     <xsd:attribute name="nf" type="xsd:boolean" use="optional" default="false"/>
1958     <xsd:attribute name="cs" type="xsd:boolean" use="optional" default="false"/>
1959     <xsd:attribute name="dr" type="ST_RefA" use="required"/>
1960     <xsd:attribute name="dn" type="s:ST_Xstring" use="optional"/>
1961     <xsd:attribute name="r" type="ST_CellRef" use="optional"/>
1962     <xsd:attribute name="sId" type="xsd:unsignedInt" use="optional"/>
1963 </xsd:complexType>
1964 <xsd:complexType name="CT_RevisionRowColumn">
1965     <xsd:choice minOccurs="0" maxOccurs="unbounded">
1966         <xsd:element name="undo" type="CT_UndoInfo" minOccurs="0" maxOccurs="unbounded"/>
1967         <xsd:element name="rcc" type="CT_RevisionCellChange" minOccurs="0" maxOccurs="unbounded"/>
1968         <xsd:element name="rfmt" type="CT_RevisionFormatting" minOccurs="0"
1969             maxOccurs="unbounded"/>
1970     </xsd:choice>
1971     <xsd:attributeGroup ref="AG_RevData"/>
1972     <xsd:attribute name="sId" type="xsd:unsignedInt" use="required"/>
1973     <xsd:attribute name="eol" type="xsd:boolean" use="optional" default="false"/>
1974     <xsd:attribute name="ref" type="ST_Ref" use="required"/>
1975     <xsd:attribute name="action" type="ST_rwColActionType" use="required"/>
1976     <xsd:attribute name="edge" type="xsd:boolean" use="optional" default="false"/>
1977 </xsd:complexType>
1978 <xsd:complexType name="CT_RevisionMove">
1979     <xsd:choice minOccurs="0" maxOccurs="unbounded">
1980         <xsd:element name="undo" type="CT_UndoInfo" minOccurs="0" maxOccurs="unbounded"/>
1981         <xsd:element name="rcc" type="CT_RevisionCellChange" minOccurs="0" maxOccurs="unbounded"/>
1982         <xsd:element name="rfmt" type="CT_RevisionFormatting" minOccurs="0"
1983             maxOccurs="unbounded"/>
1984     </xsd:choice>
1985     <xsd:attributeGroup ref="AG_RevData"/>
1986     <xsd:attribute name="sheetId" type="xsd:unsignedInt" use="required"/>
1987     <xsd:attribute name="source" type="ST_Ref" use="required"/>
1988     <xsd:attribute name="destination" type="ST_Ref" use="required"/>
1989     <xsd:attribute name="sourceSheetId" type="xsd:unsignedInt" use="optional" default="0"/>

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1990 </xsd:complexType>
1991 <xsd:complexType name="CT_RevisionCustomView">
1992   <xsd:attribute name="guid" type="s:ST Guid" use="required"/>
1993   <xsd:attribute name="action" type="ST RevisionAction" use="required"/>
1994 </xsd:complexType>
1995 <xsd:complexType name="CT_RevisionSheetRename">
1996   <xsd:sequence>
1997     <xsd:element name="extLst" minOccurs="0" type="CT ExtensionList"/>
1998   </xsd:sequence>
1999   <xsd:attributeGroup ref="AG RevData"/>
2000   <xsd:attribute name="sheetId" type="xsd:unsignedInt" use="required"/>
2001   <xsd:attribute name="oldName" type="s:ST Xstring" use="required"/>
2002   <xsd:attribute name="newName" type="s:ST Xstring" use="required"/>
2003 </xsd:complexType>
2004 <xsd:complexType name="CT_RevisionInsertSheet">
2005   <xsd:attributeGroup ref="AG RevData"/>
2006   <xsd:attribute name="sheetId" type="xsd:unsignedInt" use="required"/>
2007   <xsd:attribute name="name" type="s:ST Xstring" use="required"/>
2008   <xsd:attribute name="sheetPosition" type="xsd:unsignedInt" use="required"/>
2009 </xsd:complexType>
2010 <xsd:complexType name="CT_RevisionCellChange">
2011   <xsd:sequence>
2012     <xsd:element name="oc" type="CT Cell" minOccurs="0" maxOccurs="1"/>
2013     <xsd:element name="nc" type="CT Cell" minOccurs="1" maxOccurs="1"/>
2014     <xsd:element name="odxf" type="CT Dxf" minOccurs="0" maxOccurs="1"/>
2015     <xsd:element name="ndxf" type="CT Dxf" minOccurs="0" maxOccurs="1"/>
2016     <xsd:element name="extLst" minOccurs="0" type="CT ExtensionList"/>
2017   </xsd:sequence>
2018   <xsd:attributeGroup ref="AG RevData"/>
2019   <xsd:attribute name="sId" type="xsd:unsignedInt" use="required"/>
2020   <xsd:attribute name="odxf" type="xsd:boolean" default="false"/>
2021   <xsd:attribute name="xfDxf" type="xsd:boolean" use="optional" default="false"/>
2022   <xsd:attribute name="s" type="xsd:boolean" use="optional" default="false"/>
2023   <xsd:attribute name="dxf" type="xsd:boolean" default="false"/>
2024   <xsd:attribute name="numFmtId" type="ST NumFmtId" use="optional"/>
2025   <xsd:attribute name="quotePrefix" type="xsd:boolean" use="optional" default="false"/>
2026   <xsd:attribute name="oldQuotePrefix" type="xsd:boolean" use="optional" default="false"/>
2027   <xsd:attribute name="ph" type="xsd:boolean" default="false"/>
2028   <xsd:attribute name="oldPh" type="xsd:boolean" default="false"/>
2029   <xsd:attribute name="endOfListFormulaUpdate" type="xsd:boolean" default="false"/>
2030 </xsd:complexType>
2031 <xsd:complexType name="CT_RevisionFormatting">
2032   <xsd:sequence>
2033     <xsd:element name="dxf" type="CT Dxf" minOccurs="0" maxOccurs="1"/>
2034     <xsd:element name="extLst" minOccurs="0" type="CT ExtensionList"/>
2035   </xsd:sequence>
2036   <xsd:attribute name="sheetId" type="xsd:unsignedInt" use="required"/>
2037   <xsd:attribute name="xfDxf" type="xsd:boolean" use="optional" default="false"/>
2038   <xsd:attribute name="s" type="xsd:boolean" use="optional" default="false"/>
2039   <xsd:attribute name="sqref" type="ST Sqref" use="required"/>
2040   <xsd:attribute name="start" type="xsd:unsignedInt" use="optional"/>
2041   <xsd:attribute name="length" type="xsd:unsignedInt" use="optional"/>
2042 </xsd:complexType>

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2043 <xsd:complexType name="CT_RevisionAutoFormatting">
2044     <xsd:attribute name="sheetId" type="xsd:unsignedInt" use="required"/>
2045     <xsd:attributeGroup ref="AG_AutoFormat"/>
2046     <xsd:attribute name="ref" type="ST_Ref" use="required"/>
2047 </xsd:complexType>
2048 <xsd:complexType name="CT_RevisionComment">
2049     <xsd:attribute name="sheetId" type="xsd:unsignedInt" use="required"/>
2050     <xsd:attribute name="cell" type="ST_CellRef" use="required"/>
2051     <xsd:attribute name="guid" type="s:ST_Guid" use="required"/>
2052     <xsd:attribute name="action" type="ST_RevisionAction" default="add"/>
2053     <xsd:attribute name="alwaysShow" type="xsd:boolean" use="optional" default="false"/>
2054     <xsd:attribute name="old" type="xsd:boolean" use="optional" default="false"/>
2055     <xsd:attribute name="hiddenRow" type="xsd:boolean" use="optional" default="false"/>
2056     <xsd:attribute name="hiddenColumn" type="xsd:boolean" use="optional" default="false"/>
2057     <xsd:attribute name="author" type="s:ST_Xstring" use="required"/>
2058     <xsd:attribute name="oldLength" type="xsd:unsignedInt" default="0"/>
2059     <xsd:attribute name="newLength" type="xsd:unsignedInt" default="0"/>
2060 </xsd:complexType>
2061 <xsd:complexType name="CT_RevisionDefinedName">
2062     <xsd:sequence>
2063         <xsd:element name="formula" type="ST_Formula" minOccurs="0" maxOccurs="1"/>
2064         <xsd:element name="oldFormula" type="ST_Formula" minOccurs="0" maxOccurs="1"/>
2065         <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
2066     </xsd:sequence>
2067     <xsd:attributeGroup ref="AG_RevData"/>
2068     <xsd:attribute name="localSheetId" type="xsd:unsignedInt" use="optional"/>
2069     <xsd:attribute name="customView" type="xsd:boolean" use="optional" default="false"/>
2070     <xsd:attribute name="name" type="s:ST_Xstring" use="required"/>
2071     <xsd:attribute name="function" type="xsd:boolean" use="optional" default="false"/>
2072     <xsd:attribute name="oldFunction" type="xsd:boolean" default="false"/>
2073     <xsd:attribute name="functionGroupId" type="xsd:unsignedByte" use="optional"/>
2074     <xsd:attribute name="oldFunctionGroupId" type="xsd:unsignedByte" use="optional"/>
2075     <xsd:attribute name="shortcutKey" type="xsd:unsignedByte" use="optional"/>
2076     <xsd:attribute name="oldShortcutKey" type="xsd:unsignedByte" use="optional"/>
2077     <xsd:attribute name="hidden" type="xsd:boolean" use="optional" default="false"/>
2078     <xsd:attribute name="oldHidden" type="xsd:boolean" use="optional" default="false"/>
2079     <xsd:attribute name="customMenu" type="s:ST_Xstring" use="optional"/>
2080     <xsd:attribute name="oldCustomMenu" type="s:ST_Xstring" use="optional"/>
2081     <xsd:attribute name="description" type="s:ST_Xstring" use="optional"/>
2082     <xsd:attribute name="oldDescription" type="s:ST_Xstring" use="optional"/>
2083     <xsd:attribute name="help" type="s:ST_Xstring" use="optional"/>
2084     <xsd:attribute name="oldHelp" type="s:ST_Xstring" use="optional"/>
2085     <xsd:attribute name="statusBar" type="s:ST_Xstring" use="optional"/>
2086     <xsd:attribute name="oldStatusBar" type="s:ST_Xstring" use="optional"/>
2087     <xsd:attribute name="comment" type="s:ST_Xstring" use="optional"/>
2088     <xsd:attribute name="oldComment" type="s:ST_Xstring" use="optional"/>
2089 </xsd:complexType>
2090 <xsd:complexType name="CT_RevisionConflict">
2091     <xsd:attributeGroup ref="AG_RevData"/>
2092     <xsd:attribute name="sheetId" type="xsd:unsignedInt" use="optional"/>
2093 </xsd:complexType>
2094 <xsd:complexType name="CT_RevisionQueryTableField">
2095     <xsd:attribute name="sheetId" type="xsd:unsignedInt" use="required"/>

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2096     <xsd:attribute name="ref" type="ST_Ref" use="required"/>
2097     <xsd:attribute name="fieldId" type="xsd:unsignedInt" use="required"/>
2098 </xsd:complexType>
2099 <xsd:simpleType name="ST_rwColActionType">
2100     <xsd:restriction base="xsd:string">
2101         <xsd:enumeration value="insertRow"/>
2102         <xsd:enumeration value="deleteRow"/>
2103         <xsd:enumeration value="insertCol"/>
2104         <xsd:enumeration value="deleteCol"/>
2105     </xsd:restriction>
2106 </xsd:simpleType>
2107 <xsd:simpleType name="ST_RevisionAction">
2108     <xsd:restriction base="xsd:string">
2109         <xsd:enumeration value="add"/>
2110         <xsd:enumeration value="delete"/>
2111     </xsd:restriction>
2112 </xsd:simpleType>
2113 <xsd:simpleType name="ST_FormulaExpression">
2114     <xsd:restriction base="xsd:string">
2115         <xsd:enumeration value="ref"/>
2116         <xsd:enumeration value="refError"/>
2117         <xsd:enumeration value="area"/>
2118         <xsd:enumeration value="areaError"/>
2119         <xsd:enumeration value="computedArea"/>
2120     </xsd:restriction>
2121 </xsd:simpleType>
2122 <xsd:element name="users" type="CT_Users"/>
2123 <xsd:complexType name="CT_Users">
2124     <xsd:sequence>
2125         <xsd:element name="userInfo" minOccurs="0" maxOccurs="256" type="CT_SharedUser"/>
2126     </xsd:sequence>
2127     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
2128 </xsd:complexType>
2129 <xsd:complexType name="CT_SharedUser">
2130     <xsd:sequence>
2131         <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
2132     </xsd:sequence>
2133     <xsd:attribute name="guid" type="s:ST_Guid" use="required"/>
2134     <xsd:attribute name="name" type="s:ST_Xstring" use="required"/>
2135     <xsd:attribute name="id" type="xsd:int" use="required"/>
2136     <xsd:attribute name="dateTime" type="xsd:dateTime" use="required"/>
2137 </xsd:complexType>
2138 <xsd:element name="worksheet" type="CT_Worksheet"/>
2139 <xsd:element name="chartsheet" type="CT_Chartsheet"/>
2140 <xsd:element name="dialogsheet" type="CT_Dialogsheet"/>
2141 <xsd:complexType name="CT_Macrosheet">
2142     <xsd:sequence>
2143         <xsd:element name="sheetPr" type="CT_SheetPr" minOccurs="0" maxOccurs="1"/>
2144         <xsd:element name="dimension" type="CT_SheetDimension" minOccurs="0" maxOccurs="1"/>
2145         <xsd:element name="sheetViews" type="CT_SheetViews" minOccurs="0" maxOccurs="1"/>
2146         <xsd:element name="sheetFormatPr" type="CT_SheetFormatPr" minOccurs="0" maxOccurs="1"/>
2147         <xsd:element name="cols" type="CT_Cols" minOccurs="0" maxOccurs="unbounded"/>
2148         <xsd:element name="sheetData" type="CT_SheetData" minOccurs="1" maxOccurs="1"/>

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2149     <xsd:element name="sheetProtection" type="CT_SheetProtection" minOccurs="0"
2150         maxOccurs="1"/>
2151     <xsd:element name="autoFilter" type="CT_AutoFilter" minOccurs="0" maxOccurs="1"/>
2152     <xsd:element name="sortState" type="CT_SortState" minOccurs="0" maxOccurs="1"/>
2153     <xsd:element name="dataConsolidate" type="CT_DataConsolidate" minOccurs="0"
2154         maxOccurs="1"/>
2155     <xsd:element name="customSheetViews" type="CT_CustomSheetViews" minOccurs="0"
2156         maxOccurs="1"/>
2157     <xsd:element name="phoneticPr" type="CT_PhoneticPr" minOccurs="0" maxOccurs="1"/>
2158     <xsd:element name="conditionalFormatting" type="CT_ConditionalFormatting" minOccurs="0"
2159         maxOccurs="unbounded"/>
2160     <xsd:element name="printOptions" type="CT_PrintOptions" minOccurs="0" maxOccurs="1"/>
2161     <xsd:element name="pageMargins" type="CT_PageMargins" minOccurs="0" maxOccurs="1"/>
2162     <xsd:element name="pageSetup" type="CT_PageSetup" minOccurs="0" maxOccurs="1"/>
2163     <xsd:element name="headerFooter" type="CT_HeaderFooter" minOccurs="0" maxOccurs="1"/>
2164     <xsd:element name="rowBreaks" type="CT_PageBreak" minOccurs="0" maxOccurs="1"/>
2165     <xsd:element name="colBreaks" type="CT_PageBreak" minOccurs="0" maxOccurs="1"/>
2166     <xsd:element name="customProperties" type="CT_CustomProperties" minOccurs="0"
2167         maxOccurs="1"/>
2168     <xsd:element name="drawing" type="CT_Drawing" minOccurs="0" maxOccurs="1"/>
2169     <xsd:element name="legacyDrawing" type="CT_LegacyDrawing" minOccurs="0" maxOccurs="1"/>
2170     <xsd:element name="legacyDrawingHF" type="CT_LegacyDrawing" minOccurs="0" maxOccurs="1"/>
2171     <xsd:element name="drawingHF" type="CT_DrawingHF" minOccurs="0" maxOccurs="1"/>
2172     <xsd:element name="picture" type="CT_SheetBackgroundPicture" minOccurs="0" maxOccurs="1"/>
2173     <xsd:element name="oleObjects" type="CT_OleObjects" minOccurs="0" maxOccurs="1"/>
2174     <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
2175 </xsd:sequence>
2176 </xsd:complexType>
2177 <xsd:complexType name="CT_Dialogsheet">
2178     <xsd:sequence>
2179         <xsd:element name="sheetPr" minOccurs="0" type="CT_SheetPr"/>
2180         <xsd:element name="sheetViews" minOccurs="0" type="CT_SheetViews"/>
2181         <xsd:element name="sheetFormatPr" minOccurs="0" type="CT_SheetFormatPr"/>
2182         <xsd:element name="sheetProtection" type="CT_SheetProtection" minOccurs="0"
2183             maxOccurs="1"/>
2184         <xsd:element name="customSheetViews" minOccurs="0" type="CT_CustomSheetViews"/>
2185         <xsd:element name="printOptions" minOccurs="0" type="CT_PrintOptions"/>
2186         <xsd:element name="pageMargins" minOccurs="0" type="CT_PageMargins"/>
2187         <xsd:element name="pageSetup" minOccurs="0" type="CT_PageSetup"/>
2188         <xsd:element name="headerFooter" minOccurs="0" type="CT_HeaderFooter"/>
2189         <xsd:element name="drawing" minOccurs="0" type="CT_Drawing"/>
2190         <xsd:element name="legacyDrawing" minOccurs="0" type="CT_LegacyDrawing"/>
2191         <xsd:element name="legacyDrawingHF" type="CT_LegacyDrawing" minOccurs="0" maxOccurs="1"/>
2192         <xsd:element name="drawingHF" type="CT_DrawingHF" minOccurs="0" maxOccurs="1"/>
2193         <xsd:element name="oleObjects" type="CT_OleObjects" minOccurs="0" maxOccurs="1"/>
2194         <xsd:element name="controls" type="CT_Controls" minOccurs="0" maxOccurs="1"/>
2195         <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
2196     </xsd:sequence>
2197 </xsd:complexType>
2198 <xsd:complexType name="CT_Worksheet">
2199     <xsd:sequence>
2200         <xsd:element name="sheetPr" type="CT_SheetPr" minOccurs="0" maxOccurs="1"/>
2201         <xsd:element name="dimension" type="CT_SheetDimension" minOccurs="0" maxOccurs="1"/>

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2202 <xsd:element name="sheetViews" type="CT_SheetViews" minOccurs="0" maxOccurs="1"/>
2203 <xsd:element name="sheetFormatPr" type="CT_SheetFormatPr" minOccurs="0" maxOccurs="1"/>
2204 <xsd:element name="cols" type="CT_Cols" minOccurs="0" maxOccurs="unbounded"/>
2205 <xsd:element name="sheetData" type="CT_SheetData" minOccurs="1" maxOccurs="1"/>
2206 <xsd:element name="sheetCalcPr" type="CT_SheetCalcPr" minOccurs="0" maxOccurs="1"/>
2207 <xsd:element name="sheetProtection" type="CT_SheetProtection" minOccurs="0"
2208     maxOccurs="1"/>
2209 <xsd:element name="protectedRanges" type="CT_ProtectedRanges" minOccurs="0"
2210     maxOccurs="1"/>
2211 <xsd:element name="scenarios" type="CT_Scenarios" minOccurs="0" maxOccurs="1"/>
2212 <xsd:element name="autoFilter" type="CT_AutoFilter" minOccurs="0" maxOccurs="1"/>
2213 <xsd:element name="sortState" type="CT_SortState" minOccurs="0" maxOccurs="1"/>
2214 <xsd:element name="dataConsolidate" type="CT_DataConsolidate" minOccurs="0"
2215     maxOccurs="1"/>
2216 <xsd:element name="customSheetViews" type="CT_CustomSheetViews" minOccurs="0"
2217     maxOccurs="1"/>
2218 <xsd:element name="mergeCells" type="CT_MergeCells" minOccurs="0" maxOccurs="1"/>
2219 <xsd:element name="phoneticPr" type="CT_PhoneticPr" minOccurs="0" maxOccurs="1"/>
2220 <xsd:element name="conditionalFormatting" type="CT_ConditionalFormatting" minOccurs="0"
2221     maxOccurs="unbounded"/>
2222 <xsd:element name="dataValidations" type="CT_DataValidations" minOccurs="0"
2223     maxOccurs="1"/>
2224 <xsd:element name="hyperlinks" type="CT_Hyperlinks" minOccurs="0" maxOccurs="1"/>
2225 <xsd:element name="printOptions" type="CT_PrintOptions" minOccurs="0" maxOccurs="1"/>
2226 <xsd:element name="pageMargins" type="CT_PageMargins" minOccurs="0" maxOccurs="1"/>
2227 <xsd:element name="pageSetup" type="CT_PageSetup" minOccurs="0" maxOccurs="1"/>
2228 <xsd:element name="headerFooter" type="CT_HeaderFooter" minOccurs="0" maxOccurs="1"/>
2229 <xsd:element name="rowBreaks" type="CT_PageBreak" minOccurs="0" maxOccurs="1"/>
2230 <xsd:element name="colBreaks" type="CT_PageBreak" minOccurs="0" maxOccurs="1"/>
2231 <xsd:element name="customProperties" type="CT_CustomProperties" minOccurs="0"
2232     maxOccurs="1"/>
2233 <xsd:element name="cellWatches" type="CT_CellWatches" minOccurs="0" maxOccurs="1"/>
2234 <xsd:element name="ignoredErrors" type="CT_IgnoredErrors" minOccurs="0" maxOccurs="1"/>
2235 <xsd:element name="smartTags" type="CT_SmartTags" minOccurs="0" maxOccurs="1"/>
2236 <xsd:element name="drawing" type="CT_Drawing" minOccurs="0" maxOccurs="1"/>
2237 <xsd:element name="legacyDrawing" type="CT_LegacyDrawing" minOccurs="0" maxOccurs="1"/>
2238 <xsd:element name="legacyDrawingHF" type="CT_LegacyDrawing" minOccurs="0" maxOccurs="1"/>
2239 <xsd:element name="drawingHF" type="CT_DrawingHF" minOccurs="0" maxOccurs="1"/>
2240 <xsd:element name="picture" type="CT_SheetBackgroundPicture" minOccurs="0" maxOccurs="1"/>
2241 <xsd:element name="oleObjects" type="CT_OleObjects" minOccurs="0" maxOccurs="1"/>
2242 <xsd:element name="controls" type="CT_Controls" minOccurs="0" maxOccurs="1"/>
2243 <xsd:element name="webPublishItems" type="CT_WebPublishItems" minOccurs="0"
2244     maxOccurs="1"/>
2245 <xsd:element name="tableParts" type="CT_TableParts" minOccurs="0" maxOccurs="1"/>
2246 <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
2247 </xsd:sequence>
2248 </xsd:complexType>
2249 <xsd:complexType name="CT_SheetData">
2250     <xsd:sequence>
2251         <xsd:element name="row" type="CT_Row" minOccurs="0" maxOccurs="unbounded"/>
2252     </xsd:sequence>
2253 </xsd:complexType>
2254 <xsd:complexType name="CT_SheetCalcPr">

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2255     <xsd:attribute name="fullCalcOnLoad" type="xsd:boolean" use="optional" default="false"/>
2256 </xsd:complexType>
2257 <xsd:complexType name="CT_SheetFormatPr">
2258     <xsd:attribute name="baseColWidth" type="xsd:unsignedInt" use="optional" default="8"/>
2259     <xsd:attribute name="defaultColWidth" type="xsd:double" use="optional"/>
2260     <xsd:attribute name="defaultRowHeight" type="xsd:double" use="required"/>
2261     <xsd:attribute name="customHeight" type="xsd:boolean" use="optional" default="false"/>
2262     <xsd:attribute name="zeroHeight" type="xsd:boolean" use="optional" default="false"/>
2263     <xsd:attribute name="thickTop" type="xsd:boolean" use="optional" default="false"/>
2264     <xsd:attribute name="thickBottom" type="xsd:boolean" use="optional" default="false"/>
2265     <xsd:attribute name="outlineLevelRow" type="xsd:unsignedByte" use="optional" default="0"/>
2266     <xsd:attribute name="outlineLevelCol" type="xsd:unsignedByte" use="optional" default="0"/>
2267 </xsd:complexType>
2268 <xsd:complexType name="CT_Cols">
2269     <xsd:sequence>
2270         <xsd:element name="col" type="CT_Col" minOccurs="1" maxOccurs="unbounded"/>
2271     </xsd:sequence>
2272 </xsd:complexType>
2273 <xsd:complexType name="CT_Col">
2274     <xsd:attribute name="min" type="xsd:unsignedInt" use="required"/>
2275     <xsd:attribute name="max" type="xsd:unsignedInt" use="required"/>
2276     <xsd:attribute name="width" type="xsd:double" use="optional"/>
2277     <xsd:attribute name="style" type="xsd:unsignedInt" use="optional" default="0"/>
2278     <xsd:attribute name="hidden" type="xsd:boolean" use="optional" default="false"/>
2279     <xsd:attribute name="bestFit" type="xsd:boolean" use="optional" default="false"/>
2280     <xsd:attribute name="customWidth" type="xsd:boolean" use="optional" default="false"/>
2281     <xsd:attribute name="phonetic" type="xsd:boolean" use="optional" default="false"/>
2282     <xsd:attribute name="outlineLevel" type="xsd:unsignedByte" use="optional" default="0"/>
2283     <xsd:attribute name="collapsed" type="xsd:boolean" use="optional" default="false"/>
2284 </xsd:complexType>
2285 <xsd:simpleType name="ST_CellSpan">
2286     <xsd:restriction base="xsd:string"/>
2287 </xsd:simpleType>
2288 <xsd:simpleType name="ST_CellSpans">
2289     <xsd:list itemType="ST_CellSpan"/>
2290 </xsd:simpleType>
2291 <xsd:complexType name="CT_Row">
2292     <xsd:sequence>
2293         <xsd:element name="c" type="CT_Cell" minOccurs="0" maxOccurs="unbounded"/>
2294         <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
2295     </xsd:sequence>
2296     <xsd:attribute name="r" type="xsd:unsignedInt" use="optional"/>
2297     <xsd:attribute name="spans" type="ST_CellSpans" use="optional"/>
2298     <xsd:attribute name="s" type="xsd:unsignedInt" use="optional" default="0"/>
2299     <xsd:attribute name="customFormat" type="xsd:boolean" use="optional" default="false"/>
2300     <xsd:attribute name="ht" type="xsd:double" use="optional"/>
2301     <xsd:attribute name="hidden" type="xsd:boolean" use="optional" default="false"/>
2302     <xsd:attribute name="customHeight" type="xsd:boolean" use="optional" default="false"/>
2303     <xsd:attribute name="outlineLevel" type="xsd:unsignedByte" use="optional" default="0"/>
2304     <xsd:attribute name="collapsed" type="xsd:boolean" use="optional" default="false"/>
2305     <xsd:attribute name="thickTop" type="xsd:boolean" use="optional" default="false"/>
2306     <xsd:attribute name="thickBot" type="xsd:boolean" use="optional" default="false"/>
2307     <xsd:attribute name="ph" type="xsd:boolean" use="optional" default="false"/>

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2308 </xsd:complexType>
2309 <xsd:complexType name="CT_Cell">
2310   <xsd:sequence>
2311     <xsd:element name="f" type="CT_CellFormula" minOccurs="0" maxOccurs="1"/>
2312     <xsd:element name="v" type="s:ST_Xstring" minOccurs="0" maxOccurs="1"/>
2313     <xsd:element name="is" type="CT_Rst" minOccurs="0" maxOccurs="1"/>
2314     <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
2315   </xsd:sequence>
2316   <xsd:attribute name="r" type="ST_CellRef" use="optional"/>
2317   <xsd:attribute name="s" type="xsd:unsignedInt" use="optional" default="0"/>
2318   <xsd:attribute name="t" type="ST_CellType" use="optional" default="n"/>
2319   <xsd:attribute name="cm" type="xsd:unsignedInt" use="optional" default="0"/>
2320   <xsd:attribute name="vm" type="xsd:unsignedInt" use="optional" default="0"/>
2321   <xsd:attribute name="ph" type="xsd:boolean" use="optional" default="false"/>
2322 </xsd:complexType>
2323 <xsd:simpleType name="ST_CellType">
2324   <xsd:restriction base="xsd:string">
2325     <xsd:enumeration value="b"/>
2326     <xsd:enumeration value="n"/>
2327     <xsd:enumeration value="e"/>
2328     <xsd:enumeration value="s"/>
2329     <xsd:enumeration value="str"/>
2330     <xsd:enumeration value="inlineStr"/>
2331   </xsd:restriction>
2332 </xsd:simpleType>
2333 <xsd:simpleType name="ST_CellFormulaType">
2334   <xsd:restriction base="xsd:string">
2335     <xsd:enumeration value="normal"/>
2336     <xsd:enumeration value="array"/>
2337     <xsd:enumeration value="dataTable"/>
2338     <xsd:enumeration value="shared"/>
2339   </xsd:restriction>
2340 </xsd:simpleType>
2341 <xsd:complexType name="CT_SheetPr">
2342   <xsd:sequence>
2343     <xsd:element name="tabColor" type="CT_Color" minOccurs="0" maxOccurs="1"/>
2344     <xsd:element name="outlinePr" type="CT_OutlinePr" minOccurs="0" maxOccurs="1"/>
2345     <xsd:element name="pageSetUpPr" type="CT_PageSetUpPr" minOccurs="0" maxOccurs="1"/>
2346   </xsd:sequence>
2347   <xsd:attribute name="syncHorizontal" type="xsd:boolean" use="optional" default="false"/>
2348   <xsd:attribute name="syncVertical" type="xsd:boolean" use="optional" default="false"/>
2349   <xsd:attribute name="syncRef" type="ST_Ref" use="optional"/>
2350   <xsd:attribute name="transitionEvaluation" type="xsd:boolean" use="optional" default="false"/>
2351   <xsd:attribute name="transitionEntry" type="xsd:boolean" use="optional" default="false"/>
2352   <xsd:attribute name="published" type="xsd:boolean" use="optional" default="true"/>
2353   <xsd:attribute name="codeName" type="xsd:string" use="optional"/>
2354   <xsd:attribute name="filterMode" type="xsd:boolean" use="optional" default="false"/>
2355   <xsd:attribute name="enableFormatConditionsCalculation" type="xsd:boolean" use="optional"
2356     default="true"/>
2357 </xsd:complexType>
2358 <xsd:complexType name="CT_SheetDimension">
2359   <xsd:attribute name="ref" type="ST_Ref" use="required"/>
2360 </xsd:complexType>

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2361 <xsd:complexType name="CT_SheetViews">
2362   <xsd:sequence>
2363     <xsd:element name="sheetView" type="CT_SheetView" minOccurs="1" maxOccurs="unbounded"/>
2364     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
2365   </xsd:sequence>
2366 </xsd:complexType>
2367 <xsd:complexType name="CT_SheetView">
2368   <xsd:sequence>
2369     <xsd:element name="pane" type="CT_Pane" minOccurs="0" maxOccurs="1"/>
2370     <xsd:element name="selection" type="CT_Selection" minOccurs="0" maxOccurs="4"/>
2371     <xsd:element name="pivotSelection" type="CT_PivotSelection" minOccurs="0" maxOccurs="4"/>
2372     <xsd:element name="extLst" minOccurs="0" maxOccurs="1" type="CT_ExtensionList"/>
2373   </xsd:sequence>
2374   <xsd:attribute name="windowProtection" type="xsd:boolean" use="optional" default="false"/>
2375   <xsd:attribute name="showFormulas" type="xsd:boolean" use="optional" default="false"/>
2376   <xsd:attribute name="showGridLines" type="xsd:boolean" use="optional" default="true"/>
2377   <xsd:attribute name="showRowColHeaders" type="xsd:boolean" use="optional" default="true"/>
2378   <xsd:attribute name="showZeros" type="xsd:boolean" use="optional" default="true"/>
2379   <xsd:attribute name="rightToLeft" type="xsd:boolean" use="optional" default="false"/>
2380   <xsd:attribute name="tabSelected" type="xsd:boolean" use="optional" default="false"/>
2381   <xsd:attribute name="showRuler" type="xsd:boolean" use="optional" default="true"/>
2382   <xsd:attribute name="showOutlineSymbols" type="xsd:boolean" use="optional" default="true"/>
2383   <xsd:attribute name="defaultGridColor" type="xsd:boolean" use="optional" default="true"/>
2384   <xsd:attribute name="showWhiteSpace" type="xsd:boolean" use="optional" default="true"/>
2385   <xsd:attribute name="view" type="ST_SheetViewType" use="optional" default="normal"/>
2386   <xsd:attribute name="topLeftCell" type="ST_CellRef" use="optional"/>
2387   <xsd:attribute name="colorId" type="xsd:unsignedInt" use="optional" default="64"/>
2388   <xsd:attribute name="zoomScale" type="xsd:unsignedInt" use="optional" default="100"/>
2389   <xsd:attribute name="zoomScaleNormal" type="xsd:unsignedInt" use="optional" default="0"/>
2390   <xsd:attribute name="zoomScaleSheetLayoutView" type="xsd:unsignedInt" use="optional"
2391     default="0"/>
2392   <xsd:attribute name="zoomScalePageLayoutView" type="xsd:unsignedInt" use="optional"
2393     default="0"/>
2394   <xsd:attribute name="workbookViewId" type="xsd:unsignedInt" use="required"/>
2395 </xsd:complexType>
2396 <xsd:complexType name="CT_Pane">
2397   <xsd:attribute name="xSplit" type="xsd:double" use="optional" default="0"/>
2398   <xsd:attribute name="ySplit" type="xsd:double" use="optional" default="0"/>
2399   <xsd:attribute name="topLeftCell" type="ST_CellRef" use="optional"/>
2400   <xsd:attribute name="activePane" type="ST_Pane" use="optional" default="topLeft"/>
2401   <xsd:attribute name="state" type="ST_PaneState" use="optional" default="split"/>
2402 </xsd:complexType>
2403 <xsd:complexType name="CT_PivotSelection">
2404   <xsd:sequence>
2405     <xsd:element name="pivotArea" type="CT_PivotArea"/>
2406   </xsd:sequence>
2407   <xsd:attribute name="pane" type="ST_Pane" use="optional" default="topLeft"/>
2408   <xsd:attribute name="showHeader" type="xsd:boolean" default="false"/>
2409   <xsd:attribute name="label" type="xsd:boolean" default="false"/>
2410   <xsd:attribute name="data" type="xsd:boolean" default="false"/>
2411   <xsd:attribute name="extendable" type="xsd:boolean" default="false"/>
2412   <xsd:attribute name="count" type="xsd:unsignedInt" default="0"/>
2413   <xsd:attribute name="axis" type="ST_Axis" use="optional"/>

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2414     <xsd:attribute name="dimension" type="xsd:unsignedInt" default="0"/>
2415     <xsd:attribute name="start" type="xsd:unsignedInt" default="0"/>
2416     <xsd:attribute name="min" type="xsd:unsignedInt" default="0"/>
2417     <xsd:attribute name="max" type="xsd:unsignedInt" default="0"/>
2418     <xsd:attribute name="activeRow" type="xsd:unsignedInt" default="0"/>
2419     <xsd:attribute name="activeCol" type="xsd:unsignedInt" default="0"/>
2420     <xsd:attribute name="previousRow" type="xsd:unsignedInt" default="0"/>
2421     <xsd:attribute name="previousCol" type="xsd:unsignedInt" default="0"/>
2422     <xsd:attribute name="click" type="xsd:unsignedInt" default="0"/>
2423     <xsd:attribute ref="r:id" use="optional"/>
2424 </xsd:complexType>
2425 <xsd:complexType name="CT_Selection">
2426     <xsd:attribute name="pane" type="ST_Pane" use="optional" default="topLeft"/>
2427     <xsd:attribute name="activeCell" type="ST_CellRef" use="optional"/>
2428     <xsd:attribute name="activeCellId" type="xsd:unsignedInt" use="optional" default="0"/>
2429     <xsd:attribute name="sqref" type="ST_Sqref" use="optional" default="A1"/>
2430 </xsd:complexType>
2431 <xsd:simpleType name="ST_Pane">
2432     <xsd:restriction base="xsd:string">
2433         <xsd:enumeration value="bottomRight"/>
2434         <xsd:enumeration value="topRight"/>
2435         <xsd:enumeration value="bottomLeft"/>
2436         <xsd:enumeration value="topLeft"/>
2437     </xsd:restriction>
2438 </xsd:simpleType>
2439 <xsd:complexType name="CT_PageBreak">
2440     <xsd:sequence>
2441         <xsd:element name="brk" type="CT_Break" minOccurs="0" maxOccurs="unbounded"/>
2442     </xsd:sequence>
2443     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional" default="0"/>
2444     <xsd:attribute name="manualBreakCount" type="xsd:unsignedInt" use="optional" default="0"/>
2445 </xsd:complexType>
2446 <xsd:complexType name="CT_Break">
2447     <xsd:attribute name="id" type="xsd:unsignedInt" use="optional" default="0"/>
2448     <xsd:attribute name="min" type="xsd:unsignedInt" use="optional" default="0"/>
2449     <xsd:attribute name="max" type="xsd:unsignedInt" use="optional" default="0"/>
2450     <xsd:attribute name="man" type="xsd:boolean" use="optional" default="false"/>
2451     <xsd:attribute name="pt" type="xsd:boolean" use="optional" default="false"/>
2452 </xsd:complexType>
2453 <xsd:simpleType name="ST_SheetViewType">
2454     <xsd:restriction base="xsd:string">
2455         <xsd:enumeration value="normal"/>
2456         <xsd:enumeration value="pageBreakPreview"/>
2457         <xsd:enumeration value="pageLayout"/>
2458     </xsd:restriction>
2459 </xsd:simpleType>
2460 <xsd:complexType name="CT_OutlinePr">
2461     <xsd:attribute name="applyStyles" type="xsd:boolean" use="optional" default="false"/>
2462     <xsd:attribute name="summaryBelow" type="xsd:boolean" use="optional" default="true"/>
2463     <xsd:attribute name="summaryRight" type="xsd:boolean" use="optional" default="true"/>
2464     <xsd:attribute name="showOutlineSymbols" type="xsd:boolean" use="optional" default="true"/>
2465 </xsd:complexType>
2466 <xsd:complexType name="CT_PageSetUpPr">

```



```

2467     <xsd:attribute name="autoPageBreaks" type="xsd:boolean" use="optional" default="true"/>
2468     <xsd:attribute name="fitToPage" type="xsd:boolean" use="optional" default="false"/>
2469 </xsd:complexType>
2470 <xsd:complexType name="CT_DataConsolidate">
2471     <xsd:sequence>
2472         <xsd:element name="dataRefs" type="CT_DataRefs" minOccurs="0" maxOccurs="1"/>
2473     </xsd:sequence>
2474     <xsd:attribute name="function" type="ST_DataConsolidateFunction" use="optional"
2475         default="sum"/>
2476     <xsd:attribute name="startLabels" type="xsd:boolean" use="optional" default="false"/>
2477     <xsd:attribute name="leftLabels" type="xsd:boolean" use="optional" default="false"/>
2478     <xsd:attribute name="topLabels" type="xsd:boolean" use="optional" default="false"/>
2479     <xsd:attribute name="link" type="xsd:boolean" use="optional" default="false"/>
2480 </xsd:complexType>
2481 <xsd:simpleType name="ST_DataConsolidateFunction">
2482     <xsd:restriction base="xsd:string">
2483         <xsd:enumeration value="average"/>
2484         <xsd:enumeration value="count"/>
2485         <xsd:enumeration value="countNums"/>
2486         <xsd:enumeration value="max"/>
2487         <xsd:enumeration value="min"/>
2488         <xsd:enumeration value="product"/>
2489         <xsd:enumeration value="stdDev"/>
2490         <xsd:enumeration value="stdDevp"/>
2491         <xsd:enumeration value="sum"/>
2492         <xsd:enumeration value="var"/>
2493         <xsd:enumeration value="varp"/>
2494     </xsd:restriction>
2495 </xsd:simpleType>
2496 <xsd:complexType name="CT_DataRefs">
2497     <xsd:sequence>
2498         <xsd:element name="dataRef" type="CT_DataRef" minOccurs="0" maxOccurs="unbounded"/>
2499     </xsd:sequence>
2500     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
2501 </xsd:complexType>
2502 <xsd:complexType name="CT_DataRef">
2503     <xsd:attribute name="ref" type="ST_Ref" use="optional"/>
2504     <xsd:attribute name="name" type="s:ST_Xstring" use="optional"/>
2505     <xsd:attribute name="sheet" type="s:ST_Xstring" use="optional"/>
2506     <xsd:attribute ref="r:id" use="optional"/>
2507 </xsd:complexType>
2508 <xsd:complexType name="CT_MergeCells">
2509     <xsd:sequence>
2510         <xsd:element name="mergeCell" type="CT_MergeCell" minOccurs="1" maxOccurs="unbounded"/>
2511     </xsd:sequence>
2512     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
2513 </xsd:complexType>
2514 <xsd:complexType name="CT_MergeCell">
2515     <xsd:attribute name="ref" type="ST_Ref" use="required"/>
2516 </xsd:complexType>
2517 <xsd:complexType name="CT_SmartTags">
2518     <xsd:sequence>

```



```

2519     <xsd:element name="cellSmartTags" type="CT_CellSmartTags" minOccurs="1"
2520       maxOccurs="unbounded"/>
2521   </xsd:sequence>
2522 </xsd:complexType>
2523 <xsd:complexType name="CT_CellSmartTags">
2524   <xsd:sequence>
2525     <xsd:element name="cellSmartTag" type="CT_CellSmartTag" minOccurs="1"
2526       maxOccurs="unbounded"/>
2527   </xsd:sequence>
2528   <xsd:attribute name="r" type="ST_CellRef" use="required"/>
2529 </xsd:complexType>
2530 <xsd:complexType name="CT_CellSmartTag">
2531   <xsd:sequence>
2532     <xsd:element name="cellSmartTagPr" minOccurs="0" maxOccurs="unbounded"
2533       type="CT_CellSmartTagPr"/>
2534   </xsd:sequence>
2535   <xsd:attribute name="type" type="xsd:unsignedInt" use="required"/>
2536   <xsd:attribute name="deleted" type="xsd:boolean" use="optional" default="false"/>
2537   <xsd:attribute name="xmlBased" type="xsd:boolean" use="optional" default="false"/>
2538 </xsd:complexType>
2539 <xsd:complexType name="CT_CellSmartTagPr">
2540   <xsd:attribute name="key" type="s:ST_Xstring" use="required"/>
2541   <xsd:attribute name="val" type="s:ST_Xstring" use="required"/>
2542 </xsd:complexType>
2543 <xsd:complexType name="CT_Drawing">
2544   <xsd:attribute ref="r:id" use="required"/>
2545 </xsd:complexType>
2546 <xsd:complexType name="CT_LegacyDrawing">
2547   <xsd:attribute ref="r:id" use="required"/>
2548 </xsd:complexType>
2549 <xsd:complexType name="CT_DrawingHF">
2550   <xsd:attribute ref="r:id" use="required"/>
2551   <xsd:attribute name="lho" type="xsd:unsignedInt" use="optional"/>
2552   <xsd:attribute name="lhe" type="xsd:unsignedInt" use="optional"/>
2553   <xsd:attribute name="lhf" type="xsd:unsignedInt" use="optional"/>
2554   <xsd:attribute name="cho" type="xsd:unsignedInt" use="optional"/>
2555   <xsd:attribute name="che" type="xsd:unsignedInt" use="optional"/>
2556   <xsd:attribute name="chf" type="xsd:unsignedInt" use="optional"/>
2557   <xsd:attribute name="rho" type="xsd:unsignedInt" use="optional"/>
2558   <xsd:attribute name="rhe" type="xsd:unsignedInt" use="optional"/>
2559   <xsd:attribute name="rhf" type="xsd:unsignedInt" use="optional"/>
2560   <xsd:attribute name="lfo" type="xsd:unsignedInt" use="optional"/>
2561   <xsd:attribute name="lfe" type="xsd:unsignedInt" use="optional"/>
2562   <xsd:attribute name="lff" type="xsd:unsignedInt" use="optional"/>
2563   <xsd:attribute name="cfo" type="xsd:unsignedInt" use="optional"/>
2564   <xsd:attribute name="cfe" type="xsd:unsignedInt" use="optional"/>
2565   <xsd:attribute name="cff" type="xsd:unsignedInt" use="optional"/>
2566   <xsd:attribute name="rfo" type="xsd:unsignedInt" use="optional"/>
2567   <xsd:attribute name="rfe" type="xsd:unsignedInt" use="optional"/>
2568   <xsd:attribute name="rff" type="xsd:unsignedInt" use="optional"/>
2569 </xsd:complexType>
2570 <xsd:complexType name="CT_CustomSheetViews">
2571   <xsd:sequence>

```



```

2572     <xsd:element name="customSheetView" minOccurs="1" maxOccurs="unbounded"
2573         type="CT_CustomSheetView"/>
2574     </xsd:sequence>
2575 </xsd:complexType>
2576 <xsd:complexType name="CT_CustomSheetView">
2577     <xsd:sequence>
2578         <xsd:element name="pane" type="CT_Pane" minOccurs="0" maxOccurs="1"/>
2579         <xsd:element name="selection" type="CT_Selection" minOccurs="0" maxOccurs="1"/>
2580         <xsd:element name="rowBreaks" type="CT_PageBreak" minOccurs="0" maxOccurs="1"/>
2581         <xsd:element name="colBreaks" type="CT_PageBreak" minOccurs="0" maxOccurs="1"/>
2582         <xsd:element name="pageMargins" type="CT_PageMargins" minOccurs="0" maxOccurs="1"/>
2583         <xsd:element name="printOptions" type="CT_PrintOptions" minOccurs="0" maxOccurs="1"/>
2584         <xsd:element name="pageSetup" type="CT_PageSetup" minOccurs="0" maxOccurs="1"/>
2585         <xsd:element name="headerFooter" type="CT_HeaderFooter" minOccurs="0" maxOccurs="1"/>
2586         <xsd:element name="autoFilter" type="CT_AutoFilter" minOccurs="0" maxOccurs="1"/>
2587         <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
2588     </xsd:sequence>
2589     <xsd:attribute name="guid" type="s:ST_Guid" use="required"/>
2590     <xsd:attribute name="scale" type="xsd:unsignedInt" default="100"/>
2591     <xsd:attribute name="colorId" type="xsd:unsignedInt" default="64"/>
2592     <xsd:attribute name="showPageBreaks" type="xsd:boolean" use="optional" default="false"/>
2593     <xsd:attribute name="showFormulas" type="xsd:boolean" use="optional" default="false"/>
2594     <xsd:attribute name="showGridLines" type="xsd:boolean" use="optional" default="true"/>
2595     <xsd:attribute name="showRowCol" type="xsd:boolean" use="optional" default="true"/>
2596     <xsd:attribute name="outlineSymbols" type="xsd:boolean" use="optional" default="true"/>
2597     <xsd:attribute name="zeroValues" type="xsd:boolean" use="optional" default="true"/>
2598     <xsd:attribute name="fitToPage" type="xsd:boolean" use="optional" default="false"/>
2599     <xsd:attribute name="printArea" type="xsd:boolean" use="optional" default="false"/>
2600     <xsd:attribute name="filter" type="xsd:boolean" use="optional" default="false"/>
2601     <xsd:attribute name="showAutoFilter" type="xsd:boolean" use="optional" default="false"/>
2602     <xsd:attribute name="hiddenRows" type="xsd:boolean" use="optional" default="false"/>
2603     <xsd:attribute name="hiddenColumns" type="xsd:boolean" use="optional" default="false"/>
2604     <xsd:attribute name="state" type="ST_SheetState" default="visible"/>
2605     <xsd:attribute name="filterUnique" type="xsd:boolean" use="optional" default="false"/>
2606     <xsd:attribute name="view" type="ST_SheetViewType" default="normal"/>
2607     <xsd:attribute name="showRuler" type="xsd:boolean" use="optional" default="true"/>
2608     <xsd:attribute name="topLeftCell" type="ST_CellRef" use="optional"/>
2609 </xsd:complexType>
2610 <xsd:complexType name="CT_DataValidations">
2611     <xsd:sequence>
2612         <xsd:element name="dataValidation" type="CT_DataValidation" minOccurs="1"
2613             maxOccurs="unbounded"/>
2614     </xsd:sequence>
2615     <xsd:attribute name="disablePrompts" type="xsd:boolean" use="optional" default="false"/>
2616     <xsd:attribute name="xWindow" type="xsd:unsignedInt" use="optional"/>
2617     <xsd:attribute name="yWindow" type="xsd:unsignedInt" use="optional"/>
2618     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
2619 </xsd:complexType>
2620 <xsd:complexType name="CT_DataValidation">
2621     <xsd:sequence>
2622         <xsd:element name="formula1" type="ST_Formula" minOccurs="0" maxOccurs="1"/>
2623         <xsd:element name="formula2" type="ST_Formula" minOccurs="0" maxOccurs="1"/>
2624     </xsd:sequence>

```



```

2625     <xsd:attribute name="type" type="ST_DataValidationType" use="optional" default="none"/>
2626     <xsd:attribute name="errorStyle" type="ST_DataValidationErrorStyle" use="optional"
2627         default="stop"/>
2628     <xsd:attribute name="imeMode" type="ST_DataValidationImeMode" use="optional"
2629         default="noControl"/>
2630     <xsd:attribute name="operator" type="ST_DataValidationOperator" use="optional"
2631         default="between"/>
2632     <xsd:attribute name="allowBlank" type="xsd:boolean" use="optional" default="false"/>
2633     <xsd:attribute name="showDropDown" type="xsd:boolean" use="optional" default="false"/>
2634     <xsd:attribute name="showInputMessage" type="xsd:boolean" use="optional" default="false"/>
2635     <xsd:attribute name="showErrorMessage" type="xsd:boolean" use="optional" default="false"/>
2636     <xsd:attribute name="errorTitle" type="s:ST_Xstring" use="optional"/>
2637     <xsd:attribute name="error" type="s:ST_Xstring" use="optional"/>
2638     <xsd:attribute name="promptTitle" type="s:ST_Xstring" use="optional"/>
2639     <xsd:attribute name="prompt" type="s:ST_Xstring" use="optional"/>
2640     <xsd:attribute name="sqref" type="ST_Sqref" use="required"/>
2641 </xsd:complexType>
2642 <xsd:simpleType name="ST_DataValidationType">
2643     <xsd:restriction base="xsd:string">
2644         <xsd:enumeration value="none"/>
2645         <xsd:enumeration value="whole"/>
2646         <xsd:enumeration value="decimal"/>
2647         <xsd:enumeration value="list"/>
2648         <xsd:enumeration value="date"/>
2649         <xsd:enumeration value="time"/>
2650         <xsd:enumeration value="textLength"/>
2651         <xsd:enumeration value="custom"/>
2652     </xsd:restriction>
2653 </xsd:simpleType>
2654 <xsd:simpleType name="ST_DataValidationOperator">
2655     <xsd:restriction base="xsd:string">
2656         <xsd:enumeration value="between"/>
2657         <xsd:enumeration value="notBetween"/>
2658         <xsd:enumeration value="equal"/>
2659         <xsd:enumeration value="notEqual"/>
2660         <xsd:enumeration value="lessThan"/>
2661         <xsd:enumeration value="lessThanOrEqual"/>
2662         <xsd:enumeration value="greaterThan"/>
2663         <xsd:enumeration value="greaterThanOrEqual"/>
2664     </xsd:restriction>
2665 </xsd:simpleType>
2666 <xsd:simpleType name="ST_DataValidationErrorStyle">
2667     <xsd:restriction base="xsd:string">
2668         <xsd:enumeration value="stop"/>
2669         <xsd:enumeration value="warning"/>
2670         <xsd:enumeration value="information"/>
2671     </xsd:restriction>
2672 </xsd:simpleType>
2673 <xsd:simpleType name="ST_DataValidationImeMode">
2674     <xsd:restriction base="xsd:string">
2675         <xsd:enumeration value="noControl"/>
2676         <xsd:enumeration value="off"/>
2677         <xsd:enumeration value="on"/>

```



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2678         <xsd:enumeration value="disabled"/>
2679         <xsd:enumeration value="hiragana"/>
2680         <xsd:enumeration value="fullKatakana"/>
2681         <xsd:enumeration value="halfKatakana"/>
2682         <xsd:enumeration value="fullAlpha"/>
2683         <xsd:enumeration value="halfAlpha"/>
2684         <xsd:enumeration value="fullHangul"/>
2685         <xsd:enumeration value="halfHangul"/>
2686     </xsd:restriction>
2687 </xsd:simpleType>
2688 <xsd:simpleType name="ST_CfType">
2689     <xsd:restriction base="xsd:string">
2690         <xsd:enumeration value="expression"/>
2691         <xsd:enumeration value="cellIs"/>
2692         <xsd:enumeration value="colorScale"/>
2693         <xsd:enumeration value="dataBar"/>
2694         <xsd:enumeration value="iconSet"/>
2695         <xsd:enumeration value="top10"/>
2696         <xsd:enumeration value="uniqueValues"/>
2697         <xsd:enumeration value="duplicateValues"/>
2698         <xsd:enumeration value="containsText"/>
2699         <xsd:enumeration value="notContainsText"/>
2700         <xsd:enumeration value="beginsWith"/>
2701         <xsd:enumeration value="endsWith"/>
2702         <xsd:enumeration value="containsBlanks"/>
2703         <xsd:enumeration value="notContainsBlanks"/>
2704         <xsd:enumeration value="containsErrors"/>
2705         <xsd:enumeration value="notContainsErrors"/>
2706         <xsd:enumeration value="timePeriod"/>
2707         <xsd:enumeration value="aboveAverage"/>
2708     </xsd:restriction>
2709 </xsd:simpleType>
2710 <xsd:simpleType name="ST_TimePeriod">
2711     <xsd:restriction base="xsd:string">
2712         <xsd:enumeration value="today"/>
2713         <xsd:enumeration value="yesterday"/>
2714         <xsd:enumeration value="tomorrow"/>
2715         <xsd:enumeration value="last7Days"/>
2716         <xsd:enumeration value="thisMonth"/>
2717         <xsd:enumeration value="lastMonth"/>
2718         <xsd:enumeration value="nextMonth"/>
2719         <xsd:enumeration value="thisWeek"/>
2720         <xsd:enumeration value="lastWeek"/>
2721         <xsd:enumeration value="nextWeek"/>
2722     </xsd:restriction>
2723 </xsd:simpleType>
2724 <xsd:simpleType name="ST_ConditionalFormattingOperator">
2725     <xsd:restriction base="xsd:string">
2726         <xsd:enumeration value="lessThan"/>
2727         <xsd:enumeration value="lessThanOrEqual"/>
2728         <xsd:enumeration value="equal"/>
2729         <xsd:enumeration value="notEqual"/>
2730         <xsd:enumeration value="greaterThanOrEqual"/>

```



```

2731     <xsd:enumeration value="greaterThan"/>
2732     <xsd:enumeration value="between"/>
2733     <xsd:enumeration value="notBetween"/>
2734     <xsd:enumeration value="containsText"/>
2735     <xsd:enumeration value="notContains"/>
2736     <xsd:enumeration value="beginsWith"/>
2737     <xsd:enumeration value="endsWith"/>
2738   </xsd:restriction>
2739 </xsd:simpleType>
2740 <xsd:simpleType name="ST_CfvoType">
2741   <xsd:restriction base="xsd:string">
2742     <xsd:enumeration value="num"/>
2743     <xsd:enumeration value="percent"/>
2744     <xsd:enumeration value="max"/>
2745     <xsd:enumeration value="min"/>
2746     <xsd:enumeration value="formula"/>
2747     <xsd:enumeration value="percentile"/>
2748   </xsd:restriction>
2749 </xsd:simpleType>
2750 <xsd:complexType name="CT_ConditionalFormatting">
2751   <xsd:sequence>
2752     <xsd:element name="cfRule" type="CT_CfRule" minOccurs="1" maxOccurs="unbounded"/>
2753     <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
2754   </xsd:sequence>
2755   <xsd:attribute name="pivot" type="xsd:boolean" default="false"/>
2756   <xsd:attribute name="sqref" type="ST_Sqref"/>
2757 </xsd:complexType>
2758 <xsd:complexType name="CT_CfRule">
2759   <xsd:sequence>
2760     <xsd:element name="formula" type="ST_Formula" minOccurs="0" maxOccurs="3"/>
2761     <xsd:element name="colorScale" type="CT_ColorScale" minOccurs="0" maxOccurs="1"/>
2762     <xsd:element name="dataBar" type="CT_DataBar" minOccurs="0" maxOccurs="1"/>
2763     <xsd:element name="iconSet" type="CT_IconSet" minOccurs="0" maxOccurs="1"/>
2764     <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
2765   </xsd:sequence>
2766   <xsd:attribute name="type" type="ST_CfType"/>
2767   <xsd:attribute name="dxfId" type="ST_DxfId" use="optional"/>
2768   <xsd:attribute name="priority" type="xsd:int" use="required"/>
2769   <xsd:attribute name="stopIfTrue" type="xsd:boolean" use="optional" default="false"/>
2770   <xsd:attribute name="aboveAverage" type="xsd:boolean" use="optional" default="true"/>
2771   <xsd:attribute name="percent" type="xsd:boolean" use="optional" default="false"/>
2772   <xsd:attribute name="bottom" type="xsd:boolean" use="optional" default="false"/>
2773   <xsd:attribute name="operator" type="ST_ConditionalFormattingOperator" use="optional"/>
2774   <xsd:attribute name="text" type="xsd:string" use="optional"/>
2775   <xsd:attribute name="timePeriod" type="ST_TimePeriod" use="optional"/>
2776   <xsd:attribute name="rank" type="xsd:unsignedInt" use="optional"/>
2777   <xsd:attribute name="stdDev" type="xsd:int" use="optional"/>
2778   <xsd:attribute name="equalAverage" type="xsd:boolean" use="optional" default="false"/>
2779 </xsd:complexType>
2780 <xsd:complexType name="CT_Hyperlinks">
2781   <xsd:sequence>
2782     <xsd:element name="hyperlink" type="CT_Hyperlink" minOccurs="1" maxOccurs="unbounded"/>
2783   </xsd:sequence>

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2784 </xsd:complexType>
2785 <xsd:complexType name="CT_Hyperlink">
2786   <xsd:attribute name="ref" type="ST_Ref" use="required"/>
2787   <xsd:attribute ref="r:id" use="optional"/>
2788   <xsd:attribute name="location" type="s:ST_Xstring" use="optional"/>
2789   <xsd:attribute name="tooltip" type="s:ST_Xstring" use="optional"/>
2790   <xsd:attribute name="display" type="s:ST_Xstring" use="optional"/>
2791 </xsd:complexType>
2792 <xsd:complexType name="CT_CellFormula">
2793   <xsd:simpleContent>
2794     <xsd:extension base="ST_Formula">
2795       <xsd:attribute name="t" type="ST_CellFormulaType" use="optional" default="normal"/>
2796       <xsd:attribute name="aca" type="xsd:boolean" use="optional" default="false"/>
2797       <xsd:attribute name="ref" type="ST_Ref" use="optional"/>
2798       <xsd:attribute name="dt2D" type="xsd:boolean" use="optional" default="false"/>
2799       <xsd:attribute name="dtr" type="xsd:boolean" use="optional" default="false"/>
2800       <xsd:attribute name="del1" type="xsd:boolean" use="optional" default="false"/>
2801       <xsd:attribute name="del2" type="xsd:boolean" use="optional" default="false"/>
2802       <xsd:attribute name="r1" type="ST_CellRef" use="optional"/>
2803       <xsd:attribute name="r2" type="ST_CellRef" use="optional"/>
2804       <xsd:attribute name="ca" type="xsd:boolean" use="optional" default="false"/>
2805       <xsd:attribute name="si" type="xsd:unsignedInt" use="optional"/>
2806       <xsd:attribute name="bx" type="xsd:boolean" use="optional" default="false"/>
2807     </xsd:extension>
2808   </xsd:simpleContent>
2809 </xsd:complexType>
2810 <xsd:complexType name="CT_ColorScale">
2811   <xsd:sequence>
2812     <xsd:element name="cfvo" type="CT_Cfvo" minOccurs="2" maxOccurs="unbounded"/>
2813     <xsd:element name="color" type="CT_Color" minOccurs="2" maxOccurs="unbounded"/>
2814   </xsd:sequence>
2815 </xsd:complexType>
2816 <xsd:complexType name="CT_DataBar">
2817   <xsd:sequence>
2818     <xsd:element name="cfvo" type="CT_Cfvo" minOccurs="2" maxOccurs="2"/>
2819     <xsd:element name="color" type="CT_Color" minOccurs="1" maxOccurs="1"/>
2820   </xsd:sequence>
2821   <xsd:attribute name="minLength" type="xsd:unsignedInt" use="optional" default="10"/>
2822   <xsd:attribute name="maxLength" type="xsd:unsignedInt" use="optional" default="90"/>
2823   <xsd:attribute name="showValue" type="xsd:boolean" use="optional" default="true"/>
2824 </xsd:complexType>
2825 <xsd:complexType name="CT_IconSet">
2826   <xsd:sequence>
2827     <xsd:element name="cfvo" type="CT_Cfvo" minOccurs="2" maxOccurs="unbounded"/>
2828   </xsd:sequence>
2829   <xsd:attribute name="iconSet" type="ST_IconSetType" use="optional" default="3TrafficLights1"/>
2830   <xsd:attribute name="showValue" type="xsd:boolean" use="optional" default="true"/>
2831   <xsd:attribute name="percent" type="xsd:boolean" default="true"/>
2832   <xsd:attribute name="reverse" type="xsd:boolean" use="optional" default="false"/>
2833 </xsd:complexType>
2834 <xsd:complexType name="CT_Cfvo">
2835   <xsd:sequence>
2836     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>

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2837     </xsd:sequence>
2838     <xsd:attribute name="type" type="ST CfvoType" use="required"/>
2839     <xsd:attribute name="val" type="s:ST Xstring" use="optional"/>
2840     <xsd:attribute name="gte" type="xsd:boolean" use="optional" default="true"/>
2841 </xsd:complexType>
2842 <xsd:complexType name="CT_PageMargins">
2843     <xsd:attribute name="left" type="xsd:double" use="required"/>
2844     <xsd:attribute name="right" type="xsd:double" use="required"/>
2845     <xsd:attribute name="top" type="xsd:double" use="required"/>
2846     <xsd:attribute name="bottom" type="xsd:double" use="required"/>
2847     <xsd:attribute name="header" type="xsd:double" use="required"/>
2848     <xsd:attribute name="footer" type="xsd:double" use="required"/>
2849 </xsd:complexType>
2850 <xsd:complexType name="CT_PrintOptions">
2851     <xsd:attribute name="horizontalCentered" type="xsd:boolean" use="optional" default="false"/>
2852     <xsd:attribute name="verticalCentered" type="xsd:boolean" use="optional" default="false"/>
2853     <xsd:attribute name="headings" type="xsd:boolean" use="optional" default="false"/>
2854     <xsd:attribute name="gridLines" type="xsd:boolean" use="optional" default="false"/>
2855     <xsd:attribute name="gridLinesSet" type="xsd:boolean" use="optional" default="true"/>
2856 </xsd:complexType>
2857 <xsd:complexType name="CT_PageSetup">
2858     <xsd:attribute name="paperSize" type="xsd:unsignedInt" use="optional" default="1"/>
2859     <xsd:attribute name="paperHeight" type="s:ST PositiveUniversalMeasure" use="optional"/>
2860     <xsd:attribute name="paperWidth" type="s:ST PositiveUniversalMeasure" use="optional"/>
2861     <xsd:attribute name="scale" type="xsd:unsignedInt" use="optional" default="100"/>
2862     <xsd:attribute name="firstPageNumber" type="xsd:unsignedInt" use="optional" default="1"/>
2863     <xsd:attribute name="fitToWidth" type="xsd:unsignedInt" use="optional" default="1"/>
2864     <xsd:attribute name="fitToHeight" type="xsd:unsignedInt" use="optional" default="1"/>
2865     <xsd:attribute name="pageOrder" type="ST PageOrder" use="optional" default="downThenOver"/>
2866     <xsd:attribute name="orientation" type="ST Orientation" use="optional" default="default"/>
2867     <xsd:attribute name="usePrinterDefaults" type="xsd:boolean" use="optional" default="true"/>
2868     <xsd:attribute name="blackAndWhite" type="xsd:boolean" use="optional" default="false"/>
2869     <xsd:attribute name="draft" type="xsd:boolean" use="optional" default="false"/>
2870     <xsd:attribute name="cellComments" type="ST CellComments" use="optional" default="none"/>
2871     <xsd:attribute name="useFirstPageNumber" type="xsd:boolean" use="optional" default="false"/>
2872     <xsd:attribute name="errors" type="ST PrintError" use="optional" default="displayed"/>
2873     <xsd:attribute name="horizontalDpi" type="xsd:unsignedInt" use="optional" default="600"/>
2874     <xsd:attribute name="verticalDpi" type="xsd:unsignedInt" use="optional" default="600"/>
2875     <xsd:attribute name="copies" type="xsd:unsignedInt" use="optional" default="1"/>
2876     <xsd:attribute ref="r:id" use="optional"/>
2877 </xsd:complexType>
2878 <xsd:simpleType name="ST_PageOrder">
2879     <xsd:restriction base="xsd:string">
2880         <xsd:enumeration value="downThenOver"/>
2881         <xsd:enumeration value="overThenDown"/>
2882     </xsd:restriction>
2883 </xsd:simpleType>
2884 <xsd:simpleType name="ST_Orientation">
2885     <xsd:restriction base="xsd:string">
2886         <xsd:enumeration value="default"/>
2887         <xsd:enumeration value="portrait"/>
2888         <xsd:enumeration value="landscape"/>
2889     </xsd:restriction>

```



```

2890 </xsd:simpleType>
2891 <xsd:simpleType name="ST_CellComments">
2892   <xsd:restriction base="xsd:string">
2893     <xsd:enumeration value="none"/>
2894     <xsd:enumeration value="asDisplayed"/>
2895     <xsd:enumeration value="atEnd"/>
2896   </xsd:restriction>
2897 </xsd:simpleType>
2898 <xsd:complexType name="CT_HeaderFooter">
2899   <xsd:sequence>
2900     <xsd:element name="oddHeader" type="s:ST Xstring" minOccurs="0" maxOccurs="1"/>
2901     <xsd:element name="oddFooter" type="s:ST Xstring" minOccurs="0" maxOccurs="1"/>
2902     <xsd:element name="evenHeader" type="s:ST Xstring" minOccurs="0" maxOccurs="1"/>
2903     <xsd:element name="evenFooter" type="s:ST Xstring" minOccurs="0" maxOccurs="1"/>
2904     <xsd:element name="firstHeader" type="s:ST Xstring" minOccurs="0" maxOccurs="1"/>
2905     <xsd:element name="firstFooter" type="s:ST Xstring" minOccurs="0" maxOccurs="1"/>
2906   </xsd:sequence>
2907   <xsd:attribute name="differentOddEven" type="xsd:boolean" default="false"/>
2908   <xsd:attribute name="differentFirst" type="xsd:boolean" default="false"/>
2909   <xsd:attribute name="scaleWithDoc" type="xsd:boolean" default="true"/>
2910   <xsd:attribute name="alignWithMargins" type="xsd:boolean" default="true"/>
2911 </xsd:complexType>
2912 <xsd:simpleType name="ST_PrintError">
2913   <xsd:restriction base="xsd:string">
2914     <xsd:enumeration value="displayed"/>
2915     <xsd:enumeration value="blank"/>
2916     <xsd:enumeration value="dash"/>
2917     <xsd:enumeration value="NA"/>
2918   </xsd:restriction>
2919 </xsd:simpleType>
2920 <xsd:complexType name="CT_Scenarios">
2921   <xsd:sequence>
2922     <xsd:element name="scenario" type="CT_Scenario" minOccurs="1" maxOccurs="unbounded"/>
2923   </xsd:sequence>
2924   <xsd:attribute name="current" type="xsd:unsignedInt" use="optional"/>
2925   <xsd:attribute name="show" type="xsd:unsignedInt" use="optional"/>
2926   <xsd:attribute name="sqref" type="ST_Sqref" use="optional"/>
2927 </xsd:complexType>
2928 <xsd:complexType name="CT_SheetProtection">
2929   <xsd:attribute name="password" type="ST_UnsignedShortHex" use="optional"/>
2930   <xsd:attribute name="algorithmName" type="s:ST Xstring" use="optional"/>
2931   <xsd:attribute name="hashValue" type="xsd:base64Binary" use="optional"/>
2932   <xsd:attribute name="saltValue" type="xsd:base64Binary" use="optional"/>
2933   <xsd:attribute name="spinCount" type="xsd:unsignedInt" use="optional"/>
2934   <xsd:attribute name="sheet" type="xsd:boolean" use="optional" default="false"/>
2935   <xsd:attribute name="objects" type="xsd:boolean" use="optional" default="false"/>
2936   <xsd:attribute name="scenarios" type="xsd:boolean" use="optional" default="false"/>
2937   <xsd:attribute name="formatCells" type="xsd:boolean" use="optional" default="true"/>
2938   <xsd:attribute name="formatColumns" type="xsd:boolean" use="optional" default="true"/>
2939   <xsd:attribute name="formatRows" type="xsd:boolean" use="optional" default="true"/>
2940   <xsd:attribute name="insertColumns" type="xsd:boolean" use="optional" default="true"/>
2941   <xsd:attribute name="insertRows" type="xsd:boolean" use="optional" default="true"/>
2942   <xsd:attribute name="insertHyperlinks" type="xsd:boolean" use="optional" default="true"/>

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2943     <xsd:attribute name="deleteColumns" type="xsd:boolean" use="optional" default="true"/>
2944     <xsd:attribute name="deleteRows" type="xsd:boolean" use="optional" default="true"/>
2945     <xsd:attribute name="selectLockedCells" type="xsd:boolean" use="optional" default="false"/>
2946     <xsd:attribute name="sort" type="xsd:boolean" use="optional" default="true"/>
2947     <xsd:attribute name="autoFilter" type="xsd:boolean" use="optional" default="true"/>
2948     <xsd:attribute name="pivotTables" type="xsd:boolean" use="optional" default="true"/>
2949     <xsd:attribute name="selectUnlockedCells" type="xsd:boolean" use="optional" default="false"/>
2950 </xsd:complexType>
2951 <xsd:complexType name="CT_ProtectedRanges">
2952     <xsd:sequence>
2953         <xsd:element name="protectedRange" type="CT_ProtectedRange" minOccurs="1"
2954             maxOccurs="unbounded"/>
2955     </xsd:sequence>
2956 </xsd:complexType>
2957 <xsd:complexType name="CT_ProtectedRange">
2958     <xsd:sequence>
2959         <xsd:element name="securityDescriptor" type="xsd:string" minOccurs="0"
2960             maxOccurs="unbounded"/>
2961     </xsd:sequence>
2962     <xsd:attribute name="password" type="ST_UnsignedShortHex" use="optional"/>
2963     <xsd:attribute name="sqref" type="ST_Sqref" use="required"/>
2964     <xsd:attribute name="name" type="s:ST_Xstring" use="required"/>
2965     <xsd:attribute name="securityDescriptor" type="xsd:string" use="optional"/>
2966     <xsd:attribute name="algorithmName" type="s:ST_Xstring" use="optional"/>
2967     <xsd:attribute name="hashValue" type="xsd:base64Binary" use="optional"/>
2968     <xsd:attribute name="saltValue" type="xsd:base64Binary" use="optional"/>
2969     <xsd:attribute name="spinCount" type="xsd:unsignedInt" use="optional"/>
2970 </xsd:complexType>
2971 <xsd:complexType name="CT_Scenario">
2972     <xsd:sequence>
2973         <xsd:element name="inputCells" type="CT_InputCells" minOccurs="1" maxOccurs="unbounded"/>
2974     </xsd:sequence>
2975     <xsd:attribute name="name" type="s:ST_Xstring" use="required"/>
2976     <xsd:attribute name="locked" type="xsd:boolean" use="optional" default="false"/>
2977     <xsd:attribute name="hidden" type="xsd:boolean" use="optional" default="false"/>
2978     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
2979     <xsd:attribute name="user" type="s:ST_Xstring" use="optional"/>
2980     <xsd:attribute name="comment" type="s:ST_Xstring" use="optional"/>
2981 </xsd:complexType>
2982 <xsd:complexType name="CT_InputCells">
2983     <xsd:attribute name="r" type="ST_CellRef" use="required"/>
2984     <xsd:attribute name="deleted" type="xsd:boolean" use="optional" default="false"/>
2985     <xsd:attribute name="undone" type="xsd:boolean" use="optional" default="false"/>
2986     <xsd:attribute name="val" type="s:ST_Xstring" use="required"/>
2987     <xsd:attribute name="numFmtId" type="ST_NumFmtId" use="optional"/>
2988 </xsd:complexType>
2989 <xsd:complexType name="CT_CellWatches">
2990     <xsd:sequence>
2991         <xsd:element name="cellWatch" type="CT_CellWatch" minOccurs="1" maxOccurs="unbounded"/>
2992     </xsd:sequence>
2993 </xsd:complexType>
2994 <xsd:complexType name="CT_CellWatch">
2995     <xsd:attribute name="r" type="ST_CellRef" use="required"/>

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2996 </xsd:complexType>
2997 <xsd:complexType name="CT_Chartsheet">
2998   <xsd:sequence>
2999     <xsd:element name="sheetPr" type="CT_ChartsheetPr" minOccurs="0" maxOccurs="1"/>
3000     <xsd:element name="sheetViews" type="CT_ChartsheetViews" minOccurs="1" maxOccurs="1"/>
3001     <xsd:element name="sheetProtection" type="CT_ChartsheetProtection" minOccurs="0"
3002       maxOccurs="1"/>
3003     <xsd:element name="customSheetViews" type="CT_CustomChartsheetViews" minOccurs="0"
3004       maxOccurs="1"/>
3005     <xsd:element name="pageMargins" minOccurs="0" type="CT_PageMargins"/>
3006     <xsd:element name="pageSetup" type="CT_CsPageSetup" minOccurs="0" maxOccurs="1"/>
3007     <xsd:element name="headerFooter" minOccurs="0" type="CT_HeaderFooter"/>
3008     <xsd:element name="drawing" type="CT_Drawing" minOccurs="1" maxOccurs="1"/>
3009     <xsd:element name="legacyDrawing" type="CT_LegacyDrawing" minOccurs="0" maxOccurs="1"/>
3010     <xsd:element name="legacyDrawingHF" type="CT_LegacyDrawing" minOccurs="0" maxOccurs="1"/>
3011     <xsd:element name="drawingHF" type="CT_DrawingHF" minOccurs="0" maxOccurs="1"/>
3012     <xsd:element name="picture" type="CT_SheetBackgroundPicture" minOccurs="0" maxOccurs="1"/>
3013     <xsd:element name="webPublishItems" type="CT_WebPublishItems" minOccurs="0"
3014       maxOccurs="1"/>
3015     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
3016   </xsd:sequence>
3017 </xsd:complexType>
3018 <xsd:complexType name="CT_ChartsheetPr">
3019   <xsd:sequence>
3020     <xsd:element name="tabColor" type="CT_Color" minOccurs="0" maxOccurs="1"/>
3021   </xsd:sequence>
3022   <xsd:attribute name="published" type="xsd:boolean" use="optional" default="true"/>
3023   <xsd:attribute name="codeName" type="xsd:string" use="optional"/>
3024 </xsd:complexType>
3025 <xsd:complexType name="CT_ChartsheetViews">
3026   <xsd:sequence>
3027     <xsd:element name="sheetView" type="CT_ChartsheetView" minOccurs="1"
3028       maxOccurs="unbounded"/>
3029     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
3030   </xsd:sequence>
3031 </xsd:complexType>
3032 <xsd:complexType name="CT_ChartsheetView">
3033   <xsd:sequence>
3034     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
3035   </xsd:sequence>
3036   <xsd:attribute name="tabSelected" type="xsd:boolean" use="optional" default="false"/>
3037   <xsd:attribute name="zoomScale" type="xsd:unsignedInt" default="100" use="optional"/>
3038   <xsd:attribute name="workbookViewId" type="xsd:unsignedInt" use="required"/>
3039   <xsd:attribute name="zoomToFit" type="xsd:boolean" use="optional" default="false"/>
3040 </xsd:complexType>
3041 <xsd:complexType name="CT_ChartsheetProtection">
3042   <xsd:attribute name="password" type="ST_UnsignedShortHex" use="optional"/>
3043   <xsd:attribute name="algorithmName" type="s:ST_Xstring" use="optional"/>
3044   <xsd:attribute name="hashValue" type="xsd:base64Binary" use="optional"/>
3045   <xsd:attribute name="saltValue" type="xsd:base64Binary" use="optional"/>
3046   <xsd:attribute name="spinCount" type="xsd:unsignedInt" use="optional"/>
3047   <xsd:attribute name="content" type="xsd:boolean" use="optional" default="false"/>
3048   <xsd:attribute name="objects" type="xsd:boolean" use="optional" default="false"/>

```



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3049 </xsd:complexType>
3050 <xsd:complexType name="CT_CsPageSetup">
3051     <xsd:attribute name="paperSize" type="xsd:unsignedInt" use="optional" default="1"/>
3052     <xsd:attribute name="paperHeight" type="s:ST_PositiveUniversalMeasure" use="optional"/>
3053     <xsd:attribute name="paperWidth" type="s:ST_PositiveUniversalMeasure" use="optional"/>
3054     <xsd:attribute name="firstPageNumber" type="xsd:unsignedInt" use="optional" default="1"/>
3055     <xsd:attribute name="orientation" type="ST_Orientation" use="optional" default="default"/>
3056     <xsd:attribute name="usePrinterDefaults" type="xsd:boolean" use="optional" default="true"/>
3057     <xsd:attribute name="blackAndWhite" type="xsd:boolean" use="optional" default="false"/>
3058     <xsd:attribute name="draft" type="xsd:boolean" use="optional" default="false"/>
3059     <xsd:attribute name="useFirstPageNumber" type="xsd:boolean" use="optional" default="false"/>
3060     <xsd:attribute name="horizontalDpi" type="xsd:unsignedInt" use="optional" default="600"/>
3061     <xsd:attribute name="verticalDpi" type="xsd:unsignedInt" use="optional" default="600"/>
3062     <xsd:attribute name="copies" type="xsd:unsignedInt" use="optional" default="1"/>
3063     <xsd:attribute ref="r:id" use="optional"/>
3064 </xsd:complexType>
3065 <xsd:complexType name="CT_CustomChartsheetViews">
3066     <xsd:sequence>
3067         <xsd:element name="customSheetView" minOccurs="0" maxOccurs="unbounded"
3068             type="CT_CustomChartsheetView"/>
3069     </xsd:sequence>
3070 </xsd:complexType>
3071 <xsd:complexType name="CT_CustomChartsheetView">
3072     <xsd:sequence>
3073         <xsd:element name="pageMargins" type="CT_PageMargins" minOccurs="0" maxOccurs="1"/>
3074         <xsd:element name="pageSetup" type="CT_CsPageSetup" minOccurs="0" maxOccurs="1"/>
3075         <xsd:element name="headerFooter" type="CT_HeaderFooter" minOccurs="0" maxOccurs="1"/>
3076     </xsd:sequence>
3077     <xsd:attribute name="guid" type="s:ST_Guid" use="required"/>
3078     <xsd:attribute name="scale" type="xsd:unsignedInt" default="100"/>
3079     <xsd:attribute name="state" type="ST_SheetState" default="visible"/>
3080     <xsd:attribute name="zoomToFit" type="xsd:boolean" use="optional" default="false"/>
3081 </xsd:complexType>
3082 <xsd:complexType name="CT_CustomProperties">
3083     <xsd:sequence>
3084         <xsd:element name="customPr" type="CT_CustomProperty" minOccurs="1"
3085             maxOccurs="unbounded"/>
3086     </xsd:sequence>
3087 </xsd:complexType>
3088 <xsd:complexType name="CT_CustomProperty">
3089     <xsd:attribute name="name" type="s:ST_Xstring" use="required"/>
3090     <xsd:attribute ref="r:id" use="required"/>
3091 </xsd:complexType>
3092 <xsd:complexType name="CT_OleObjects">
3093     <xsd:sequence>
3094         <xsd:element name="oleObject" type="CT_OleObject" minOccurs="1" maxOccurs="unbounded"/>
3095     </xsd:sequence>
3096 </xsd:complexType>
3097 <xsd:complexType name="CT_OleObject">
3098     <xsd:sequence>
3099         <xsd:element name="objectPr" type="CT_ObjectPr" minOccurs="0" maxOccurs="1"/>
3100     </xsd:sequence>
3101     <xsd:attribute name="progId" type="xsd:string" use="optional"/>

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3102     <xsd:attribute name="dvAspect" type="ST_DvAspect" use="optional" default="DVASPECT_CONTENT"/>
3103     <xsd:attribute name="link" type="s:ST_Xstring" use="optional"/>
3104     <xsd:attribute name="oleUpdate" type="ST_OleUpdate" use="optional"/>
3105     <xsd:attribute name="autoLoad" type="xsd:boolean" use="optional" default="false"/>
3106     <xsd:attribute name="shapeId" type="xsd:unsignedInt" use="required"/>
3107     <xsd:attribute ref="r:id" use="optional"/>
3108 </xsd:complexType>
3109 <xsd:complexType name="CT_ObjectPr">
3110     <xsd:sequence>
3111         <xsd:element name="anchor" type="CT_ObjectAnchor" minOccurs="1" maxOccurs="1"/>
3112     </xsd:sequence>
3113     <xsd:attribute name="locked" type="xsd:boolean" use="optional" default="true"/>
3114     <xsd:attribute name="defaultSize" type="xsd:boolean" use="optional" default="true"/>
3115     <xsd:attribute name="print" type="xsd:boolean" use="optional" default="true"/>
3116     <xsd:attribute name="disabled" type="xsd:boolean" use="optional" default="false"/>
3117     <xsd:attribute name="uiObject" type="xsd:boolean" use="optional" default="false"/>
3118     <xsd:attribute name="autoFill" type="xsd:boolean" use="optional" default="true"/>
3119     <xsd:attribute name="autoLine" type="xsd:boolean" use="optional" default="true"/>
3120     <xsd:attribute name="autoPict" type="xsd:boolean" use="optional" default="true"/>
3121     <xsd:attribute name="macro" type="ST_Formula" use="optional"/>
3122     <xsd:attribute name="altText" type="s:ST_Xstring" use="optional"/>
3123     <xsd:attribute name="dde" type="xsd:boolean" use="optional" default="false"/>
3124     <xsd:attribute ref="r:id" use="optional"/>
3125 </xsd:complexType>
3126 <xsd:simpleType name="ST_DvAspect">
3127     <xsd:restriction base="xsd:string">
3128         <xsd:enumeration value="DVASPECT_CONTENT"/>
3129         <xsd:enumeration value="DVASPECT_ICON"/>
3130     </xsd:restriction>
3131 </xsd:simpleType>
3132 <xsd:simpleType name="ST_OleUpdate">
3133     <xsd:restriction base="xsd:string">
3134         <xsd:enumeration value="OLEUPDATE_ALWAYS"/>
3135         <xsd:enumeration value="OLEUPDATE_ONCALL"/>
3136     </xsd:restriction>
3137 </xsd:simpleType>
3138 <xsd:complexType name="CT_WebPublishItems">
3139     <xsd:sequence>
3140         <xsd:element name="webPublishItem" type="CT_WebPublishItem" minOccurs="1"
3141             maxOccurs="unbounded"/>
3142     </xsd:sequence>
3143     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
3144 </xsd:complexType>
3145 <xsd:complexType name="CT_WebPublishItem">
3146     <xsd:attribute name="id" type="xsd:unsignedInt" use="required"/>
3147     <xsd:attribute name="divId" type="s:ST_Xstring" use="required"/>
3148     <xsd:attribute name="sourceType" type="ST_WebSourceType" use="required"/>
3149     <xsd:attribute name="sourceRef" type="ST_Ref" use="optional"/>
3150     <xsd:attribute name="sourceObject" type="s:ST_Xstring" use="optional"/>
3151     <xsd:attribute name="destinationFile" type="s:ST_Xstring" use="required"/>
3152     <xsd:attribute name="title" type="s:ST_Xstring" use="optional"/>
3153     <xsd:attribute name="autoRepublish" type="xsd:boolean" use="optional" default="false"/>
3154 </xsd:complexType>

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3155 <xsd:complexType name="CT_Controls">
3156   <xsd:sequence>
3157     <xsd:element name="control" type="CT_Control" minOccurs="1" maxOccurs="unbounded"/>
3158   </xsd:sequence>
3159 </xsd:complexType>
3160 <xsd:complexType name="CT_Control">
3161   <xsd:sequence>
3162     <xsd:element name="controlPr" type="CT_ControlPr" minOccurs="0" maxOccurs="1"/>
3163   </xsd:sequence>
3164   <xsd:attribute name="shapeId" type="xsd:unsignedInt" use="required"/>
3165   <xsd:attribute ref="r:id" use="required"/>
3166   <xsd:attribute name="name" type="xsd:string" use="optional"/>
3167 </xsd:complexType>
3168 <xsd:complexType name="CT_ControlPr">
3169   <xsd:sequence>
3170     <xsd:element name="anchor" type="CT_ObjectAnchor" minOccurs="1" maxOccurs="1"/>
3171   </xsd:sequence>
3172   <xsd:attribute name="locked" type="xsd:boolean" use="optional" default="true"/>
3173   <xsd:attribute name="defaultSize" type="xsd:boolean" use="optional" default="true"/>
3174   <xsd:attribute name="print" type="xsd:boolean" use="optional" default="true"/>
3175   <xsd:attribute name="disabled" type="xsd:boolean" use="optional" default="false"/>
3176   <xsd:attribute name="recalcAlways" type="xsd:boolean" use="optional" default="false"/>
3177   <xsd:attribute name="uiObject" type="xsd:boolean" use="optional" default="false"/>
3178   <xsd:attribute name="autoFill" type="xsd:boolean" use="optional" default="true"/>
3179   <xsd:attribute name="autoLine" type="xsd:boolean" use="optional" default="true"/>
3180   <xsd:attribute name="autoPict" type="xsd:boolean" use="optional" default="true"/>
3181   <xsd:attribute name="macro" type="ST_Formula" use="optional"/>
3182   <xsd:attribute name="altText" type="s:ST_Xstring" use="optional"/>
3183   <xsd:attribute name="linkedCell" type="ST_Formula" use="optional"/>
3184   <xsd:attribute name="listFillRange" type="ST_Formula" use="optional"/>
3185   <xsd:attribute name="cf" type="s:ST_Xstring" use="optional" default="pict"/>
3186   <xsd:attribute ref="r:id" use="optional"/>
3187 </xsd:complexType>
3188 <xsd:simpleType name="ST_WebSourceType">
3189   <xsd:restriction base="xsd:string">
3190     <xsd:enumeration value="sheet"/>
3191     <xsd:enumeration value="printArea"/>
3192     <xsd:enumeration value="autoFilter"/>
3193     <xsd:enumeration value="range"/>
3194     <xsd:enumeration value="chart"/>
3195     <xsd:enumeration value="pivotTable"/>
3196     <xsd:enumeration value="query"/>
3197     <xsd:enumeration value="label"/>
3198   </xsd:restriction>
3199 </xsd:simpleType>
3200 <xsd:complexType name="CT_IgnoredErrors">
3201   <xsd:sequence>
3202     <xsd:element name="ignoredError" type="CT_IgnoredError" minOccurs="1"
3203       maxOccurs="unbounded"/>
3204     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
3205   </xsd:sequence>
3206 </xsd:complexType>
3207 <xsd:complexType name="CT_IgnoredError">

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3208     <xsd:attribute name="sqref" type="ST_Sqref" use="required"/>
3209     <xsd:attribute name="evalError" type="xsd:boolean" use="optional" default="false"/>
3210     <xsd:attribute name="twoDigitTextYear" type="xsd:boolean" use="optional" default="false"/>
3211     <xsd:attribute name="numberStoredAsText" type="xsd:boolean" use="optional" default="false"/>
3212     <xsd:attribute name="formula" type="xsd:boolean" use="optional" default="false"/>
3213     <xsd:attribute name="formulaRange" type="xsd:boolean" use="optional" default="false"/>
3214     <xsd:attribute name="unlockedFormula" type="xsd:boolean" use="optional" default="false"/>
3215     <xsd:attribute name="emptyCellReference" type="xsd:boolean" use="optional" default="false"/>
3216     <xsd:attribute name="listDataValidation" type="xsd:boolean" use="optional" default="false"/>
3217     <xsd:attribute name="calculatedColumn" type="xsd:boolean" use="optional" default="false"/>
3218 </xsd:complexType>
3219 <xsd:simpleType name="ST_PaneState">
3220     <xsd:restriction base="xsd:string">
3221         <xsd:enumeration value="split"/>
3222         <xsd:enumeration value="frozen"/>
3223         <xsd:enumeration value="frozenSplit"/>
3224     </xsd:restriction>
3225 </xsd:simpleType>
3226 <xsd:complexType name="CT_TableParts">
3227     <xsd:sequence>
3228         <xsd:element name="tablePart" type="CT_TablePart" minOccurs="0" maxOccurs="unbounded"/>
3229     </xsd:sequence>
3230     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
3231 </xsd:complexType>
3232 <xsd:complexType name="CT_TablePart">
3233     <xsd:attribute ref="r:id" use="required"/>
3234 </xsd:complexType>
3235 <xsd:element name="metadata" type="CT_Metadata"/>
3236 <xsd:complexType name="CT_Metadata">
3237     <xsd:sequence>
3238         <xsd:element name="metadataTypes" type="CT_MetadataTypes" minOccurs="0" maxOccurs="1"/>
3239         <xsd:element name="metadataStrings" type="CT_MetadataStrings" minOccurs="0"
3240             maxOccurs="1"/>
3241         <xsd:element name="mdxMetadata" type="CT_MdxMetadata" minOccurs="0" maxOccurs="1"/>
3242         <xsd:element name="futureMetadata" type="CT_FutureMetadata" minOccurs="0"
3243             maxOccurs="unbounded"/>
3244         <xsd:element name="cellMetadata" type="CT_MetadataBlocks" minOccurs="0" maxOccurs="1"/>
3245         <xsd:element name="valueMetadata" type="CT_MetadataBlocks" minOccurs="0" maxOccurs="1"/>
3246         <xsd:element name="extLst" minOccurs="0" maxOccurs="1" type="CT_ExtensionList"/>
3247     </xsd:sequence>
3248 </xsd:complexType>
3249 <xsd:complexType name="CT_MetadataTypes">
3250     <xsd:sequence>
3251         <xsd:element name="metadataType" type="CT_MetadataType" minOccurs="1"
3252             maxOccurs="unbounded"/>
3253     </xsd:sequence>
3254     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional" default="0"/>
3255 </xsd:complexType>
3256 <xsd:complexType name="CT_MetadataType">
3257     <xsd:attribute name="name" type="s:ST_Xstring" use="required"/>
3258     <xsd:attribute name="minSupportedVersion" type="xsd:unsignedInt" use="required"/>
3259     <xsd:attribute name="ghostRow" type="xsd:boolean" use="optional" default="false"/>
3260     <xsd:attribute name="ghostCol" type="xsd:boolean" use="optional" default="false"/>

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3261 <xsd:attribute name="edit" type="xsd:boolean" use="optional" default="false"/>
3262 <xsd:attribute name="delete" type="xsd:boolean" use="optional" default="false"/>
3263 <xsd:attribute name="copy" type="xsd:boolean" use="optional" default="false"/>
3264 <xsd:attribute name="pasteAll" type="xsd:boolean" use="optional" default="false"/>
3265 <xsd:attribute name="pasteFormulas" type="xsd:boolean" use="optional" default="false"/>
3266 <xsd:attribute name="pasteValues" type="xsd:boolean" use="optional" default="false"/>
3267 <xsd:attribute name="pasteFormats" type="xsd:boolean" use="optional" default="false"/>
3268 <xsd:attribute name="pasteComments" type="xsd:boolean" use="optional" default="false"/>
3269 <xsd:attribute name="pasteDataValidation" type="xsd:boolean" use="optional" default="false"/>
3270 <xsd:attribute name="pasteBorders" type="xsd:boolean" use="optional" default="false"/>
3271 <xsd:attribute name="pasteColWidths" type="xsd:boolean" use="optional" default="false"/>
3272 <xsd:attribute name="pasteNumberFormats" type="xsd:boolean" use="optional" default="false"/>
3273 <xsd:attribute name="merge" type="xsd:boolean" use="optional" default="false"/>
3274 <xsd:attribute name="splitFirst" type="xsd:boolean" use="optional" default="false"/>
3275 <xsd:attribute name="splitAll" type="xsd:boolean" use="optional" default="false"/>
3276 <xsd:attribute name="rowColShift" type="xsd:boolean" use="optional" default="false"/>
3277 <xsd:attribute name="clearAll" type="xsd:boolean" default="false"/>
3278 <xsd:attribute name="clearFormats" type="xsd:boolean" use="optional" default="false"/>
3279 <xsd:attribute name="clearContents" type="xsd:boolean" use="optional" default="false"/>
3280 <xsd:attribute name="clearComments" type="xsd:boolean" use="optional" default="false"/>
3281 <xsd:attribute name="assign" type="xsd:boolean" use="optional" default="false"/>
3282 <xsd:attribute name="coerce" type="xsd:boolean" use="optional" default="false"/>
3283 <xsd:attribute name="adjust" type="xsd:boolean" use="optional" default="false"/>
3284 <xsd:attribute name="cellMeta" type="xsd:boolean" use="optional" default="false"/>
3285 </xsd:complexType>
3286 <xsd:complexType name="CT_MetadataBlocks">
3287   <xsd:sequence>
3288     <xsd:element name="bk" type="CT_MetadataBlock" minOccurs="1" maxOccurs="unbounded"/>
3289   </xsd:sequence>
3290   <xsd:attribute name="count" type="xsd:unsignedInt" use="optional" default="0"/>
3291 </xsd:complexType>
3292 <xsd:complexType name="CT_MetadataBlock">
3293   <xsd:sequence>
3294     <xsd:element name="rc" type="CT_MetadataRecord" minOccurs="1" maxOccurs="unbounded"/>
3295   </xsd:sequence>
3296 </xsd:complexType>
3297 <xsd:complexType name="CT_MetadataRecord">
3298   <xsd:attribute name="t" type="xsd:unsignedInt" use="required"/>
3299   <xsd:attribute name="v" type="xsd:unsignedInt" use="required"/>
3300 </xsd:complexType>
3301 <xsd:complexType name="CT_FutureMetadata">
3302   <xsd:sequence>
3303     <xsd:element name="bk" type="CT_FutureMetadataBlock" minOccurs="0" maxOccurs="unbounded"/>
3304     <xsd:element name="extLst" minOccurs="0" maxOccurs="1" type="CT_ExtensionList"/>
3305   </xsd:sequence>
3306   <xsd:attribute name="name" type="s:ST_Xstring" use="required"/>
3307   <xsd:attribute name="count" type="xsd:unsignedInt" use="optional" default="0"/>
3308 </xsd:complexType>
3309 <xsd:complexType name="CT_FutureMetadataBlock">
3310   <xsd:sequence>
3311     <xsd:element name="extLst" minOccurs="0" maxOccurs="1" type="CT_ExtensionList"/>
3312   </xsd:sequence>
3313 </xsd:complexType>

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3314 <xsd:complexType name="CT_MdxMetadata">
3315     <xsd:sequence>
3316         <xsd:element name="mdx" type="CT_Mdx" minOccurs="1" maxOccurs="unbounded"/>
3317     </xsd:sequence>
3318     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional" default="0"/>
3319 </xsd:complexType>
3320 <xsd:complexType name="CT_Mdx">
3321     <xsd:choice minOccurs="1" maxOccurs="1">
3322         <xsd:element name="t" type="CT_MdxTuple"/>
3323         <xsd:element name="ms" type="CT_MdxSet"/>
3324         <xsd:element name="p" type="CT_MdxMemberProp"/>
3325         <xsd:element name="k" type="CT_MdxKPI"/>
3326     </xsd:choice>
3327     <xsd:attribute name="n" type="xsd:unsignedInt" use="required"/>
3328     <xsd:attribute name="f" type="ST_MdxFunctionType" use="required"/>
3329 </xsd:complexType>
3330 <xsd:simpleType name="ST_MdxFunctionType">
3331     <xsd:restriction base="xsd:string">
3332         <xsd:enumeration value="m"/>
3333         <xsd:enumeration value="v"/>
3334         <xsd:enumeration value="s"/>
3335         <xsd:enumeration value="c"/>
3336         <xsd:enumeration value="r"/>
3337         <xsd:enumeration value="p"/>
3338         <xsd:enumeration value="k"/>
3339     </xsd:restriction>
3340 </xsd:simpleType>
3341 <xsd:complexType name="CT_MdxTuple">
3342     <xsd:sequence>
3343         <xsd:element name="n" type="CT_MetadataStringIndex" minOccurs="0" maxOccurs="unbounded"/>
3344     </xsd:sequence>
3345     <xsd:attribute name="c" type="xsd:unsignedInt" use="optional" default="0"/>
3346     <xsd:attribute name="ct" type="s:ST_Xstring" use="optional"/>
3347     <xsd:attribute name="si" type="xsd:unsignedInt" use="optional"/>
3348     <xsd:attribute name="fi" type="xsd:unsignedInt" use="optional"/>
3349     <xsd:attribute name="bc" type="ST_UnsignedIntHex" use="optional"/>
3350     <xsd:attribute name="fc" type="ST_UnsignedIntHex" use="optional"/>
3351     <xsd:attribute name="i" type="xsd:boolean" use="optional" default="false"/>
3352     <xsd:attribute name="u" type="xsd:boolean" use="optional" default="false"/>
3353     <xsd:attribute name="st" type="xsd:boolean" use="optional" default="false"/>
3354     <xsd:attribute name="b" type="xsd:boolean" use="optional" default="false"/>
3355 </xsd:complexType>
3356 <xsd:complexType name="CT_MdxSet">
3357     <xsd:sequence>
3358         <xsd:element name="n" type="CT_MetadataStringIndex" minOccurs="0" maxOccurs="unbounded"/>
3359     </xsd:sequence>
3360     <xsd:attribute name="ns" type="xsd:unsignedInt" use="required"/>
3361     <xsd:attribute name="c" type="xsd:unsignedInt" use="optional" default="0"/>
3362     <xsd:attribute name="o" type="ST_MdxSetOrder" use="optional" default="u"/>
3363 </xsd:complexType>
3364 <xsd:simpleType name="ST_MdxSetOrder">
3365     <xsd:restriction base="xsd:string">
3366         <xsd:enumeration value="u"/>

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3367         <xsd:enumeration value="a"/>
3368         <xsd:enumeration value="d"/>
3369         <xsd:enumeration value="aa"/>
3370         <xsd:enumeration value="ad"/>
3371         <xsd:enumeration value="na"/>
3372         <xsd:enumeration value="nd"/>
3373     </xsd:restriction>
3374 </xsd:simpleType>
3375 <xsd:complexType name="CT_MdxMemberProp">
3376     <xsd:attribute name="n" type="xsd:unsignedInt" use="required"/>
3377     <xsd:attribute name="np" type="xsd:unsignedInt" use="required"/>
3378 </xsd:complexType>
3379 <xsd:complexType name="CT_MdxKPI">
3380     <xsd:attribute name="n" type="xsd:unsignedInt" use="required"/>
3381     <xsd:attribute name="np" type="xsd:unsignedInt" use="required"/>
3382     <xsd:attribute name="p" type="ST_MdxKPIProperty" use="required"/>
3383 </xsd:complexType>
3384 <xsd:simpleType name="ST_MdxKPIProperty">
3385     <xsd:restriction base="xsd:string">
3386         <xsd:enumeration value="v"/>
3387         <xsd:enumeration value="g"/>
3388         <xsd:enumeration value="s"/>
3389         <xsd:enumeration value="t"/>
3390         <xsd:enumeration value="w"/>
3391         <xsd:enumeration value="m"/>
3392     </xsd:restriction>
3393 </xsd:simpleType>
3394 <xsd:complexType name="CT_MetadataStringIndex">
3395     <xsd:attribute name="x" type="xsd:unsignedInt" use="required"/>
3396     <xsd:attribute name="s" type="xsd:boolean" use="optional" default="false"/>
3397 </xsd:complexType>
3398 <xsd:complexType name="CT_MetadataStrings">
3399     <xsd:sequence>
3400         <xsd:element name="s" type="CT_XStringElement" minOccurs="1" maxOccurs="unbounded"/>
3401     </xsd:sequence>
3402     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional" default="0"/>
3403 </xsd:complexType>
3404 <xsd:element name="singleXmlCells" type="CT_SingleXmlCells"/>
3405 <xsd:complexType name="CT_SingleXmlCells">
3406     <xsd:sequence>
3407         <xsd:element name="singleXmlCell" type="CT_SingleXmlCell" maxOccurs="unbounded"/>
3408     </xsd:sequence>
3409 </xsd:complexType>
3410 <xsd:complexType name="CT_SingleXmlCell">
3411     <xsd:sequence>
3412         <xsd:element name="xmlCellPr" type="CT_XmlCellPr" minOccurs="1" maxOccurs="1"/>
3413         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
3414     </xsd:sequence>
3415     <xsd:attribute name="id" type="xsd:unsignedInt" use="required"/>
3416     <xsd:attribute name="r" type="ST_CellRef" use="required"/>
3417     <xsd:attribute name="connectionId" type="xsd:unsignedInt" use="required"/>
3418 </xsd:complexType>
3419 <xsd:complexType name="CT_XmlCellPr">

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3420     <xsd:sequence>
3421         <xsd:element name="xmlPr" type="CT_XmlPr" minOccurs="1" maxOccurs="1"/>
3422         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
3423     </xsd:sequence>
3424     <xsd:attribute name="id" type="xsd:unsignedInt" use="required"/>
3425     <xsd:attribute name="uniqueName" type="s:ST_Xstring" use="optional"/>
3426 </xsd:complexType>
3427 <xsd:complexType name="CT_XmlPr">
3428     <xsd:sequence>
3429         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
3430     </xsd:sequence>
3431     <xsd:attribute name="mapId" type="xsd:unsignedInt" use="required"/>
3432     <xsd:attribute name="xpath" type="s:ST_Xstring" use="required"/>
3433     <xsd:attribute name="xmlDataType" type="ST_XmlDataType" use="required"/>
3434 </xsd:complexType>
3435 <xsd:element name="styleSheet" type="CT_Stylesheet"/>
3436 <xsd:complexType name="CT_Stylesheet">
3437     <xsd:sequence>
3438         <xsd:element name="numFmts" type="CT_NumFmts" minOccurs="0" maxOccurs="1"/>
3439         <xsd:element name="fonts" type="CT_Fonts" minOccurs="0" maxOccurs="1"/>
3440         <xsd:element name="fills" type="CT_Fills" minOccurs="0" maxOccurs="1"/>
3441         <xsd:element name="borders" type="CT_Borders" minOccurs="0" maxOccurs="1"/>
3442         <xsd:element name="cellStyleXfs" type="CT_CellStyleXfs" minOccurs="0" maxOccurs="1"/>
3443         <xsd:element name="cellXfs" type="CT_CellXfs" minOccurs="0" maxOccurs="1"/>
3444         <xsd:element name="cellStyles" type="CT_CellStyles" minOccurs="0" maxOccurs="1"/>
3445         <xsd:element name="dxfs" type="CT_Dxfs" minOccurs="0" maxOccurs="1"/>
3446         <xsd:element name="tableStyles" type="CT_TableStyles" minOccurs="0" maxOccurs="1"/>
3447         <xsd:element name="colors" type="CT_Colors" minOccurs="0" maxOccurs="1"/>
3448         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
3449     </xsd:sequence>
3450 </xsd:complexType>
3451 <xsd:complexType name="CT_CellAlignment">
3452     <xsd:attribute name="horizontal" type="ST_HorizontalAlignment" use="optional"/>
3453     <xsd:attribute name="vertical" type="ST_VerticalAlignment" use="optional"/>
3454     <xsd:attribute name="textRotation" type="xsd:unsignedInt" use="optional"/>
3455     <xsd:attribute name="wrapText" type="xsd:boolean" use="optional"/>
3456     <xsd:attribute name="indent" type="xsd:unsignedInt" use="optional"/>
3457     <xsd:attribute name="relativeIndent" type="xsd:int" use="optional"/>
3458     <xsd:attribute name="justifyLastLine" type="xsd:boolean" use="optional"/>
3459     <xsd:attribute name="shrinkToFit" type="xsd:boolean" use="optional"/>
3460     <xsd:attribute name="readingOrder" type="xsd:unsignedInt" use="optional"/>
3461 </xsd:complexType>
3462 <xsd:simpleType name="ST_BorderStyle">
3463     <xsd:restriction base="xsd:string">
3464         <xsd:enumeration value="none"/>
3465         <xsd:enumeration value="thin"/>
3466         <xsd:enumeration value="medium"/>
3467         <xsd:enumeration value="dashed"/>
3468         <xsd:enumeration value="dotted"/>
3469         <xsd:enumeration value="thick"/>
3470         <xsd:enumeration value="double"/>
3471         <xsd:enumeration value="hair"/>
3472         <xsd:enumeration value="mediumDashed"/>

```



```

3473     <xsd:enumeration value="dashDot"/>
3474     <xsd:enumeration value="mediumDashDot"/>
3475     <xsd:enumeration value="dashDotDot"/>
3476     <xsd:enumeration value="mediumDashDotDot"/>
3477     <xsd:enumeration value="slantDashDot"/>
3478   </xsd:restriction>
3479 </xsd:simpleType>
3480 <xsd:complexType name="CT_Borders">
3481   <xsd:sequence>
3482     <xsd:element name="border" type="CT_Border" minOccurs="0" maxOccurs="unbounded"/>
3483   </xsd:sequence>
3484   <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
3485 </xsd:complexType>
3486 <xsd:complexType name="CT_Border">
3487   <xsd:sequence>
3488     <xsd:element name="start" type="CT_BorderPr" minOccurs="0" maxOccurs="1"/>
3489     <xsd:element name="end" type="CT_BorderPr" minOccurs="0" maxOccurs="1"/>
3490     <xsd:element name="left" type="CT_BorderPr" minOccurs="0"/>
3491     <xsd:element name="right" type="CT_BorderPr" minOccurs="0"/>
3492     <xsd:element name="top" type="CT_BorderPr" minOccurs="0" maxOccurs="1"/>
3493     <xsd:element name="bottom" type="CT_BorderPr" minOccurs="0" maxOccurs="1"/>
3494     <xsd:element name="diagonal" type="CT_BorderPr" minOccurs="0" maxOccurs="1"/>
3495     <xsd:element name="vertical" type="CT_BorderPr" minOccurs="0" maxOccurs="1"/>
3496     <xsd:element name="horizontal" type="CT_BorderPr" minOccurs="0" maxOccurs="1"/>
3497   </xsd:sequence>
3498   <xsd:attribute name="diagonalUp" type="xsd:boolean" use="optional"/>
3499   <xsd:attribute name="diagonalDown" type="xsd:boolean" use="optional"/>
3500   <xsd:attribute name="outline" type="xsd:boolean" use="optional" default="true"/>
3501 </xsd:complexType>
3502 <xsd:complexType name="CT_BorderPr">
3503   <xsd:sequence>
3504     <xsd:element name="color" type="CT_Color" minOccurs="0" maxOccurs="1"/>
3505   </xsd:sequence>
3506   <xsd:attribute name="style" type="ST_BorderStyle" use="optional" default="none"/>
3507 </xsd:complexType>
3508 <xsd:complexType name="CT_CellProtection">
3509   <xsd:attribute name="locked" type="xsd:boolean" use="optional"/>
3510   <xsd:attribute name="hidden" type="xsd:boolean" use="optional"/>
3511 </xsd:complexType>
3512 <xsd:complexType name="CT_Fonts">
3513   <xsd:sequence>
3514     <xsd:element name="font" type="CT_Font" minOccurs="0" maxOccurs="unbounded"/>
3515   </xsd:sequence>
3516   <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
3517 </xsd:complexType>
3518 <xsd:complexType name="CT_Fills">
3519   <xsd:sequence>
3520     <xsd:element name="fill" type="CT_Fill" minOccurs="0" maxOccurs="unbounded"/>
3521   </xsd:sequence>
3522   <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
3523 </xsd:complexType>
3524 <xsd:complexType name="CT_Fill">
3525   <xsd:choice minOccurs="1" maxOccurs="1">

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3526     <xsd:element name="patternFill" type="CT PatternFill" minOccurs="0" maxOccurs="1"/>
3527     <xsd:element name="gradientFill" type="CT GradientFill" minOccurs="0" maxOccurs="1"/>
3528   </xsd:choice>
3529 </xsd:complexType>
3530 <xsd:complexType name="CT_PatternFill">
3531   <xsd:sequence>
3532     <xsd:element name="fgColor" type="CT Color" minOccurs="0" maxOccurs="1"/>
3533     <xsd:element name="bgColor" type="CT Color" minOccurs="0" maxOccurs="1"/>
3534   </xsd:sequence>
3535   <xsd:attribute name="patternType" type="ST PatternType" use="optional"/>
3536 </xsd:complexType>
3537 <xsd:complexType name="CT_Color">
3538   <xsd:attribute name="auto" type="xsd:boolean" use="optional"/>
3539   <xsd:attribute name="indexed" type="xsd:unsignedInt" use="optional"/>
3540   <xsd:attribute name="rgb" type="ST UnsignedIntHex" use="optional"/>
3541   <xsd:attribute name="theme" type="xsd:unsignedInt" use="optional"/>
3542   <xsd:attribute name="tint" type="xsd:double" use="optional" default="0.0"/>
3543 </xsd:complexType>
3544 <xsd:simpleType name="ST_PatternType">
3545   <xsd:restriction base="xsd:string">
3546     <xsd:enumeration value="none"/>
3547     <xsd:enumeration value="solid"/>
3548     <xsd:enumeration value="mediumGray"/>
3549     <xsd:enumeration value="darkGray"/>
3550     <xsd:enumeration value="lightGray"/>
3551     <xsd:enumeration value="darkHorizontal"/>
3552     <xsd:enumeration value="darkVertical"/>
3553     <xsd:enumeration value="darkDown"/>
3554     <xsd:enumeration value="darkUp"/>
3555     <xsd:enumeration value="darkGrid"/>
3556     <xsd:enumeration value="darkTrellis"/>
3557     <xsd:enumeration value="lightHorizontal"/>
3558     <xsd:enumeration value="lightVertical"/>
3559     <xsd:enumeration value="lightDown"/>
3560     <xsd:enumeration value="lightUp"/>
3561     <xsd:enumeration value="lightGrid"/>
3562     <xsd:enumeration value="lightTrellis"/>
3563     <xsd:enumeration value="gray125"/>
3564     <xsd:enumeration value="gray0625"/>
3565   </xsd:restriction>
3566 </xsd:simpleType>
3567 <xsd:complexType name="CT_GradientFill">
3568   <xsd:sequence>
3569     <xsd:element name="stop" type="CT GradientStop" minOccurs="0" maxOccurs="unbounded"/>
3570   </xsd:sequence>
3571   <xsd:attribute name="type" type="ST GradientType" use="optional" default="linear"/>
3572   <xsd:attribute name="degree" type="xsd:double" use="optional" default="0"/>
3573   <xsd:attribute name="left" type="xsd:double" use="optional" default="0"/>
3574   <xsd:attribute name="right" type="xsd:double" use="optional" default="0"/>
3575   <xsd:attribute name="top" type="xsd:double" use="optional" default="0"/>
3576   <xsd:attribute name="bottom" type="xsd:double" use="optional" default="0"/>
3577 </xsd:complexType>
3578 <xsd:complexType name="CT_GradientStop">

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3579     <xsd:sequence>
3580       <xsd:element name="color" type="CT_Color" minOccurs="1" maxOccurs="1"/>
3581     </xsd:sequence>
3582     <xsd:attribute name="position" type="xsd:double" use="required"/>
3583   </xsd:complexType>
3584   <xsd:simpleType name="ST_GradientType">
3585     <xsd:restriction base="xsd:string">
3586       <xsd:enumeration value="linear"/>
3587       <xsd:enumeration value="path"/>
3588     </xsd:restriction>
3589   </xsd:simpleType>
3590   <xsd:simpleType name="ST_HorizontalAlignment">
3591     <xsd:restriction base="xsd:string">
3592       <xsd:enumeration value="general"/>
3593       <xsd:enumeration value="left"/>
3594       <xsd:enumeration value="center"/>
3595       <xsd:enumeration value="right"/>
3596       <xsd:enumeration value="fill"/>
3597       <xsd:enumeration value="justify"/>
3598       <xsd:enumeration value="centerContinuous"/>
3599       <xsd:enumeration value="distributed"/>
3600     </xsd:restriction>
3601   </xsd:simpleType>
3602   <xsd:simpleType name="ST_VerticalAlignment">
3603     <xsd:restriction base="xsd:string">
3604       <xsd:enumeration value="top"/>
3605       <xsd:enumeration value="center"/>
3606       <xsd:enumeration value="bottom"/>
3607       <xsd:enumeration value="justify"/>
3608       <xsd:enumeration value="distributed"/>
3609     </xsd:restriction>
3610   </xsd:simpleType>
3611   <xsd:complexType name="CT_NumFmts">
3612     <xsd:sequence>
3613       <xsd:element name="numFmt" type="CT_NumFmt" minOccurs="0" maxOccurs="unbounded"/>
3614     </xsd:sequence>
3615     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
3616   </xsd:complexType>
3617   <xsd:complexType name="CT_NumFmt">
3618     <xsd:attribute name="numFmtId" type="ST_NumFmtId" use="required"/>
3619     <xsd:attribute name="formatCode" type="s:ST_Xstring" use="required"/>
3620   </xsd:complexType>
3621   <xsd:complexType name="CT_CellStyleXfs">
3622     <xsd:sequence>
3623       <xsd:element name="xf" type="CT_Xf" minOccurs="1" maxOccurs="unbounded"/>
3624     </xsd:sequence>
3625     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
3626   </xsd:complexType>
3627   <xsd:complexType name="CT_CellXfs">
3628     <xsd:sequence>
3629       <xsd:element name="xf" type="CT_Xf" minOccurs="1" maxOccurs="unbounded"/>
3630     </xsd:sequence>
3631     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>

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3632 </xsd:complexType>
3633 <xsd:complexType name="CT_Xf">
3634   <xsd:sequence>
3635     <xsd:element name="alignment" type="CT_CellAlignment" minOccurs="0" maxOccurs="1"/>
3636     <xsd:element name="protection" type="CT_CellProtection" minOccurs="0" maxOccurs="1"/>
3637     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
3638   </xsd:sequence>
3639   <xsd:attribute name="numFmtId" type="ST_NumFmtId" use="optional"/>
3640   <xsd:attribute name="fontId" type="ST_FontId" use="optional"/>
3641   <xsd:attribute name="fillId" type="ST_FillId" use="optional"/>
3642   <xsd:attribute name="borderId" type="ST_BorderId" use="optional"/>
3643   <xsd:attribute name="xfId" type="ST_CellStyleXfId" use="optional"/>
3644   <xsd:attribute name="quotePrefix" type="xsd:boolean" use="optional" default="false"/>
3645   <xsd:attribute name="pivotButton" type="xsd:boolean" use="optional" default="false"/>
3646   <xsd:attribute name="applyNumberFormat" type="xsd:boolean" use="optional"/>
3647   <xsd:attribute name="applyFont" type="xsd:boolean" use="optional"/>
3648   <xsd:attribute name="applyFill" type="xsd:boolean" use="optional"/>
3649   <xsd:attribute name="applyBorder" type="xsd:boolean" use="optional"/>
3650   <xsd:attribute name="applyAlignment" type="xsd:boolean" use="optional"/>
3651   <xsd:attribute name="applyProtection" type="xsd:boolean" use="optional"/>
3652 </xsd:complexType>
3653 <xsd:complexType name="CT_CellStyles">
3654   <xsd:sequence>
3655     <xsd:element name="cellStyle" type="CT_CellStyle" minOccurs="1" maxOccurs="unbounded"/>
3656   </xsd:sequence>
3657   <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
3658 </xsd:complexType>
3659 <xsd:complexType name="CT_CellStyle">
3660   <xsd:sequence>
3661     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
3662   </xsd:sequence>
3663   <xsd:attribute name="name" type="s:ST_Xstring" use="optional"/>
3664   <xsd:attribute name="xfId" type="ST_CellStyleXfId" use="required"/>
3665   <xsd:attribute name="builtinId" type="xsd:unsignedInt" use="optional"/>
3666   <xsd:attribute name="iLevel" type="xsd:unsignedInt" use="optional"/>
3667   <xsd:attribute name="hidden" type="xsd:boolean" use="optional"/>
3668   <xsd:attribute name="customBuiltin" type="xsd:boolean" use="optional"/>
3669 </xsd:complexType>
3670 <xsd:complexType name="CT_Dxfs">
3671   <xsd:sequence>
3672     <xsd:element name="dxf" type="CT_Dxf" minOccurs="0" maxOccurs="unbounded"/>
3673   </xsd:sequence>
3674   <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
3675 </xsd:complexType>
3676 <xsd:complexType name="CT_Dxf">
3677   <xsd:sequence>
3678     <xsd:element name="font" type="CT_Font" minOccurs="0" maxOccurs="1"/>
3679     <xsd:element name="numFmt" type="CT_NumFmt" minOccurs="0" maxOccurs="1"/>
3680     <xsd:element name="fill" type="CT_Fill" minOccurs="0" maxOccurs="1"/>
3681     <xsd:element name="alignment" type="CT_CellAlignment" minOccurs="0" maxOccurs="1"/>
3682     <xsd:element name="border" type="CT_Border" minOccurs="0" maxOccurs="1"/>
3683     <xsd:element name="protection" type="CT_CellProtection" minOccurs="0" maxOccurs="1"/>
3684     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>

```



```

3685     </xsd:sequence>
3686 </xsd:complexType>
3687 <xsd:simpleType name="ST_NumFmtId">
3688     <xsd:restriction base="xsd:unsignedInt"/>
3689 </xsd:simpleType>
3690 <xsd:simpleType name="ST_FontId">
3691     <xsd:restriction base="xsd:unsignedInt"/>
3692 </xsd:simpleType>
3693 <xsd:simpleType name="ST_FillId">
3694     <xsd:restriction base="xsd:unsignedInt"/>
3695 </xsd:simpleType>
3696 <xsd:simpleType name="ST_BorderId">
3697     <xsd:restriction base="xsd:unsignedInt"/>
3698 </xsd:simpleType>
3699 <xsd:simpleType name="ST_CellStyleXfId">
3700     <xsd:restriction base="xsd:unsignedInt"/>
3701 </xsd:simpleType>
3702 <xsd:simpleType name="ST_DxfId">
3703     <xsd:restriction base="xsd:unsignedInt"/>
3704 </xsd:simpleType>
3705 <xsd:complexType name="CT_Colors">
3706     <xsd:sequence>
3707         <xsd:element name="indexedColors" type="CT_IndexedColors" minOccurs="0" maxOccurs="1"/>
3708         <xsd:element name="mruColors" type="CT_MRUColors" minOccurs="0" maxOccurs="1"/>
3709     </xsd:sequence>
3710 </xsd:complexType>
3711 <xsd:complexType name="CT_IndexedColors">
3712     <xsd:sequence>
3713         <xsd:element name="rgbColor" type="CT_RgbColor" minOccurs="1" maxOccurs="unbounded"/>
3714     </xsd:sequence>
3715 </xsd:complexType>
3716 <xsd:complexType name="CT_MRUColors">
3717     <xsd:sequence>
3718         <xsd:element name="color" type="CT_Color" minOccurs="1" maxOccurs="unbounded"/>
3719     </xsd:sequence>
3720 </xsd:complexType>
3721 <xsd:complexType name="CT_RgbColor">
3722     <xsd:attribute name="rgb" type="ST_UnsignedIntHex" use="optional"/>
3723 </xsd:complexType>
3724 <xsd:complexType name="CT_TableStyles">
3725     <xsd:sequence>
3726         <xsd:element name="tableStyle" type="CT_TableStyle" minOccurs="0" maxOccurs="unbounded"/>
3727     </xsd:sequence>
3728     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
3729     <xsd:attribute name="defaultTableStyle" type="xsd:string" use="optional"/>
3730     <xsd:attribute name="defaultPivotStyle" type="xsd:string" use="optional"/>
3731 </xsd:complexType>
3732 <xsd:complexType name="CT_TableStyle">
3733     <xsd:sequence>
3734         <xsd:element name="tableStyleElement" type="CT_TableStyleElement" minOccurs="0"
3735             maxOccurs="unbounded"/>
3736     </xsd:sequence>
3737     <xsd:attribute name="name" type="xsd:string" use="required"/>

```



```

3738     <xsd:attribute name="pivot" type="xsd:boolean" use="optional" default="true"/>
3739     <xsd:attribute name="table" type="xsd:boolean" use="optional" default="true"/>
3740     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
3741 </xsd:complexType>
3742 <xsd:complexType name="CT_TableStyleElement">
3743     <xsd:attribute name="type" type="ST_TableStyleType" use="required"/>
3744     <xsd:attribute name="size" type="xsd:unsignedInt" use="optional" default="1"/>
3745     <xsd:attribute name="dxId" type="ST_DxId" use="optional"/>
3746 </xsd:complexType>
3747 <xsd:simpleType name="ST_TableStyleType">
3748     <xsd:restriction base="xsd:string">
3749         <xsd:enumeration value="wholeTable"/>
3750         <xsd:enumeration value="headerRow"/>
3751         <xsd:enumeration value="totalRow"/>
3752         <xsd:enumeration value="firstColumn"/>
3753         <xsd:enumeration value="lastColumn"/>
3754         <xsd:enumeration value="firstRowStripe"/>
3755         <xsd:enumeration value="secondRowStripe"/>
3756         <xsd:enumeration value="firstColumnStripe"/>
3757         <xsd:enumeration value="secondColumnStripe"/>
3758         <xsd:enumeration value="firstHeaderCell"/>
3759         <xsd:enumeration value="lastHeaderCell"/>
3760         <xsd:enumeration value="firstTotalCell"/>
3761         <xsd:enumeration value="lastTotalCell"/>
3762         <xsd:enumeration value="firstSubtotalColumn"/>
3763         <xsd:enumeration value="secondSubtotalColumn"/>
3764         <xsd:enumeration value="thirdSubtotalColumn"/>
3765         <xsd:enumeration value="firstSubtotalRow"/>
3766         <xsd:enumeration value="secondSubtotalRow"/>
3767         <xsd:enumeration value="thirdSubtotalRow"/>
3768         <xsd:enumeration value="blankRow"/>
3769         <xsd:enumeration value="firstColumnSubheading"/>
3770         <xsd:enumeration value="secondColumnSubheading"/>
3771         <xsd:enumeration value="thirdColumnSubheading"/>
3772         <xsd:enumeration value="firstRowSubheading"/>
3773         <xsd:enumeration value="secondRowSubheading"/>
3774         <xsd:enumeration value="thirdRowSubheading"/>
3775         <xsd:enumeration value="pageFieldLabels"/>
3776         <xsd:enumeration value="pageFieldValues"/>
3777     </xsd:restriction>
3778 </xsd:simpleType>
3779 <xsd:complexType name="CT_BooleanProperty">
3780     <xsd:attribute name="val" type="xsd:boolean" use="optional" default="true"/>
3781 </xsd:complexType>
3782 <xsd:complexType name="CT_FontSize">
3783     <xsd:attribute name="val" type="xsd:double" use="required"/>
3784 </xsd:complexType>
3785 <xsd:complexType name="CT_IntProperty">
3786     <xsd:attribute name="val" type="xsd:int" use="required"/>
3787 </xsd:complexType>
3788 <xsd:complexType name="CT_FontName">
3789     <xsd:attribute name="val" type="s:ST_Xstring" use="required"/>
3790 </xsd:complexType>

```



```

3791 <xsd:complexType name="CT_VerticalAlignFontProperty">
3792   <xsd:attribute name="val" type="s:ST_VerticalAlignRun" use="required"/>
3793 </xsd:complexType>
3794 <xsd:complexType name="CT_FontScheme">
3795   <xsd:attribute name="val" type="ST_FontScheme" use="required"/>
3796 </xsd:complexType>
3797 <xsd:simpleType name="ST_FontScheme">
3798   <xsd:restriction base="xsd:string">
3799     <xsd:enumeration value="none"/>
3800     <xsd:enumeration value="major"/>
3801     <xsd:enumeration value="minor"/>
3802   </xsd:restriction>
3803 </xsd:simpleType>
3804 <xsd:complexType name="CT_UnderlineProperty">
3805   <xsd:attribute name="val" type="ST_UnderlineValues" use="optional" default="single"/>
3806 </xsd:complexType>
3807 <xsd:simpleType name="ST_UnderlineValues">
3808   <xsd:restriction base="xsd:string">
3809     <xsd:enumeration value="single"/>
3810     <xsd:enumeration value="double"/>
3811     <xsd:enumeration value="singleAccounting"/>
3812     <xsd:enumeration value="doubleAccounting"/>
3813     <xsd:enumeration value="none"/>
3814   </xsd:restriction>
3815 </xsd:simpleType>
3816 <xsd:complexType name="CT_Font">
3817   <xsd:choice maxOccurs="unbounded">
3818     <xsd:element name="name" type="CT_FontName" minOccurs="0" maxOccurs="1"/>
3819     <xsd:element name="charset" type="CT_IntProperty" minOccurs="0" maxOccurs="1"/>
3820     <xsd:element name="family" type="CT_FontFamily" minOccurs="0" maxOccurs="1"/>
3821     <xsd:element name="b" type="CT_BooleanProperty" minOccurs="0" maxOccurs="1"/>
3822     <xsd:element name="i" type="CT_BooleanProperty" minOccurs="0" maxOccurs="1"/>
3823     <xsd:element name="strike" type="CT_BooleanProperty" minOccurs="0" maxOccurs="1"/>
3824     <xsd:element name="outline" type="CT_BooleanProperty" minOccurs="0" maxOccurs="1"/>
3825     <xsd:element name="shadow" type="CT_BooleanProperty" minOccurs="0" maxOccurs="1"/>
3826     <xsd:element name="condense" type="CT_BooleanProperty" minOccurs="0" maxOccurs="1"/>
3827     <xsd:element name="extend" type="CT_BooleanProperty" minOccurs="0" maxOccurs="1"/>
3828     <xsd:element name="color" type="CT_Color" minOccurs="0" maxOccurs="1"/>
3829     <xsd:element name="sz" type="CT_FontSize" minOccurs="0" maxOccurs="1"/>
3830     <xsd:element name="u" type="CT_UnderlineProperty" minOccurs="0" maxOccurs="1"/>
3831     <xsd:element name="vertAlign" type="CT_VerticalAlignFontProperty" minOccurs="0"
3832       maxOccurs="1"/>
3833     <xsd:element name="scheme" type="CT_FontScheme" minOccurs="0" maxOccurs="1"/>
3834   </xsd:choice>
3835 </xsd:complexType>
3836 <xsd:complexType name="CT_FontFamily">
3837   <xsd:attribute name="val" type="ST_FontFamily" use="required"/>
3838 </xsd:complexType>
3839 <xsd:simpleType name="ST_FontFamily">
3840   <xsd:restriction base="xsd:integer">
3841     <xsd:minInclusive value="0"/>
3842     <xsd:maxInclusive value="14"/>
3843   </xsd:restriction>

```



```

3844 </xsd:simpleType>
3845 <xsd:attributeGroup name="AG_AutoFormat">
3846   <xsd:attribute name="autoFormatId" type="xsd:unsignedInt"/>
3847   <xsd:attribute name="applyNumberFormats" type="xsd:boolean"/>
3848   <xsd:attribute name="applyBorderFormats" type="xsd:boolean"/>
3849   <xsd:attribute name="applyFontFormats" type="xsd:boolean"/>
3850   <xsd:attribute name="applyPatternFormats" type="xsd:boolean"/>
3851   <xsd:attribute name="applyAlignmentFormats" type="xsd:boolean"/>
3852   <xsd:attribute name="applyWidthHeightFormats" type="xsd:boolean"/>
3853 </xsd:attributeGroup>
3854 <xsd:element name="externalLink" type="CT_ExternalLink"/>
3855 <xsd:complexType name="CT_ExternalLink">
3856   <xsd:sequence>
3857     <xsd:choice>
3858       <xsd:element name="externalBook" type="CT_ExternalBook" minOccurs="0" maxOccurs="1"/>
3859       <xsd:element name="ddeLink" type="CT_DdeLink" minOccurs="0" maxOccurs="1"/>
3860       <xsd:element name="oleLink" type="CT_OleLink" minOccurs="0" maxOccurs="1"/>
3861     </xsd:choice>
3862     <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
3863   </xsd:sequence>
3864 </xsd:complexType>
3865 <xsd:complexType name="CT_ExternalBook">
3866   <xsd:sequence>
3867     <xsd:element name="sheetNames" type="CT_ExternalSheetNames" minOccurs="0" maxOccurs="1"/>
3868     <xsd:element name="definedNames" type="CT_ExternalDefinedNames" minOccurs="0"
3869       maxOccurs="1"/>
3870     <xsd:element name="sheetDataSet" type="CT_ExternalSheetDataSet" minOccurs="0"
3871       maxOccurs="1"/>
3872   </xsd:sequence>
3873   <xsd:attribute ref="r:id" use="required"/>
3874 </xsd:complexType>
3875 <xsd:complexType name="CT_ExternalSheetNames">
3876   <xsd:sequence>
3877     <xsd:element name="sheetName" minOccurs="1" maxOccurs="unbounded"
3878       type="CT_ExternalSheetName"/>
3879   </xsd:sequence>
3880 </xsd:complexType>
3881 <xsd:complexType name="CT_ExternalSheetName">
3882   <xsd:attribute name="val" type="s:ST_Xstring"/>
3883 </xsd:complexType>
3884 <xsd:complexType name="CT_ExternalDefinedNames">
3885   <xsd:sequence>
3886     <xsd:element name="definedName" type="CT_ExternalDefinedName" minOccurs="0"
3887       maxOccurs="unbounded"/>
3888   </xsd:sequence>
3889 </xsd:complexType>
3890 <xsd:complexType name="CT_ExternalDefinedName">
3891   <xsd:attribute name="name" type="s:ST_Xstring" use="required"/>
3892   <xsd:attribute name="refersTo" type="s:ST_Xstring" use="optional"/>
3893   <xsd:attribute name="sheetId" type="xsd:unsignedInt" use="optional"/>
3894 </xsd:complexType>
3895 <xsd:complexType name="CT_ExternalSheetDataSet">
3896   <xsd:sequence>

```



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3897     <xsd:element name="sheetData" type="CT_ExternalSheetData" minOccurs="1"
3898         maxOccurs="unbounded"/>
3899     </xsd:sequence>
3900 </xsd:complexType>
3901 <xsd:complexType name="CT_ExternalSheetData">
3902     <xsd:sequence>
3903         <xsd:element name="row" type="CT_ExternalRow" minOccurs="0" maxOccurs="unbounded"/>
3904     </xsd:sequence>
3905     <xsd:attribute name="sheetId" type="xsd:unsignedInt" use="required"/>
3906     <xsd:attribute name="refreshError" type="xsd:boolean" use="optional" default="false"/>
3907 </xsd:complexType>
3908 <xsd:complexType name="CT_ExternalRow">
3909     <xsd:sequence>
3910         <xsd:element name="cell" type="CT_ExternalCell" minOccurs="0" maxOccurs="unbounded"/>
3911     </xsd:sequence>
3912     <xsd:attribute name="r" type="xsd:unsignedInt" use="required"/>
3913 </xsd:complexType>
3914 <xsd:complexType name="CT_ExternalCell">
3915     <xsd:sequence>
3916         <xsd:element name="v" type="s:ST_Xstring" minOccurs="0" maxOccurs="1"/>
3917     </xsd:sequence>
3918     <xsd:attribute name="r" type="ST_CellRef" use="optional"/>
3919     <xsd:attribute name="t" type="ST_CellType" use="optional" default="n"/>
3920     <xsd:attribute name="vm" type="xsd:unsignedInt" use="optional" default="0"/>
3921 </xsd:complexType>
3922 <xsd:complexType name="CT_DdeLink">
3923     <xsd:sequence>
3924         <xsd:element name="ddeItems" type="CT_DdeItems" minOccurs="0" maxOccurs="1"/>
3925     </xsd:sequence>
3926     <xsd:attribute name="ddeService" type="s:ST_Xstring" use="required"/>
3927     <xsd:attribute name="ddeTopic" type="s:ST_Xstring" use="required"/>
3928 </xsd:complexType>
3929 <xsd:complexType name="CT_DdeItems">
3930     <xsd:sequence>
3931         <xsd:element name="ddeItem" type="CT_DdeItem" minOccurs="0" maxOccurs="unbounded"/>
3932     </xsd:sequence>
3933 </xsd:complexType>
3934 <xsd:complexType name="CT_DdeItem">
3935     <xsd:sequence>
3936         <xsd:element name="values" type="CT_DdeValues" minOccurs="0" maxOccurs="1"/>
3937     </xsd:sequence>
3938     <xsd:attribute name="name" type="s:ST_Xstring" default="0"/>
3939     <xsd:attribute name="ole" type="xsd:boolean" use="optional" default="false"/>
3940     <xsd:attribute name="advise" type="xsd:boolean" use="optional" default="false"/>
3941     <xsd:attribute name="preferPic" type="xsd:boolean" use="optional" default="false"/>
3942 </xsd:complexType>
3943 <xsd:complexType name="CT_DdeValues">
3944     <xsd:sequence>
3945         <xsd:element name="value" minOccurs="1" maxOccurs="unbounded" type="CT_DdeValue"/>
3946     </xsd:sequence>
3947     <xsd:attribute name="rows" type="xsd:unsignedInt" use="optional" default="1"/>
3948     <xsd:attribute name="cols" type="xsd:unsignedInt" use="optional" default="1"/>
3949 </xsd:complexType>

```



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3950 <xsd:complexType name="CT_DdeValue">
3951   <xsd:sequence>
3952     <xsd:element name="val" type="s:ST Xstring" minOccurs="1" maxOccurs="1"/>
3953   </xsd:sequence>
3954   <xsd:attribute name="t" type="ST DdeValueType" use="optional" default="n"/>
3955 </xsd:complexType>
3956 <xsd:simpleType name="ST_DdeValueType">
3957   <xsd:restriction base="xsd:string">
3958     <xsd:enumeration value="nil"/>
3959     <xsd:enumeration value="b"/>
3960     <xsd:enumeration value="n"/>
3961     <xsd:enumeration value="e"/>
3962     <xsd:enumeration value="str"/>
3963   </xsd:restriction>
3964 </xsd:simpleType>
3965 <xsd:complexType name="CT_OleLink">
3966   <xsd:sequence>
3967     <xsd:element name="oleItems" type="CT OleItems" minOccurs="0" maxOccurs="1"/>
3968   </xsd:sequence>
3969   <xsd:attribute ref="r:id" use="required"/>
3970   <xsd:attribute name="progId" type="s:ST Xstring" use="required"/>
3971 </xsd:complexType>
3972 <xsd:complexType name="CT_OleItems">
3973   <xsd:sequence>
3974     <xsd:element name="oleItem" type="CT OleItem" minOccurs="0" maxOccurs="unbounded"/>
3975   </xsd:sequence>
3976 </xsd:complexType>
3977 <xsd:complexType name="CT_OleItem">
3978   <xsd:attribute name="name" type="s:ST Xstring" use="required"/>
3979   <xsd:attribute name="icon" type="xsd:boolean" use="optional" default="false"/>
3980   <xsd:attribute name="advise" type="xsd:boolean" use="optional" default="false"/>
3981   <xsd:attribute name="preferPic" type="xsd:boolean" use="optional" default="false"/>
3982 </xsd:complexType>
3983 <xsd:element name="table" type="CT Table"/>
3984 <xsd:complexType name="CT_Table">
3985   <xsd:sequence>
3986     <xsd:element name="autoFilter" type="CT AutoFilter" minOccurs="0" maxOccurs="1"/>
3987     <xsd:element name="sortState" type="CT SortState" minOccurs="0" maxOccurs="1"/>
3988     <xsd:element name="tableColumns" type="CT TableColumns" minOccurs="1" maxOccurs="1"/>
3989     <xsd:element name="tableStyleInfo" type="CT TableStyleInfo" minOccurs="0" maxOccurs="1"/>
3990     <xsd:element name="extLst" type="CT ExtensionList" minOccurs="0" maxOccurs="1"/>
3991   </xsd:sequence>
3992   <xsd:attribute name="id" type="xsd:unsignedInt" use="required"/>
3993   <xsd:attribute name="name" type="s:ST Xstring" use="optional"/>
3994   <xsd:attribute name="displayName" type="s:ST Xstring" use="required"/>
3995   <xsd:attribute name="comment" type="s:ST Xstring" use="optional"/>
3996   <xsd:attribute name="ref" type="ST Ref" use="required"/>
3997   <xsd:attribute name="tableType" type="ST TableType" use="optional" default="worksheet"/>
3998   <xsd:attribute name="headerRowCount" type="xsd:unsignedInt" use="optional" default="1"/>
3999   <xsd:attribute name="insertRow" type="xsd:boolean" use="optional" default="false"/>
4000   <xsd:attribute name="insertRowShift" type="xsd:boolean" use="optional" default="false"/>
4001   <xsd:attribute name="totalsRowCount" type="xsd:unsignedInt" use="optional" default="0"/>
4002   <xsd:attribute name="totalsRowShown" type="xsd:boolean" use="optional" default="true"/>

```



```

4003     <xsd:attribute name="published" type="xsd:boolean" use="optional" default="false"/>
4004     <xsd:attribute name="headerRowDxfId" type="ST_DxfId" use="optional"/>
4005     <xsd:attribute name="dataDxfId" type="ST_DxfId" use="optional"/>
4006     <xsd:attribute name="totalsRowDxfId" type="ST_DxfId" use="optional"/>
4007     <xsd:attribute name="headerRowBorderDxfId" type="ST_DxfId" use="optional"/>
4008     <xsd:attribute name="tableBorderDxfId" type="ST_DxfId" use="optional"/>
4009     <xsd:attribute name="totalsRowBorderDxfId" type="ST_DxfId" use="optional"/>
4010     <xsd:attribute name="headerRowCellStyle" type="s:ST_Xstring" use="optional"/>
4011     <xsd:attribute name="dataCellStyle" type="s:ST_Xstring" use="optional"/>
4012     <xsd:attribute name="totalsRowCellStyle" type="s:ST_Xstring" use="optional"/>
4013     <xsd:attribute name="connectionId" type="xsd:unsignedInt" use="optional"/>
4014 </xsd:complexType>
4015 <xsd:simpleType name="ST_TableType">
4016     <xsd:restriction base="xsd:string">
4017         <xsd:enumeration value="worksheet"/>
4018         <xsd:enumeration value="xml"/>
4019         <xsd:enumeration value="queryTable"/>
4020     </xsd:restriction>
4021 </xsd:simpleType>
4022 <xsd:complexType name="CT_TableStyleInfo">
4023     <xsd:attribute name="name" type="s:ST_Xstring" use="optional"/>
4024     <xsd:attribute name="showFirstColumn" type="xsd:boolean" use="optional"/>
4025     <xsd:attribute name="showLastColumn" type="xsd:boolean" use="optional"/>
4026     <xsd:attribute name="showRowStripes" type="xsd:boolean" use="optional"/>
4027     <xsd:attribute name="showColumnStripes" type="xsd:boolean" use="optional"/>
4028 </xsd:complexType>
4029 <xsd:complexType name="CT_TableColumns">
4030     <xsd:sequence>
4031         <xsd:element name="tableColumn" type="CT_TableColumn" minOccurs="1"
4032             maxOccurs="unbounded"/>
4033     </xsd:sequence>
4034     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
4035 </xsd:complexType>
4036 <xsd:complexType name="CT_TableColumn">
4037     <xsd:sequence>
4038         <xsd:element name="calculatedColumnFormula" type="CT_TableFormula" minOccurs="0"
4039             maxOccurs="1"/>
4040         <xsd:element name="totalsRowFormula" type="CT_TableFormula" minOccurs="0" maxOccurs="1"/>
4041         <xsd:element name="xmlColumnPr" type="CT_XmlColumnPr" minOccurs="0" maxOccurs="1"/>
4042         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
4043     </xsd:sequence>
4044     <xsd:attribute name="id" type="xsd:unsignedInt" use="required"/>
4045     <xsd:attribute name="uniqueName" type="s:ST_Xstring" use="optional"/>
4046     <xsd:attribute name="name" type="s:ST_Xstring" use="required"/>
4047     <xsd:attribute name="totalsRowFunction" type="ST_TotalsRowFunction" use="optional"
4048         default="none"/>
4049     <xsd:attribute name="totalsRowLabel" type="s:ST_Xstring" use="optional"/>
4050     <xsd:attribute name="queryTableFieldId" type="xsd:unsignedInt" use="optional"/>
4051     <xsd:attribute name="headerRowDxfId" type="ST_DxfId" use="optional"/>
4052     <xsd:attribute name="dataDxfId" type="ST_DxfId" use="optional"/>
4053     <xsd:attribute name="totalsRowDxfId" type="ST_DxfId" use="optional"/>
4054     <xsd:attribute name="headerRowCellStyle" type="s:ST_Xstring" use="optional"/>
4055     <xsd:attribute name="dataCellStyle" type="s:ST_Xstring" use="optional"/>

```



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4056     <xsd:attribute name="totalsRowCellStyle" type="s:ST_Xstring" use="optional"/>
4057 </xsd:complexType>
4058 <xsd:complexType name="CT_TableFormula">
4059     <xsd:simpleContent>
4060         <xsd:extension base="ST_Formula">
4061             <xsd:attribute name="array" type="xsd:boolean" default="false"/>
4062         </xsd:extension>
4063     </xsd:simpleContent>
4064 </xsd:complexType>
4065 <xsd:simpleType name="ST_TotalsRowFunction">
4066     <xsd:restriction base="xsd:string">
4067         <xsd:enumeration value="none"/>
4068         <xsd:enumeration value="sum"/>
4069         <xsd:enumeration value="min"/>
4070         <xsd:enumeration value="max"/>
4071         <xsd:enumeration value="average"/>
4072         <xsd:enumeration value="count"/>
4073         <xsd:enumeration value="countNums"/>
4074         <xsd:enumeration value="stdDev"/>
4075         <xsd:enumeration value="var"/>
4076         <xsd:enumeration value="custom"/>
4077     </xsd:restriction>
4078 </xsd:simpleType>
4079 <xsd:complexType name="CT_XmlColumnPr">
4080     <xsd:sequence>
4081         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
4082     </xsd:sequence>
4083     <xsd:attribute name="mapId" type="xsd:unsignedInt" use="required"/>
4084     <xsd:attribute name="xpath" type="s:ST_Xstring" use="required"/>
4085     <xsd:attribute name="denormalized" type="xsd:boolean" use="optional" default="false"/>
4086     <xsd:attribute name="xmlDataType" type="ST_XmlDataType" use="required"/>
4087 </xsd:complexType>
4088 <xsd:simpleType name="ST_XmlDataType">
4089     <xsd:restriction base="xsd:string"/>
4090 </xsd:simpleType>
4091 <xsd:element name="volTypes" type="CT_VolTypes"/>
4092 <xsd:complexType name="CT_VolTypes">
4093     <xsd:sequence>
4094         <xsd:element name="volType" type="CT_VolType" minOccurs="1" maxOccurs="unbounded"/>
4095         <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
4096     </xsd:sequence>
4097 </xsd:complexType>
4098 <xsd:complexType name="CT_VolType">
4099     <xsd:sequence>
4100         <xsd:element name="main" type="CT_VolMain" minOccurs="1" maxOccurs="unbounded"/>
4101     </xsd:sequence>
4102     <xsd:attribute name="type" type="ST_VolDepType" use="required"/>
4103 </xsd:complexType>
4104 <xsd:complexType name="CT_VolMain">
4105     <xsd:sequence>
4106         <xsd:element name="tp" type="CT_VolTopic" minOccurs="1" maxOccurs="unbounded"/>
4107     </xsd:sequence>
4108     <xsd:attribute name="first" type="s:ST_Xstring" use="required"/>

```



```

4109 </xsd:complexType>
4110 <xsd:complexType name="CT_VolTopic">
4111   <xsd:sequence>
4112     <xsd:element name="v" type="s:ST_Xstring" minOccurs="1" maxOccurs="1"/>
4113     <xsd:element name="stp" type="s:ST_Xstring" minOccurs="0" maxOccurs="unbounded"/>
4114     <xsd:element name="tr" type="CT_VolTopicRef" minOccurs="1" maxOccurs="unbounded"/>
4115   </xsd:sequence>
4116   <xsd:attribute name="t" type="ST_VolValueType" use="optional" default="n"/>
4117 </xsd:complexType>
4118 <xsd:complexType name="CT_VolTopicRef">
4119   <xsd:attribute name="r" type="ST_CellRef" use="required"/>
4120   <xsd:attribute name="s" type="xsd:unsignedInt" use="required"/>
4121 </xsd:complexType>
4122 <xsd:simpleType name="ST_VolDepType">
4123   <xsd:restriction base="xsd:string">
4124     <xsd:enumeration value="realTimeData"/>
4125     <xsd:enumeration value="olapFunctions"/>
4126   </xsd:restriction>
4127 </xsd:simpleType>
4128 <xsd:simpleType name="ST_VolValueType">
4129   <xsd:restriction base="xsd:string">
4130     <xsd:enumeration value="b"/>
4131     <xsd:enumeration value="n"/>
4132     <xsd:enumeration value="e"/>
4133     <xsd:enumeration value="s"/>
4134   </xsd:restriction>
4135 </xsd:simpleType>
4136 <xsd:element name="workbook" type="CT_Workbook"/>
4137 <xsd:complexType name="CT_Workbook">
4138   <xsd:sequence>
4139     <xsd:element name="fileVersion" type="CT_FileVersion" minOccurs="0" maxOccurs="1"/>
4140     <xsd:element name="fileSharing" type="CT_FileSharing" minOccurs="0" maxOccurs="1"/>
4141     <xsd:element name="workbookPr" type="CT_WorkbookPr" minOccurs="0" maxOccurs="1"/>
4142     <xsd:element name="workbookProtection" type="CT_WorkbookProtection" minOccurs="0"
4143       maxOccurs="1"/>
4144     <xsd:element name="bookViews" type="CT_BookViews" minOccurs="0" maxOccurs="1"/>
4145     <xsd:element name="sheets" type="CT_Sheets" minOccurs="1" maxOccurs="1"/>
4146     <xsd:element name="functionGroups" type="CT_FunctionGroups" minOccurs="0" maxOccurs="1"/>
4147     <xsd:element name="externalReferences" type="CT_ExternalReferences" minOccurs="0"
4148       maxOccurs="1"/>
4149     <xsd:element name="definedNames" type="CT_DefinedNames" minOccurs="0" maxOccurs="1"/>
4150     <xsd:element name="calcPr" type="CT_CalcPr" minOccurs="0" maxOccurs="1"/>
4151     <xsd:element name="oleSize" type="CT_OleSize" minOccurs="0" maxOccurs="1"/>
4152     <xsd:element name="customWorkbookViews" type="CT_CustomWorkbookViews" minOccurs="0"
4153       maxOccurs="1"/>
4154     <xsd:element name="pivotCaches" type="CT_PivotCaches" minOccurs="0" maxOccurs="1"/>
4155     <xsd:element name="smartTagPr" type="CT_SmartTagPr" minOccurs="0" maxOccurs="1"/>
4156     <xsd:element name="smartTagTypes" type="CT_SmartTagTypes" minOccurs="0" maxOccurs="1"/>
4157     <xsd:element name="webPublishing" type="CT_WebPublishing" minOccurs="0" maxOccurs="1"/>
4158     <xsd:element name="fileRecoveryPr" type="CT_FileRecoveryPr" minOccurs="0"
4159       maxOccurs="unbounded"/>
4160     <xsd:element name="webPublishObjects" type="CT_WebPublishObjects" minOccurs="0"
4161       maxOccurs="1"/>

```



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4162     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
4163   </xsd:sequence>
4164   <xsd:attribute name="conformance" type="s:ST_ConformanceClass"/>
4165 </xsd:complexType>
4166 <xsd:complexType name="CT_FileVersion">
4167   <xsd:attribute name="appName" type="xsd:string" use="optional"/>
4168   <xsd:attribute name="lastEdited" type="xsd:string" use="optional"/>
4169   <xsd:attribute name="lowestEdited" type="xsd:string" use="optional"/>
4170   <xsd:attribute name="rupBuild" type="xsd:string" use="optional"/>
4171   <xsd:attribute name="codeName" type="s:ST_Guid" use="optional"/>
4172 </xsd:complexType>
4173 <xsd:complexType name="CT_BookViews">
4174   <xsd:sequence>
4175     <xsd:element name="workbookView" type="CT_BookView" minOccurs="1" maxOccurs="unbounded"/>
4176   </xsd:sequence>
4177 </xsd:complexType>
4178 <xsd:complexType name="CT_BookView">
4179   <xsd:sequence>
4180     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
4181   </xsd:sequence>
4182   <xsd:attribute name="visibility" type="ST_Visibility" use="optional" default="visible"/>
4183   <xsd:attribute name="minimized" type="xsd:boolean" use="optional" default="false"/>
4184   <xsd:attribute name="showHorizontalScroll" type="xsd:boolean" use="optional" default="true"/>
4185   <xsd:attribute name="showVerticalScroll" type="xsd:boolean" use="optional" default="true"/>
4186   <xsd:attribute name="showSheetTabs" type="xsd:boolean" use="optional" default="true"/>
4187   <xsd:attribute name="xWindow" type="xsd:int" use="optional"/>
4188   <xsd:attribute name="yWindow" type="xsd:int" use="optional"/>
4189   <xsd:attribute name="windowWidth" type="xsd:unsignedInt" use="optional"/>
4190   <xsd:attribute name="windowHeight" type="xsd:unsignedInt" use="optional"/>
4191   <xsd:attribute name="tabRatio" type="xsd:unsignedInt" use="optional" default="600"/>
4192   <xsd:attribute name="firstSheet" type="xsd:unsignedInt" use="optional" default="0"/>
4193   <xsd:attribute name="activeTab" type="xsd:unsignedInt" use="optional" default="0"/>
4194   <xsd:attribute name="autoFilterDateGrouping" type="xsd:boolean" use="optional"
4195     default="true"/>
4196 </xsd:complexType>
4197 <xsd:simpleType name="ST_Visibility">
4198   <xsd:restriction base="xsd:string">
4199     <xsd:enumeration value="visible"/>
4200     <xsd:enumeration value="hidden"/>
4201     <xsd:enumeration value="veryHidden"/>
4202   </xsd:restriction>
4203 </xsd:simpleType>
4204 <xsd:complexType name="CT_CustomWorkbookViews">
4205   <xsd:sequence>
4206     <xsd:element name="customWorkbookView" minOccurs="1" maxOccurs="unbounded"
4207       type="CT_CustomWorkbookView"/>
4208   </xsd:sequence>
4209 </xsd:complexType>
4210 <xsd:complexType name="CT_CustomWorkbookView">
4211   <xsd:sequence>
4212     <xsd:element name="extLst" minOccurs="0" type="CT_ExtensionList"/>
4213   </xsd:sequence>
4214   <xsd:attribute name="name" type="s:ST_Xstring" use="required"/>

```



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4215 <xsd:attribute name="guid" type="s:ST Guid" use="required"/>
4216 <xsd:attribute name="autoUpdate" type="xsd:boolean" use="optional" default="false"/>
4217 <xsd:attribute name="mergeInterval" type="xsd:unsignedInt" use="optional"/>
4218 <xsd:attribute name="changesSavedWin" type="xsd:boolean" use="optional" default="false"/>
4219 <xsd:attribute name="onlySync" type="xsd:boolean" use="optional" default="false"/>
4220 <xsd:attribute name="personalView" type="xsd:boolean" use="optional" default="false"/>
4221 <xsd:attribute name="includePrintSettings" type="xsd:boolean" use="optional" default="true"/>
4222 <xsd:attribute name="includeHiddenRowCol" type="xsd:boolean" use="optional" default="true"/>
4223 <xsd:attribute name="maximized" type="xsd:boolean" use="optional" default="false"/>
4224 <xsd:attribute name="minimized" type="xsd:boolean" use="optional" default="false"/>
4225 <xsd:attribute name="showHorizontalScroll" type="xsd:boolean" use="optional" default="true"/>
4226 <xsd:attribute name="showVerticalScroll" type="xsd:boolean" use="optional" default="true"/>
4227 <xsd:attribute name="showSheetTabs" type="xsd:boolean" use="optional" default="true"/>
4228 <xsd:attribute name="xWindow" type="xsd:int" use="optional" default="0"/>
4229 <xsd:attribute name="yWindow" type="xsd:int" use="optional" default="0"/>
4230 <xsd:attribute name="windowWidth" type="xsd:unsignedInt" use="required"/>
4231 <xsd:attribute name="windowHeight" type="xsd:unsignedInt" use="required"/>
4232 <xsd:attribute name="tabRatio" type="xsd:unsignedInt" use="optional" default="600"/>
4233 <xsd:attribute name="activeSheetId" type="xsd:unsignedInt" use="required"/>
4234 <xsd:attribute name="showFormulaBar" type="xsd:boolean" use="optional" default="true"/>
4235 <xsd:attribute name="showStatusbar" type="xsd:boolean" use="optional" default="true"/>
4236 <xsd:attribute name="showComments" type="ST Comments" use="optional" default="commIndicator"/>
4237 <xsd:attribute name="showObjects" type="ST Objects" use="optional" default="all"/>
4238 </xsd:complexType>
4239 <xsd:simpleType name="ST_Comments">
4240 <xsd:restriction base="xsd:string">
4241 <xsd:enumeration value="commNone"/>
4242 <xsd:enumeration value="commIndicator"/>
4243 <xsd:enumeration value="commIndAndComment"/>
4244 </xsd:restriction>
4245 </xsd:simpleType>
4246 <xsd:simpleType name="ST_Objects">
4247 <xsd:restriction base="xsd:string">
4248 <xsd:enumeration value="all"/>
4249 <xsd:enumeration value="placeholders"/>
4250 <xsd:enumeration value="none"/>
4251 </xsd:restriction>
4252 </xsd:simpleType>
4253 <xsd:complexType name="CT_Sheets">
4254 <xsd:sequence>
4255 <xsd:element name="sheet" type="CT Sheet" minOccurs="1" maxOccurs="unbounded"/>
4256 </xsd:sequence>
4257 </xsd:complexType>
4258 <xsd:complexType name="CT_Sheet">
4259 <xsd:attribute name="name" type="s:ST Xstring" use="required"/>
4260 <xsd:attribute name="sheetId" type="xsd:unsignedInt" use="required"/>
4261 <xsd:attribute name="state" type="ST SheetState" use="optional" default="visible"/>
4262 <xsd:attribute ref="r:id" use="required"/>
4263 </xsd:complexType>
4264 <xsd:simpleType name="ST_SheetState">
4265 <xsd:restriction base="xsd:string">
4266 <xsd:enumeration value="visible"/>
4267 <xsd:enumeration value="hidden"/>

```



```

4268     <xsd:enumeration value="veryHidden"/>
4269   </xsd:restriction>
4270 </xsd:simpleType>
4271 <xsd:complexType name="CT_WorkbookPr">
4272   <xsd:attribute name="date1904" type="xsd:boolean" use="optional" default="false"/>
4273   <xsd:attribute name="showObjects" type="ST_Objects" use="optional" default="all"/>
4274   <xsd:attribute name="showBorderUnselectedTables" type="xsd:boolean" use="optional"
4275     default="true"/>
4276   <xsd:attribute name="filterPrivacy" type="xsd:boolean" use="optional" default="false"/>
4277   <xsd:attribute name="promptedSolutions" type="xsd:boolean" use="optional" default="false"/>
4278   <xsd:attribute name="showInkAnnotation" type="xsd:boolean" use="optional" default="true"/>
4279   <xsd:attribute name="backupFile" type="xsd:boolean" use="optional" default="false"/>
4280   <xsd:attribute name="saveExternalLinkValues" type="xsd:boolean" use="optional"
4281     default="true"/>
4282   <xsd:attribute name="updateLinks" type="ST_UpdateLinks" use="optional" default="userSet"/>
4283   <xsd:attribute name="codeName" type="xsd:string" use="optional"/>
4284   <xsd:attribute name="hidePivotFieldList" type="xsd:boolean" use="optional" default="false"/>
4285   <xsd:attribute name="showPivotChartFilter" type="xsd:boolean" default="false"/>
4286   <xsd:attribute name="allowRefreshQuery" type="xsd:boolean" use="optional" default="false"/>
4287   <xsd:attribute name="publishItems" type="xsd:boolean" use="optional" default="false"/>
4288   <xsd:attribute name="checkCompatibility" type="xsd:boolean" use="optional" default="false"/>
4289   <xsd:attribute name="autoCompressPictures" type="xsd:boolean" use="optional" default="true"/>
4290   <xsd:attribute name="refreshAllConnections" type="xsd:boolean" use="optional"
4291     default="false"/>
4292   <xsd:attribute name="defaultThemeVersion" type="xsd:unsignedInt" use="optional"/>
4293 </xsd:complexType>
4294 <xsd:simpleType name="ST_UpdateLinks">
4295   <xsd:restriction base="xsd:string">
4296     <xsd:enumeration value="userSet"/>
4297     <xsd:enumeration value="never"/>
4298     <xsd:enumeration value="always"/>
4299   </xsd:restriction>
4300 </xsd:simpleType>
4301 <xsd:complexType name="CT_SmartTagPr">
4302   <xsd:attribute name="embed" type="xsd:boolean" use="optional" default="false"/>
4303   <xsd:attribute name="show" type="ST_SmartTagShow" use="optional" default="all"/>
4304 </xsd:complexType>
4305 <xsd:simpleType name="ST_SmartTagShow">
4306   <xsd:restriction base="xsd:string">
4307     <xsd:enumeration value="all"/>
4308     <xsd:enumeration value="none"/>
4309     <xsd:enumeration value="noIndicator"/>
4310   </xsd:restriction>
4311 </xsd:simpleType>
4312 <xsd:complexType name="CT_SmartTagTypes">
4313   <xsd:sequence>
4314     <xsd:element name="smartTagType" type="CT_SmartTagType" minOccurs="0"
4315       maxOccurs="unbounded"/>
4316   </xsd:sequence>
4317 </xsd:complexType>
4318 <xsd:complexType name="CT_SmartTagType">
4319   <xsd:attribute name="namespaceUri" type="s:ST_Xstring" use="optional"/>
4320   <xsd:attribute name="name" type="s:ST_Xstring" use="optional"/>

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4321     <xsd:attribute name="url" type="s:ST Xstring" use="optional"/>
4322 </xsd:complexType>
4323 <xsd:complexType name="CT_FileRecoveryPr">
4324     <xsd:attribute name="autoRecover" type="xsd:boolean" use="optional" default="true"/>
4325     <xsd:attribute name="crashSave" type="xsd:boolean" use="optional" default="false"/>
4326     <xsd:attribute name="dataExtractLoad" type="xsd:boolean" use="optional" default="false"/>
4327     <xsd:attribute name="repairLoad" type="xsd:boolean" use="optional" default="false"/>
4328 </xsd:complexType>
4329 <xsd:complexType name="CT_CalcPr">
4330     <xsd:attribute name="calcId" type="xsd:unsignedInt"/>
4331     <xsd:attribute name="calcMode" type="ST_CalcMode" use="optional" default="auto"/>
4332     <xsd:attribute name="fullCalcOnLoad" type="xsd:boolean" use="optional" default="false"/>
4333     <xsd:attribute name="refMode" type="ST_RefMode" use="optional" default="A1"/>
4334     <xsd:attribute name="iterate" type="xsd:boolean" use="optional" default="false"/>
4335     <xsd:attribute name="iterateCount" type="xsd:unsignedInt" use="optional" default="100"/>
4336     <xsd:attribute name="iterateDelta" type="xsd:double" use="optional" default="0.001"/>
4337     <xsd:attribute name="fullPrecision" type="xsd:boolean" use="optional" default="true"/>
4338     <xsd:attribute name="calcCompleted" type="xsd:boolean" use="optional" default="true"/>
4339     <xsd:attribute name="calcOnSave" type="xsd:boolean" use="optional" default="true"/>
4340     <xsd:attribute name="concurrentCalc" type="xsd:boolean" use="optional" default="true"/>
4341     <xsd:attribute name="concurrentManualCount" type="xsd:unsignedInt" use="optional"/>
4342     <xsd:attribute name="forceFullCalc" type="xsd:boolean" use="optional"/>
4343 </xsd:complexType>
4344 <xsd:simpleType name="ST_CalcMode">
4345     <xsd:restriction base="xsd:string">
4346         <xsd:enumeration value="manual"/>
4347         <xsd:enumeration value="auto"/>
4348         <xsd:enumeration value="autoNoTable"/>
4349     </xsd:restriction>
4350 </xsd:simpleType>
4351 <xsd:simpleType name="ST_RefMode">
4352     <xsd:restriction base="xsd:string">
4353         <xsd:enumeration value="A1"/>
4354         <xsd:enumeration value="R1C1"/>
4355     </xsd:restriction>
4356 </xsd:simpleType>
4357 <xsd:complexType name="CT_DefinedNames">
4358     <xsd:sequence>
4359         <xsd:element name="definedName" type="CT_DefinedName" minOccurs="0"
4360             maxOccurs="unbounded"/>
4361     </xsd:sequence>
4362 </xsd:complexType>
4363 <xsd:complexType name="CT_DefinedName">
4364     <xsd:simpleContent>
4365         <xsd:extension base="ST_Formula">
4366             <xsd:attribute name="name" type="s:ST Xstring" use="required"/>
4367             <xsd:attribute name="comment" type="s:ST Xstring" use="optional"/>
4368             <xsd:attribute name="customMenu" type="s:ST Xstring" use="optional"/>
4369             <xsd:attribute name="description" type="s:ST Xstring" use="optional"/>
4370             <xsd:attribute name="help" type="s:ST Xstring" use="optional"/>
4371             <xsd:attribute name="statusBar" type="s:ST Xstring" use="optional"/>
4372             <xsd:attribute name="localSheetId" type="xsd:unsignedInt" use="optional"/>
4373             <xsd:attribute name="hidden" type="xsd:boolean" use="optional" default="false"/>

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4374         <xsd:attribute name="function" type="xsd:boolean" use="optional" default="false"/>
4375         <xsd:attribute name="vbProcedure" type="xsd:boolean" use="optional" default="false"/>
4376         <xsd:attribute name="xlm" type="xsd:boolean" use="optional" default="false"/>
4377         <xsd:attribute name="functionGroupId" type="xsd:unsignedInt" use="optional"/>
4378         <xsd:attribute name="shortcutKey" type="s:ST_Xstring" use="optional"/>
4379         <xsd:attribute name="publishToServer" type="xsd:boolean" use="optional"
4380             default="false"/>
4381         <xsd:attribute name="workbookParameter" type="xsd:boolean" use="optional"
4382             default="false"/>
4383     </xsd:extension>
4384 </xsd:simpleContent>
4385 </xsd:complexType>
4386 <xsd:complexType name="CT_ExternalReferences">
4387     <xsd:sequence>
4388         <xsd:element name="externalReference" type="CT_ExternalReference" minOccurs="1"
4389             maxOccurs="unbounded"/>
4390     </xsd:sequence>
4391 </xsd:complexType>
4392 <xsd:complexType name="CT_ExternalReference">
4393     <xsd:attribute ref="r:id" use="required"/>
4394 </xsd:complexType>
4395 <xsd:complexType name="CT_SheetBackgroundPicture">
4396     <xsd:attribute ref="r:id" use="required"/>
4397 </xsd:complexType>
4398 <xsd:complexType name="CT_PivotCaches">
4399     <xsd:sequence>
4400         <xsd:element name="pivotCache" type="CT_PivotCache" minOccurs="1" maxOccurs="unbounded"/>
4401     </xsd:sequence>
4402 </xsd:complexType>
4403 <xsd:complexType name="CT_PivotCache">
4404     <xsd:attribute name="cacheId" type="xsd:unsignedInt" use="required"/>
4405     <xsd:attribute ref="r:id" use="required"/>
4406 </xsd:complexType>
4407 <xsd:complexType name="CT_FileSharing">
4408     <xsd:attribute name="readOnlyRecommended" type="xsd:boolean" use="optional" default="false"/>
4409     <xsd:attribute name="userName" type="s:ST_Xstring"/>
4410     <xsd:attribute name="reservationPassword" type="ST_UnsignedShortHex"/>
4411     <xsd:attribute name="algorithmName" type="s:ST_Xstring" use="optional"/>
4412     <xsd:attribute name="hashValue" type="xsd:base64Binary" use="optional"/>
4413     <xsd:attribute name="saltValue" type="xsd:base64Binary" use="optional"/>
4414     <xsd:attribute name="spinCount" type="xsd:unsignedInt" use="optional"/>
4415 </xsd:complexType>
4416 <xsd:complexType name="CT_OleSize">
4417     <xsd:attribute name="ref" type="ST_Ref" use="required"/>
4418 </xsd:complexType>
4419 <xsd:complexType name="CT_WorkbookProtection">
4420     <xsd:attribute name="workbookPassword" type="ST_UnsignedShortHex" use="optional"/>
4421     <xsd:attribute name="workbookPasswordCharacterSet" type="xsd:string" use="optional"/>
4422     <xsd:attribute name="revisionsPassword" type="ST_UnsignedShortHex" use="optional"/>
4423     <xsd:attribute name="revisionsPasswordCharacterSet" type="xsd:string" use="optional"/>
4424     <xsd:attribute name="lockStructure" type="xsd:boolean" use="optional" default="false"/>
4425     <xsd:attribute name="lockWindows" type="xsd:boolean" use="optional" default="false"/>
4426     <xsd:attribute name="lockRevision" type="xsd:boolean" use="optional" default="false"/>

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4427     <xsd:attribute name="revisionsAlgorithmName" type="s:ST_Xstring" use="optional"/>
4428     <xsd:attribute name="revisionsHashValue" type="xsd:base64Binary" use="optional"/>
4429     <xsd:attribute name="revisionsSaltValue" type="xsd:base64Binary" use="optional"/>
4430     <xsd:attribute name="revisionsSpinCount" type="xsd:unsignedInt" use="optional"/>
4431     <xsd:attribute name="workbookAlgorithmName" type="s:ST_Xstring" use="optional"/>
4432     <xsd:attribute name="workbookHashValue" type="xsd:base64Binary" use="optional"/>
4433     <xsd:attribute name="workbookSaltValue" type="xsd:base64Binary" use="optional"/>
4434     <xsd:attribute name="workbookSpinCount" type="xsd:unsignedInt" use="optional"/>
4435 </xsd:complexType>
4436 <xsd:complexType name="CT_WebPublishing">
4437     <xsd:attribute name="css" type="xsd:boolean" use="optional" default="true"/>
4438     <xsd:attribute name="thicket" type="xsd:boolean" use="optional" default="true"/>
4439     <xsd:attribute name="longFileNames" type="xsd:boolean" use="optional" default="true"/>
4440     <xsd:attribute name="vml" type="xsd:boolean" use="optional" default="false"/>
4441     <xsd:attribute name="allowPng" type="xsd:boolean" use="optional" default="false"/>
4442     <xsd:attribute name="targetScreenSize" type="ST_TargetScreenSize" use="optional"
4443         default="800x600"/>
4444     <xsd:attribute name="dpi" type="xsd:unsignedInt" use="optional" default="96"/>
4445     <xsd:attribute name="codePage" type="xsd:unsignedInt" use="optional"/>
4446     <xsd:attribute name="characterSet" type="xsd:string" use="optional"/>
4447 </xsd:complexType>
4448 <xsd:simpleType name="ST_TargetScreenSize">
4449     <xsd:restriction base="xsd:string">
4450         <xsd:enumeration value="544x376"/>
4451         <xsd:enumeration value="640x480"/>
4452         <xsd:enumeration value="720x512"/>
4453         <xsd:enumeration value="800x600"/>
4454         <xsd:enumeration value="1024x768"/>
4455         <xsd:enumeration value="1152x882"/>
4456         <xsd:enumeration value="1152x900"/>
4457         <xsd:enumeration value="1280x1024"/>
4458         <xsd:enumeration value="1600x1200"/>
4459         <xsd:enumeration value="1800x1440"/>
4460         <xsd:enumeration value="1920x1200"/>
4461     </xsd:restriction>
4462 </xsd:simpleType>
4463 <xsd:complexType name="CT_FunctionGroups">
4464     <xsd:sequence maxOccurs="unbounded">
4465         <xsd:element name="functionGroup" type="CT_FunctionGroup" minOccurs="0"/>
4466     </xsd:sequence>
4467     <xsd:attribute name="builtInGroupCount" type="xsd:unsignedInt" default="16" use="optional"/>
4468 </xsd:complexType>
4469 <xsd:complexType name="CT_FunctionGroup">
4470     <xsd:attribute name="name" type="s:ST_Xstring"/>
4471 </xsd:complexType>
4472 <xsd:complexType name="CT_WebPublishObjects">
4473     <xsd:sequence>
4474         <xsd:element name="webPublishObject" type="CT_WebPublishObject" minOccurs="1"
4475             maxOccurs="unbounded"/>
4476     </xsd:sequence>
4477     <xsd:attribute name="count" type="xsd:unsignedInt" use="optional"/>
4478 </xsd:complexType>
4479 <xsd:complexType name="CT_WebPublishObject">

```



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4480     <xsd:attribute name="id" type="xsd:unsignedInt" use="required"/>
4481     <xsd:attribute name="divId" type="s:ST_Xstring" use="required"/>
4482     <xsd:attribute name="sourceObject" type="s:ST_Xstring" use="optional"/>
4483     <xsd:attribute name="destinationFile" type="s:ST_Xstring" use="required"/>
4484     <xsd:attribute name="title" type="s:ST_Xstring" use="optional"/>
4485     <xsd:attribute name="autoRepublish" type="xsd:boolean" use="optional" default="false"/>
4486   </xsd:complexType>
4487 </xsd:schema>

```

## A.4 PresentationML

This schema is available in the file pml.xsd.

```

1  <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
2    xmlns="http://schemas.openxmlformats.org/presentationml/2006/main"
3    xmlns:p="http://schemas.openxmlformats.org/presentationml/2006/main"
4    xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main"
5    xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
6    xmlns:s="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
7    elementFormDefault="qualified"
8    targetNamespace="http://schemas.openxmlformats.org/presentationml/2006/main">
9    <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
10      schemaLocation="shared-relationshipReference.xsd"/>
11    <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="dml-
12      main.xsd"/>
13    <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
14      schemaLocation="shared-commonSimpleTypes.xsd"/>
15    <xsd:simpleType name="ST_TransitionSideDirectionType">
16      <xsd:restriction base="xsd:token">
17        <xsd:enumeration value="l"/>
18        <xsd:enumeration value="u"/>
19        <xsd:enumeration value="r"/>
20        <xsd:enumeration value="d"/>
21      </xsd:restriction>
22    </xsd:simpleType>
23    <xsd:simpleType name="ST_TransitionCornerDirectionType">
24      <xsd:restriction base="xsd:token">
25        <xsd:enumeration value="lu"/>
26        <xsd:enumeration value="ru"/>
27        <xsd:enumeration value="ld"/>
28        <xsd:enumeration value="rd"/>
29      </xsd:restriction>
30    </xsd:simpleType>
31    <xsd:simpleType name="ST_TransitionInOutDirectionType">
32      <xsd:restriction base="xsd:token">
33        <xsd:enumeration value="out"/>
34        <xsd:enumeration value="in"/>
35      </xsd:restriction>
36    </xsd:simpleType>
37    <xsd:complexType name="CT_SideDirectionTransition">
38      <xsd:attribute name="dir" type="ST_TransitionSideDirectionType" use="optional" default="l"/>
39    </xsd:complexType>
40    <xsd:complexType name="CT_CornerDirectionTransition">

```



```

41     <xsd:attribute name="dir" type="ST_TransitionCornerDirectionType" use="optional"
42         default="lu"/>
43 </xsd:complexType>
44 <xsd:simpleType name="ST_TransitionEightDirectionType">
45     <xsd:union memberTypes="ST_TransitionSideDirectionType ST_TransitionCornerDirectionType"/>
46 </xsd:simpleType>
47 <xsd:complexType name="CT_EightDirectionTransition">
48     <xsd:attribute name="dir" type="ST_TransitionEightDirectionType" use="optional" default="l"/>
49 </xsd:complexType>
50 <xsd:complexType name="CT_OrientationTransition">
51     <xsd:attribute name="dir" type="ST_Direction" use="optional" default="horz"/>
52 </xsd:complexType>
53 <xsd:complexType name="CT_InOutTransition">
54     <xsd:attribute name="dir" type="ST_TransitionInOutDirectionType" use="optional"
55         default="out"/>
56 </xsd:complexType>
57 <xsd:complexType name="CT_OptionalBlackTransition">
58     <xsd:attribute name="thruBlk" type="xsd:boolean" use="optional" default="false"/>
59 </xsd:complexType>
60 <xsd:complexType name="CT_SplitTransition">
61     <xsd:attribute name="orient" type="ST_Direction" use="optional" default="horz"/>
62     <xsd:attribute name="dir" type="ST_TransitionInOutDirectionType" use="optional"
63         default="out"/>
64 </xsd:complexType>
65 <xsd:complexType name="CT_WheelTransition">
66     <xsd:attribute name="spokes" type="xsd:unsignedInt" use="optional" default="4"/>
67 </xsd:complexType>
68 <xsd:complexType name="CT_TransitionStartSoundAction">
69     <xsd:sequence>
70         <xsd:element minOccurs="1" maxOccurs="1" name="snd" type="a:CT_EmbeddedWAVAudioFile"/>
71     </xsd:sequence>
72     <xsd:attribute name="loop" type="xsd:boolean" use="optional" default="false"/>
73 </xsd:complexType>
74 <xsd:complexType name="CT_TransitionSoundAction">
75     <xsd:choice minOccurs="1" maxOccurs="1">
76         <xsd:element name="stSnd" type="CT_TransitionStartSoundAction"/>
77         <xsd:element name="endSnd" type="CT_Empty"/>
78     </xsd:choice>
79 </xsd:complexType>
80 <xsd:simpleType name="ST_TransitionSpeed">
81     <xsd:restriction base="xsd:token">
82         <xsd:enumeration value="slow"/>
83         <xsd:enumeration value="med"/>
84         <xsd:enumeration value="fast"/>
85     </xsd:restriction>
86 </xsd:simpleType>
87 <xsd:complexType name="CT_SlideTransition">
88     <xsd:sequence>
89         <xsd:choice minOccurs="0" maxOccurs="1">
90             <xsd:element name="blinds" type="CT_OrientationTransition"/>
91             <xsd:element name="checker" type="CT_OrientationTransition"/>
92             <xsd:element name="circle" type="CT_Empty"/>
93             <xsd:element name="dissolve" type="CT_Empty"/>

```



```

94      <xsd:element name="comb" type="CT_OrientationTransition"/>
95      <xsd:element name="cover" type="CT_EightDirectionTransition"/>
96      <xsd:element name="cut" type="CT_OptionalBlackTransition"/>
97      <xsd:element name="diamond" type="CT_Empty"/>
98      <xsd:element name="fade" type="CT_OptionalBlackTransition"/>
99      <xsd:element name="newsflash" type="CT_Empty"/>
100     <xsd:element name="plus" type="CT_Empty"/>
101     <xsd:element name="pull" type="CT_EightDirectionTransition"/>
102     <xsd:element name="push" type="CT_SideDirectionTransition"/>
103     <xsd:element name="random" type="CT_Empty"/>
104     <xsd:element name="randomBar" type="CT_OrientationTransition"/>
105     <xsd:element name="split" type="CT_SplitTransition"/>
106     <xsd:element name="strips" type="CT_CornerDirectionTransition"/>
107     <xsd:element name="wedge" type="CT_Empty"/>
108     <xsd:element name="wheel" type="CT_WheelTransition"/>
109     <xsd:element name="wipe" type="CT_SideDirectionTransition"/>
110     <xsd:element name="zoom" type="CT_InOutTransition"/>
111   </xsd:choice>
112   <xsd:element name="sndAc" minOccurs="0" maxOccurs="1" type="CT_TransitionSoundAction"/>
113   <xsd:element name="extLst" type="CT_ExtensionListModify" minOccurs="0" maxOccurs="1"/>
114 </xsd:sequence>
115 <xsd:attribute name="spd" type="ST_TransitionSpeed" use="optional" default="fast"/>
116 <xsd:attribute name="advClick" type="xsd:boolean" use="optional" default="true"/>
117 <xsd:attribute name="advTm" type="xsd:unsignedInt" use="optional"/>
118 </xsd:complexType>
119 <xsd:simpleType name="ST_TLTimeIndefinite">
120   <xsd:restriction base="xsd:token">
121     <xsd:enumeration value="indefinite"/>
122   </xsd:restriction>
123 </xsd:simpleType>
124 <xsd:simpleType name="ST_TLTime">
125   <xsd:union memberTypes="xsd:unsignedInt ST_TLTimeIndefinite"/>
126 </xsd:simpleType>
127 <xsd:simpleType name="ST_TLTimeNodeID">
128   <xsd:restriction base="xsd:unsignedInt"/>
129 </xsd:simpleType>
130 <xsd:complexType name="CT_TLIterateIntervalTime">
131   <xsd:attribute name="val" type="ST_TLTime" use="required"/>
132 </xsd:complexType>
133 <xsd:complexType name="CT_TLIterateIntervalPercentage">
134   <xsd:attribute name="val" type="a:ST_PositivePercentage" use="required"/>
135 </xsd:complexType>
136 <xsd:simpleType name="ST_IterateType">
137   <xsd:restriction base="xsd:token">
138     <xsd:enumeration value="el"/>
139     <xsd:enumeration value="wd"/>
140     <xsd:enumeration value="lt"/>
141   </xsd:restriction>
142 </xsd:simpleType>
143 <xsd:complexType name="CT_TLIterateData">
144   <xsd:choice minOccurs="1" maxOccurs="1">
145     <xsd:element name="tmAbs" type="CT_TLIterateIntervalTime"/>
146     <xsd:element name="tmPct" type="CT_TLIterateIntervalPercentage"/>

```



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147     </xsd:choice>
148     <xsd:attribute name="type" type="ST_IterateType" use="optional" default="el"/>
149     <xsd:attribute name="backwards" type="xsd:boolean" use="optional" default="false"/>
150 </xsd:complexType>
151 <xsd:complexType name="CT_TLSubShapeId">
152     <xsd:attribute name="spid" type="a:ST_ShapeID" use="required"/>
153 </xsd:complexType>
154 <xsd:complexType name="CT_TLTextTargetElement">
155     <xsd:choice minOccurs="0" maxOccurs="1">
156         <xsd:element name="charRg" type="CT_IndexRange"/>
157         <xsd:element name="pRg" type="CT_IndexRange"/>
158     </xsd:choice>
159 </xsd:complexType>
160 <xsd:simpleType name="ST_TLChartSubelementType">
161     <xsd:restriction base="xsd:token">
162         <xsd:enumeration value="gridLegend"/>
163         <xsd:enumeration value="series"/>
164         <xsd:enumeration value="category"/>
165         <xsd:enumeration value="ptInSeries"/>
166         <xsd:enumeration value="ptInCategory"/>
167     </xsd:restriction>
168 </xsd:simpleType>
169 <xsd:complexType name="CT_TLOleChartTargetElement">
170     <xsd:attribute name="type" type="ST_TLChartSubelementType" use="required"/>
171     <xsd:attribute name="lvl" type="xsd:unsignedInt" use="optional" default="0"/>
172 </xsd:complexType>
173 <xsd:complexType name="CT_TLShapeTargetElement">
174     <xsd:choice minOccurs="0" maxOccurs="1">
175         <xsd:element name="bg" type="CT_Empty"/>
176         <xsd:element name="subSp" type="CT_TLSubShapeId"/>
177         <xsd:element name="oleChartEl" type="CT_TLOleChartTargetElement"/>
178         <xsd:element name="txEl" type="CT_TLTextTargetElement"/>
179         <xsd:element name="graphicEl" type="a:CT_AnimationElementChoice"/>
180     </xsd:choice>
181     <xsd:attribute name="spid" type="a:ST_DrawingElementId" use="required"/>
182 </xsd:complexType>
183 <xsd:complexType name="CT_TLTimeTargetElement">
184     <xsd:choice minOccurs="1" maxOccurs="1">
185         <xsd:element name="sldTgt" type="CT_Empty"/>
186         <xsd:element name="sndTgt" type="a:CT_EmbeddedWAVAudioFile"/>
187         <xsd:element name="spTgt" type="CT_TLShapeTargetElement"/>
188         <xsd:element name="inkTgt" type="CT_TLSubShapeId"/>
189     </xsd:choice>
190 </xsd:complexType>
191 <xsd:complexType name="CT_TLTriggerTimeNodeID">
192     <xsd:attribute name="val" type="ST_TLTimeNodeID" use="required"/>
193 </xsd:complexType>
194 <xsd:simpleType name="ST_TLTriggerRuntimeNode">
195     <xsd:restriction base="xsd:token">
196         <xsd:enumeration value="first"/>
197         <xsd:enumeration value="last"/>
198         <xsd:enumeration value="all"/>
199     </xsd:restriction>

```



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200 </xsd:simpleType>
201 <xsd:complexType name="CT_TLTriggerRuntimeNode">
202   <xsd:attribute name="val" type="ST_TLTriggerRuntimeNode" use="required"/>
203 </xsd:complexType>
204 <xsd:simpleType name="ST_TLTriggerEvent">
205   <xsd:restriction base="xsd:token">
206     <xsd:enumeration value="onBegin"/>
207     <xsd:enumeration value="onEnd"/>
208     <xsd:enumeration value="begin"/>
209     <xsd:enumeration value="end"/>
210     <xsd:enumeration value="onClick"/>
211     <xsd:enumeration value="onDbClick"/>
212     <xsd:enumeration value="onMouseOver"/>
213     <xsd:enumeration value="onMouseOut"/>
214     <xsd:enumeration value="onNext"/>
215     <xsd:enumeration value="onPrev"/>
216     <xsd:enumeration value="onStopAudio"/>
217   </xsd:restriction>
218 </xsd:simpleType>
219 <xsd:complexType name="CT_TLTimeCondition">
220   <xsd:choice minOccurs="0" maxOccurs="1">
221     <xsd:element name="tgtEl" type="CT_TLTimeTargetElement"/>
222     <xsd:element name="tn" type="CT_TLTriggerTimeNodeID"/>
223     <xsd:element name="rtn" type="CT_TLTriggerRuntimeNode"/>
224   </xsd:choice>
225   <xsd:attribute name="evt" use="optional" type="ST_TLTriggerEvent"/>
226   <xsd:attribute name="delay" type="ST_TLTime" use="optional"/>
227 </xsd:complexType>
228 <xsd:complexType name="CT_TLTimeConditionList">
229   <xsd:sequence>
230     <xsd:element name="cond" type="CT_TLTimeCondition" minOccurs="1" maxOccurs="unbounded"/>
231   </xsd:sequence>
232 </xsd:complexType>
233 <xsd:complexType name="CT_TimeNodeList">
234   <xsd:choice minOccurs="1" maxOccurs="unbounded">
235     <xsd:element name="par" type="CT_TLTimeNodeParallel"/>
236     <xsd:element name="seq" type="CT_TLTimeNodeSequence"/>
237     <xsd:element name="excl" type="CT_TLTimeNodeExclusive"/>
238     <xsd:element name="anim" type="CT_TLAnimateBehavior"/>
239     <xsd:element name="animClr" type="CT_TLAnimateColorBehavior"/>
240     <xsd:element name="animEffect" type="CT_TLAnimateEffectBehavior"/>
241     <xsd:element name="animMotion" type="CT_TLAnimateMotionBehavior"/>
242     <xsd:element name="animRot" type="CT_TLAnimateRotationBehavior"/>
243     <xsd:element name="animScale" type="CT_TLAnimateScaleBehavior"/>
244     <xsd:element name="cmd" type="CT_TLCommandBehavior"/>
245     <xsd:element name="set" type="CT_TLSetBehavior"/>
246     <xsd:element name="audio" type="CT_TLMediaNodeAudio"/>
247     <xsd:element name="video" type="CT_TLMediaNodeVideo"/>
248   </xsd:choice>
249 </xsd:complexType>
250 <xsd:simpleType name="ST_TLTimeNodePresetClassType">
251   <xsd:restriction base="xsd:token">
252     <xsd:enumeration value="entr"/>

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253         <xsd:enumeration value="exit"/>
254         <xsd:enumeration value="emph"/>
255         <xsd:enumeration value="path"/>
256         <xsd:enumeration value="verb"/>
257         <xsd:enumeration value="mediacall"/>
258     </xsd:restriction>
259 </xsd:simpleType>
260 <xsd:simpleType name="ST_TLTimeNodeRestartType">
261     <xsd:restriction base="xsd:token">
262         <xsd:enumeration value="always"/>
263         <xsd:enumeration value="whenNotActive"/>
264         <xsd:enumeration value="never"/>
265     </xsd:restriction>
266 </xsd:simpleType>
267 <xsd:simpleType name="ST_TLTimeNodeFillType">
268     <xsd:restriction base="xsd:token">
269         <xsd:enumeration value="remove"/>
270         <xsd:enumeration value="freeze"/>
271         <xsd:enumeration value="hold"/>
272         <xsd:enumeration value="transition"/>
273     </xsd:restriction>
274 </xsd:simpleType>
275 <xsd:simpleType name="ST_TLTimeNodeSyncType">
276     <xsd:restriction base="xsd:token">
277         <xsd:enumeration value="canSlip"/>
278         <xsd:enumeration value="locked"/>
279     </xsd:restriction>
280 </xsd:simpleType>
281 <xsd:simpleType name="ST_TLTimeNodeMasterRelation">
282     <xsd:restriction base="xsd:token">
283         <xsd:enumeration value="sameClick"/>
284         <xsd:enumeration value="lastClick"/>
285         <xsd:enumeration value="nextClick"/>
286     </xsd:restriction>
287 </xsd:simpleType>
288 <xsd:simpleType name="ST_TLTimeNodeType">
289     <xsd:restriction base="xsd:token">
290         <xsd:enumeration value="clickEffect"/>
291         <xsd:enumeration value="withEffect"/>
292         <xsd:enumeration value="afterEffect"/>
293         <xsd:enumeration value="mainSeq"/>
294         <xsd:enumeration value="interactiveSeq"/>
295         <xsd:enumeration value="clickPar"/>
296         <xsd:enumeration value="withGroup"/>
297         <xsd:enumeration value="afterGroup"/>
298         <xsd:enumeration value="tmRoot"/>
299     </xsd:restriction>
300 </xsd:simpleType>
301 <xsd:complexType name="CT_TLCommonTimeNodeData">
302     <xsd:sequence>
303         <xsd:element name="stCondLst" type="CT_TLTimeConditionList" minOccurs="0" maxOccurs="1"/>
304         <xsd:element name="endCondLst" type="CT_TLTimeConditionList" minOccurs="0" maxOccurs="1"/>
305         <xsd:element name="endSync" type="CT_TLTimeCondition" minOccurs="0" maxOccurs="1"/>

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306     <xsd:element name="iterate" type="CT_TLIterateData" minOccurs="0" maxOccurs="1"/>
307     <xsd:element name="childTnLst" type="CT_TimeNodeList" minOccurs="0" maxOccurs="1"/>
308     <xsd:element name="subTnLst" type="CT_TimeNodeList" minOccurs="0" maxOccurs="1"/>
309 </xsd:sequence>
310 <xsd:attribute name="id" type="ST_TLTimeNodeID" use="optional"/>
311 <xsd:attribute name="presetID" type="xsd:int" use="optional"/>
312 <xsd:attribute name="presetClass" type="ST_TLTimeNodePresetClassType" use="optional"/>
313 <xsd:attribute name="presetSubtype" type="xsd:int" use="optional"/>
314 <xsd:attribute name="dur" type="ST_TLTime" use="optional"/>
315 <xsd:attribute name="repeatCount" type="ST_TLTime" use="optional" default="1000"/>
316 <xsd:attribute name="repeatDur" type="ST_TLTime" use="optional"/>
317 <xsd:attribute name="spd" type="a:ST_Percentage" use="optional" default="100%"/>
318 <xsd:attribute name="accel" type="a:ST_PositiveFixedPercentage" use="optional" default="0%"/>
319 <xsd:attribute name="decel" type="a:ST_PositiveFixedPercentage" use="optional" default="0%"/>
320 <xsd:attribute name="autoRev" type="xsd:boolean" use="optional" default="false"/>
321 <xsd:attribute name="restart" type="ST_TLTimeNodeRestartType" use="optional"/>
322 <xsd:attribute name="fill" type="ST_TLTimeNodeFillType" use="optional"/>
323 <xsd:attribute name="syncBehavior" type="ST_TLTimeNodeSyncType" use="optional"/>
324 <xsd:attribute name="tmFilter" type="xsd:string" use="optional"/>
325 <xsd:attribute name="evtFilter" type="xsd:string" use="optional"/>
326 <xsd:attribute name="display" type="xsd:boolean" use="optional"/>
327 <xsd:attribute name="masterRel" type="ST_TLTimeNodeMasterRelation" use="optional"/>
328 <xsd:attribute name="bldLvl" type="xsd:int" use="optional"/>
329 <xsd:attribute name="grpId" type="xsd:unsignedInt" use="optional"/>
330 <xsd:attribute name="afterEffect" type="xsd:boolean" use="optional"/>
331 <xsd:attribute name="nodeType" type="ST_TLTimeNodeType" use="optional"/>
332 <xsd:attribute name="nodePh" type="xsd:boolean" use="optional"/>
333 </xsd:complexType>
334 <xsd:complexType name="CT_TLTimeNodeParallel">
335     <xsd:sequence>
336         <xsd:element name="cTn" type="CT_TLCommonTimeNodeData" minOccurs="1" maxOccurs="1"/>
337     </xsd:sequence>
338 </xsd:complexType>
339 <xsd:simpleType name="ST_TLNextActionType">
340     <xsd:restriction base="xsd:token">
341         <xsd:enumeration value="none"/>
342         <xsd:enumeration value="seek"/>
343     </xsd:restriction>
344 </xsd:simpleType>
345 <xsd:simpleType name="ST_TLPreviousActionType">
346     <xsd:restriction base="xsd:token">
347         <xsd:enumeration value="none"/>
348         <xsd:enumeration value="skipTimed"/>
349     </xsd:restriction>
350 </xsd:simpleType>
351 <xsd:complexType name="CT_TLTimeNodeSequence">
352     <xsd:sequence>
353         <xsd:element name="cTn" type="CT_TLCommonTimeNodeData" minOccurs="1" maxOccurs="1"/>
354         <xsd:element name="prevCondLst" type="CT_TLTimeConditionList" minOccurs="0"
355             maxOccurs="1"/>
356         <xsd:element name="nextCondLst" type="CT_TLTimeConditionList" minOccurs="0"
357             maxOccurs="1"/>
358     </xsd:sequence>

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359     <xsd:attribute name="concurrent" type="xsd:boolean" use="optional"/>
360     <xsd:attribute name="prevAc" type="ST_TLPreviousActionType" use="optional"/>
361     <xsd:attribute name="nextAc" type="ST_TLNextActionType" use="optional"/>
362 </xsd:complexType>
363 <xsd:complexType name="CT_TLTimeNodeExclusive">
364     <xsd:sequence>
365         <xsd:element name="cTn" type="CT_TLCommonTimeNodeData" minOccurs="1" maxOccurs="1"/>
366     </xsd:sequence>
367 </xsd:complexType>
368 <xsd:complexType name="CT_TLBehaviorAttributeNameList">
369     <xsd:sequence>
370         <xsd:element name="attrName" type="xsd:string" minOccurs="1" maxOccurs="unbounded"/>
371     </xsd:sequence>
372 </xsd:complexType>
373 <xsd:simpleType name="ST_TLBehaviorAdditiveType">
374     <xsd:restriction base="xsd:token">
375         <xsd:enumeration value="base"/>
376         <xsd:enumeration value="sum"/>
377         <xsd:enumeration value="repl"/>
378         <xsd:enumeration value="mult"/>
379         <xsd:enumeration value="none"/>
380     </xsd:restriction>
381 </xsd:simpleType>
382 <xsd:simpleType name="ST_TLBehaviorAccumulateType">
383     <xsd:restriction base="xsd:token">
384         <xsd:enumeration value="none"/>
385         <xsd:enumeration value="always"/>
386     </xsd:restriction>
387 </xsd:simpleType>
388 <xsd:simpleType name="ST_TLBehaviorTransformType">
389     <xsd:restriction base="xsd:token">
390         <xsd:enumeration value="pt"/>
391         <xsd:enumeration value="img"/>
392     </xsd:restriction>
393 </xsd:simpleType>
394 <xsd:simpleType name="ST_TLBehaviorOverrideType">
395     <xsd:restriction base="xsd:token">
396         <xsd:enumeration value="normal"/>
397         <xsd:enumeration value="childStyle"/>
398     </xsd:restriction>
399 </xsd:simpleType>
400 <xsd:complexType name="CT_TLCommonBehaviorData">
401     <xsd:sequence>
402         <xsd:element name="cTn" type="CT_TLCommonTimeNodeData" minOccurs="1" maxOccurs="1"/>
403         <xsd:element name="tgtEl" type="CT_TLTimeTargetElement" minOccurs="1" maxOccurs="1"/>
404         <xsd:element name="attrNameList" type="CT_TLBehaviorAttributeNameList" minOccurs="0"
405             maxOccurs="1"/>
406     </xsd:sequence>
407     <xsd:attribute name="additive" type="ST_TLBehaviorAdditiveType" use="optional"/>
408     <xsd:attribute name="accumulate" type="ST_TLBehaviorAccumulateType" use="optional"/>
409     <xsd:attribute name="xfrmType" type="ST_TLBehaviorTransformType" use="optional"/>
410     <xsd:attribute name="from" type="xsd:string" use="optional"/>
411     <xsd:attribute name="to" type="xsd:string" use="optional"/>

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412     <xsd:attribute name="by" type="xsd:string" use="optional"/>
413     <xsd:attribute name="rctx" type="xsd:string" use="optional"/>
414     <xsd:attribute name="override" type="ST_TLBehaviorOverrideType" use="optional"/>
415 </xsd:complexType>
416 <xsd:complexType name="CT_TLAnimVariantBooleanVal">
417     <xsd:attribute name="val" type="xsd:boolean" use="required"/>
418 </xsd:complexType>
419 <xsd:complexType name="CT_TLAnimVariantIntegerVal">
420     <xsd:attribute name="val" type="xsd:int" use="required"/>
421 </xsd:complexType>
422 <xsd:complexType name="CT_TLAnimVariantFloatVal">
423     <xsd:attribute name="val" type="xsd:float" use="required"/>
424 </xsd:complexType>
425 <xsd:complexType name="CT_TLAnimVariantStringVal">
426     <xsd:attribute name="val" type="xsd:string" use="required"/>
427 </xsd:complexType>
428 <xsd:complexType name="CT_TLAnimVariant">
429     <xsd:choice minOccurs="1" maxOccurs="1">
430         <xsd:element name="boolVal" type="CT_TLAnimVariantBooleanVal" />
431         <xsd:element name="intVal" type="CT_TLAnimVariantIntegerVal" />
432         <xsd:element name="fltVal" type="CT_TLAnimVariantFloatVal" />
433         <xsd:element name="strVal" type="CT_TLAnimVariantStringVal" />
434         <xsd:element name="clrVal" type="a:CT_Color" />
435     </xsd:choice>
436 </xsd:complexType>
437 <xsd:simpleType name="ST_TLTimeAnimateValueTime">
438     <xsd:union memberTypes="a:ST_PositiveFixedPercentage ST_TLTimeIndefinite"/>
439 </xsd:simpleType>
440 <xsd:complexType name="CT_TLTimeAnimateValue">
441     <xsd:sequence>
442         <xsd:element name="val" type="CT_TLAnimVariant" minOccurs="0" maxOccurs="1"/>
443     </xsd:sequence>
444     <xsd:attribute name="tm" type="ST_TLTimeAnimateValueTime" use="optional"
445         default="indefinite"/>
446     <xsd:attribute name="fmla" type="xsd:string" use="optional" default=""/>
447 </xsd:complexType>
448 <xsd:complexType name="CT_TLTimeAnimateValueList">
449     <xsd:sequence>
450         <xsd:element name="tav" type="CT_TLTimeAnimateValue" minOccurs="0" maxOccurs="unbounded"/>
451     </xsd:sequence>
452 </xsd:complexType>
453 <xsd:simpleType name="ST_TLAnimateBehaviorCalcMode">
454     <xsd:restriction base="xsd:token">
455         <xsd:enumeration value="discrete"/>
456         <xsd:enumeration value="lin"/>
457         <xsd:enumeration value="fmla"/>
458     </xsd:restriction>
459 </xsd:simpleType>
460 <xsd:simpleType name="ST_TLAnimateBehaviorValueType">
461     <xsd:restriction base="xsd:token">
462         <xsd:enumeration value="str"/>
463         <xsd:enumeration value="num"/>
464         <xsd:enumeration value="clr"/>

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465     </xsd:restriction>
466 </xsd:simpleType>
467 <xsd:complexType name="CT_TLAnimateBehavior">
468     <xsd:sequence>
469         <xsd:element name="cBhvr" type="CT_TLCommonBehaviorData" minOccurs="1" maxOccurs="1"/>
470         <xsd:element name="tavLst" type="CT_TLTimeAnimateValueList" minOccurs="0" maxOccurs="1"/>
471     </xsd:sequence>
472     <xsd:attribute name="by" type="xsd:string" use="optional"/>
473     <xsd:attribute name="from" type="xsd:string" use="optional"/>
474     <xsd:attribute name="to" type="xsd:string" use="optional"/>
475     <xsd:attribute name="calcmode" type="ST_TLAnimateBehaviorCalcMode" use="optional"/>
476     <xsd:attribute name="valueType" type="ST_TLAnimateBehaviorValueType" use="optional"/>
477 </xsd:complexType>
478 <xsd:complexType name="CT_TLByRgbColorTransform">
479     <xsd:attribute name="r" type="a:ST_FixedPercentage" use="required"/>
480     <xsd:attribute name="g" type="a:ST_FixedPercentage" use="required"/>
481     <xsd:attribute name="b" type="a:ST_FixedPercentage" use="required"/>
482 </xsd:complexType>
483 <xsd:complexType name="CT_TLByHslColorTransform">
484     <xsd:attribute name="h" type="a:ST_Angle" use="required"/>
485     <xsd:attribute name="s" type="a:ST_FixedPercentage" use="required"/>
486     <xsd:attribute name="l" type="a:ST_FixedPercentage" use="required"/>
487 </xsd:complexType>
488 <xsd:complexType name="CT_TLByAnimateColorTransform">
489     <xsd:choice minOccurs="1" maxOccurs="1">
490         <xsd:element name="rgb" type="CT_TLByRgbColorTransform"/>
491         <xsd:element name="hsl" type="CT_TLByHslColorTransform"/>
492     </xsd:choice>
493 </xsd:complexType>
494 <xsd:simpleType name="ST_TLAnimateColorSpace">
495     <xsd:restriction base="xsd:token">
496         <xsd:enumeration value="rgb"/>
497         <xsd:enumeration value="hsl"/>
498     </xsd:restriction>
499 </xsd:simpleType>
500 <xsd:simpleType name="ST_TLAnimateColorDirection">
501     <xsd:restriction base="xsd:token">
502         <xsd:enumeration value="cw"/>
503         <xsd:enumeration value="ccw"/>
504     </xsd:restriction>
505 </xsd:simpleType>
506 <xsd:complexType name="CT_TLAnimateColorBehavior">
507     <xsd:sequence>
508         <xsd:element name="cBhvr" type="CT_TLCommonBehaviorData" minOccurs="1" maxOccurs="1"/>
509         <xsd:element name="by" type="CT_TLByAnimateColorTransform" minOccurs="0" maxOccurs="1"/>
510         <xsd:element name="from" type="a:CT_Color" minOccurs="0" maxOccurs="1"/>
511         <xsd:element name="to" type="a:CT_Color" minOccurs="0" maxOccurs="1"/>
512     </xsd:sequence>
513     <xsd:attribute name="clrSpc" type="ST_TLAnimateColorSpace" use="optional"/>
514     <xsd:attribute name="dir" type="ST_TLAnimateColorDirection" use="optional"/>
515 </xsd:complexType>
516 <xsd:simpleType name="ST_TLAnimateEffectTransition">
517     <xsd:restriction base="xsd:token">

```



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518         <xsd:enumeration value="in"/>
519         <xsd:enumeration value="out"/>
520         <xsd:enumeration value="none"/>
521     </xsd:restriction>
522 </xsd:simpleType>
523 <xsd:complexType name="CT_TLAnimateEffectBehavior">
524     <xsd:sequence>
525         <xsd:element name="cBhvr" type="CT_TLCommonBehaviorData" minOccurs="1" maxOccurs="1"/>
526         <xsd:element name="progress" type="CT_TLAnimVariant" minOccurs="0" maxOccurs="1"/>
527     </xsd:sequence>
528     <xsd:attribute name="transition" type="ST_TLAnimateEffectTransition" use="optional"/>
529     <xsd:attribute name="filter" type="xsd:string" use="optional"/>
530     <xsd:attribute name="prLst" type="xsd:string" use="optional"/>
531 </xsd:complexType>
532 <xsd:simpleType name="ST_TLAnimateMotionBehaviorOrigin">
533     <xsd:restriction base="xsd:token">
534         <xsd:enumeration value="parent"/>
535         <xsd:enumeration value="layout"/>
536     </xsd:restriction>
537 </xsd:simpleType>
538 <xsd:simpleType name="ST_TLAnimateMotionPathEditMode">
539     <xsd:restriction base="xsd:token">
540         <xsd:enumeration value="relative"/>
541         <xsd:enumeration value="fixed"/>
542     </xsd:restriction>
543 </xsd:simpleType>
544 <xsd:complexType name="CT_TLPoint">
545     <xsd:attribute name="x" type="a:ST_Percentage" use="required"/>
546     <xsd:attribute name="y" type="a:ST_Percentage" use="required"/>
547 </xsd:complexType>
548 <xsd:complexType name="CT_TLAnimateMotionBehavior">
549     <xsd:sequence>
550         <xsd:element name="cBhvr" type="CT_TLCommonBehaviorData" minOccurs="1" maxOccurs="1"/>
551         <xsd:element name="by" type="CT_TLPoint" minOccurs="0" maxOccurs="1"/>
552         <xsd:element name="from" type="CT_TLPoint" minOccurs="0" maxOccurs="1"/>
553         <xsd:element name="to" type="CT_TLPoint" minOccurs="0" maxOccurs="1"/>
554         <xsd:element name="rCtr" type="CT_TLPoint" minOccurs="0" maxOccurs="1"/>
555     </xsd:sequence>
556     <xsd:attribute name="origin" type="ST_TLAnimateMotionBehaviorOrigin" use="optional"/>
557     <xsd:attribute name="path" type="xsd:string" use="optional"/>
558     <xsd:attribute name="pathEditMode" type="ST_TLAnimateMotionPathEditMode" use="optional"/>
559     <xsd:attribute name="rAng" type="a:ST_Angle" use="optional"/>
560     <xsd:attribute name="ptsTypes" type="xsd:string" use="optional"/>
561 </xsd:complexType>
562 <xsd:complexType name="CT_TLAnimateRotationBehavior">
563     <xsd:sequence>
564         <xsd:element name="cBhvr" type="CT_TLCommonBehaviorData" minOccurs="1" maxOccurs="1"/>
565     </xsd:sequence>
566     <xsd:attribute name="by" type="a:ST_Angle" use="optional"/>
567     <xsd:attribute name="from" type="a:ST_Angle" use="optional"/>
568     <xsd:attribute name="to" type="a:ST_Angle" use="optional"/>
569 </xsd:complexType>
570 <xsd:complexType name="CT_TLAnimateScaleBehavior">

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571     <xsd:sequence>
572       <xsd:element name="cBhvr" type="CT_TLCommonBehaviorData" minOccurs="1" maxOccurs="1"/>
573       <xsd:element name="by" type="CT_TLPoint" minOccurs="0" maxOccurs="1"/>
574       <xsd:element name="from" type="CT_TLPoint" minOccurs="0" maxOccurs="1"/>
575       <xsd:element name="to" type="CT_TLPoint" minOccurs="0" maxOccurs="1"/>
576     </xsd:sequence>
577     <xsd:attribute name="zoomContents" type="xsd:boolean" use="optional"/>
578   </xsd:complexType>
579   <xsd:simpleType name="ST_TLCommandType">
580     <xsd:restriction base="xsd:token">
581       <xsd:enumeration value="evt"/>
582       <xsd:enumeration value="call"/>
583       <xsd:enumeration value="verb"/>
584     </xsd:restriction>
585   </xsd:simpleType>
586   <xsd:complexType name="CT_TLCommandBehavior">
587     <xsd:sequence>
588       <xsd:element name="cBhvr" type="CT_TLCommonBehaviorData" minOccurs="1" maxOccurs="1"/>
589     </xsd:sequence>
590     <xsd:attribute type="ST_TLCommandType" name="type" use="optional"/>
591     <xsd:attribute name="cmd" type="xsd:string" use="optional"/>
592   </xsd:complexType>
593   <xsd:complexType name="CT_TLSetBehavior">
594     <xsd:sequence>
595       <xsd:element name="cBhvr" type="CT_TLCommonBehaviorData" minOccurs="1" maxOccurs="1"/>
596       <xsd:element name="to" type="CT_TLAnimVariant" minOccurs="0" maxOccurs="1"/>
597     </xsd:sequence>
598   </xsd:complexType>
599   <xsd:complexType name="CT_TLCommonMediaNodeData">
600     <xsd:sequence>
601       <xsd:element name="cTn" type="CT_TLCommonTimeNodeData" minOccurs="1" maxOccurs="1"/>
602       <xsd:element name="tgtEl" type="CT_TLTimeTargetElement" minOccurs="1" maxOccurs="1"/>
603     </xsd:sequence>
604     <xsd:attribute name="vol" type="a:ST_PositiveFixedPercentage" default="50%" use="optional"/>
605     <xsd:attribute name="mute" type="xsd:boolean" use="optional" default="false"/>
606     <xsd:attribute name="numSld" type="xsd:unsignedInt" use="optional" default="1"/>
607     <xsd:attribute name="showWhenStopped" type="xsd:boolean" use="optional" default="true"/>
608   </xsd:complexType>
609   <xsd:complexType name="CT_TLMediaNodeAudio">
610     <xsd:sequence>
611       <xsd:element name="cMediaNode" type="CT_TLCommonMediaNodeData" minOccurs="1"
612         maxOccurs="1"/>
613     </xsd:sequence>
614     <xsd:attribute name="isNarration" type="xsd:boolean" use="optional" default="false"/>
615   </xsd:complexType>
616   <xsd:complexType name="CT_TLMediaNodeVideo">
617     <xsd:sequence>
618       <xsd:element name="cMediaNode" type="CT_TLCommonMediaNodeData" minOccurs="1"
619         maxOccurs="1"/>
620     </xsd:sequence>
621     <xsd:attribute name="fullScr" type="xsd:boolean" use="optional" default="false"/>
622   </xsd:complexType>
623   <xsd:attributeGroup name="AG_TLBuild">

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624     <xsd:attribute name="spid" type="a:ST_DrawingElementId" use="required"/>
625     <xsd:attribute name="grpId" type="xsd:unsignedInt" use="required"/>
626     <xsd:attribute name="uiExpand" type="xsd:boolean" use="optional" default="false"/>
627 </xsd:attributeGroup>
628 <xsd:complexType name="CT_TLTemplate">
629     <xsd:sequence>
630         <xsd:element name="tnLst" type="CT_TimeNodeList" minOccurs="1" maxOccurs="1"/>
631     </xsd:sequence>
632     <xsd:attribute name="lvl" type="xsd:unsignedInt" use="optional" default="0"/>
633 </xsd:complexType>
634 <xsd:complexType name="CT_TLTemplateList">
635     <xsd:sequence>
636         <xsd:element name="tmpl" type="CT_TLTemplate" minOccurs="0" maxOccurs="9"/>
637     </xsd:sequence>
638 </xsd:complexType>
639 <xsd:simpleType name="ST_TLParaBuildType">
640     <xsd:restriction base="xsd:token">
641         <xsd:enumeration value="allAtOnce"/>
642         <xsd:enumeration value="p"/>
643         <xsd:enumeration value="cust"/>
644         <xsd:enumeration value="whole"/>
645     </xsd:restriction>
646 </xsd:simpleType>
647 <xsd:complexType name="CT_TLBuildParagraph">
648     <xsd:sequence>
649         <xsd:element name="tmplLst" type="CT_TLTemplateList" minOccurs="0" maxOccurs="1"/>
650     </xsd:sequence>
651     <xsd:attributeGroup ref="AG_TLBuild"/>
652     <xsd:attribute name="build" type="ST_TLParaBuildType" use="optional" default="whole"/>
653     <xsd:attribute name="bldLvl" type="xsd:unsignedInt" use="optional" default="1"/>
654     <xsd:attribute name="animBg" type="xsd:boolean" use="optional" default="false"/>
655     <xsd:attribute name="autoUpdateAnimBg" type="xsd:boolean" default="true" use="optional"/>
656     <xsd:attribute name="rev" type="xsd:boolean" use="optional" default="false"/>
657     <xsd:attribute name="advAuto" type="ST_TLTime" use="optional" default="indefinite"/>
658 </xsd:complexType>
659 <xsd:simpleType name="ST_TLDiagramBuildType">
660     <xsd:restriction base="xsd:token">
661         <xsd:enumeration value="whole"/>
662         <xsd:enumeration value="depthByNode"/>
663         <xsd:enumeration value="depthByBranch"/>
664         <xsd:enumeration value="breadthByNode"/>
665         <xsd:enumeration value="breadthByLvl"/>
666         <xsd:enumeration value="cw"/>
667         <xsd:enumeration value="cwIn"/>
668         <xsd:enumeration value="cwOut"/>
669         <xsd:enumeration value="ccw"/>
670         <xsd:enumeration value="ccwIn"/>
671         <xsd:enumeration value="ccwOut"/>
672         <xsd:enumeration value="inByRing"/>
673         <xsd:enumeration value="outByRing"/>
674         <xsd:enumeration value="up"/>
675         <xsd:enumeration value="down"/>
676         <xsd:enumeration value="allAtOnce"/>

```



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677     <xsd:enumeration value="cust"/>
678   </xsd:restriction>
679 </xsd:simpleType>
680 <xsd:complexType name="CT_TLBuildDiagram">
681   <xsd:attributeGroup ref="AG_TLBuild"/>
682   <xsd:attribute name="bld" type="ST_TLDiagramBuildType" use="optional" default="whole"/>
683 </xsd:complexType>
684 <xsd:simpleType name="ST_TLOleChartBuildType">
685   <xsd:restriction base="xsd:token">
686     <xsd:enumeration value="allAtOnce"/>
687     <xsd:enumeration value="series"/>
688     <xsd:enumeration value="category"/>
689     <xsd:enumeration value="seriesEl"/>
690     <xsd:enumeration value="categoryEl"/>
691   </xsd:restriction>
692 </xsd:simpleType>
693 <xsd:complexType name="CT_TLOleBuildChart">
694   <xsd:attributeGroup ref="AG_TLBuild"/>
695   <xsd:attribute name="bld" type="ST_TLOleChartBuildType" use="optional" default="allAtOnce"/>
696   <xsd:attribute name="animBg" type="xsd:boolean" use="optional" default="true"/>
697 </xsd:complexType>
698 <xsd:complexType name="CT_TLGraphicalObjectBuild">
699   <xsd:choice minOccurs="1" maxOccurs="1">
700     <xsd:element name="bldAsOne" type="CT_Empty"/>
701     <xsd:element name="bldSub" type="a:CT_AnimationGraphicalObjectBuildProperties"/>
702   </xsd:choice>
703   <xsd:attributeGroup ref="AG_TLBuild"/>
704 </xsd:complexType>
705 <xsd:complexType name="CT_BuildList">
706   <xsd:choice minOccurs="1" maxOccurs="unbounded">
707     <xsd:element name="bldP" type="CT_TLBuildParagraph"/>
708     <xsd:element name="bldDgm" type="CT_TLBuildDiagram"/>
709     <xsd:element name="bldOleChart" type="CT_TLOleBuildChart"/>
710     <xsd:element name="bldGraphic" type="CT_TLGraphicalObjectBuild"/>
711   </xsd:choice>
712 </xsd:complexType>
713 <xsd:complexType name="CT_SlideTiming">
714   <xsd:sequence>
715     <xsd:element name="tnLst" type="CT_TimeNodeList" minOccurs="0" maxOccurs="1"/>
716     <xsd:element name="bldLst" type="CT_BuildList" minOccurs="0" maxOccurs="1"/>
717     <xsd:element name="extLst" type="CT_ExtensionListModify" minOccurs="0" maxOccurs="1"/>
718   </xsd:sequence>
719 </xsd:complexType>
720 <xsd:complexType name="CT_Empty"/>
721 <xsd:simpleType name="ST_Name">
722   <xsd:restriction base="xsd:string"/>
723 </xsd:simpleType>
724 <xsd:simpleType name="ST_Direction">
725   <xsd:restriction base="xsd:token">
726     <xsd:enumeration value="horz"/>
727     <xsd:enumeration value="vert"/>
728   </xsd:restriction>
729 </xsd:simpleType>

```



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730 <xsd:simpleType name="ST_Index">
731   <xsd:restriction base="xsd:unsignedInt"/>
732 </xsd:simpleType>
733 <xsd:complexType name="CT_IndexRange">
734   <xsd:attribute name="st" type="ST_Index" use="required"/>
735   <xsd:attribute name="end" type="ST_Index" use="required"/>
736 </xsd:complexType>
737 <xsd:complexType name="CT_SlideRelationshipListEntry">
738   <xsd:attribute ref="r:id" use="required"/>
739 </xsd:complexType>
740 <xsd:complexType name="CT_SlideRelationshipList">
741   <xsd:sequence>
742     <xsd:element name="sld" type="CT_SlideRelationshipListEntry" minOccurs="0"
743       maxOccurs="unbounded"/>
744   </xsd:sequence>
745 </xsd:complexType>
746 <xsd:complexType name="CT_CustomShowId">
747   <xsd:attribute name="id" type="xsd:unsignedInt" use="required"/>
748 </xsd:complexType>
749 <xsd:group name="EG_SlideListChoice">
750   <xsd:choice>
751     <xsd:element name="sldAll" type="CT_Empty"/>
752     <xsd:element name="sldRg" type="CT_IndexRange"/>
753     <xsd:element name="custShow" type="CT_CustomShowId"/>
754   </xsd:choice>
755 </xsd:group>
756 <xsd:complexType name="CT_CustomerData">
757   <xsd:attribute ref="r:id" use="required"/>
758 </xsd:complexType>
759 <xsd:complexType name="CT_TagsData">
760   <xsd:attribute ref="r:id" use="required"/>
761 </xsd:complexType>
762 <xsd:complexType name="CT_CustomerDataList">
763   <xsd:sequence minOccurs="0" maxOccurs="1">
764     <xsd:element name="custData" type="CT_CustomerData" minOccurs="0" maxOccurs="unbounded"/>
765     <xsd:element name="tags" type="CT_TagsData" minOccurs="0" maxOccurs="1"/>
766   </xsd:sequence>
767 </xsd:complexType>
768 <xsd:complexType name="CT_Extension">
769   <xsd:sequence>
770     <xsd:any processContents="lax" minOccurs="0" maxOccurs="unbounded"/>
771   </xsd:sequence>
772   <xsd:attribute name="uri" type="xsd:token" use="required"/>
773 </xsd:complexType>
774 <xsd:group name="EG_ExtensionList">
775   <xsd:sequence>
776     <xsd:element name="ext" type="CT_Extension" minOccurs="0" maxOccurs="unbounded"/>
777   </xsd:sequence>
778 </xsd:group>
779 <xsd:complexType name="CT_ExtensionList">
780   <xsd:sequence>
781     <xsd:group ref="EG_ExtensionList" minOccurs="0" maxOccurs="1"/>
782   </xsd:sequence>

```



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783 </xsd:complexType>
784 <xsd:complexType name="CT_ExtensionListModify">
785   <xsd:sequence>
786     <xsd:group ref="EG_ExtensionList" minOccurs="0" maxOccurs="1"/>
787   </xsd:sequence>
788   <xsd:attribute name="mod" type="xsd:boolean" use="optional" default="false"/>
789 </xsd:complexType>
790 <xsd:complexType name="CT_CommentAuthor">
791   <xsd:sequence>
792     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
793   </xsd:sequence>
794   <xsd:attribute name="id" type="xsd:unsignedInt" use="required"/>
795   <xsd:attribute name="name" type="ST_Name" use="required"/>
796   <xsd:attribute name="initials" type="ST_Name" use="required"/>
797   <xsd:attribute name="lastIdx" type="xsd:unsignedInt" use="required"/>
798   <xsd:attribute name="clrIdx" type="xsd:unsignedInt" use="required"/>
799 </xsd:complexType>
800 <xsd:complexType name="CT_CommentAuthorList">
801   <xsd:sequence>
802     <xsd:element name="cmAuthor" type="CT_CommentAuthor" minOccurs="0" maxOccurs="unbounded"/>
803   </xsd:sequence>
804 </xsd:complexType>
805 <xsd:element name="cmAuthorLst" type="CT_CommentAuthorList"/>
806 <xsd:complexType name="CT_Comment">
807   <xsd:sequence>
808     <xsd:element name="pos" type="a:CT_Point2D" minOccurs="1" maxOccurs="1"/>
809     <xsd:element name="text" type="xsd:string" minOccurs="1" maxOccurs="1"/>
810     <xsd:element name="extLst" type="CT_ExtensionListModify" minOccurs="0" maxOccurs="1"/>
811   </xsd:sequence>
812   <xsd:attribute name="authorId" type="xsd:unsignedInt" use="required"/>
813   <xsd:attribute name="dt" type="xsd:dateTime" use="optional"/>
814   <xsd:attribute name="idx" type="ST_Index" use="required"/>
815 </xsd:complexType>
816 <xsd:complexType name="CT_CommentList">
817   <xsd:sequence>
818     <xsd:element name="cm" type="CT_Comment" minOccurs="0" maxOccurs="unbounded"/>
819   </xsd:sequence>
820 </xsd:complexType>
821 <xsd:element name="cmLst" type="CT_CommentList"/>
822 <xsd:attributeGroup name="AG_Ole">
823   <xsd:attribute name="spid" type="a:ST_ShapeID" use="optional"/>
824   <xsd:attribute name="name" type="xsd:string" use="optional" default=""/>
825   <xsd:attribute name="showAsIcon" type="xsd:boolean" use="optional" default="false"/>
826   <xsd:attribute ref="r:id" use="optional"/>
827   <xsd:attribute name="imgW" type="a:ST_PositiveCoordinate32" use="optional"/>
828   <xsd:attribute name="imgH" type="a:ST_PositiveCoordinate32" use="optional"/>
829 </xsd:attributeGroup>
830 <xsd:simpleType name="ST_OleObjectFollowColorScheme">
831   <xsd:restriction base="xsd:token">
832     <xsd:enumeration value="none"/>
833     <xsd:enumeration value="full"/>
834     <xsd:enumeration value="textAndBackground"/>
835   </xsd:restriction>

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836 </xsd:simpleType>
837 <xsd:complexType name="CT_OleObjectEmbed">
838   <xsd:sequence>
839     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
840   </xsd:sequence>
841   <xsd:attribute name="followColorScheme" type="ST_OleObjectFollowColorScheme" use="optional"
842     default="none"/>
843 </xsd:complexType>
844 <xsd:complexType name="CT_OleObjectLink">
845   <xsd:sequence>
846     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
847   </xsd:sequence>
848   <xsd:attribute name="updateAutomatic" type="xsd:boolean" use="optional" default="false"/>
849 </xsd:complexType>
850 <xsd:complexType name="CT_OleObject">
851   <xsd:sequence>
852     <xsd:choice minOccurs="1" maxOccurs="1">
853       <xsd:element name="embed" type="CT_OleObjectEmbed"/>
854       <xsd:element name="link" type="CT_OleObjectLink"/>
855     </xsd:choice>
856     <xsd:element name="pic" type="CT_Picture" minOccurs="0" maxOccurs="1"/>
857   </xsd:sequence>
858   <xsd:attributeGroup ref="AG_Ole"/>
859   <xsd:attribute name="progId" type="xsd:string" use="optional"/>
860 </xsd:complexType>
861 <xsd:element name="oleObj" type="CT_OleObject"/>
862 <xsd:complexType name="CT_Control">
863   <xsd:sequence>
864     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
865     <xsd:element name="pic" type="CT_Picture" minOccurs="0" maxOccurs="1"/>
866   </xsd:sequence>
867   <xsd:attributeGroup ref="AG_Ole"/>
868 </xsd:complexType>
869 <xsd:complexType name="CT_ControlList">
870   <xsd:sequence>
871     <xsd:element name="control" type="CT_Control" minOccurs="0" maxOccurs="unbounded"/>
872   </xsd:sequence>
873 </xsd:complexType>
874 <xsd:simpleType name="ST_SlideId">
875   <xsd:restriction base="xsd:unsignedInt">
876     <xsd:minInclusive value="256"/>
877     <xsd:maxExclusive value="2147483648"/>
878   </xsd:restriction>
879 </xsd:simpleType>
880 <xsd:complexType name="CT_SlideIdListEntry">
881   <xsd:sequence>
882     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
883   </xsd:sequence>
884   <xsd:attribute name="id" type="ST_SlideId" use="required"/>
885   <xsd:attribute ref="r:id" use="required"/>
886 </xsd:complexType>
887 <xsd:complexType name="CT_SlideIdList">
888   <xsd:sequence>

```



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889     <xsd:element name="sldId" type="CT_SlideIdListEntry" minOccurs="0" maxOccurs="unbounded"/>
890   </xsd:sequence>
891 </xsd:complexType>
892 <xsd:simpleType name="ST_SlideMasterId">
893   <xsd:restriction base="xsd:unsignedInt">
894     <xsd:minInclusive value="2147483648"/>
895   </xsd:restriction>
896 </xsd:simpleType>
897 <xsd:complexType name="CT_SlideMasterIdListEntry">
898   <xsd:sequence>
899     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
900   </xsd:sequence>
901   <xsd:attribute name="id" type="ST_SlideMasterId" use="optional"/>
902   <xsd:attribute ref="r:id" use="required"/>
903 </xsd:complexType>
904 <xsd:complexType name="CT_SlideMasterIdList">
905   <xsd:sequence>
906     <xsd:element name="sldMasterId" type="CT_SlideMasterIdListEntry" minOccurs="0"
907       maxOccurs="unbounded"/>
908   </xsd:sequence>
909 </xsd:complexType>
910 <xsd:complexType name="CT_NotesMasterIdListEntry">
911   <xsd:sequence>
912     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
913   </xsd:sequence>
914   <xsd:attribute ref="r:id" use="required"/>
915 </xsd:complexType>
916 <xsd:complexType name="CT_NotesMasterIdList">
917   <xsd:sequence>
918     <xsd:element name="notesMasterId" type="CT_NotesMasterIdListEntry" minOccurs="0"
919       maxOccurs="1"/>
920   </xsd:sequence>
921 </xsd:complexType>
922 <xsd:complexType name="CT_HandoutMasterIdListEntry">
923   <xsd:sequence>
924     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
925   </xsd:sequence>
926   <xsd:attribute ref="r:id" use="required"/>
927 </xsd:complexType>
928 <xsd:complexType name="CT_HandoutMasterIdList">
929   <xsd:sequence>
930     <xsd:element name="handoutMasterId" type="CT_HandoutMasterIdListEntry" minOccurs="0"
931       maxOccurs="1"/>
932   </xsd:sequence>
933 </xsd:complexType>
934 <xsd:complexType name="CT_EmbeddedFontDataId">
935   <xsd:attribute ref="r:id" use="required"/>
936 </xsd:complexType>
937 <xsd:complexType name="CT_EmbeddedFontListEntry">
938   <xsd:sequence>
939     <xsd:element name="font" type="a:CT_TextFont" minOccurs="1" maxOccurs="1"/>
940     <xsd:element name="regular" type="CT_EmbeddedFontDataId" minOccurs="0" maxOccurs="1"/>
941     <xsd:element name="bold" type="CT_EmbeddedFontDataId" minOccurs="0" maxOccurs="1"/>

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942     <xsd:element name="italic" type="CT_EmbeddedFontDataId" minOccurs="0" maxOccurs="1"/>
943     <xsd:element name="boldItalic" type="CT_EmbeddedFontDataId" minOccurs="0" maxOccurs="1"/>
944   </xsd:sequence>
945 </xsd:complexType>
946 <xsd:complexType name="CT_EmbeddedFontList">
947   <xsd:sequence>
948     <xsd:element name="embeddedFont" type="CT_EmbeddedFontListEntry" minOccurs="0"
949       maxOccurs="unbounded"/>
950   </xsd:sequence>
951 </xsd:complexType>
952 <xsd:complexType name="CT_SmartTags">
953   <xsd:attribute ref="r:id" use="required"/>
954 </xsd:complexType>
955 <xsd:complexType name="CT_CustomShow">
956   <xsd:sequence>
957     <xsd:element name="sldLst" type="CT_SlideRelationshipList" minOccurs="1" maxOccurs="1"/>
958     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
959   </xsd:sequence>
960   <xsd:attribute name="name" type="ST_Name" use="required"/>
961   <xsd:attribute name="id" type="xsd:unsignedInt" use="required"/>
962 </xsd:complexType>
963 <xsd:complexType name="CT_CustomShowList">
964   <xsd:sequence>
965     <xsd:element name="custShow" type="CT_CustomShow" minOccurs="0" maxOccurs="unbounded"/>
966   </xsd:sequence>
967 </xsd:complexType>
968 <xsd:simpleType name="ST_PhotoAlbumLayout">
969   <xsd:restriction base="xsd:token">
970     <xsd:enumeration value="fitToSlide"/>
971     <xsd:enumeration value="1pic"/>
972     <xsd:enumeration value="2pic"/>
973     <xsd:enumeration value="4pic"/>
974     <xsd:enumeration value="1picTitle"/>
975     <xsd:enumeration value="2picTitle"/>
976     <xsd:enumeration value="4picTitle"/>
977   </xsd:restriction>
978 </xsd:simpleType>
979 <xsd:simpleType name="ST_PhotoAlbumFrameShape">
980   <xsd:restriction base="xsd:token">
981     <xsd:enumeration value="frameStyle1"/>
982     <xsd:enumeration value="frameStyle2"/>
983     <xsd:enumeration value="frameStyle3"/>
984     <xsd:enumeration value="frameStyle4"/>
985     <xsd:enumeration value="frameStyle5"/>
986     <xsd:enumeration value="frameStyle6"/>
987     <xsd:enumeration value="frameStyle7"/>
988   </xsd:restriction>
989 </xsd:simpleType>
990 <xsd:complexType name="CT_PhotoAlbum">
991   <xsd:sequence>
992     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
993   </xsd:sequence>
994   <xsd:attribute name="bw" type="xsd:boolean" use="optional" default="false"/>

```



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995     <xsd:attribute name="showCaptions" type="xsd:boolean" use="optional" default="false"/>
996     <xsd:attribute name="layout" type="ST_PhotoAlbumLayout" use="optional" default="fitToSlide"/>
997     <xsd:attribute name="frame" type="ST_PhotoAlbumFrameShape" use="optional"
998         default="frameStyle1"/>
999 </xsd:complexType>
1000 <xsd:simpleType name="ST_SlideSizeCoordinate">
1001     <xsd:restriction base="a:ST_PositiveCoordinate32">
1002         <xsd:minInclusive value="914400"/>
1003         <xsd:maxInclusive value="51206400"/>
1004     </xsd:restriction>
1005 </xsd:simpleType>
1006 <xsd:simpleType name="ST_SlideSizeType">
1007     <xsd:restriction base="xsd:token">
1008         <xsd:enumeration value="screen4x3"/>
1009         <xsd:enumeration value="letter"/>
1010         <xsd:enumeration value="A4"/>
1011         <xsd:enumeration value="35mm"/>
1012         <xsd:enumeration value="overhead"/>
1013         <xsd:enumeration value="banner"/>
1014         <xsd:enumeration value="custom"/>
1015         <xsd:enumeration value="ledger"/>
1016         <xsd:enumeration value="A3"/>
1017         <xsd:enumeration value="B4ISO"/>
1018         <xsd:enumeration value="B5ISO"/>
1019         <xsd:enumeration value="B4JIS"/>
1020         <xsd:enumeration value="B5JIS"/>
1021         <xsd:enumeration value="hagakiCard"/>
1022         <xsd:enumeration value="screen16x9"/>
1023         <xsd:enumeration value="screen16x10"/>
1024     </xsd:restriction>
1025 </xsd:simpleType>
1026 <xsd:complexType name="CT_SlideSize">
1027     <xsd:attribute name="cx" type="ST_SlideSizeCoordinate" use="required"/>
1028     <xsd:attribute name="cy" type="ST_SlideSizeCoordinate" use="required"/>
1029     <xsd:attribute name="type" type="ST_SlideSizeType" use="optional" default="custom"/>
1030 </xsd:complexType>
1031 <xsd:complexType name="CT_Kinsoku">
1032     <xsd:attribute name="lang" type="xsd:string" use="optional"/>
1033     <xsd:attribute name="invalStChars" type="xsd:string" use="required"/>
1034     <xsd:attribute name="invalEndChars" type="xsd:string" use="required"/>
1035 </xsd:complexType>
1036 <xsd:simpleType name="ST_BookmarkIdSeed">
1037     <xsd:restriction base="xsd:unsignedInt">
1038         <xsd:minInclusive value="1"/>
1039         <xsd:maxExclusive value="2147483648"/>
1040     </xsd:restriction>
1041 </xsd:simpleType>
1042 <xsd:complexType name="CT_ModifyVerifier">
1043     <xsd:attribute name="algorithmName" type="xsd:string" use="optional"/>
1044     <xsd:attribute name="hashValue" type="xsd:base64Binary" use="optional"/>
1045     <xsd:attribute name="saltValue" type="xsd:base64Binary" use="optional"/>
1046     <xsd:attribute name="spinValue" type="xsd:unsignedInt" use="optional"/>
1047     <xsd:attribute name="cryptProviderType" type="s:ST_CryptProv" use="optional"/>

```



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1048 <xsd:attribute name="cryptAlgorithmClass" type="s:ST AlgClass" use="optional"/>
1049 <xsd:attribute name="cryptAlgorithmType" type="s:ST AlgType" use="optional"/>
1050 <xsd:attribute name="cryptAlgorithmSid" type="xsd:unsignedInt" use="optional"/>
1051 <xsd:attribute name="spinCount" type="xsd:unsignedInt" use="optional"/>
1052 <xsd:attribute name="saltData" type="xsd:base64Binary" use="optional"/>
1053 <xsd:attribute name="hashData" type="xsd:base64Binary" use="optional"/>
1054 <xsd:attribute name="cryptProvider" type="xsd:string" use="optional"/>
1055 <xsd:attribute name="algIdExt" type="xsd:unsignedInt" use="optional"/>
1056 <xsd:attribute name="algIdExtSource" type="xsd:string" use="optional"/>
1057 <xsd:attribute name="cryptProviderTypeExt" type="xsd:unsignedInt" use="optional"/>
1058 <xsd:attribute name="cryptProviderTypeExtSource" type="xsd:string" use="optional"/>
1059 </xsd:complexType>
1060 <xsd:complexType name="CT_Presentation">
1061   <xsd:sequence>
1062     <xsd:element name="sldMasterIdLst" type="CT SlideMasterIdList" minOccurs="0"
1063       maxOccurs="1"/>
1064     <xsd:element name="notesMasterIdLst" type="CT NotesMasterIdList" minOccurs="0"
1065       maxOccurs="1"/>
1066     <xsd:element name="handoutMasterIdLst" type="CT HandoutMasterIdList" minOccurs="0"
1067       maxOccurs="1"/>
1068     <xsd:element name="sldIdLst" type="CT SlideIdList" minOccurs="0" maxOccurs="1"/>
1069     <xsd:element name="sldSz" type="CT SlideSize" minOccurs="0" maxOccurs="1"/>
1070     <xsd:element name="notesSz" type="a:CT PositiveSize2D" minOccurs="1" maxOccurs="1"/>
1071     <xsd:element name="smartTags" type="CT SmartTags" minOccurs="0" maxOccurs="1"/>
1072     <xsd:element name="embeddedFontLst" type="CT EmbeddedFontList" minOccurs="0"
1073       maxOccurs="1"/>
1074     <xsd:element name="custShowLst" type="CT CustomShowList" minOccurs="0" maxOccurs="1"/>
1075     <xsd:element name="photoAlbum" type="CT PhotoAlbum" minOccurs="0" maxOccurs="1"/>
1076     <xsd:element name="custDataLst" type="CT CustomerDataList" minOccurs="0" maxOccurs="1"/>
1077     <xsd:element name="kinsoku" type="CT Kinsoku" minOccurs="0"/>
1078     <xsd:element name="defaultTextStyle" type="a:CT TextListStyle" minOccurs="0"
1079       maxOccurs="1"/>
1080     <xsd:element name="modifyVerifier" type="CT ModifyVerifier" minOccurs="0" maxOccurs="1"/>
1081     <xsd:element name="extLst" type="CT ExtensionList" minOccurs="0" maxOccurs="1"/>
1082   </xsd:sequence>
1083   <xsd:attribute name="serverZoom" type="a:ST Percentage" use="optional" default="50%"/>
1084   <xsd:attribute name="firstSlideNum" type="xsd:int" use="optional" default="1"/>
1085   <xsd:attribute name="showSpecialPlsOnTitleSld" type="xsd:boolean" use="optional"
1086     default="true"/>
1087   <xsd:attribute name="rtl" type="xsd:boolean" use="optional" default="false"/>
1088   <xsd:attribute name="removePersonalInfoOnSave" type="xsd:boolean" use="optional"
1089     default="false"/>
1090   <xsd:attribute name="compatMode" type="xsd:boolean" use="optional" default="false"/>
1091   <xsd:attribute name="strictFirstAndLastChars" type="xsd:boolean" use="optional"
1092     default="true"/>
1093   <xsd:attribute name="embedTrueTypeFonts" type="xsd:boolean" use="optional" default="false"/>
1094   <xsd:attribute name="saveSubsetFonts" type="xsd:boolean" use="optional" default="false"/>
1095   <xsd:attribute name="autoCompressPictures" type="xsd:boolean" use="optional" default="true"/>
1096   <xsd:attribute name="bookmarkIdSeed" type="ST BookmarkIdSeed" use="optional" default="1"/>
1097   <xsd:attribute name="conformance" type="s:ST ConformanceClass"/>
1098 </xsd:complexType>
1099 <xsd:element name="presentation" type="CT Presentation"/>
1100 <xsd:complexType name="CT_HtmlPublishProperties">

```



```

1101     <xsd:sequence>
1102         <xsd:group ref="EG_SlideListChoice" minOccurs="1" maxOccurs="1"/>
1103         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1104     </xsd:sequence>
1105     <xsd:attribute name="showSpeakerNotes" type="xsd:boolean" use="optional" default="true"/>
1106     <xsd:attribute name="target" type="xsd:string" use="optional"/>
1107     <xsd:attribute name="title" type="xsd:string" use="optional" default=""/>
1108     <xsd:attribute ref="r:id" use="required"/>
1109 </xsd:complexType>
1110 <xsd:simpleType name="ST_WebColorType">
1111     <xsd:restriction base="xsd:token">
1112         <xsd:enumeration value="none"/>
1113         <xsd:enumeration value="browser"/>
1114         <xsd:enumeration value="presentationText"/>
1115         <xsd:enumeration value="presentationAccent"/>
1116         <xsd:enumeration value="whiteTextOnBlack"/>
1117         <xsd:enumeration value="blackTextOnWhite"/>
1118     </xsd:restriction>
1119 </xsd:simpleType>
1120 <xsd:simpleType name="ST_WebScreenSize">
1121     <xsd:restriction base="xsd:token">
1122         <xsd:enumeration value="544x376"/>
1123         <xsd:enumeration value="640x480"/>
1124         <xsd:enumeration value="720x512"/>
1125         <xsd:enumeration value="800x600"/>
1126         <xsd:enumeration value="1024x768"/>
1127         <xsd:enumeration value="1152x882"/>
1128         <xsd:enumeration value="1152x900"/>
1129         <xsd:enumeration value="1280x1024"/>
1130         <xsd:enumeration value="1600x1200"/>
1131         <xsd:enumeration value="1800x1400"/>
1132         <xsd:enumeration value="1920x1200"/>
1133     </xsd:restriction>
1134 </xsd:simpleType>
1135 <xsd:simpleType name="ST_WebEncoding">
1136     <xsd:restriction base="xsd:string"/>
1137 </xsd:simpleType>
1138 <xsd:complexType name="CT_WebProperties">
1139     <xsd:sequence>
1140         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1141     </xsd:sequence>
1142     <xsd:attribute name="showAnimation" type="xsd:boolean" use="optional" default="false"/>
1143     <xsd:attribute name="resizeGraphics" type="xsd:boolean" use="optional" default="true"/>
1144     <xsd:attribute name="allowPng" type="xsd:boolean" use="optional" default="false"/>
1145     <xsd:attribute name="relyOnVml" type="xsd:boolean" use="optional" default="false"/>
1146     <xsd:attribute name="organizeInFolders" type="xsd:boolean" use="optional" default="true"/>
1147     <xsd:attribute name="useLongFileNames" type="xsd:boolean" use="optional" default="true"/>
1148     <xsd:attribute name="imgSz" type="ST_WebScreenSize" use="optional" default="800x600"/>
1149     <xsd:attribute name="encoding" type="ST_WebEncoding" use="optional" default=""/>
1150     <xsd:attribute name="clr" type="ST_WebColorType" use="optional" default="whiteTextOnBlack"/>
1151 </xsd:complexType>
1152 <xsd:simpleType name="ST_PrintWhat">
1153     <xsd:restriction base="xsd:token">

```



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1154         <xsd:enumeration value="slides"/>
1155         <xsd:enumeration value="handouts1"/>
1156         <xsd:enumeration value="handouts2"/>
1157         <xsd:enumeration value="handouts3"/>
1158         <xsd:enumeration value="handouts4"/>
1159         <xsd:enumeration value="handouts6"/>
1160         <xsd:enumeration value="handouts9"/>
1161         <xsd:enumeration value="notes"/>
1162         <xsd:enumeration value="outline"/>
1163     </xsd:restriction>
1164 </xsd:simpleType>
1165 <xsd:simpleType name="ST_PrintColorMode">
1166     <xsd:restriction base="xsd:token">
1167         <xsd:enumeration value="bw"/>
1168         <xsd:enumeration value="gray"/>
1169         <xsd:enumeration value="clr"/>
1170     </xsd:restriction>
1171 </xsd:simpleType>
1172 <xsd:complexType name="CT_PrintProperties">
1173     <xsd:sequence>
1174         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1175     </xsd:sequence>
1176     <xsd:attribute name="prnWhat" type="ST_PrintWhat" use="optional" default="slides"/>
1177     <xsd:attribute name="clrMode" type="ST_PrintColorMode" use="optional" default="clr"/>
1178     <xsd:attribute name="hiddenSlides" type="xsd:boolean" use="optional" default="false"/>
1179     <xsd:attribute name="scaleToFitPaper" type="xsd:boolean" use="optional" default="false"/>
1180     <xsd:attribute name="frameSlides" type="xsd:boolean" use="optional" default="false"/>
1181 </xsd:complexType>
1182 <xsd:complexType name="CT_ShowInfoBrowse">
1183     <xsd:attribute name="showScrollbar" type="xsd:boolean" use="optional" default="true"/>
1184 </xsd:complexType>
1185 <xsd:complexType name="CT_ShowInfoKiosk">
1186     <xsd:attribute name="restart" type="xsd:unsignedInt" use="optional" default="300000"/>
1187 </xsd:complexType>
1188 <xsd:group name="EG_ShowType">
1189     <xsd:choice>
1190         <xsd:element name="present" type="CT_Empty"/>
1191         <xsd:element name="browse" type="CT_ShowInfoBrowse"/>
1192         <xsd:element name="kiosk" type="CT_ShowInfoKiosk"/>
1193     </xsd:choice>
1194 </xsd:group>
1195 <xsd:complexType name="CT_ShowProperties">
1196     <xsd:sequence minOccurs="0" maxOccurs="1">
1197         <xsd:group ref="EG_ShowType" minOccurs="0" maxOccurs="1"/>
1198         <xsd:group ref="EG_SlideListChoice" minOccurs="0" maxOccurs="1"/>
1199         <xsd:element name="penClr" type="a:CT_Color" minOccurs="0" maxOccurs="1"/>
1200         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1201     </xsd:sequence>
1202     <xsd:attribute name="loop" type="xsd:boolean" use="optional" default="false"/>
1203     <xsd:attribute name="showNarration" type="xsd:boolean" use="optional" default="false"/>
1204     <xsd:attribute name="showAnimation" type="xsd:boolean" use="optional" default="true"/>
1205     <xsd:attribute name="useTimings" type="xsd:boolean" use="optional" default="true"/>
1206 </xsd:complexType>

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1207 <xsd:complexType name="CT_PresentationProperties">
1208   <xsd:sequence>
1209     <xsd:element name="htmlPubPr" type="CT_HtmlPublishProperties" minOccurs="0"
1210       maxOccurs="1"/>
1211     <xsd:element name="webPr" type="CT_WebProperties" minOccurs="0" maxOccurs="1"/>
1212     <xsd:element name="prnPr" type="CT_PrintProperties" minOccurs="0" maxOccurs="1"/>
1213     <xsd:element name="showPr" type="CT_ShowProperties" minOccurs="0" maxOccurs="1"/>
1214     <xsd:element name="clrMrU" type="a:CT_ColorMRU" minOccurs="0" maxOccurs="1"/>
1215     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1216   </xsd:sequence>
1217 </xsd:complexType>
1218 <xsd:element name="presentationPr" type="CT_PresentationProperties"/>
1219 <xsd:complexType name="CT_HeaderFooter">
1220   <xsd:sequence>
1221     <xsd:element name="extLst" type="CT_ExtensionListModify" minOccurs="0" maxOccurs="1"/>
1222   </xsd:sequence>
1223   <xsd:attribute name="sldNum" type="xsd:boolean" use="optional" default="true"/>
1224   <xsd:attribute name="hdr" type="xsd:boolean" use="optional" default="true"/>
1225   <xsd:attribute name="ftr" type="xsd:boolean" use="optional" default="true"/>
1226   <xsd:attribute name="dt" type="xsd:boolean" use="optional" default="true"/>
1227 </xsd:complexType>
1228 <xsd:simpleType name="ST_PlaceholderType">
1229   <xsd:restriction base="xsd:token">
1230     <xsd:enumeration value="title"/>
1231     <xsd:enumeration value="body"/>
1232     <xsd:enumeration value="ctrTitle"/>
1233     <xsd:enumeration value="subTitle"/>
1234     <xsd:enumeration value="dt"/>
1235     <xsd:enumeration value="sldNum"/>
1236     <xsd:enumeration value="ftr"/>
1237     <xsd:enumeration value="hdr"/>
1238     <xsd:enumeration value="obj"/>
1239     <xsd:enumeration value="chart"/>
1240     <xsd:enumeration value="tbl"/>
1241     <xsd:enumeration value="clipArt"/>
1242     <xsd:enumeration value="dgm"/>
1243     <xsd:enumeration value="media"/>
1244     <xsd:enumeration value="sldImg"/>
1245     <xsd:enumeration value="pic"/>
1246   </xsd:restriction>
1247 </xsd:simpleType>
1248 <xsd:simpleType name="ST_PlaceholderSize">
1249   <xsd:restriction base="xsd:token">
1250     <xsd:enumeration value="full"/>
1251     <xsd:enumeration value="half"/>
1252     <xsd:enumeration value="quarter"/>
1253   </xsd:restriction>
1254 </xsd:simpleType>
1255 <xsd:complexType name="CT_Placeholder">
1256   <xsd:sequence>
1257     <xsd:element name="extLst" type="CT_ExtensionListModify" minOccurs="0" maxOccurs="1"/>
1258   </xsd:sequence>
1259   <xsd:attribute name="type" type="ST_PlaceholderType" use="optional" default="obj"/>

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1260     <xsd:attribute name="orient" type="ST_Direction" use="optional" default="horz"/>
1261     <xsd:attribute name="sz" type="ST_PlaceholderSize" use="optional" default="full"/>
1262     <xsd:attribute name="idx" type="xsd:unsignedInt" use="optional" default="0"/>
1263     <xsd:attribute name="hasCustomPrompt" type="xsd:boolean" use="optional" default="false"/>
1264 </xsd:complexType>
1265 <xsd:complexType name="CT_ApplicationNonVisualDrawingProps">
1266     <xsd:sequence>
1267         <xsd:element name="ph" type="CT_Placeholder" minOccurs="0" maxOccurs="1"/>
1268         <xsd:group ref="a:EG_Media" minOccurs="0" maxOccurs="1"/>
1269         <xsd:element name="custDataLst" type="CT_CustomerDataList" minOccurs="0" maxOccurs="1"/>
1270         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1271     </xsd:sequence>
1272     <xsd:attribute name="isPhoto" type="xsd:boolean" use="optional" default="false"/>
1273     <xsd:attribute name="userDrawn" type="xsd:boolean" use="optional" default="false"/>
1274 </xsd:complexType>
1275 <xsd:complexType name="CT_ShapeNonVisual">
1276     <xsd:sequence>
1277         <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
1278         <xsd:element name="cNvSpPr" type="a:CT_NonVisualDrawingShapeProps" minOccurs="1"
1279             maxOccurs="1"/>
1280         <xsd:element name="nvPr" type="CT_ApplicationNonVisualDrawingProps" minOccurs="1"
1281             maxOccurs="1"/>
1282     </xsd:sequence>
1283 </xsd:complexType>
1284 <xsd:complexType name="CT_Shape">
1285     <xsd:sequence>
1286         <xsd:element name="nvSpPr" type="CT_ShapeNonVisual" minOccurs="1" maxOccurs="1"/>
1287         <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="1" maxOccurs="1"/>
1288         <xsd:element name="style" type="a:CT_ShapeStyle" minOccurs="0" maxOccurs="1"/>
1289         <xsd:element name="txBody" type="a:CT_TextBody" minOccurs="0" maxOccurs="1"/>
1290         <xsd:element name="extLst" type="CT_ExtensionListModify" minOccurs="0" maxOccurs="1"/>
1291     </xsd:sequence>
1292     <xsd:attribute name="useBgFill" type="xsd:boolean" use="optional" default="false"/>
1293 </xsd:complexType>
1294 <xsd:complexType name="CT_ConnectorNonVisual">
1295     <xsd:sequence>
1296         <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
1297         <xsd:element name="cNvCxnSpPr" type="a:CT_NonVisualConnectorProperties" minOccurs="1"
1298             maxOccurs="1"/>
1299         <xsd:element name="nvPr" type="CT_ApplicationNonVisualDrawingProps" minOccurs="1"
1300             maxOccurs="1"/>
1301     </xsd:sequence>
1302 </xsd:complexType>
1303 <xsd:complexType name="CT_Connector">
1304     <xsd:sequence>
1305         <xsd:element name="nvCxnSpPr" type="CT_ConnectorNonVisual" minOccurs="1" maxOccurs="1"/>
1306         <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="1" maxOccurs="1"/>
1307         <xsd:element name="style" type="a:CT_ShapeStyle" minOccurs="0" maxOccurs="1"/>
1308         <xsd:element name="extLst" type="CT_ExtensionListModify" minOccurs="0" maxOccurs="1"/>
1309     </xsd:sequence>
1310 </xsd:complexType>
1311 <xsd:complexType name="CT_PictureNonVisual">
1312     <xsd:sequence>

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1313     <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
1314     <xsd:element name="cNvPicPr" type="a:CT_NonVisualPictureProperties" minOccurs="1"
1315         maxOccurs="1"/>
1316     <xsd:element name="nvPr" type="CT_ApplicationNonVisualDrawingProps" minOccurs="1"
1317         maxOccurs="1"/>
1318 </xsd:sequence>
1319 </xsd:complexType>
1320 <xsd:complexType name="CT_Picture">
1321     <xsd:sequence>
1322         <xsd:element name="nvPicPr" type="CT_PictureNonVisual" minOccurs="1" maxOccurs="1"/>
1323         <xsd:element name="blipFill" type="a:CT_BlipFillProperties" minOccurs="1" maxOccurs="1"/>
1324         <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="1" maxOccurs="1"/>
1325         <xsd:element name="style" type="a:CT_ShapeStyle" minOccurs="0" maxOccurs="1"/>
1326         <xsd:element name="extLst" type="CT_ExtensionListModify" minOccurs="0" maxOccurs="1"/>
1327     </xsd:sequence>
1328 </xsd:complexType>
1329 <xsd:complexType name="CT_GraphicalObjectFrameNonVisual">
1330     <xsd:sequence>
1331         <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
1332         <xsd:element name="cNvGraphicFramePr" type="a:CT_NonVisualGraphicFrameProperties"
1333             minOccurs="1" maxOccurs="1"/>
1334         <xsd:element name="nvPr" type="CT_ApplicationNonVisualDrawingProps" minOccurs="1"
1335             maxOccurs="1"/>
1336     </xsd:sequence>
1337 </xsd:complexType>
1338 <xsd:complexType name="CT_GraphicalObjectFrame">
1339     <xsd:sequence>
1340         <xsd:element name="nvGraphicFramePr" type="CT_GraphicalObjectFrameNonVisual" minOccurs="1"
1341             maxOccurs="1"/>
1342         <xsd:element name="xfrm" type="a:CT_Transform2D" minOccurs="1" maxOccurs="1"/>
1343         <xsd:element ref="a:graphic" minOccurs="1" maxOccurs="1"/>
1344         <xsd:element name="extLst" type="CT_ExtensionListModify" minOccurs="0" maxOccurs="1"/>
1345     </xsd:sequence>
1346     <xsd:attribute name="bwMode" type="a:ST_BlackWhiteMode" use="optional"/>
1347 </xsd:complexType>
1348 <xsd:complexType name="CT_GroupShapeNonVisual">
1349     <xsd:sequence>
1350         <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
1351         <xsd:element name="cNvGrpSpPr" type="a:CT_NonVisualGroupDrawingShapeProps" minOccurs="1"
1352             maxOccurs="1"/>
1353         <xsd:element name="nvPr" type="CT_ApplicationNonVisualDrawingProps" minOccurs="1"
1354             maxOccurs="1"/>
1355     </xsd:sequence>
1356 </xsd:complexType>
1357 <xsd:complexType name="CT_GroupShape">
1358     <xsd:sequence>
1359         <xsd:element name="nvGrpSpPr" type="CT_GroupShapeNonVisual" minOccurs="1" maxOccurs="1"/>
1360         <xsd:element name="grpSpPr" type="a:CT_GroupShapeProperties" minOccurs="1" maxOccurs="1"/>
1361         <xsd:choice minOccurs="0" maxOccurs="unbounded">
1362             <xsd:element name="sp" type="CT_Shape"/>
1363             <xsd:element name="grpSp" type="CT_GroupShape"/>
1364             <xsd:element name="graphicFrame" type="CT_GraphicalObjectFrame"/>
1365             <xsd:element name="cxnSp" type="CT_Connector"/>

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1366         <xsd:element name="pic" type="CT Picture"/>
1367         <xsd:element name="contentPart" type="CT Rel"/>
1368     </xsd:choice>
1369     <xsd:element name="extLst" type="CT ExtensionListModify" minOccurs="0" maxOccurs="1"/>
1370 </xsd:sequence>
1371 </xsd:complexType>
1372 <xsd:complexType name="CT_Rel">
1373     <xsd:attribute ref="r:id" use="required"/>
1374 </xsd:complexType>
1375 <xsd:group name="EG_TopLevelSlide">
1376     <xsd:sequence>
1377         <xsd:element name="clrMap" type="a:CT ColorMapping" minOccurs="1" maxOccurs="1"/>
1378     </xsd:sequence>
1379 </xsd:group>
1380 <xsd:group name="EG_ChildSlide">
1381     <xsd:sequence>
1382         <xsd:element name="clrMapOvr" type="a:CT ColorMappingOverride" minOccurs="0"
1383             maxOccurs="1"/>
1384     </xsd:sequence>
1385 </xsd:group>
1386 <xsd:attributeGroup name="AG_ChildSlide">
1387     <xsd:attribute name="showMasterSp" type="xsd:boolean" use="optional" default="true"/>
1388     <xsd:attribute name="showMasterPhAnim" type="xsd:boolean" use="optional" default="true"/>
1389 </xsd:attributeGroup>
1390 <xsd:complexType name="CT_BackgroundProperties">
1391     <xsd:sequence>
1392         <xsd:group ref="a:EG FillProperties" minOccurs="1" maxOccurs="1"/>
1393         <xsd:group ref="a:EG EffectProperties" minOccurs="0" maxOccurs="1"/>
1394         <xsd:element name="extLst" type="CT ExtensionList" minOccurs="0" maxOccurs="1"/>
1395     </xsd:sequence>
1396     <xsd:attribute name="shadeToTitle" type="xsd:boolean" use="optional" default="false"/>
1397 </xsd:complexType>
1398 <xsd:group name="EG_Background">
1399     <xsd:choice>
1400         <xsd:element name="bgPr" type="CT BackgroundProperties"/>
1401         <xsd:element name="bgRef" type="a:CT StyleMatrixReference"/>
1402     </xsd:choice>
1403 </xsd:group>
1404 <xsd:complexType name="CT_Background">
1405     <xsd:sequence>
1406         <xsd:group ref="EG_Background"/>
1407     </xsd:sequence>
1408     <xsd:attribute name="bwMode" type="a:ST BlackWhiteMode" use="optional" default="white"/>
1409 </xsd:complexType>
1410 <xsd:complexType name="CT_CommonSlideData">
1411     <xsd:sequence>
1412         <xsd:element name="bg" type="CT Background" minOccurs="0" maxOccurs="1"/>
1413         <xsd:element name="spTree" type="CT GroupShape" minOccurs="1" maxOccurs="1"/>
1414         <xsd:element name="custDataLst" type="CT CustomerDataList" minOccurs="0" maxOccurs="1"/>
1415         <xsd:element name="controls" type="CT ControlList" minOccurs="0" maxOccurs="1"/>
1416         <xsd:element name="extLst" type="CT ExtensionList" minOccurs="0" maxOccurs="1"/>
1417     </xsd:sequence>
1418     <xsd:attribute name="name" type="xsd:string" use="optional" default=""/>

```



```

1419 </xsd:complexType>
1420 <xsd:complexType name="CT_Slide">
1421   <xsd:sequence minOccurs="1" maxOccurs="1">
1422     <xsd:element name="cSld" type="CT_CommonSlideData" minOccurs="1" maxOccurs="1"/>
1423     <xsd:group ref="EG_ChildSlide" minOccurs="0" maxOccurs="1"/>
1424     <xsd:element name="transition" type="CT_SlideTransition" minOccurs="0" maxOccurs="1"/>
1425     <xsd:element name="timing" type="CT_SlideTiming" minOccurs="0" maxOccurs="1"/>
1426     <xsd:element name="extLst" type="CT_ExtensionListModify" minOccurs="0" maxOccurs="1"/>
1427   </xsd:sequence>
1428   <xsd:attributeGroup ref="AG_ChildSlide"/>
1429   <xsd:attribute name="show" type="xsd:boolean" use="optional" default="true"/>
1430 </xsd:complexType>
1431 <xsd:element name="sld" type="CT_Slide"/>
1432 <xsd:simpleType name="ST_SlideLayoutType">
1433   <xsd:restriction base="xsd:token">
1434     <xsd:enumeration value="title"/>
1435     <xsd:enumeration value="tx"/>
1436     <xsd:enumeration value="twoColTx"/>
1437     <xsd:enumeration value="tbl"/>
1438     <xsd:enumeration value="txAndChart"/>
1439     <xsd:enumeration value="chartAndTx"/>
1440     <xsd:enumeration value="dgm"/>
1441     <xsd:enumeration value="chart"/>
1442     <xsd:enumeration value="txAndClipArt"/>
1443     <xsd:enumeration value="clipArtAndTx"/>
1444     <xsd:enumeration value="titleOnly"/>
1445     <xsd:enumeration value="blank"/>
1446     <xsd:enumeration value="txAndObj"/>
1447     <xsd:enumeration value="objAndTx"/>
1448     <xsd:enumeration value="objOnly"/>
1449     <xsd:enumeration value="obj"/>
1450     <xsd:enumeration value="txAndMedia"/>
1451     <xsd:enumeration value="mediaAndTx"/>
1452     <xsd:enumeration value="objOverTx"/>
1453     <xsd:enumeration value="txOverObj"/>
1454     <xsd:enumeration value="txAndTwoObj"/>
1455     <xsd:enumeration value="twoObjAndTx"/>
1456     <xsd:enumeration value="twoObjOverTx"/>
1457     <xsd:enumeration value="fourObj"/>
1458     <xsd:enumeration value="vertTx"/>
1459     <xsd:enumeration value="clipArtAndVertTx"/>
1460     <xsd:enumeration value="vertTitleAndTx"/>
1461     <xsd:enumeration value="vertTitleAndTxOverChart"/>
1462     <xsd:enumeration value="twoObj"/>
1463     <xsd:enumeration value="objAndTwoObj"/>
1464     <xsd:enumeration value="twoObjAndObj"/>
1465     <xsd:enumeration value="cust"/>
1466     <xsd:enumeration value="secHead"/>
1467     <xsd:enumeration value="twoTxTwoObj"/>
1468     <xsd:enumeration value="objTx"/>
1469     <xsd:enumeration value="picTx"/>
1470   </xsd:restriction>
1471 </xsd:simpleType>

```



```

1472 <xsd:complexType name="CT_SlideLayout">
1473   <xsd:sequence minOccurs="1" maxOccurs="1">
1474     <xsd:element name="cSld" type="CT_CommonSlideData" minOccurs="1" maxOccurs="1"/>
1475     <xsd:group ref="EG_ChildSlide" minOccurs="0" maxOccurs="1"/>
1476     <xsd:element name="transition" type="CT_SlideTransition" minOccurs="0" maxOccurs="1"/>
1477     <xsd:element name="timing" type="CT_SlideTiming" minOccurs="0" maxOccurs="1"/>
1478     <xsd:element name="hf" type="CT_HeaderFooter" minOccurs="0" maxOccurs="1"/>
1479     <xsd:element name="extLst" type="CT_ExtensionListModify" minOccurs="0" maxOccurs="1"/>
1480   </xsd:sequence>
1481   <xsd:attributeGroup ref="AG_ChildSlide"/>
1482   <xsd:attribute name="matchingName" type="xsd:string" use="optional" default=""/>
1483   <xsd:attribute name="type" type="ST_SlideLayoutType" use="optional" default="cust"/>
1484   <xsd:attribute name="preserve" type="xsd:boolean" use="optional" default="false"/>
1485   <xsd:attribute name="userDrawn" type="xsd:boolean" use="optional" default="false"/>
1486 </xsd:complexType>
1487 <xsd:element name="sldLayout" type="CT_SlideLayout"/>
1488 <xsd:complexType name="CT_SlideMasterTextStyles">
1489   <xsd:sequence>
1490     <xsd:element name="titleStyle" type="a:CT_TextListStyle" minOccurs="0" maxOccurs="1"/>
1491     <xsd:element name="bodyStyle" type="a:CT_TextListStyle" minOccurs="0" maxOccurs="1"/>
1492     <xsd:element name="otherStyle" type="a:CT_TextListStyle" minOccurs="0" maxOccurs="1"/>
1493     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1494   </xsd:sequence>
1495 </xsd:complexType>
1496 <xsd:simpleType name="ST_SlideLayoutId">
1497   <xsd:restriction base="xsd:unsignedInt">
1498     <xsd:minInclusive value="2147483648"/>
1499   </xsd:restriction>
1500 </xsd:simpleType>
1501 <xsd:complexType name="CT_SlideLayoutIdListEntry">
1502   <xsd:sequence>
1503     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1504   </xsd:sequence>
1505   <xsd:attribute name="id" type="ST_SlideLayoutId" use="optional"/>
1506   <xsd:attribute ref="r:id" use="required"/>
1507 </xsd:complexType>
1508 <xsd:complexType name="CT_SlideLayoutIdList">
1509   <xsd:sequence>
1510     <xsd:element name="sldLayoutId" type="CT_SlideLayoutIdListEntry" minOccurs="0"
1511       maxOccurs="unbounded"/>
1512   </xsd:sequence>
1513 </xsd:complexType>
1514 <xsd:complexType name="CT_SlideMaster">
1515   <xsd:sequence minOccurs="1" maxOccurs="1">
1516     <xsd:element name="cSld" type="CT_CommonSlideData" minOccurs="1" maxOccurs="1"/>
1517     <xsd:group ref="EG_TopLevelSlide" minOccurs="1" maxOccurs="1"/>
1518     <xsd:element name="sldLayoutIdList" type="CT_SlideLayoutIdList" minOccurs="0"
1519       maxOccurs="1"/>
1520     <xsd:element name="transition" type="CT_SlideTransition" minOccurs="0" maxOccurs="1"/>
1521     <xsd:element name="timing" type="CT_SlideTiming" minOccurs="0" maxOccurs="1"/>
1522     <xsd:element name="hf" type="CT_HeaderFooter" minOccurs="0" maxOccurs="1"/>
1523     <xsd:element name="txStyles" type="CT_SlideMasterTextStyles" minOccurs="0" maxOccurs="1"/>
1524     <xsd:element name="extLst" type="CT_ExtensionListModify" minOccurs="0" maxOccurs="1"/>

```



```

1525     </xsd:sequence>
1526     <xsd:attribute name="preserve" type="xsd:boolean" use="optional" default="false"/>
1527 </xsd:complexType>
1528 <xsd:element name="sldMaster" type="CT_SlideMaster"/>
1529 <xsd:complexType name="CT_HandoutMaster">
1530     <xsd:sequence>
1531         <xsd:element name="cSld" type="CT_CommonSlideData" minOccurs="1" maxOccurs="1"/>
1532         <xsd:group ref="EG_TopLevelSlide" minOccurs="1" maxOccurs="1"/>
1533         <xsd:element name="hf" type="CT_HeaderFooter" minOccurs="0" maxOccurs="1"/>
1534         <xsd:element name="extLst" type="CT_ExtensionListModify" minOccurs="0" maxOccurs="1"/>
1535     </xsd:sequence>
1536 </xsd:complexType>
1537 <xsd:element name="handoutMaster" type="CT_HandoutMaster"/>
1538 <xsd:complexType name="CT_NotesMaster">
1539     <xsd:sequence>
1540         <xsd:element name="cSld" type="CT_CommonSlideData" minOccurs="1" maxOccurs="1"/>
1541         <xsd:group ref="EG_TopLevelSlide" minOccurs="1" maxOccurs="1"/>
1542         <xsd:element name="hf" type="CT_HeaderFooter" minOccurs="0" maxOccurs="1"/>
1543         <xsd:element name="notesStyle" type="a:CT_TextListStyle" minOccurs="0" maxOccurs="1"/>
1544         <xsd:element name="extLst" type="CT_ExtensionListModify" minOccurs="0" maxOccurs="1"/>
1545     </xsd:sequence>
1546 </xsd:complexType>
1547 <xsd:element name="notesMaster" type="CT_NotesMaster"/>
1548 <xsd:complexType name="CT_NotesSlide">
1549     <xsd:sequence minOccurs="1" maxOccurs="1">
1550         <xsd:element name="cSld" type="CT_CommonSlideData" minOccurs="1" maxOccurs="1"/>
1551         <xsd:group ref="EG_ChildSlide" minOccurs="0" maxOccurs="1"/>
1552         <xsd:element name="extLst" type="CT_ExtensionListModify" minOccurs="0" maxOccurs="1"/>
1553     </xsd:sequence>
1554     <xsd:attributeGroup ref="AG_ChildSlide"/>
1555 </xsd:complexType>
1556 <xsd:element name="notes" type="CT_NotesSlide"/>
1557 <xsd:complexType name="CT_SlideSyncProperties">
1558     <xsd:sequence>
1559         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1560     </xsd:sequence>
1561     <xsd:attribute name="serverSldId" type="xsd:string" use="required"/>
1562     <xsd:attribute name="serverSldModifiedTime" type="xsd:dateTime" use="required"/>
1563     <xsd:attribute name="clientInsertedTime" type="xsd:dateTime" use="required"/>
1564 </xsd:complexType>
1565 <xsd:element name="sldSyncPr" type="CT_SlideSyncProperties"/>
1566 <xsd:complexType name="CT_StringTag">
1567     <xsd:attribute name="name" type="xsd:string" use="required"/>
1568     <xsd:attribute name="val" type="xsd:string" use="required"/>
1569 </xsd:complexType>
1570 <xsd:complexType name="CT_TagList">
1571     <xsd:sequence>
1572         <xsd:element name="tag" type="CT_StringTag" minOccurs="0" maxOccurs="unbounded"/>
1573     </xsd:sequence>
1574 </xsd:complexType>
1575 <xsd:element name="tagLst" type="CT_TagList"/>
1576 <xsd:simpleType name="ST_SplitterBarState">
1577     <xsd:restriction base="xsd:token">

```



```

1578         <xsd:enumeration value="minimized"/>
1579         <xsd:enumeration value="restored"/>
1580         <xsd:enumeration value="maximized"/>
1581     </xsd:restriction>
1582 </xsd:simpleType>
1583 <xsd:simpleType name="ST_ViewType">
1584     <xsd:restriction base="xsd:token">
1585         <xsd:enumeration value="sldView"/>
1586         <xsd:enumeration value="sldMasterView"/>
1587         <xsd:enumeration value="notesView"/>
1588         <xsd:enumeration value="handoutView"/>
1589         <xsd:enumeration value="notesMasterView"/>
1590         <xsd:enumeration value="outlineView"/>
1591         <xsd:enumeration value="sldSorterView"/>
1592         <xsd:enumeration value="sldThumbnailView"/>
1593     </xsd:restriction>
1594 </xsd:simpleType>
1595 <xsd:complexType name="CT_NormalViewPortion">
1596     <xsd:attribute name="sz" type="a:ST_PositiveFixedPercentage" use="required"/>
1597     <xsd:attribute name="autoAdjust" type="xsd:boolean" use="optional" default="true"/>
1598 </xsd:complexType>
1599 <xsd:complexType name="CT_NormalViewProperties">
1600     <xsd:sequence>
1601         <xsd:element name="restoredLeft" type="CT_NormalViewPortion" minOccurs="1" maxOccurs="1"/>
1602         <xsd:element name="restoredTop" type="CT_NormalViewPortion" minOccurs="1" maxOccurs="1"/>
1603         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1604     </xsd:sequence>
1605     <xsd:attribute name="showOutlineIcons" type="xsd:boolean" use="optional" default="true"/>
1606     <xsd:attribute name="snapVertSplitter" type="xsd:boolean" use="optional" default="false"/>
1607     <xsd:attribute name="vertBarState" type="ST_SplitterBarState" use="optional"
1608         default="restored"/>
1609     <xsd:attribute name="horzBarState" type="ST_SplitterBarState" use="optional"
1610         default="restored"/>
1611     <xsd:attribute name="preferSingleView" type="xsd:boolean" use="optional" default="false"/>
1612 </xsd:complexType>
1613 <xsd:complexType name="CT_CommonViewProperties">
1614     <xsd:sequence>
1615         <xsd:element name="scale" type="a:CT_Scale2D" minOccurs="1" maxOccurs="1"/>
1616         <xsd:element name="origin" type="a:CT_Point2D" minOccurs="1" maxOccurs="1"/>
1617     </xsd:sequence>
1618     <xsd:attribute name="varScale" type="xsd:boolean" use="optional" default="false"/>
1619 </xsd:complexType>
1620 <xsd:complexType name="CT_NotesTextViewProperties">
1621     <xsd:sequence minOccurs="1" maxOccurs="1">
1622         <xsd:element name="cViewPr" type="CT_CommonViewProperties" minOccurs="1" maxOccurs="1"/>
1623         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1624     </xsd:sequence>
1625 </xsd:complexType>
1626 <xsd:complexType name="CT_OutlineViewSlideEntry">
1627     <xsd:attribute ref="r:id" use="required"/>
1628     <xsd:attribute name="collapse" type="xsd:boolean" use="optional" default="false"/>
1629 </xsd:complexType>
1630 <xsd:complexType name="CT_OutlineViewSlidelist">

```



```

1631     <xsd:sequence>
1632         <xsd:element name="sld" type="CT_OutlineViewSlideEntry" minOccurs="0"
1633             maxOccurs="unbounded"/>
1634     </xsd:sequence>
1635 </xsd:complexType>
1636 <xsd:complexType name="CT_OutlineViewProperties">
1637     <xsd:sequence minOccurs="1" maxOccurs="1">
1638         <xsd:element name="cViewPr" type="CT_CommonViewProperties" minOccurs="1" maxOccurs="1"/>
1639         <xsd:element name="sldLst" type="CT_OutlineViewSlideList" minOccurs="0" maxOccurs="1"/>
1640         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1641     </xsd:sequence>
1642 </xsd:complexType>
1643 <xsd:complexType name="CT_SlideSorterViewProperties">
1644     <xsd:sequence minOccurs="1" maxOccurs="1">
1645         <xsd:element name="cViewPr" type="CT_CommonViewProperties" minOccurs="1" maxOccurs="1"/>
1646         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1647     </xsd:sequence>
1648     <xsd:attribute name="showFormatting" type="xsd:boolean" use="optional" default="true"/>
1649 </xsd:complexType>
1650 <xsd:complexType name="CT_Guide">
1651     <xsd:attribute name="orient" type="ST_Direction" use="optional" default="vert"/>
1652     <xsd:attribute name="pos" type="a:ST_Coordinate32" use="optional" default="0"/>
1653 </xsd:complexType>
1654 <xsd:complexType name="CT_GuideList">
1655     <xsd:sequence minOccurs="0" maxOccurs="1">
1656         <xsd:element name="guide" type="CT_Guide" minOccurs="0" maxOccurs="unbounded"/>
1657     </xsd:sequence>
1658 </xsd:complexType>
1659 <xsd:complexType name="CT_CommonSlideViewProperties">
1660     <xsd:sequence>
1661         <xsd:element name="cViewPr" type="CT_CommonViewProperties" minOccurs="1" maxOccurs="1"/>
1662         <xsd:element name="guideLst" type="CT_GuideList" minOccurs="0" maxOccurs="1"/>
1663     </xsd:sequence>
1664     <xsd:attribute name="snapToGrid" type="xsd:boolean" use="optional" default="true"/>
1665     <xsd:attribute name="snapToObjects" type="xsd:boolean" use="optional" default="false"/>
1666     <xsd:attribute name="showGuides" type="xsd:boolean" use="optional" default="false"/>
1667 </xsd:complexType>
1668 <xsd:complexType name="CT_SlideViewProperties">
1669     <xsd:sequence>
1670         <xsd:element name="cSldViewPr" type="CT_CommonSlideViewProperties" minOccurs="1"
1671             maxOccurs="1"/>
1672         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1673     </xsd:sequence>
1674 </xsd:complexType>
1675 <xsd:complexType name="CT_NotesViewProperties">
1676     <xsd:sequence>
1677         <xsd:element name="cSldViewPr" type="CT_CommonSlideViewProperties" minOccurs="1"
1678             maxOccurs="1"/>
1679         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1680     </xsd:sequence>
1681 </xsd:complexType>
1682 <xsd:complexType name="CT_ViewProperties">
1683     <xsd:sequence minOccurs="0" maxOccurs="1">

```



```

1684     <xsd:element name="normalViewPr" type="CT_NormalViewProperties" minOccurs="0"
1685         maxOccurs="1"/>
1686     <xsd:element name="slideViewPr" type="CT_SlideViewProperties" minOccurs="0"
1687         maxOccurs="1"/>
1688     <xsd:element name="outlineViewPr" type="CT_OutlineViewProperties" minOccurs="0"
1689         maxOccurs="1"/>
1690     <xsd:element name="notesTextViewPr" type="CT_NotesTextViewProperties" minOccurs="0"
1691         maxOccurs="1"/>
1692     <xsd:element name="sorterViewPr" type="CT_SlideSorterViewProperties" minOccurs="0"
1693         maxOccurs="1"/>
1694     <xsd:element name="notesViewPr" type="CT_NotesViewProperties" minOccurs="0"
1695         maxOccurs="1"/>
1696     <xsd:element name="gridSpacing" type="a:CT_PositiveSize2D" minOccurs="0" maxOccurs="1"/>
1697     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1698 </xsd:sequence>
1699     <xsd:attribute name="lastView" type="ST_ViewType" use="optional" default="sldView"/>
1700     <xsd:attribute name="showComments" type="xsd:boolean" use="optional" default="true"/>
1701 </xsd:complexType>
1702     <xsd:element name="viewPr" type="CT_ViewProperties"/>
1703 </xsd:schema>

```

## A.5 DrawingML - Framework

### A.5.1 DrawingML - Main

This schema is available in the file dml-main.xsd.

```

1 <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
2   xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
3   xmlns:s="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
4   xmlns="http://schemas.openxmlformats.org/drawingml/2006/main"
5   targetNamespace="http://schemas.openxmlformats.org/drawingml/2006/main"
6   elementFormDefault="qualified">
7   <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
8       schemaLocation="shared-relationshipReference.xsd"/>
9   <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
10       schemaLocation="shared-commonSimpleTypes.xsd"/>
11   <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/diagram"
12       schemaLocation="dml-diagram.xsd"/>
13   <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/chart"
14       schemaLocation="dml-chart.xsd"/>
15   <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/picture"
16       schemaLocation="dml-picture.xsd"/>
17   <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/lockedCanvas"
18       schemaLocation="dml-lockedCanvas.xsd"/>
19   <xsd:complexType name="CT_AudioFile">
20       <xsd:sequence>
21           <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
22       </xsd:sequence>
23       <xsd:attribute ref="r:link" use="required"/>
24       <xsd:attribute name="contentType" type="xsd:string" use="optional"/>
25   </xsd:complexType>
26   <xsd:complexType name="CT_VideoFile">

```



```

27     <xsd:sequence>
28         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
29     </xsd:sequence>
30     <xsd:attribute ref="r:link" use="required"/>
31     <xsd:attribute name="contentType" type="xsd:string" use="optional"/>
32 </xsd:complexType>
33 <xsd:complexType name="CT_QuickTimeFile">
34     <xsd:sequence>
35         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
36     </xsd:sequence>
37     <xsd:attribute ref="r:link" use="required"/>
38 </xsd:complexType>
39 <xsd:complexType name="CT_AudioCDTime">
40     <xsd:attribute name="track" type="xsd:unsignedByte" use="required"/>
41     <xsd:attribute name="time" type="xsd:unsignedInt" use="optional" default="0"/>
42 </xsd:complexType>
43 <xsd:complexType name="CT_AudioCD">
44     <xsd:sequence>
45         <xsd:element name="st" type="CT_AudioCDTime" minOccurs="1" maxOccurs="1"/>
46         <xsd:element name="end" type="CT_AudioCDTime" minOccurs="1" maxOccurs="1"/>
47         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
48     </xsd:sequence>
49 </xsd:complexType>
50 <xsd:group name="EG_Media">
51     <xsd:choice>
52         <xsd:element name="audioCd" type="CT_AudioCD"/>
53         <xsd:element name="wavAudioFile" type="CT_EmbeddedWAVAudioFile"/>
54         <xsd:element name="audioFile" type="CT_AudioFile"/>
55         <xsd:element name="videoFile" type="CT_VideoFile"/>
56         <xsd:element name="quickTimeFile" type="CT_QuickTimeFile"/>
57     </xsd:choice>
58 </xsd:group>
59 <xsd:element name="videoFile" type="CT_VideoFile"/>
60 <xsd:simpleType name="ST_StyleMatrixColumnIndex">
61     <xsd:restriction base="xsd:unsignedInt"/>
62 </xsd:simpleType>
63 <xsd:simpleType name="ST_FontCollectionIndex">
64     <xsd:restriction base="xsd:token">
65         <xsd:enumeration value="major"/>
66         <xsd:enumeration value="minor"/>
67         <xsd:enumeration value="none"/>
68     </xsd:restriction>
69 </xsd:simpleType>
70 <xsd:simpleType name="ST_ColorSchemeIndex">
71     <xsd:restriction base="xsd:token">
72         <xsd:enumeration value="dk1"/>
73         <xsd:enumeration value="lt1"/>
74         <xsd:enumeration value="dk2"/>
75         <xsd:enumeration value="lt2"/>
76         <xsd:enumeration value="accent1"/>
77         <xsd:enumeration value="accent2"/>
78         <xsd:enumeration value="accent3"/>
79         <xsd:enumeration value="accent4"/>

```



```

80         <xsd:enumeration value="accent5"/>
81         <xsd:enumeration value="accent6"/>
82         <xsd:enumeration value="hlink"/>
83         <xsd:enumeration value="folHlink"/>
84     </xsd:restriction>
85 </xsd:simpleType>
86 <xsd:complexType name="CT_ColorScheme">
87     <xsd:sequence>
88         <xsd:element name="dk1" type="CT_Color" minOccurs="1" maxOccurs="1"/>
89         <xsd:element name="lt1" type="CT_Color" minOccurs="1" maxOccurs="1"/>
90         <xsd:element name="dk2" type="CT_Color" minOccurs="1" maxOccurs="1"/>
91         <xsd:element name="lt2" type="CT_Color" minOccurs="1" maxOccurs="1"/>
92         <xsd:element name="accent1" type="CT_Color" minOccurs="1" maxOccurs="1"/>
93         <xsd:element name="accent2" type="CT_Color" minOccurs="1" maxOccurs="1"/>
94         <xsd:element name="accent3" type="CT_Color" minOccurs="1" maxOccurs="1"/>
95         <xsd:element name="accent4" type="CT_Color" minOccurs="1" maxOccurs="1"/>
96         <xsd:element name="accent5" type="CT_Color" minOccurs="1" maxOccurs="1"/>
97         <xsd:element name="accent6" type="CT_Color" minOccurs="1" maxOccurs="1"/>
98         <xsd:element name="hlink" type="CT_Color" minOccurs="1" maxOccurs="1"/>
99         <xsd:element name="folHlink" type="CT_Color" minOccurs="1" maxOccurs="1"/>
100        <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
101    </xsd:sequence>
102    <xsd:attribute name="name" type="xsd:string" use="required"/>
103 </xsd:complexType>
104 <xsd:complexType name="CT_CustomColor">
105     <xsd:sequence>
106         <xsd:group ref="EG_ColorChoice" minOccurs="1" maxOccurs="1"/>
107     </xsd:sequence>
108     <xsd:attribute name="name" type="xsd:string" use="optional" default=""/>
109 </xsd:complexType>
110 <xsd:complexType name="CT_SupplementalFont">
111     <xsd:attribute name="script" type="xsd:string" use="required"/>
112     <xsd:attribute name="typeface" type="ST_TextTypeface" use="required"/>
113 </xsd:complexType>
114 <xsd:complexType name="CT_CustomColorList">
115     <xsd:sequence>
116         <xsd:element name="custClr" type="CT_CustomColor" minOccurs="0" maxOccurs="unbounded"/>
117     </xsd:sequence>
118 </xsd:complexType>
119 <xsd:complexType name="CT_FontCollection">
120     <xsd:sequence>
121         <xsd:element name="latin" type="CT_TextFont" minOccurs="1" maxOccurs="1"/>
122         <xsd:element name="ea" type="CT_TextFont" minOccurs="1" maxOccurs="1"/>
123         <xsd:element name="cs" type="CT_TextFont" minOccurs="1" maxOccurs="1"/>
124         <xsd:element name="font" type="CT_SupplementalFont" minOccurs="0" maxOccurs="unbounded"/>
125         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
126     </xsd:sequence>
127 </xsd:complexType>
128 <xsd:complexType name="CT_EffectStyleItem">
129     <xsd:sequence>
130         <xsd:group ref="EG_EffectProperties" minOccurs="1" maxOccurs="1"/>
131         <xsd:element name="scene3d" type="CT_Scene3D" minOccurs="0" maxOccurs="1"/>
132         <xsd:element name="sp3d" type="CT_Shape3D" minOccurs="0" maxOccurs="1"/>

```



```

133     </xsd:sequence>
134 </xsd:complexType>
135 <xsd:complexType name="CT_FontScheme">
136     <xsd:sequence>
137         <xsd:element name="majorFont" type="CT_FontCollection" minOccurs="1" maxOccurs="1"/>
138         <xsd:element name="minorFont" type="CT_FontCollection" minOccurs="1" maxOccurs="1"/>
139         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
140     </xsd:sequence>
141     <xsd:attribute name="name" type="xsd:string" use="required"/>
142 </xsd:complexType>
143 <xsd:complexType name="CT_FillStyleList">
144     <xsd:sequence>
145         <xsd:group ref="EG_FillProperties" minOccurs="3" maxOccurs="unbounded"/>
146     </xsd:sequence>
147 </xsd:complexType>
148 <xsd:complexType name="CT_LineStyleList">
149     <xsd:sequence>
150         <xsd:element name="ln" type="CT_LineProperties" minOccurs="3" maxOccurs="unbounded"/>
151     </xsd:sequence>
152 </xsd:complexType>
153 <xsd:complexType name="CT_EffectStyleList">
154     <xsd:sequence>
155         <xsd:element name="effectStyle" type="CT_EffectStyleItem" minOccurs="3"
156             maxOccurs="unbounded"/>
157     </xsd:sequence>
158 </xsd:complexType>
159 <xsd:complexType name="CT_BackgroundFillStyleList">
160     <xsd:sequence>
161         <xsd:group ref="EG_FillProperties" minOccurs="3" maxOccurs="unbounded"/>
162     </xsd:sequence>
163 </xsd:complexType>
164 <xsd:complexType name="CT_StyleMatrix">
165     <xsd:sequence>
166         <xsd:element name="fillStyleLst" type="CT_FillStyleList" minOccurs="1" maxOccurs="1"/>
167         <xsd:element name="lnStyleLst" type="CT_LineStyleList" minOccurs="1" maxOccurs="1"/>
168         <xsd:element name="effectStyleLst" type="CT_EffectStyleList" minOccurs="1" maxOccurs="1"/>
169         <xsd:element name="bgFillStyleLst" type="CT_BackgroundFillStyleList" minOccurs="1"
170             maxOccurs="1"/>
171     </xsd:sequence>
172     <xsd:attribute name="name" type="xsd:string" use="optional" default=""/>
173 </xsd:complexType>
174 <xsd:complexType name="CT_BaseStyles">
175     <xsd:sequence>
176         <xsd:element name="clrScheme" type="CT_ColorScheme" minOccurs="1" maxOccurs="1"/>
177         <xsd:element name="fontScheme" type="CT_FontScheme" minOccurs="1" maxOccurs="1"/>
178         <xsd:element name="fmtScheme" type="CT_StyleMatrix" minOccurs="1" maxOccurs="1"/>
179         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
180     </xsd:sequence>
181 </xsd:complexType>
182 <xsd:complexType name="CT_OfficeArtExtension">
183     <xsd:sequence>
184         <xsd:any processContents="lax" minOccurs="0" maxOccurs="unbounded"/>
185     </xsd:sequence>

```



```

186     <xsd:attribute name="uri" type="xsd:token" use="required"/>
187 </xsd:complexType>
188 <xsd:simpleType name="ST_Coordinate">
189     <xsd:union memberTypes="ST_CoordinateUnqualified s:ST_UniversalMeasure"/>
190 </xsd:simpleType>
191 <xsd:simpleType name="ST_CoordinateUnqualified">
192     <xsd:restriction base="xsd:long">
193         <xsd:minInclusive value="-27273042329600"/>
194         <xsd:maxInclusive value="27273042316900"/>
195     </xsd:restriction>
196 </xsd:simpleType>
197 <xsd:simpleType name="ST_Coordinate32">
198     <xsd:union memberTypes="ST_Coordinate32Unqualified s:ST_UniversalMeasure"/>
199 </xsd:simpleType>
200 <xsd:simpleType name="ST_Coordinate32Unqualified">
201     <xsd:restriction base="xsd:int"/>
202 </xsd:simpleType>
203 <xsd:simpleType name="ST_PositiveCoordinate">
204     <xsd:restriction base="xsd:long">
205         <xsd:minInclusive value="0"/>
206         <xsd:maxInclusive value="27273042316900"/>
207     </xsd:restriction>
208 </xsd:simpleType>
209 <xsd:simpleType name="ST_PositiveCoordinate32">
210     <xsd:restriction base="ST_Coordinate32Unqualified">
211         <xsd:minInclusive value="0"/>
212     </xsd:restriction>
213 </xsd:simpleType>
214 <xsd:simpleType name="ST_Angle">
215     <xsd:restriction base="xsd:int"/>
216 </xsd:simpleType>
217 <xsd:complexType name="CT_Angle">
218     <xsd:attribute name="val" type="ST_Angle" use="required"/>
219 </xsd:complexType>
220 <xsd:simpleType name="ST_FixedAngle">
221     <xsd:restriction base="ST_Angle">
222         <xsd:minExclusive value="-5400000"/>
223         <xsd:maxExclusive value="5400000"/>
224     </xsd:restriction>
225 </xsd:simpleType>
226 <xsd:simpleType name="ST_PositiveFixedAngle">
227     <xsd:restriction base="ST_Angle">
228         <xsd:minInclusive value="0"/>
229         <xsd:maxExclusive value="21600000"/>
230     </xsd:restriction>
231 </xsd:simpleType>
232 <xsd:complexType name="CT_PositiveFixedAngle">
233     <xsd:attribute name="val" type="ST_PositiveFixedAngle" use="required"/>
234 </xsd:complexType>
235 <xsd:simpleType name="ST_Percentage">
236     <xsd:union memberTypes="ST_PercentageDecimal s:ST_Percentage"/>
237 </xsd:simpleType>
238 <xsd:simpleType name="ST_PercentageDecimal">

```



```

239     <xsd:restriction base="xsd:int"/>
240 </xsd:simpleType>
241 <xsd:complexType name="CT_Percentage">
242     <xsd:attribute name="val" type="ST_Percentage" use="required"/>
243 </xsd:complexType>
244 <xsd:simpleType name="ST_PositivePercentage">
245     <xsd:union memberTypes="ST_PositivePercentageDecimal s:ST_PositivePercentage"/>
246 </xsd:simpleType>
247 <xsd:simpleType name="ST_PositivePercentageDecimal">
248     <xsd:restriction base="ST_PercentageDecimal">
249         <xsd:minInclusive value="0"/>
250     </xsd:restriction>
251 </xsd:simpleType>
252 <xsd:complexType name="CT_PositivePercentage">
253     <xsd:attribute name="val" type="ST_PositivePercentage" use="required"/>
254 </xsd:complexType>
255 <xsd:simpleType name="ST_FixedPercentage">
256     <xsd:union memberTypes="ST_FixedPercentageDecimal s:ST_FixedPercentage"/>
257 </xsd:simpleType>
258 <xsd:simpleType name="ST_FixedPercentageDecimal">
259     <xsd:restriction base="ST_PercentageDecimal">
260         <xsd:minInclusive value="-100000"/>
261         <xsd:maxInclusive value="100000"/>
262     </xsd:restriction>
263 </xsd:simpleType>
264 <xsd:complexType name="CT_FixedPercentage">
265     <xsd:attribute name="val" type="ST_FixedPercentage" use="required"/>
266 </xsd:complexType>
267 <xsd:simpleType name="ST_PositiveFixedPercentage">
268     <xsd:union memberTypes="ST_PositiveFixedPercentageDecimal s:ST_PositiveFixedPercentage"/>
269 </xsd:simpleType>
270 <xsd:simpleType name="ST_PositiveFixedPercentageDecimal">
271     <xsd:restriction base="ST_PercentageDecimal">
272         <xsd:minInclusive value="0"/>
273         <xsd:maxInclusive value="100000"/>
274     </xsd:restriction>
275 </xsd:simpleType>
276 <xsd:complexType name="CT_PositiveFixedPercentage">
277     <xsd:attribute name="val" type="ST_PositiveFixedPercentage" use="required"/>
278 </xsd:complexType>
279 <xsd:complexType name="CT_Ratio">
280     <xsd:attribute name="n" type="xsd:long" use="required"/>
281     <xsd:attribute name="d" type="xsd:long" use="required"/>
282 </xsd:complexType>
283 <xsd:complexType name="CT_Point2D">
284     <xsd:attribute name="x" type="ST_Coordinate" use="required"/>
285     <xsd:attribute name="y" type="ST_Coordinate" use="required"/>
286 </xsd:complexType>
287 <xsd:complexType name="CT_PositiveSize2D">
288     <xsd:attribute name="cx" type="ST_PositiveCoordinate" use="required"/>
289     <xsd:attribute name="cy" type="ST_PositiveCoordinate" use="required"/>
290 </xsd:complexType>
291 <xsd:complexType name="CT_ComplementTransform"/>

```



```

292 <xsd:complexType name="CT_InverseTransform"/>
293 <xsd:complexType name="CT_GrayscaleTransform"/>
294 <xsd:complexType name="CT_GammaTransform"/>
295 <xsd:complexType name="CT_InverseGammaTransform"/>
296 <xsd:group name="EG_ColorTransform">
297   <xsd:choice>
298     <xsd:element name="tint" type="CT_PositiveFixedPercentage" minOccurs="1" maxOccurs="1"/>
299     <xsd:element name="shade" type="CT_PositiveFixedPercentage" minOccurs="1" maxOccurs="1"/>
300     <xsd:element name="comp" type="CT_ComplementTransform" minOccurs="1" maxOccurs="1"/>
301     <xsd:element name="inv" type="CT_InverseTransform" minOccurs="1" maxOccurs="1"/>
302     <xsd:element name="gray" type="CT_GrayscaleTransform" minOccurs="1" maxOccurs="1"/>
303     <xsd:element name="alpha" type="CT_PositiveFixedPercentage" minOccurs="1" maxOccurs="1"/>
304     <xsd:element name="alphaOff" type="CT_FixedPercentage" minOccurs="1" maxOccurs="1"/>
305     <xsd:element name="alphaMod" type="CT_PositivePercentage" minOccurs="1" maxOccurs="1"/>
306     <xsd:element name="hue" type="CT_PositiveFixedAngle" minOccurs="1" maxOccurs="1"/>
307     <xsd:element name="hueOff" type="CT_Angle" minOccurs="1" maxOccurs="1"/>
308     <xsd:element name="hueMod" type="CT_PositivePercentage" minOccurs="1" maxOccurs="1"/>
309     <xsd:element name="sat" type="CT_Percentage" minOccurs="1" maxOccurs="1"/>
310     <xsd:element name="satOff" type="CT_Percentage" minOccurs="1" maxOccurs="1"/>
311     <xsd:element name="satMod" type="CT_Percentage" minOccurs="1" maxOccurs="1"/>
312     <xsd:element name="lum" type="CT_Percentage" minOccurs="1" maxOccurs="1"/>
313     <xsd:element name="lumOff" type="CT_Percentage" minOccurs="1" maxOccurs="1"/>
314     <xsd:element name="lumMod" type="CT_Percentage" minOccurs="1" maxOccurs="1"/>
315     <xsd:element name="red" type="CT_Percentage" minOccurs="1" maxOccurs="1"/>
316     <xsd:element name="redOff" type="CT_Percentage" minOccurs="1" maxOccurs="1"/>
317     <xsd:element name="redMod" type="CT_Percentage" minOccurs="1" maxOccurs="1"/>
318     <xsd:element name="green" type="CT_Percentage" minOccurs="1" maxOccurs="1"/>
319     <xsd:element name="greenOff" type="CT_Percentage" minOccurs="1" maxOccurs="1"/>
320     <xsd:element name="greenMod" type="CT_Percentage" minOccurs="1" maxOccurs="1"/>
321     <xsd:element name="blue" type="CT_Percentage" minOccurs="1" maxOccurs="1"/>
322     <xsd:element name="blueOff" type="CT_Percentage" minOccurs="1" maxOccurs="1"/>
323     <xsd:element name="blueMod" type="CT_Percentage" minOccurs="1" maxOccurs="1"/>
324     <xsd:element name="gamma" type="CT_GammaTransform" minOccurs="1" maxOccurs="1"/>
325     <xsd:element name="invGamma" type="CT_InverseGammaTransform" minOccurs="1" maxOccurs="1"/>
326   </xsd:choice>
327 </xsd:group>
328 <xsd:complexType name="CT_ScRgbColor">
329   <xsd:sequence>
330     <xsd:group ref="EG_ColorTransform" minOccurs="0" maxOccurs="unbounded"/>
331   </xsd:sequence>
332   <xsd:attribute name="r" type="ST_Percentage" use="required"/>
333   <xsd:attribute name="g" type="ST_Percentage" use="required"/>
334   <xsd:attribute name="b" type="ST_Percentage" use="required"/>
335 </xsd:complexType>
336 <xsd:complexType name="CT_SRgbColor">
337   <xsd:sequence>
338     <xsd:group ref="EG_ColorTransform" minOccurs="0" maxOccurs="unbounded"/>
339   </xsd:sequence>
340   <xsd:attribute name="val" type="s:ST_HexColorRGB" use="required"/>
341 </xsd:complexType>
342 <xsd:complexType name="CT_HslColor">
343   <xsd:sequence>
344     <xsd:group ref="EG_ColorTransform" minOccurs="0" maxOccurs="unbounded"/>

```



```

345     </xsd:sequence>
346     <xsd:attribute name="hue" type="ST_PositiveFixedAngle" use="required"/>
347     <xsd:attribute name="sat" type="ST_Percentage" use="required"/>
348     <xsd:attribute name="lum" type="ST_Percentage" use="required"/>
349 </xsd:complexType>
350 <xsd:simpleType name="ST_SystemColorVal">
351     <xsd:restriction base="xsd:token">
352         <xsd:enumeration value="scrollBar"/>
353         <xsd:enumeration value="background"/>
354         <xsd:enumeration value="activeCaption"/>
355         <xsd:enumeration value="inactiveCaption"/>
356         <xsd:enumeration value="menu"/>
357         <xsd:enumeration value="window"/>
358         <xsd:enumeration value="windowFrame"/>
359         <xsd:enumeration value="menuText"/>
360         <xsd:enumeration value="windowText"/>
361         <xsd:enumeration value="captionText"/>
362         <xsd:enumeration value="activeBorder"/>
363         <xsd:enumeration value="inactiveBorder"/>
364         <xsd:enumeration value="appWorkspace"/>
365         <xsd:enumeration value="highlight"/>
366         <xsd:enumeration value="highlightText"/>
367         <xsd:enumeration value="btnFace"/>
368         <xsd:enumeration value="btnShadow"/>
369         <xsd:enumeration value="grayText"/>
370         <xsd:enumeration value="btnText"/>
371         <xsd:enumeration value="inactiveCaptionText"/>
372         <xsd:enumeration value="btnHighlight"/>
373         <xsd:enumeration value="3dDkShadow"/>
374         <xsd:enumeration value="3dLight"/>
375         <xsd:enumeration value="infoText"/>
376         <xsd:enumeration value="infoBk"/>
377         <xsd:enumeration value="hotLight"/>
378         <xsd:enumeration value="gradientActiveCaption"/>
379         <xsd:enumeration value="gradientInactiveCaption"/>
380         <xsd:enumeration value="menuHighlight"/>
381         <xsd:enumeration value="menuBar"/>
382     </xsd:restriction>
383 </xsd:simpleType>
384 <xsd:complexType name="CT_SystemColor">
385     <xsd:sequence>
386         <xsd:group ref="EG_ColorTransform" minOccurs="0" maxOccurs="unbounded"/>
387     </xsd:sequence>
388     <xsd:attribute name="val" type="ST_SystemColorVal" use="required"/>
389     <xsd:attribute name="lastClr" type="s:ST_HexColorRGB" use="optional"/>
390 </xsd:complexType>
391 <xsd:simpleType name="ST_SchemeColorVal">
392     <xsd:restriction base="xsd:token">
393         <xsd:enumeration value="bg1"/>
394         <xsd:enumeration value="tx1"/>
395         <xsd:enumeration value="bg2"/>
396         <xsd:enumeration value="tx2"/>
397         <xsd:enumeration value="accent1"/>

```



```

398         <xsd:enumeration value="accent2"/>
399         <xsd:enumeration value="accent3"/>
400         <xsd:enumeration value="accent4"/>
401         <xsd:enumeration value="accent5"/>
402         <xsd:enumeration value="accent6"/>
403         <xsd:enumeration value="hlink"/>
404         <xsd:enumeration value="folHlink"/>
405         <xsd:enumeration value="phClr"/>
406         <xsd:enumeration value="dk1"/>
407         <xsd:enumeration value="lt1"/>
408         <xsd:enumeration value="dk2"/>
409         <xsd:enumeration value="lt2"/>
410     </xsd:restriction>
411 </xsd:simpleType>
412 <xsd:complexType name="CT_SchemeColor">
413     <xsd:sequence>
414         <xsd:group ref="EG_ColorTransform" minOccurs="0" maxOccurs="unbounded"/>
415     </xsd:sequence>
416     <xsd:attribute name="val" type="ST_SchemeColorVal" use="required"/>
417 </xsd:complexType>
418 <xsd:simpleType name="ST_PresetColorVal">
419     <xsd:restriction base="xsd:token">
420         <xsd:enumeration value="aliceBlue"/>
421         <xsd:enumeration value="antiqueWhite"/>
422         <xsd:enumeration value="aqua"/>
423         <xsd:enumeration value="aquamarine"/>
424         <xsd:enumeration value="azure"/>
425         <xsd:enumeration value="beige"/>
426         <xsd:enumeration value="bisque"/>
427         <xsd:enumeration value="black"/>
428         <xsd:enumeration value="blanchedAlmond"/>
429         <xsd:enumeration value="blue"/>
430         <xsd:enumeration value="blueViolet"/>
431         <xsd:enumeration value="brown"/>
432         <xsd:enumeration value="burlyWood"/>
433         <xsd:enumeration value="cadetBlue"/>
434         <xsd:enumeration value="chartreuse"/>
435         <xsd:enumeration value="chocolate"/>
436         <xsd:enumeration value="coral"/>
437         <xsd:enumeration value="cornflowerBlue"/>
438         <xsd:enumeration value="cornsilk"/>
439         <xsd:enumeration value="crimson"/>
440         <xsd:enumeration value="cyan"/>
441         <xsd:enumeration value="darkBlue"/>
442         <xsd:enumeration value="darkCyan"/>
443         <xsd:enumeration value="darkGoldenrod"/>
444         <xsd:enumeration value="darkGray"/>
445         <xsd:enumeration value="darkGrey"/>
446         <xsd:enumeration value="darkGreen"/>
447         <xsd:enumeration value="darkKhaki"/>
448         <xsd:enumeration value="darkMagenta"/>
449         <xsd:enumeration value="darkOliveGreen"/>
450         <xsd:enumeration value="darkOrange"/>

```



```

451     <xsd:enumeration value="darkOrchid"/>
452     <xsd:enumeration value="darkRed"/>
453     <xsd:enumeration value="darkSalmon"/>
454     <xsd:enumeration value="darkSeaGreen"/>
455     <xsd:enumeration value="darkSlateBlue"/>
456     <xsd:enumeration value="darkSlateGray"/>
457     <xsd:enumeration value="darkSlateGrey"/>
458     <xsd:enumeration value="darkTurquoise"/>
459     <xsd:enumeration value="darkViolet"/>
460     <xsd:enumeration value="dkBlue"/>
461     <xsd:enumeration value="dkCyan"/>
462     <xsd:enumeration value="dkGoldenrod"/>
463     <xsd:enumeration value="dkGray"/>
464     <xsd:enumeration value="dkGrey"/>
465     <xsd:enumeration value="dkGreen"/>
466     <xsd:enumeration value="dkKhaki"/>
467     <xsd:enumeration value="dkMagenta"/>
468     <xsd:enumeration value="dkOliveGreen"/>
469     <xsd:enumeration value="dkOrange"/>
470     <xsd:enumeration value="dkOrchid"/>
471     <xsd:enumeration value="dkRed"/>
472     <xsd:enumeration value="dkSalmon"/>
473     <xsd:enumeration value="dkSeaGreen"/>
474     <xsd:enumeration value="dkSlateBlue"/>
475     <xsd:enumeration value="dkSlateGray"/>
476     <xsd:enumeration value="dkSlateGrey"/>
477     <xsd:enumeration value="dkTurquoise"/>
478     <xsd:enumeration value="dkViolet"/>
479     <xsd:enumeration value="deepPink"/>
480     <xsd:enumeration value="deepSkyBlue"/>
481     <xsd:enumeration value="dimGray"/>
482     <xsd:enumeration value="dimGrey"/>
483     <xsd:enumeration value="dodgerBlue"/>
484     <xsd:enumeration value="firebrick"/>
485     <xsd:enumeration value="floralWhite"/>
486     <xsd:enumeration value="forestGreen"/>
487     <xsd:enumeration value="fuchsia"/>
488     <xsd:enumeration value="gainsboro"/>
489     <xsd:enumeration value="ghostWhite"/>
490     <xsd:enumeration value="gold"/>
491     <xsd:enumeration value="goldenrod"/>
492     <xsd:enumeration value="gray"/>
493     <xsd:enumeration value="grey"/>
494     <xsd:enumeration value="green"/>
495     <xsd:enumeration value="greenYellow"/>
496     <xsd:enumeration value="honeydew"/>
497     <xsd:enumeration value="hotPink"/>
498     <xsd:enumeration value="indianRed"/>
499     <xsd:enumeration value="indigo"/>
500     <xsd:enumeration value="ivory"/>
501     <xsd:enumeration value="khaki"/>
502     <xsd:enumeration value="lavender"/>
503     <xsd:enumeration value="lavenderBlush"/>

```



```

504      <xsd:enumeration value="lawnGreen"/>
505      <xsd:enumeration value="lemonChiffon"/>
506      <xsd:enumeration value="lightBlue"/>
507      <xsd:enumeration value="lightCoral"/>
508      <xsd:enumeration value="lightCyan"/>
509      <xsd:enumeration value="lightGoldenrodYellow"/>
510      <xsd:enumeration value="lightGray"/>
511      <xsd:enumeration value="lightGrey"/>
512      <xsd:enumeration value="lightGreen"/>
513      <xsd:enumeration value="lightPink"/>
514      <xsd:enumeration value="lightSalmon"/>
515      <xsd:enumeration value="lightSeaGreen"/>
516      <xsd:enumeration value="lightSkyBlue"/>
517      <xsd:enumeration value="lightSlateGray"/>
518      <xsd:enumeration value="lightSlateGrey"/>
519      <xsd:enumeration value="lightSteelBlue"/>
520      <xsd:enumeration value="lightYellow"/>
521      <xsd:enumeration value="ltBlue"/>
522      <xsd:enumeration value="ltCoral"/>
523      <xsd:enumeration value="ltCyan"/>
524      <xsd:enumeration value="ltGoldenrodYellow"/>
525      <xsd:enumeration value="ltGray"/>
526      <xsd:enumeration value="ltGrey"/>
527      <xsd:enumeration value="ltGreen"/>
528      <xsd:enumeration value="ltPink"/>
529      <xsd:enumeration value="ltSalmon"/>
530      <xsd:enumeration value="ltSeaGreen"/>
531      <xsd:enumeration value="ltSkyBlue"/>
532      <xsd:enumeration value="ltSlateGray"/>
533      <xsd:enumeration value="ltSlateGrey"/>
534      <xsd:enumeration value="ltSteelBlue"/>
535      <xsd:enumeration value="ltYellow"/>
536      <xsd:enumeration value="lime"/>
537      <xsd:enumeration value="limeGreen"/>
538      <xsd:enumeration value="linen"/>
539      <xsd:enumeration value="magenta"/>
540      <xsd:enumeration value="maroon"/>
541      <xsd:enumeration value="medAquamarine"/>
542      <xsd:enumeration value="medBlue"/>
543      <xsd:enumeration value="medOrchid"/>
544      <xsd:enumeration value="medPurple"/>
545      <xsd:enumeration value="medSeaGreen"/>
546      <xsd:enumeration value="medSlateBlue"/>
547      <xsd:enumeration value="medSpringGreen"/>
548      <xsd:enumeration value="medTurquoise"/>
549      <xsd:enumeration value="medVioletRed"/>
550      <xsd:enumeration value="mediumAquamarine"/>
551      <xsd:enumeration value="mediumBlue"/>
552      <xsd:enumeration value="mediumOrchid"/>
553      <xsd:enumeration value="mediumPurple"/>
554      <xsd:enumeration value="mediumSeaGreen"/>
555      <xsd:enumeration value="mediumSlateBlue"/>
556      <xsd:enumeration value="mediumSpringGreen"/>

```



```

557      <xsd:enumeration value="mediumTurquoise"/>
558      <xsd:enumeration value="mediumVioletRed"/>
559      <xsd:enumeration value="midnightBlue"/>
560      <xsd:enumeration value="mintCream"/>
561      <xsd:enumeration value="mistyRose"/>
562      <xsd:enumeration value="moccasin"/>
563      <xsd:enumeration value="navajoWhite"/>
564      <xsd:enumeration value="navy"/>
565      <xsd:enumeration value="oldLace"/>
566      <xsd:enumeration value="olive"/>
567      <xsd:enumeration value="oliveDrab"/>
568      <xsd:enumeration value="orange"/>
569      <xsd:enumeration value="orangeRed"/>
570      <xsd:enumeration value="orchid"/>
571      <xsd:enumeration value="paleGoldenrod"/>
572      <xsd:enumeration value="paleGreen"/>
573      <xsd:enumeration value="paleTurquoise"/>
574      <xsd:enumeration value="paleVioletRed"/>
575      <xsd:enumeration value="papayaWhip"/>
576      <xsd:enumeration value="peachPuff"/>
577      <xsd:enumeration value="peru"/>
578      <xsd:enumeration value="pink"/>
579      <xsd:enumeration value="plum"/>
580      <xsd:enumeration value="powderBlue"/>
581      <xsd:enumeration value="purple"/>
582      <xsd:enumeration value="red"/>
583      <xsd:enumeration value="rosyBrown"/>
584      <xsd:enumeration value="royalBlue"/>
585      <xsd:enumeration value="saddleBrown"/>
586      <xsd:enumeration value="salmon"/>
587      <xsd:enumeration value="sandyBrown"/>
588      <xsd:enumeration value="seaGreen"/>
589      <xsd:enumeration value="seaShell"/>
590      <xsd:enumeration value="sienna"/>
591      <xsd:enumeration value="silver"/>
592      <xsd:enumeration value="skyBlue"/>
593      <xsd:enumeration value="slateBlue"/>
594      <xsd:enumeration value="slateGray"/>
595      <xsd:enumeration value="slateGrey"/>
596      <xsd:enumeration value="snow"/>
597      <xsd:enumeration value="springGreen"/>
598      <xsd:enumeration value="steelBlue"/>
599      <xsd:enumeration value="tan"/>
600      <xsd:enumeration value="teal"/>
601      <xsd:enumeration value="thistle"/>
602      <xsd:enumeration value="tomato"/>
603      <xsd:enumeration value="turquoise"/>
604      <xsd:enumeration value="violet"/>
605      <xsd:enumeration value="wheat"/>
606      <xsd:enumeration value="white"/>
607      <xsd:enumeration value="whiteSmoke"/>
608      <xsd:enumeration value="yellow"/>
609      <xsd:enumeration value="yellowGreen"/>

```



```

610     </xsd:restriction>
611 </xsd:simpleType>
612 <xsd:complexType name="CT_PresetColor">
613     <xsd:sequence>
614         <xsd:group ref="EG_ColorTransform" minOccurs="0" maxOccurs="unbounded"/>
615     </xsd:sequence>
616     <xsd:attribute name="val" type="ST_PresetColorVal" use="required"/>
617 </xsd:complexType>
618 <xsd:group name="EG_OfficeArtExtensionList">
619     <xsd:sequence>
620         <xsd:element name="ext" type="CT_OfficeArtExtension" minOccurs="0" maxOccurs="unbounded"/>
621     </xsd:sequence>
622 </xsd:group>
623 <xsd:complexType name="CT_OfficeArtExtensionList">
624     <xsd:sequence>
625         <xsd:group ref="EG_OfficeArtExtensionList" minOccurs="1" maxOccurs="1"/>
626     </xsd:sequence>
627 </xsd:complexType>
628 <xsd:complexType name="CT_Scale2D">
629     <xsd:sequence>
630         <xsd:element name="sx" type="CT_Ratio" minOccurs="1" maxOccurs="1"/>
631         <xsd:element name="sy" type="CT_Ratio" minOccurs="1" maxOccurs="1"/>
632     </xsd:sequence>
633 </xsd:complexType>
634 <xsd:complexType name="CT_Transform2D">
635     <xsd:sequence>
636         <xsd:element name="off" type="CT_Point2D" minOccurs="0" maxOccurs="1"/>
637         <xsd:element name="ext" type="CT_PositiveSize2D" minOccurs="0" maxOccurs="1"/>
638     </xsd:sequence>
639     <xsd:attribute name="rot" type="ST_Angle" use="optional" default="0"/>
640     <xsd:attribute name="flipH" type="xsd:boolean" use="optional" default="false"/>
641     <xsd:attribute name="flipV" type="xsd:boolean" use="optional" default="false"/>
642 </xsd:complexType>
643 <xsd:complexType name="CT_GroupTransform2D">
644     <xsd:sequence>
645         <xsd:element name="off" type="CT_Point2D" minOccurs="0" maxOccurs="1"/>
646         <xsd:element name="ext" type="CT_PositiveSize2D" minOccurs="0" maxOccurs="1"/>
647         <xsd:element name="chOff" type="CT_Point2D" minOccurs="0" maxOccurs="1"/>
648         <xsd:element name="chExt" type="CT_PositiveSize2D" minOccurs="0" maxOccurs="1"/>
649     </xsd:sequence>
650     <xsd:attribute name="rot" type="ST_Angle" use="optional" default="0"/>
651     <xsd:attribute name="flipH" type="xsd:boolean" use="optional" default="false"/>
652     <xsd:attribute name="flipV" type="xsd:boolean" use="optional" default="false"/>
653 </xsd:complexType>
654 <xsd:complexType name="CT_Point3D">
655     <xsd:attribute name="x" type="ST_Coordinate" use="required"/>
656     <xsd:attribute name="y" type="ST_Coordinate" use="required"/>
657     <xsd:attribute name="z" type="ST_Coordinate" use="required"/>
658 </xsd:complexType>
659 <xsd:complexType name="CT_Vector3D">
660     <xsd:attribute name="dx" type="ST_Coordinate" use="required"/>
661     <xsd:attribute name="dy" type="ST_Coordinate" use="required"/>
662     <xsd:attribute name="dz" type="ST_Coordinate" use="required"/>

```



```

663 </xsd:complexType>
664 <xsd:complexType name="CT_SphereCoords">
665   <xsd:attribute name="lat" type="ST_PositiveFixedAngle" use="required"/>
666   <xsd:attribute name="lon" type="ST_PositiveFixedAngle" use="required"/>
667   <xsd:attribute name="rev" type="ST_PositiveFixedAngle" use="required"/>
668 </xsd:complexType>
669 <xsd:complexType name="CT_RelativeRect">
670   <xsd:attribute name="l" type="ST_Percentage" use="optional" default="0%"/>
671   <xsd:attribute name="t" type="ST_Percentage" use="optional" default="0%"/>
672   <xsd:attribute name="r" type="ST_Percentage" use="optional" default="0%"/>
673   <xsd:attribute name="b" type="ST_Percentage" use="optional" default="0%"/>
674 </xsd:complexType>
675 <xsd:simpleType name="ST_RectAlignment">
676   <xsd:restriction base="xsd:token">
677     <xsd:enumeration value="tl"/>
678     <xsd:enumeration value="t"/>
679     <xsd:enumeration value="tr"/>
680     <xsd:enumeration value="l"/>
681     <xsd:enumeration value="ctr"/>
682     <xsd:enumeration value="r"/>
683     <xsd:enumeration value="bl"/>
684     <xsd:enumeration value="b"/>
685     <xsd:enumeration value="br"/>
686   </xsd:restriction>
687 </xsd:simpleType>
688 <xsd:group name="EG_ColorChoice">
689   <xsd:choice>
690     <xsd:element name="scrgbClr" type="CT_ScRgbColor" minOccurs="1" maxOccurs="1"/>
691     <xsd:element name="srgbClr" type="CT_SRgbColor" minOccurs="1" maxOccurs="1"/>
692     <xsd:element name="hslClr" type="CT_HslColor" minOccurs="1" maxOccurs="1"/>
693     <xsd:element name="sysClr" type="CT_SystemColor" minOccurs="1" maxOccurs="1"/>
694     <xsd:element name="schemeClr" type="CT_SchemeColor" minOccurs="1" maxOccurs="1"/>
695     <xsd:element name="prstClr" type="CT_PresetColor" minOccurs="1" maxOccurs="1"/>
696   </xsd:choice>
697 </xsd:group>
698 <xsd:complexType name="CT_Color">
699   <xsd:sequence>
700     <xsd:group ref="EG_ColorChoice"/>
701   </xsd:sequence>
702 </xsd:complexType>
703 <xsd:complexType name="CT_ColorMRU">
704   <xsd:sequence>
705     <xsd:group ref="EG_ColorChoice" minOccurs="0" maxOccurs="unbounded"/>
706   </xsd:sequence>
707 </xsd:complexType>
708 <xsd:simpleType name="ST_BlackWhiteMode">
709   <xsd:restriction base="xsd:token">
710     <xsd:enumeration value="clr"/>
711     <xsd:enumeration value="auto"/>
712     <xsd:enumeration value="gray"/>
713     <xsd:enumeration value="ltGray"/>
714     <xsd:enumeration value="invGray"/>
715     <xsd:enumeration value="grayWhite"/>

```



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716         <xsd:enumeration value="blackGray"/>
717         <xsd:enumeration value="blackWhite"/>
718         <xsd:enumeration value="black"/>
719         <xsd:enumeration value="white"/>
720         <xsd:enumeration value="hidden"/>
721     </xsd:restriction>
722 </xsd:simpleType>
723 <xsd:attributeGroup name="AG_Blob">
724     <xsd:attribute ref="r:embed" use="optional" default=""/>
725     <xsd:attribute ref="r:link" use="optional" default=""/>
726 </xsd:attributeGroup>
727 <xsd:complexType name="CT_EmbeddedWAVAudioFile">
728     <xsd:attribute ref="r:embed" use="required"/>
729     <xsd:attribute name="name" type="xsd:string" use="optional" default=""/>
730 </xsd:complexType>
731 <xsd:complexType name="CT_Hyperlink">
732     <xsd:sequence>
733         <xsd:element name="snd" type="CT_EmbeddedWAVAudioFile" minOccurs="0" maxOccurs="1"/>
734         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
735     </xsd:sequence>
736     <xsd:attribute ref="r:id" use="optional"/>
737     <xsd:attribute name="invalidUrl" type="xsd:string" use="optional" default=""/>
738     <xsd:attribute name="action" type="xsd:string" use="optional" default=""/>
739     <xsd:attribute name="tgtFrame" type="xsd:string" use="optional" default=""/>
740     <xsd:attribute name="tooltip" type="xsd:string" use="optional" default=""/>
741     <xsd:attribute name="history" type="xsd:boolean" use="optional" default="true"/>
742     <xsd:attribute name="highlightClick" type="xsd:boolean" use="optional" default="false"/>
743     <xsd:attribute name="endSnd" type="xsd:boolean" use="optional" default="false"/>
744 </xsd:complexType>
745 <xsd:simpleType name="ST_DrawingElementId">
746     <xsd:restriction base="xsd:unsignedInt"/>
747 </xsd:simpleType>
748 <xsd:attributeGroup name="AG_Locking">
749     <xsd:attribute name="noGrp" type="xsd:boolean" use="optional" default="false"/>
750     <xsd:attribute name="noSelect" type="xsd:boolean" use="optional" default="false"/>
751     <xsd:attribute name="noRot" type="xsd:boolean" use="optional" default="false"/>
752     <xsd:attribute name="noChangeAspect" type="xsd:boolean" use="optional" default="false"/>
753     <xsd:attribute name="noMove" type="xsd:boolean" use="optional" default="false"/>
754     <xsd:attribute name="noResize" type="xsd:boolean" use="optional" default="false"/>
755     <xsd:attribute name="noEditPoints" type="xsd:boolean" use="optional" default="false"/>
756     <xsd:attribute name="noAdjustHandles" type="xsd:boolean" use="optional" default="false"/>
757     <xsd:attribute name="noChangeArrowheads" type="xsd:boolean" use="optional" default="false"/>
758     <xsd:attribute name="noChangeShapeType" type="xsd:boolean" use="optional" default="false"/>
759 </xsd:attributeGroup>
760 <xsd:complexType name="CT_ConnectorLocking">
761     <xsd:sequence>
762         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
763     </xsd:sequence>
764     <xsd:attributeGroup ref="AG_Locking"/>
765 </xsd:complexType>
766 <xsd:complexType name="CT_ShapeLocking">
767     <xsd:sequence>
768         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>

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769     </xsd:sequence>
770     <xsd:attributeGroup ref="AG_Locking"/>
771     <xsd:attribute name="noTextEdit" type="xsd:boolean" use="optional" default="false"/>
772 </xsd:complexType>
773 <xsd:complexType name="CT_PictureLocking">
774     <xsd:sequence>
775         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
776     </xsd:sequence>
777     <xsd:attributeGroup ref="AG_Locking"/>
778     <xsd:attribute name="noCrop" type="xsd:boolean" use="optional" default="false"/>
779 </xsd:complexType>
780 <xsd:complexType name="CT_GroupLocking">
781     <xsd:sequence>
782         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
783     </xsd:sequence>
784     <xsd:attribute name="noGrp" type="xsd:boolean" use="optional" default="false"/>
785     <xsd:attribute name="noUngrp" type="xsd:boolean" use="optional" default="false"/>
786     <xsd:attribute name="noSelect" type="xsd:boolean" use="optional" default="false"/>
787     <xsd:attribute name="noRot" type="xsd:boolean" use="optional" default="false"/>
788     <xsd:attribute name="noChangeAspect" type="xsd:boolean" use="optional" default="false"/>
789     <xsd:attribute name="noMove" type="xsd:boolean" use="optional" default="false"/>
790     <xsd:attribute name="noResize" type="xsd:boolean" use="optional" default="false"/>
791 </xsd:complexType>
792 <xsd:complexType name="CT_GraphicalObjectFrameLocking">
793     <xsd:sequence>
794         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
795     </xsd:sequence>
796     <xsd:attribute name="noGrp" type="xsd:boolean" use="optional" default="false"/>
797     <xsd:attribute name="noDrilldown" type="xsd:boolean" use="optional" default="false"/>
798     <xsd:attribute name="noSelect" type="xsd:boolean" use="optional" default="false"/>
799     <xsd:attribute name="noChangeAspect" type="xsd:boolean" use="optional" default="false"/>
800     <xsd:attribute name="noMove" type="xsd:boolean" use="optional" default="false"/>
801     <xsd:attribute name="noResize" type="xsd:boolean" use="optional" default="false"/>
802 </xsd:complexType>
803 <xsd:complexType name="CT_ContentPartLocking">
804     <xsd:sequence>
805         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
806     </xsd:sequence>
807     <xsd:attributeGroup ref="AG_Locking"/>
808 </xsd:complexType>
809 <xsd:complexType name="CT_NonVisualDrawingProps">
810     <xsd:sequence>
811         <xsd:element name="hlinkClick" type="CT_Hyperlink" minOccurs="0" maxOccurs="1"/>
812         <xsd:element name="hlinkHover" type="CT_Hyperlink" minOccurs="0" maxOccurs="1"/>
813         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
814     </xsd:sequence>
815     <xsd:attribute name="id" type="ST_DrawingElementId" use="required"/>
816     <xsd:attribute name="name" type="xsd:string" use="required"/>
817     <xsd:attribute name="descr" type="xsd:string" use="optional" default=""/>
818     <xsd:attribute name="hidden" type="xsd:boolean" use="optional" default="false"/>
819     <xsd:attribute name="title" type="xsd:string" use="optional" default=""/>
820 </xsd:complexType>
821 <xsd:complexType name="CT_NonVisualDrawingShapeProps">

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822     <xsd:sequence>
823         <xsd:element name="spLocks" type="CT_ShapeLocking" minOccurs="0" maxOccurs="1"/>
824         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
825     </xsd:sequence>
826     <xsd:attribute name="txBox" type="xsd:boolean" use="optional" default="false"/>
827 </xsd:complexType>
828 <xsd:complexType name="CT_NonVisualConnectorProperties">
829     <xsd:sequence>
830         <xsd:element name="cxnSpLocks" type="CT_ConnectorLocking" minOccurs="0" maxOccurs="1"/>
831         <xsd:element name="stCxn" type="CT_Connection" minOccurs="0" maxOccurs="1"/>
832         <xsd:element name="endCxn" type="CT_Connection" minOccurs="0" maxOccurs="1"/>
833         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
834     </xsd:sequence>
835 </xsd:complexType>
836 <xsd:complexType name="CT_NonVisualPictureProperties">
837     <xsd:sequence>
838         <xsd:element name="picLocks" type="CT_PictureLocking" minOccurs="0" maxOccurs="1"/>
839         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
840     </xsd:sequence>
841     <xsd:attribute name="preferRelativeResize" type="xsd:boolean" use="optional" default="true"/>
842 </xsd:complexType>
843 <xsd:complexType name="CT_NonVisualGroupDrawingShapeProps">
844     <xsd:sequence>
845         <xsd:element name="grpSpLocks" type="CT_GroupLocking" minOccurs="0" maxOccurs="1"/>
846         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
847     </xsd:sequence>
848 </xsd:complexType>
849 <xsd:complexType name="CT_NonVisualGraphicFrameProperties">
850     <xsd:sequence>
851         <xsd:element name="graphicFrameLocks" type="CT_GraphicalObjectFrameLocking" minOccurs="0"
852             maxOccurs="1"/>
853         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
854     </xsd:sequence>
855 </xsd:complexType>
856 <xsd:complexType name="CT_NonVisualContentPartProperties">
857     <xsd:sequence>
858         <xsd:element name="cpLocks" type="CT_ContentPartLocking" minOccurs="0" maxOccurs="1"/>
859         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
860     </xsd:sequence>
861     <xsd:attribute name="isComment" type="xsd:boolean" use="optional" default="true"/>
862 </xsd:complexType>
863 <xsd:complexType name="CT_GraphicalObjectData">
864     <xsd:sequence>
865         <xsd:any minOccurs="0" maxOccurs="unbounded" processContents="strict"/>
866     </xsd:sequence>
867     <xsd:attribute name="uri" type="xsd:token" use="required"/>
868 </xsd:complexType>
869 <xsd:complexType name="CT_GraphicalObject">
870     <xsd:sequence>
871         <xsd:element name="graphicData" type="CT_GraphicalObjectData"/>
872     </xsd:sequence>
873 </xsd:complexType>
874 <xsd:element name="graphic" type="CT_GraphicalObject"/>

```



```

875 <xsd:simpleType name="ST_ChartBuildStep">
876   <xsd:restriction base="xsd:token">
877     <xsd:enumeration value="category"/>
878     <xsd:enumeration value="ptInCategory"/>
879     <xsd:enumeration value="series"/>
880     <xsd:enumeration value="ptInSeries"/>
881     <xsd:enumeration value="allPts"/>
882     <xsd:enumeration value="gridLegend"/>
883   </xsd:restriction>
884 </xsd:simpleType>
885 <xsd:simpleType name="ST_DgmBuildStep">
886   <xsd:restriction base="xsd:token">
887     <xsd:enumeration value="sp"/>
888     <xsd:enumeration value="bg"/>
889   </xsd:restriction>
890 </xsd:simpleType>
891 <xsd:complexType name="CT_AnimationDgmElement">
892   <xsd:attribute name="id" type="s:ST_Guid" use="optional" default="{00000000-0000-0000-0000-
893     000000000000}"/>
894   <xsd:attribute name="bldStep" type="ST_DgmBuildStep" use="optional" default="sp"/>
895 </xsd:complexType>
896 <xsd:complexType name="CT_AnimationChartElement">
897   <xsd:attribute name="seriesIdx" type="xsd:int" use="optional" default="-1"/>
898   <xsd:attribute name="categoryIdx" type="xsd:int" use="optional" default="-1"/>
899   <xsd:attribute name="bldStep" type="ST_ChartBuildStep" use="required"/>
900 </xsd:complexType>
901 <xsd:complexType name="CT_AnimationElementChoice">
902   <xsd:choice minOccurs="1" maxOccurs="1">
903     <xsd:element name="dgm" type="CT_AnimationDgmElement"/>
904     <xsd:element name="chart" type="CT_AnimationChartElement"/>
905   </xsd:choice>
906 </xsd:complexType>
907 <xsd:simpleType name="ST_AnimationBuildType">
908   <xsd:restriction base="xsd:token">
909     <xsd:enumeration value="allAtOnce"/>
910   </xsd:restriction>
911 </xsd:simpleType>
912 <xsd:simpleType name="ST_AnimationDgmOnlyBuildType">
913   <xsd:restriction base="xsd:token">
914     <xsd:enumeration value="one"/>
915     <xsd:enumeration value="lvlOne"/>
916     <xsd:enumeration value="lvlAtOnce"/>
917   </xsd:restriction>
918 </xsd:simpleType>
919 <xsd:simpleType name="ST_AnimationDgmBuildType">
920   <xsd:union memberTypes="ST_AnimationBuildType ST_AnimationDgmOnlyBuildType"/>
921 </xsd:simpleType>
922 <xsd:complexType name="CT_AnimationDgmBuildProperties">
923   <xsd:attribute name="bld" type="ST_AnimationDgmBuildType" use="optional" default="allAtOnce"/>
924   <xsd:attribute name="rev" type="xsd:boolean" use="optional" default="false"/>
925 </xsd:complexType>
926 <xsd:simpleType name="ST_AnimationChartOnlyBuildType">
927   <xsd:restriction base="xsd:token">

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928         <xsd:enumeration value="series"/>
929         <xsd:enumeration value="category"/>
930         <xsd:enumeration value="seriesEl"/>
931         <xsd:enumeration value="categoryEl"/>
932     </xsd:restriction>
933 </xsd:simpleType>
934 <xsd:simpleType name="ST_AnimationChartBuildType">
935     <xsd:union memberTypes="ST_AnimationBuildType ST_AnimationChartOnlyBuildType"/>
936 </xsd:simpleType>
937 <xsd:complexType name="CT_AnimationChartBuildProperties">
938     <xsd:attribute name="bld" type="ST_AnimationChartBuildType" use="optional"
939         default="allAtOnce"/>
940     <xsd:attribute name="animBg" type="xsd:boolean" use="optional" default="true"/>
941 </xsd:complexType>
942 <xsd:complexType name="CT_AnimationGraphicalObjectBuildProperties">
943     <xsd:choice>
944         <xsd:element name="bldDgm" type="CT_AnimationDgmBuildProperties"/>
945         <xsd:element name="bldChart" type="CT_AnimationChartBuildProperties"/>
946     </xsd:choice>
947 </xsd:complexType>
948 <xsd:complexType name="CT_BackgroundFormatting">
949     <xsd:sequence>
950         <xsd:group ref="EG_FillProperties" minOccurs="0" maxOccurs="1"/>
951         <xsd:group ref="EG_EffectProperties" minOccurs="0" maxOccurs="1"/>
952     </xsd:sequence>
953 </xsd:complexType>
954 <xsd:complexType name="CT_WholeE2oFormatting">
955     <xsd:sequence>
956         <xsd:element name="ln" type="CT_LineProperties" minOccurs="0" maxOccurs="1"/>
957         <xsd:group ref="EG_EffectProperties" minOccurs="0" maxOccurs="1"/>
958     </xsd:sequence>
959 </xsd:complexType>
960 <xsd:complexType name="CT_GvmlUseShapeRectangle"/>
961 <xsd:complexType name="CT_GvmlTextShape">
962     <xsd:sequence>
963         <xsd:element name="txBody" type="CT_TextBody" minOccurs="1" maxOccurs="1"/>
964         <xsd:choice>
965             <xsd:element name="useSpRect" type="CT_GvmlUseShapeRectangle" minOccurs="1"
966                 maxOccurs="1"/>
967             <xsd:element name="xfrm" type="CT_Transform2D" minOccurs="1" maxOccurs="1"/>
968         </xsd:choice>
969         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
970     </xsd:sequence>
971 </xsd:complexType>
972 <xsd:complexType name="CT_GvmlShapeNonVisual">
973     <xsd:sequence>
974         <xsd:element name="cNvPr" type="CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
975         <xsd:element name="cNvSpPr" type="CT_NonVisualDrawingShapeProps" minOccurs="1"
976             maxOccurs="1"/>
977     </xsd:sequence>
978 </xsd:complexType>
979 <xsd:complexType name="CT_GvmlShape">
980     <xsd:sequence>

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981     <xsd:element name="nvSpPr" type="CT_GvmlShapeNonVisual" minOccurs="1" maxOccurs="1"/>
982     <xsd:element name="spPr" type="CT_ShapeProperties" minOccurs="1" maxOccurs="1"/>
983     <xsd:element name="txSp" type="CT_GvmlTextShape" minOccurs="0" maxOccurs="1"/>
984     <xsd:element name="style" type="CT_ShapeStyle" minOccurs="0" maxOccurs="1"/>
985     <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
986   </xsd:sequence>
987 </xsd:complexType>
988 <xsd:complexType name="CT_GvmlConnectorNonVisual">
989   <xsd:sequence>
990     <xsd:element name="cNvPr" type="CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
991     <xsd:element name="cNvCxnSpPr" type="CT_NonVisualConnectorProperties" minOccurs="1"
992       maxOccurs="1"/>
993   </xsd:sequence>
994 </xsd:complexType>
995 <xsd:complexType name="CT_GvmlConnector">
996   <xsd:sequence>
997     <xsd:element name="nvCxnSpPr" type="CT_GvmlConnectorNonVisual" minOccurs="1"
998       maxOccurs="1"/>
999     <xsd:element name="spPr" type="CT_ShapeProperties" minOccurs="1" maxOccurs="1"/>
1000     <xsd:element name="style" type="CT_ShapeStyle" minOccurs="0" maxOccurs="1"/>
1001     <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
1002   </xsd:sequence>
1003 </xsd:complexType>
1004 <xsd:complexType name="CT_GvmlPictureNonVisual">
1005   <xsd:sequence>
1006     <xsd:element name="cNvPr" type="CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
1007     <xsd:element name="cNvPicPr" type="CT_NonVisualPictureProperties" minOccurs="1"
1008       maxOccurs="1"/>
1009   </xsd:sequence>
1010 </xsd:complexType>
1011 <xsd:complexType name="CT_GvmlPicture">
1012   <xsd:sequence>
1013     <xsd:element name="nvPicPr" type="CT_GvmlPictureNonVisual" minOccurs="1" maxOccurs="1"/>
1014     <xsd:element name="blipFill" type="CT_BlipFillProperties" minOccurs="1" maxOccurs="1"/>
1015     <xsd:element name="spPr" type="CT_ShapeProperties" minOccurs="1" maxOccurs="1"/>
1016     <xsd:element name="style" type="CT_ShapeStyle" minOccurs="0" maxOccurs="1"/>
1017     <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
1018   </xsd:sequence>
1019 </xsd:complexType>
1020 <xsd:complexType name="CT_GvmlGraphicFrameNonVisual">
1021   <xsd:sequence>
1022     <xsd:element name="cNvPr" type="CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
1023     <xsd:element name="cNvGraphicFramePr" type="CT_NonVisualGraphicFrameProperties"
1024       minOccurs="1" maxOccurs="1"/>
1025   </xsd:sequence>
1026 </xsd:complexType>
1027 <xsd:complexType name="CT_GvmlGraphicalObjectFrame">
1028   <xsd:sequence>
1029     <xsd:element name="nvGraphicFramePr" type="CT_GvmlGraphicFrameNonVisual" minOccurs="1"
1030       maxOccurs="1"/>
1031     <xsd:element ref="graphic" minOccurs="1" maxOccurs="1"/>
1032     <xsd:element name="xfrm" type="CT_Transform2D" minOccurs="1" maxOccurs="1"/>
1033     <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>

```



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1034     </xsd:sequence>
1035 </xsd:complexType>
1036 <xsd:complexType name="CT_GvmlGroupShapeNonVisual">
1037     <xsd:sequence>
1038         <xsd:element name="cNvPr" type="CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
1039         <xsd:element name="cNvGrpSpPr" type="CT_NonVisualGroupDrawingShapeProps" minOccurs="1"
1040             maxOccurs="1"/>
1041     </xsd:sequence>
1042 </xsd:complexType>
1043 <xsd:complexType name="CT_GvmlGroupShape">
1044     <xsd:sequence>
1045         <xsd:element name="nvGrpSpPr" type="CT_GvmlGroupShapeNonVisual" minOccurs="1"
1046             maxOccurs="1"/>
1047         <xsd:element name="grpSpPr" type="CT_GroupShapeProperties" minOccurs="1" maxOccurs="1"/>
1048         <xsd:choice minOccurs="0" maxOccurs="unbounded">
1049             <xsd:element name="txSp" type="CT_GvmlTextShape"/>
1050             <xsd:element name="sp" type="CT_GvmlShape"/>
1051             <xsd:element name="cxnSp" type="CT_GvmlConnector"/>
1052             <xsd:element name="pic" type="CT_GvmlPicture"/>
1053             <xsd:element name="graphicFrame" type="CT_GvmlGraphicalObjectFrame"/>
1054             <xsd:element name="grpSp" type="CT_GvmlGroupShape"/>
1055         </xsd:choice>
1056         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
1057     </xsd:sequence>
1058 </xsd:complexType>
1059 <xsd:simpleType name="ST_PresetCameraType">
1060     <xsd:restriction base="xsd:token">
1061         <xsd:enumeration value="legacyObliqueTopLeft"/>
1062         <xsd:enumeration value="legacyObliqueTop"/>
1063         <xsd:enumeration value="legacyObliqueTopRight"/>
1064         <xsd:enumeration value="legacyObliqueLeft"/>
1065         <xsd:enumeration value="legacyObliqueFront"/>
1066         <xsd:enumeration value="legacyObliqueRight"/>
1067         <xsd:enumeration value="legacyObliqueBottomLeft"/>
1068         <xsd:enumeration value="legacyObliqueBottom"/>
1069         <xsd:enumeration value="legacyObliqueBottomRight"/>
1070         <xsd:enumeration value="legacyPerspectiveTopLeft"/>
1071         <xsd:enumeration value="legacyPerspectiveTop"/>
1072         <xsd:enumeration value="legacyPerspectiveTopRight"/>
1073         <xsd:enumeration value="legacyPerspectiveLeft"/>
1074         <xsd:enumeration value="legacyPerspectiveFront"/>
1075         <xsd:enumeration value="legacyPerspectiveRight"/>
1076         <xsd:enumeration value="legacyPerspectiveBottomLeft"/>
1077         <xsd:enumeration value="legacyPerspectiveBottom"/>
1078         <xsd:enumeration value="legacyPerspectiveBottomRight"/>
1079         <xsd:enumeration value="orthographicFront"/>
1080         <xsd:enumeration value="isometricTopUp"/>
1081         <xsd:enumeration value="isometricTopDown"/>
1082         <xsd:enumeration value="isometricBottomUp"/>
1083         <xsd:enumeration value="isometricBottomDown"/>
1084         <xsd:enumeration value="isometricLeftUp"/>
1085         <xsd:enumeration value="isometricLeftDown"/>
1086         <xsd:enumeration value="isometricRightUp"/>

```



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1087     <xsd:enumeration value="isometricRightDown"/>
1088     <xsd:enumeration value="isometricOffAxis1Left"/>
1089     <xsd:enumeration value="isometricOffAxis1Right"/>
1090     <xsd:enumeration value="isometricOffAxis1Top"/>
1091     <xsd:enumeration value="isometricOffAxis2Left"/>
1092     <xsd:enumeration value="isometricOffAxis2Right"/>
1093     <xsd:enumeration value="isometricOffAxis2Top"/>
1094     <xsd:enumeration value="isometricOffAxis3Left"/>
1095     <xsd:enumeration value="isometricOffAxis3Right"/>
1096     <xsd:enumeration value="isometricOffAxis3Bottom"/>
1097     <xsd:enumeration value="isometricOffAxis4Left"/>
1098     <xsd:enumeration value="isometricOffAxis4Right"/>
1099     <xsd:enumeration value="isometricOffAxis4Bottom"/>
1100     <xsd:enumeration value="obliqueTopLeft"/>
1101     <xsd:enumeration value="obliqueTop"/>
1102     <xsd:enumeration value="obliqueTopRight"/>
1103     <xsd:enumeration value="obliqueLeft"/>
1104     <xsd:enumeration value="obliqueRight"/>
1105     <xsd:enumeration value="obliqueBottomLeft"/>
1106     <xsd:enumeration value="obliqueBottom"/>
1107     <xsd:enumeration value="obliqueBottomRight"/>
1108     <xsd:enumeration value="perspectiveFront"/>
1109     <xsd:enumeration value="perspectiveLeft"/>
1110     <xsd:enumeration value="perspectiveRight"/>
1111     <xsd:enumeration value="perspectiveAbove"/>
1112     <xsd:enumeration value="perspectiveBelow"/>
1113     <xsd:enumeration value="perspectiveAboveLeftFacing"/>
1114     <xsd:enumeration value="perspectiveAboveRightFacing"/>
1115     <xsd:enumeration value="perspectiveContrastingLeftFacing"/>
1116     <xsd:enumeration value="perspectiveContrastingRightFacing"/>
1117     <xsd:enumeration value="perspectiveHeroicLeftFacing"/>
1118     <xsd:enumeration value="perspectiveHeroicRightFacing"/>
1119     <xsd:enumeration value="perspectiveHeroicExtremeLeftFacing"/>
1120     <xsd:enumeration value="perspectiveHeroicExtremeRightFacing"/>
1121     <xsd:enumeration value="perspectiveRelaxed"/>
1122     <xsd:enumeration value="perspectiveRelaxedModerately"/>
1123   </xsd:restriction>
1124 </xsd:simpleType>
1125 <xsd:simpleType name="ST_FOVAngle">
1126   <xsd:restriction base="ST_Angle">
1127     <xsd:minInclusive value="0"/>
1128     <xsd:maxInclusive value="10800000"/>
1129   </xsd:restriction>
1130 </xsd:simpleType>
1131 <xsd:complexType name="CT_Camera">
1132   <xsd:sequence>
1133     <xsd:element name="rot" type="CT_SphereCoords" minOccurs="0" maxOccurs="1"/>
1134   </xsd:sequence>
1135   <xsd:attribute name="prst" type="ST_PresetCameraType" use="required"/>
1136   <xsd:attribute name="fov" type="ST_FOVAngle" use="optional"/>
1137   <xsd:attribute name="zoom" type="ST_PositivePercentage" use="optional" default="100%"/>
1138 </xsd:complexType>
1139 <xsd:simpleType name="ST_LightRigDirection">

```



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1140     <xsd:restriction base="xsd:token">
1141         <xsd:enumeration value="tl"/>
1142         <xsd:enumeration value="t"/>
1143         <xsd:enumeration value="tr"/>
1144         <xsd:enumeration value="l"/>
1145         <xsd:enumeration value="r"/>
1146         <xsd:enumeration value="bl"/>
1147         <xsd:enumeration value="b"/>
1148         <xsd:enumeration value="br"/>
1149     </xsd:restriction>
1150 </xsd:simpleType>
1151 <xsd:simpleType name="ST_LightRigType">
1152     <xsd:restriction base="xsd:token">
1153         <xsd:enumeration value="legacyFlat1"/>
1154         <xsd:enumeration value="legacyFlat2"/>
1155         <xsd:enumeration value="legacyFlat3"/>
1156         <xsd:enumeration value="legacyFlat4"/>
1157         <xsd:enumeration value="legacyNormal1"/>
1158         <xsd:enumeration value="legacyNormal2"/>
1159         <xsd:enumeration value="legacyNormal3"/>
1160         <xsd:enumeration value="legacyNormal4"/>
1161         <xsd:enumeration value="legacyHarsh1"/>
1162         <xsd:enumeration value="legacyHarsh2"/>
1163         <xsd:enumeration value="legacyHarsh3"/>
1164         <xsd:enumeration value="legacyHarsh4"/>
1165         <xsd:enumeration value="threePt"/>
1166         <xsd:enumeration value="balanced"/>
1167         <xsd:enumeration value="soft"/>
1168         <xsd:enumeration value="harsh"/>
1169         <xsd:enumeration value="flood"/>
1170         <xsd:enumeration value="contrasting"/>
1171         <xsd:enumeration value="morning"/>
1172         <xsd:enumeration value="sunrise"/>
1173         <xsd:enumeration value="sunset"/>
1174         <xsd:enumeration value="chilly"/>
1175         <xsd:enumeration value="freezing"/>
1176         <xsd:enumeration value="flat"/>
1177         <xsd:enumeration value="twoPt"/>
1178         <xsd:enumeration value="glow"/>
1179         <xsd:enumeration value="brightRoom"/>
1180     </xsd:restriction>
1181 </xsd:simpleType>
1182 <xsd:complexType name="CT_LightRig">
1183     <xsd:sequence>
1184         <xsd:element name="rot" type="CT_SphereCoords" minOccurs="0" maxOccurs="1"/>
1185     </xsd:sequence>
1186     <xsd:attribute name="rig" type="ST_LightRigType" use="required"/>
1187     <xsd:attribute name="dir" type="ST_LightRigDirection" use="required"/>
1188 </xsd:complexType>
1189 <xsd:complexType name="CT_Scene3D">
1190     <xsd:sequence>
1191         <xsd:element name="camera" type="CT_Camera" minOccurs="1" maxOccurs="1"/>
1192         <xsd:element name="lightRig" type="CT_LightRig" minOccurs="1" maxOccurs="1"/>

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1193     <xsd:element name="backdrop" type="CT_Backdrop" minOccurs="0" maxOccurs="1"/>
1194     <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
1195   </xsd:sequence>
1196 </xsd:complexType>
1197 <xsd:complexType name="CT_Backdrop">
1198   <xsd:sequence>
1199     <xsd:element name="anchor" type="CT_Point3D" minOccurs="1" maxOccurs="1"/>
1200     <xsd:element name="norm" type="CT_Vector3D" minOccurs="1" maxOccurs="1"/>
1201     <xsd:element name="up" type="CT_Vector3D" minOccurs="1" maxOccurs="1"/>
1202     <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
1203   </xsd:sequence>
1204 </xsd:complexType>
1205 <xsd:simpleType name="ST_BevelPresetType">
1206   <xsd:restriction base="xsd:token">
1207     <xsd:enumeration value="relaxedInset"/>
1208     <xsd:enumeration value="circle"/>
1209     <xsd:enumeration value="slope"/>
1210     <xsd:enumeration value="cross"/>
1211     <xsd:enumeration value="angle"/>
1212     <xsd:enumeration value="softRound"/>
1213     <xsd:enumeration value="convex"/>
1214     <xsd:enumeration value="coolSlant"/>
1215     <xsd:enumeration value="divot"/>
1216     <xsd:enumeration value="riblet"/>
1217     <xsd:enumeration value="hardEdge"/>
1218     <xsd:enumeration value="artDeco"/>
1219   </xsd:restriction>
1220 </xsd:simpleType>
1221 <xsd:complexType name="CT_Bevel">
1222   <xsd:attribute name="w" type="ST_PositiveCoordinate" use="optional" default="76200"/>
1223   <xsd:attribute name="h" type="ST_PositiveCoordinate" use="optional" default="76200"/>
1224   <xsd:attribute name="prst" type="ST_BevelPresetType" use="optional" default="circle"/>
1225 </xsd:complexType>
1226 <xsd:simpleType name="ST_PresetMaterialType">
1227   <xsd:restriction base="xsd:token">
1228     <xsd:enumeration value="legacyMatte"/>
1229     <xsd:enumeration value="legacyPlastic"/>
1230     <xsd:enumeration value="legacyMetal"/>
1231     <xsd:enumeration value="legacyWireframe"/>
1232     <xsd:enumeration value="matte"/>
1233     <xsd:enumeration value="plastic"/>
1234     <xsd:enumeration value="metal"/>
1235     <xsd:enumeration value="warmMatte"/>
1236     <xsd:enumeration value="translucentPowder"/>
1237     <xsd:enumeration value="powder"/>
1238     <xsd:enumeration value="dkEdge"/>
1239     <xsd:enumeration value="softEdge"/>
1240     <xsd:enumeration value="clear"/>
1241     <xsd:enumeration value="flat"/>
1242     <xsd:enumeration value="softmetal"/>
1243   </xsd:restriction>
1244 </xsd:simpleType>
1245 <xsd:complexType name="CT_Shape3D">

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1246     <xsd:sequence>
1247         <xsd:element name="bevelT" type="CT Bevel" minOccurs="0" maxOccurs="1"/>
1248         <xsd:element name="bevelB" type="CT Bevel" minOccurs="0" maxOccurs="1"/>
1249         <xsd:element name="extrusionClr" type="CT Color" minOccurs="0" maxOccurs="1"/>
1250         <xsd:element name="contourClr" type="CT Color" minOccurs="0" maxOccurs="1"/>
1251         <xsd:element name="extLst" type="CT OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
1252     </xsd:sequence>
1253     <xsd:attribute name="z" type="ST Coordinate" use="optional" default="0"/>
1254     <xsd:attribute name="extrusionH" type="ST PositiveCoordinate" use="optional" default="0"/>
1255     <xsd:attribute name="contourW" type="ST PositiveCoordinate" use="optional" default="0"/>
1256     <xsd:attribute name="prstMaterial" type="ST PresetMaterialType" use="optional"
1257         default="warmMatte"/>
1258 </xsd:complexType>
1259 <xsd:complexType name="CT_FlatText">
1260     <xsd:attribute name="z" type="ST Coordinate" use="optional" default="0"/>
1261 </xsd:complexType>
1262 <xsd:group name="EG_Text3D">
1263     <xsd:choice>
1264         <xsd:element name="sp3d" type="CT Shape3D" minOccurs="1" maxOccurs="1"/>
1265         <xsd:element name="flatTx" type="CT FlatText" minOccurs="1" maxOccurs="1"/>
1266     </xsd:choice>
1267 </xsd:group>
1268 <xsd:complexType name="CT_AlphaBiLevelEffect">
1269     <xsd:attribute name="thresh" type="ST PositiveFixedPercentage" use="required"/>
1270 </xsd:complexType>
1271 <xsd:complexType name="CT_AlphaCeilingEffect"/>
1272 <xsd:complexType name="CT_AlphaFloorEffect"/>
1273 <xsd:complexType name="CT_AlphaInverseEffect">
1274     <xsd:sequence>
1275         <xsd:group ref="EG_ColorChoice" minOccurs="0" maxOccurs="1"/>
1276     </xsd:sequence>
1277 </xsd:complexType>
1278 <xsd:complexType name="CT_AlphaModulateFixedEffect">
1279     <xsd:attribute name="amt" type="ST PositivePercentage" use="optional" default="100%"/>
1280 </xsd:complexType>
1281 <xsd:complexType name="CT_AlphaOutsetEffect">
1282     <xsd:attribute name="rad" type="ST Coordinate" use="optional" default="0"/>
1283 </xsd:complexType>
1284 <xsd:complexType name="CT_AlphaReplaceEffect">
1285     <xsd:attribute name="a" type="ST PositiveFixedPercentage" use="required"/>
1286 </xsd:complexType>
1287 <xsd:complexType name="CT_BiLevelEffect">
1288     <xsd:attribute name="thresh" type="ST PositiveFixedPercentage" use="required"/>
1289 </xsd:complexType>
1290 <xsd:complexType name="CT_BlurEffect">
1291     <xsd:attribute name="rad" type="ST PositiveCoordinate" use="optional" default="0"/>
1292     <xsd:attribute name="grow" type="xsd:boolean" use="optional" default="true"/>
1293 </xsd:complexType>
1294 <xsd:complexType name="CT_ColorChangeEffect">
1295     <xsd:sequence>
1296         <xsd:element name="clrFrom" type="CT Color" minOccurs="1" maxOccurs="1"/>
1297         <xsd:element name="clrTo" type="CT Color" minOccurs="1" maxOccurs="1"/>
1298     </xsd:sequence>

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1299     <xsd:attribute name="useA" type="xsd:boolean" use="optional" default="true"/>
1300 </xsd:complexType>
1301 <xsd:complexType name="CT_ColorReplaceEffect">
1302     <xsd:sequence>
1303         <xsd:group ref="EG_ColorChoice" minOccurs="1" maxOccurs="1"/>
1304     </xsd:sequence>
1305 </xsd:complexType>
1306 <xsd:complexType name="CT_DuotoneEffect">
1307     <xsd:sequence>
1308         <xsd:group ref="EG_ColorChoice" minOccurs="2" maxOccurs="2"/>
1309     </xsd:sequence>
1310 </xsd:complexType>
1311 <xsd:complexType name="CT_GlowEffect">
1312     <xsd:sequence>
1313         <xsd:group ref="EG_ColorChoice" minOccurs="1" maxOccurs="1"/>
1314     </xsd:sequence>
1315     <xsd:attribute name="rad" type="ST_PositiveCoordinate" use="optional" default="0"/>
1316 </xsd:complexType>
1317 <xsd:complexType name="CT_GrayscaleEffect"/>
1318 <xsd:complexType name="CT_HSLEffect">
1319     <xsd:attribute name="hue" type="ST_PositiveFixedAngle" use="optional" default="0"/>
1320     <xsd:attribute name="sat" type="ST_FixedPercentage" use="optional" default="0%"/>
1321     <xsd:attribute name="lum" type="ST_FixedPercentage" use="optional" default="0%"/>
1322 </xsd:complexType>
1323 <xsd:complexType name="CT_InnerShadowEffect">
1324     <xsd:sequence>
1325         <xsd:group ref="EG_ColorChoice" minOccurs="1" maxOccurs="1"/>
1326     </xsd:sequence>
1327     <xsd:attribute name="blurRad" type="ST_PositiveCoordinate" use="optional" default="0"/>
1328     <xsd:attribute name="dist" type="ST_PositiveCoordinate" use="optional" default="0"/>
1329     <xsd:attribute name="dir" type="ST_PositiveFixedAngle" use="optional" default="0"/>
1330 </xsd:complexType>
1331 <xsd:complexType name="CT_LuminanceEffect">
1332     <xsd:attribute name="bright" type="ST_FixedPercentage" use="optional" default="0%"/>
1333     <xsd:attribute name="contrast" type="ST_FixedPercentage" use="optional" default="0%"/>
1334 </xsd:complexType>
1335 <xsd:complexType name="CT_OuterShadowEffect">
1336     <xsd:sequence>
1337         <xsd:group ref="EG_ColorChoice" minOccurs="1" maxOccurs="1"/>
1338     </xsd:sequence>
1339     <xsd:attribute name="blurRad" type="ST_PositiveCoordinate" use="optional" default="0"/>
1340     <xsd:attribute name="dist" type="ST_PositiveCoordinate" use="optional" default="0"/>
1341     <xsd:attribute name="dir" type="ST_PositiveFixedAngle" use="optional" default="0"/>
1342     <xsd:attribute name="sx" type="ST_Percentage" use="optional" default="100%"/>
1343     <xsd:attribute name="sy" type="ST_Percentage" use="optional" default="100%"/>
1344     <xsd:attribute name="kx" type="ST_FixedAngle" use="optional" default="0"/>
1345     <xsd:attribute name="ky" type="ST_FixedAngle" use="optional" default="0"/>
1346     <xsd:attribute name="align" type="ST_RectAlignment" use="optional" default="b"/>
1347     <xsd:attribute name="rotWithShape" type="xsd:boolean" use="optional" default="true"/>
1348 </xsd:complexType>
1349 <xsd:simpleType name="ST_PresetShadowVal">
1350     <xsd:restriction base="xsd:token">
1351         <xsd:enumeration value="shdw1"/>

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1352     <xsd:enumeration value="shdw2"/>
1353     <xsd:enumeration value="shdw3"/>
1354     <xsd:enumeration value="shdw4"/>
1355     <xsd:enumeration value="shdw5"/>
1356     <xsd:enumeration value="shdw6"/>
1357     <xsd:enumeration value="shdw7"/>
1358     <xsd:enumeration value="shdw8"/>
1359     <xsd:enumeration value="shdw9"/>
1360     <xsd:enumeration value="shdw10"/>
1361     <xsd:enumeration value="shdw11"/>
1362     <xsd:enumeration value="shdw12"/>
1363     <xsd:enumeration value="shdw13"/>
1364     <xsd:enumeration value="shdw14"/>
1365     <xsd:enumeration value="shdw15"/>
1366     <xsd:enumeration value="shdw16"/>
1367     <xsd:enumeration value="shdw17"/>
1368     <xsd:enumeration value="shdw18"/>
1369     <xsd:enumeration value="shdw19"/>
1370     <xsd:enumeration value="shdw20"/>
1371 </xsd:restriction>
1372 </xsd:simpleType>
1373 <xsd:complexType name="CT_PresetShadowEffect">
1374     <xsd:sequence>
1375         <xsd:group ref="EG_ColorChoice" minOccurs="1" maxOccurs="1"/>
1376     </xsd:sequence>
1377     <xsd:attribute name="prst" type="ST_PresetShadowVal" use="required"/>
1378     <xsd:attribute name="dist" type="ST_PositiveCoordinate" use="optional" default="0"/>
1379     <xsd:attribute name="dir" type="ST_PositiveFixedAngle" use="optional" default="0"/>
1380 </xsd:complexType>
1381 <xsd:complexType name="CT_ReflectionEffect">
1382     <xsd:attribute name="blurRad" type="ST_PositiveCoordinate" use="optional" default="0"/>
1383     <xsd:attribute name="stA" type="ST_PositiveFixedPercentage" use="optional" default="100%"/>
1384     <xsd:attribute name="stPos" type="ST_PositiveFixedPercentage" use="optional" default="0%"/>
1385     <xsd:attribute name="endA" type="ST_PositiveFixedPercentage" use="optional" default="0%"/>
1386     <xsd:attribute name="endPos" type="ST_PositiveFixedPercentage" use="optional" default="100%"/>
1387     <xsd:attribute name="dist" type="ST_PositiveCoordinate" use="optional" default="0"/>
1388     <xsd:attribute name="dir" type="ST_PositiveFixedAngle" use="optional" default="0"/>
1389     <xsd:attribute name="fadeDir" type="ST_PositiveFixedAngle" use="optional" default="5400000"/>
1390     <xsd:attribute name="sx" type="ST_Percentage" use="optional" default="100%"/>
1391     <xsd:attribute name="sy" type="ST_Percentage" use="optional" default="100%"/>
1392     <xsd:attribute name="kx" type="ST_FixedAngle" use="optional" default="0"/>
1393     <xsd:attribute name="ky" type="ST_FixedAngle" use="optional" default="0"/>
1394     <xsd:attribute name="algn" type="ST_RectAlignment" use="optional" default="b"/>
1395     <xsd:attribute name="rotWithShape" type="xsd:boolean" use="optional" default="true"/>
1396 </xsd:complexType>
1397 <xsd:complexType name="CT_RelativeOffsetEffect">
1398     <xsd:attribute name="tx" type="ST_Percentage" use="optional" default="0%"/>
1399     <xsd:attribute name="ty" type="ST_Percentage" use="optional" default="0%"/>
1400 </xsd:complexType>
1401 <xsd:complexType name="CT_SoftEdgesEffect">
1402     <xsd:attribute name="rad" type="ST_PositiveCoordinate" use="required"/>
1403 </xsd:complexType>
1404 <xsd:complexType name="CT_TintEffect">

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1405     <xsd:attribute name="hue" type="ST_PositiveFixedAngle" use="optional" default="0"/>
1406     <xsd:attribute name="amt" type="ST_FixedPercentage" use="optional" default="0%"/>
1407 </xsd:complexType>
1408 <xsd:complexType name="CT_TransformEffect">
1409     <xsd:attribute name="sx" type="ST_Percentage" use="optional" default="100%"/>
1410     <xsd:attribute name="sy" type="ST_Percentage" use="optional" default="100%"/>
1411     <xsd:attribute name="kx" type="ST_FixedAngle" use="optional" default="0"/>
1412     <xsd:attribute name="ky" type="ST_FixedAngle" use="optional" default="0"/>
1413     <xsd:attribute name="tx" type="ST_Coordinate" use="optional" default="0"/>
1414     <xsd:attribute name="ty" type="ST_Coordinate" use="optional" default="0"/>
1415 </xsd:complexType>
1416 <xsd:complexType name="CT_NoFillProperties"/>
1417 <xsd:complexType name="CT_SolidColorFillProperties">
1418     <xsd:sequence>
1419         <xsd:group ref="EG_ColorChoice" minOccurs="0" maxOccurs="1"/>
1420     </xsd:sequence>
1421 </xsd:complexType>
1422 <xsd:complexType name="CT_LinearShadeProperties">
1423     <xsd:attribute name="ang" type="ST_PositiveFixedAngle" use="optional"/>
1424     <xsd:attribute name="scaled" type="xsd:boolean" use="optional"/>
1425 </xsd:complexType>
1426 <xsd:simpleType name="ST_PathShadeType">
1427     <xsd:restriction base="xsd:token">
1428         <xsd:enumeration value="shape"/>
1429         <xsd:enumeration value="circle"/>
1430         <xsd:enumeration value="rect"/>
1431     </xsd:restriction>
1432 </xsd:simpleType>
1433 <xsd:complexType name="CT_PathShadeProperties">
1434     <xsd:sequence>
1435         <xsd:element name="fillToRect" type="CT_RelativeRect" minOccurs="0" maxOccurs="1"/>
1436     </xsd:sequence>
1437     <xsd:attribute name="path" type="ST_PathShadeType" use="optional"/>
1438 </xsd:complexType>
1439 <xsd:group name="EG_ShadeProperties">
1440     <xsd:choice>
1441         <xsd:element name="lin" type="CT_LinearShadeProperties" minOccurs="1" maxOccurs="1"/>
1442         <xsd:element name="path" type="CT_PathShadeProperties" minOccurs="1" maxOccurs="1"/>
1443     </xsd:choice>
1444 </xsd:group>
1445 <xsd:simpleType name="ST_TileFlipMode">
1446     <xsd:restriction base="xsd:token">
1447         <xsd:enumeration value="none"/>
1448         <xsd:enumeration value="x"/>
1449         <xsd:enumeration value="y"/>
1450         <xsd:enumeration value="xy"/>
1451     </xsd:restriction>
1452 </xsd:simpleType>
1453 <xsd:complexType name="CT_GradientStop">
1454     <xsd:sequence>
1455         <xsd:group ref="EG_ColorChoice" minOccurs="1" maxOccurs="1"/>
1456     </xsd:sequence>
1457     <xsd:attribute name="pos" type="ST_PositiveFixedPercentage" use="required"/>

```



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1458 </xsd:complexType>
1459 <xsd:complexType name="CT_GradientStopList">
1460   <xsd:sequence>
1461     <xsd:element name="gs" type="CT_GradientStop" minOccurs="2" maxOccurs="unbounded"/>
1462   </xsd:sequence>
1463 </xsd:complexType>
1464 <xsd:complexType name="CT_GradientFillProperties">
1465   <xsd:sequence>
1466     <xsd:element name="gsLst" type="CT_GradientStopList" minOccurs="0" maxOccurs="1"/>
1467     <xsd:group ref="EG_ShadeProperties" minOccurs="0" maxOccurs="1"/>
1468     <xsd:element name="tileRect" type="CT_RelativeRect" minOccurs="0" maxOccurs="1"/>
1469   </xsd:sequence>
1470   <xsd:attribute name="flip" type="ST_TileFlipMode" use="optional"/>
1471   <xsd:attribute name="rotWithShape" type="xsd:boolean" use="optional"/>
1472 </xsd:complexType>
1473 <xsd:complexType name="CT_TileInfoProperties">
1474   <xsd:attribute name="tx" type="ST_Coordinate" use="optional"/>
1475   <xsd:attribute name="ty" type="ST_Coordinate" use="optional"/>
1476   <xsd:attribute name="sx" type="ST_Percentage" use="optional"/>
1477   <xsd:attribute name="sy" type="ST_Percentage" use="optional"/>
1478   <xsd:attribute name="flip" type="ST_TileFlipMode" use="optional"/>
1479   <xsd:attribute name="align" type="ST_RectAlignment" use="optional"/>
1480 </xsd:complexType>
1481 <xsd:complexType name="CT_StretchInfoProperties">
1482   <xsd:sequence>
1483     <xsd:element name="fillRect" type="CT_RelativeRect" minOccurs="0" maxOccurs="1"/>
1484   </xsd:sequence>
1485 </xsd:complexType>
1486 <xsd:group name="EG_FillModeProperties">
1487   <xsd:choice>
1488     <xsd:element name="tile" type="CT_TileInfoProperties" minOccurs="1" maxOccurs="1"/>
1489     <xsd:element name="stretch" type="CT_StretchInfoProperties" minOccurs="1" maxOccurs="1"/>
1490   </xsd:choice>
1491 </xsd:group>
1492 <xsd:simpleType name="ST_BlipCompression">
1493   <xsd:restriction base="xsd:token">
1494     <xsd:enumeration value="email"/>
1495     <xsd:enumeration value="screen"/>
1496     <xsd:enumeration value="print"/>
1497     <xsd:enumeration value="hqprint"/>
1498     <xsd:enumeration value="none"/>
1499   </xsd:restriction>
1500 </xsd:simpleType>
1501 <xsd:complexType name="CT_Blip">
1502   <xsd:sequence>
1503     <xsd:choice minOccurs="0" maxOccurs="unbounded">
1504       <xsd:element name="alphaBiLevel" type="CT_AlphaBiLevelEffect" minOccurs="1"
1505         maxOccurs="1"/>
1506       <xsd:element name="alphaCeiling" type="CT_AlphaCeilingEffect" minOccurs="1"
1507         maxOccurs="1"/>
1508       <xsd:element name="alphaFloor" type="CT_AlphaFloorEffect" minOccurs="1" maxOccurs="1"/>
1509       <xsd:element name="alphaInv" type="CT_AlphaInverseEffect" minOccurs="1" maxOccurs="1"/>

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1510     <xsd:element name="alphaMod" type="CT_AlphaModulateEffect" minOccurs="1"
1511       maxOccurs="1"/>
1512     <xsd:element name="alphaModFix" type="CT_AlphaModulateFixedEffect" minOccurs="1"
1513       maxOccurs="1"/>
1514     <xsd:element name="alphaRepl" type="CT_AlphaReplaceEffect" minOccurs="1"
1515       maxOccurs="1"/>
1516     <xsd:element name="biLevel" type="CT_BiLevelEffect" minOccurs="1" maxOccurs="1"/>
1517     <xsd:element name="blur" type="CT_BlurEffect" minOccurs="1" maxOccurs="1"/>
1518     <xsd:element name="clrChange" type="CT_ColorChangeEffect" minOccurs="1" maxOccurs="1"/>
1519     <xsd:element name="clrRepl" type="CT_ColorReplaceEffect" minOccurs="1" maxOccurs="1"/>
1520     <xsd:element name="duotone" type="CT_DuotoneEffect" minOccurs="1" maxOccurs="1"/>
1521     <xsd:element name="fillOverlay" type="CT_FillOverlayEffect" minOccurs="1"
1522       maxOccurs="1"/>
1523     <xsd:element name="grayscale" type="CT_GrayscaleEffect" minOccurs="1" maxOccurs="1"/>
1524     <xsd:element name="hsl" type="CT_HSLEffect" minOccurs="1" maxOccurs="1"/>
1525     <xsd:element name="lum" type="CT_LuminanceEffect" minOccurs="1" maxOccurs="1"/>
1526     <xsd:element name="tint" type="CT_TintEffect" minOccurs="1" maxOccurs="1"/>
1527   </xsd:choice>
1528   <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
1529 </xsd:sequence>
1530 <xsd:attributeGroup ref="AG_Blob"/>
1531 <xsd:attribute name="cstate" type="ST_BlipCompression" use="optional" default="none"/>
1532 </xsd:complexType>
1533 <xsd:complexType name="CT_BlipFillProperties">
1534   <xsd:sequence>
1535     <xsd:element name="blip" type="CT_Blip" minOccurs="0" maxOccurs="1"/>
1536     <xsd:element name="srcRect" type="CT_RelativeRect" minOccurs="0" maxOccurs="1"/>
1537     <xsd:group ref="EG_FillModeProperties" minOccurs="0" maxOccurs="1"/>
1538   </xsd:sequence>
1539   <xsd:attribute name="dpi" type="xsd:unsignedInt" use="optional"/>
1540   <xsd:attribute name="rotWithShape" type="xsd:boolean" use="optional"/>
1541 </xsd:complexType>
1542 <xsd:simpleType name="ST_PresetPatternVal">
1543   <xsd:restriction base="xsd:token">
1544     <xsd:enumeration value="pct5"/>
1545     <xsd:enumeration value="pct10"/>
1546     <xsd:enumeration value="pct20"/>
1547     <xsd:enumeration value="pct25"/>
1548     <xsd:enumeration value="pct30"/>
1549     <xsd:enumeration value="pct40"/>
1550     <xsd:enumeration value="pct50"/>
1551     <xsd:enumeration value="pct60"/>
1552     <xsd:enumeration value="pct70"/>
1553     <xsd:enumeration value="pct75"/>
1554     <xsd:enumeration value="pct80"/>
1555     <xsd:enumeration value="pct90"/>
1556     <xsd:enumeration value="horz"/>
1557     <xsd:enumeration value="vert"/>
1558     <xsd:enumeration value="ltHorz"/>
1559     <xsd:enumeration value="ltVert"/>
1560     <xsd:enumeration value="dkHorz"/>
1561     <xsd:enumeration value="dkVert"/>
1562     <xsd:enumeration value="narHorz"/>

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1563     <xsd:enumeration value="narVert"/>
1564     <xsd:enumeration value="dashHorz"/>
1565     <xsd:enumeration value="dashVert"/>
1566     <xsd:enumeration value="cross"/>
1567     <xsd:enumeration value="dnDiag"/>
1568     <xsd:enumeration value="upDiag"/>
1569     <xsd:enumeration value="ltDnDiag"/>
1570     <xsd:enumeration value="ltUpDiag"/>
1571     <xsd:enumeration value="dkDnDiag"/>
1572     <xsd:enumeration value="dkUpDiag"/>
1573     <xsd:enumeration value="wdDnDiag"/>
1574     <xsd:enumeration value="wdUpDiag"/>
1575     <xsd:enumeration value="dashDnDiag"/>
1576     <xsd:enumeration value="dashUpDiag"/>
1577     <xsd:enumeration value="diagCross"/>
1578     <xsd:enumeration value="smCheck"/>
1579     <xsd:enumeration value="lgCheck"/>
1580     <xsd:enumeration value="smGrid"/>
1581     <xsd:enumeration value="lgGrid"/>
1582     <xsd:enumeration value="dotGrid"/>
1583     <xsd:enumeration value="smConfetti"/>
1584     <xsd:enumeration value="lgConfetti"/>
1585     <xsd:enumeration value="horzBrick"/>
1586     <xsd:enumeration value="diagBrick"/>
1587     <xsd:enumeration value="solidDmnd"/>
1588     <xsd:enumeration value="openDmnd"/>
1589     <xsd:enumeration value="dotDmnd"/>
1590     <xsd:enumeration value="plaid"/>
1591     <xsd:enumeration value="sphere"/>
1592     <xsd:enumeration value="weave"/>
1593     <xsd:enumeration value="divot"/>
1594     <xsd:enumeration value="shingle"/>
1595     <xsd:enumeration value="wave"/>
1596     <xsd:enumeration value="trellis"/>
1597     <xsd:enumeration value="zigZag"/>
1598   </xsd:restriction>
1599 </xsd:simpleType>
1600 <xsd:complexType name="CT_PatternFillProperties">
1601   <xsd:sequence>
1602     <xsd:element name="fgClr" type="CT_Color" minOccurs="0" maxOccurs="1"/>
1603     <xsd:element name="bgClr" type="CT_Color" minOccurs="0" maxOccurs="1"/>
1604   </xsd:sequence>
1605   <xsd:attribute name="prst" type="ST_PresetPatternVal" use="optional"/>
1606 </xsd:complexType>
1607 <xsd:complexType name="CT_GroupFillProperties"/>
1608 <xsd:group name="EG_FillProperties">
1609   <xsd:choice>
1610     <xsd:element name="noFill" type="CT_NoFillProperties" minOccurs="1" maxOccurs="1"/>
1611     <xsd:element name="solidFill" type="CT_SolidColorFillProperties" minOccurs="1"
1612       maxOccurs="1"/>
1613     <xsd:element name="gradFill" type="CT_GradientFillProperties" minOccurs="1"
1614       maxOccurs="1"/>
1615     <xsd:element name="blipFill" type="CT_BlipFillProperties" minOccurs="1" maxOccurs="1"/>

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1616         <xsd:element name="pattFill" type="CT_PatternFillProperties" minOccurs="1" maxOccurs="1"/>
1617         <xsd:element name="grpFill" type="CT_GroupFillProperties" minOccurs="1" maxOccurs="1"/>
1618     </xsd:choice>
1619 </xsd:group>
1620 <xsd:complexType name="CT_FillProperties">
1621     <xsd:sequence>
1622         <xsd:group ref="EG_FillProperties" minOccurs="1" maxOccurs="1"/>
1623     </xsd:sequence>
1624 </xsd:complexType>
1625 <xsd:complexType name="CT_FillEffect">
1626     <xsd:sequence>
1627         <xsd:group ref="EG_FillProperties" minOccurs="1" maxOccurs="1"/>
1628     </xsd:sequence>
1629 </xsd:complexType>
1630 <xsd:simpleType name="ST_BlendMode">
1631     <xsd:restriction base="xsd:token">
1632         <xsd:enumeration value="over"/>
1633         <xsd:enumeration value="mult"/>
1634         <xsd:enumeration value="screen"/>
1635         <xsd:enumeration value="darken"/>
1636         <xsd:enumeration value="lighten"/>
1637     </xsd:restriction>
1638 </xsd:simpleType>
1639 <xsd:complexType name="CT_FillOverlayEffect">
1640     <xsd:sequence>
1641         <xsd:group ref="EG_FillProperties" minOccurs="1" maxOccurs="1"/>
1642     </xsd:sequence>
1643     <xsd:attribute name="blend" type="ST_BlendMode" use="required"/>
1644 </xsd:complexType>
1645 <xsd:complexType name="CT_EffectReference">
1646     <xsd:attribute name="ref" type="xsd:token" use="required"/>
1647 </xsd:complexType>
1648 <xsd:group name="EG_Effect">
1649     <xsd:choice>
1650         <xsd:element name="cont" type="CT_EffectContainer" minOccurs="1" maxOccurs="1"/>
1651         <xsd:element name="effect" type="CT_EffectReference" minOccurs="1" maxOccurs="1"/>
1652         <xsd:element name="alphaBiLevel" type="CT_AlphaBiLevelEffect" minOccurs="1"
1653             maxOccurs="1"/>
1654         <xsd:element name="alphaCeiling" type="CT_AlphaCeilingEffect" minOccurs="1"
1655             maxOccurs="1"/>
1656         <xsd:element name="alphaFloor" type="CT_AlphaFloorEffect" minOccurs="1" maxOccurs="1"/>
1657         <xsd:element name="alphaInv" type="CT_AlphaInverseEffect" minOccurs="1" maxOccurs="1"/>
1658         <xsd:element name="alphaMod" type="CT_AlphaModulateEffect" minOccurs="1" maxOccurs="1"/>
1659         <xsd:element name="alphaModFix" type="CT_AlphaModulateFixedEffect" minOccurs="1"
1660             maxOccurs="1"/>
1661         <xsd:element name="alphaOutset" type="CT_AlphaOutsetEffect" minOccurs="1" maxOccurs="1"/>
1662         <xsd:element name="alphaRepl" type="CT_AlphaReplaceEffect" minOccurs="1" maxOccurs="1"/>
1663         <xsd:element name="biLevel" type="CT_BiLevelEffect" minOccurs="1" maxOccurs="1"/>
1664         <xsd:element name="blend" type="CT_BlendEffect" minOccurs="1" maxOccurs="1"/>
1665         <xsd:element name="blur" type="CT_BlurEffect" minOccurs="1" maxOccurs="1"/>
1666         <xsd:element name="clrChange" type="CT_ColorChangeEffect" minOccurs="1" maxOccurs="1"/>
1667         <xsd:element name="clrRepl" type="CT_ColorReplaceEffect" minOccurs="1" maxOccurs="1"/>
1668         <xsd:element name="duotone" type="CT_DuotoneEffect" minOccurs="1" maxOccurs="1"/>

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1669     <xsd:element name="fill" type="CT_FillEffect" minOccurs="1" maxOccurs="1"/>
1670     <xsd:element name="fillOverlay" type="CT_FillOverlayEffect" minOccurs="1" maxOccurs="1"/>
1671     <xsd:element name="glow" type="CT_GlowEffect" minOccurs="1" maxOccurs="1"/>
1672     <xsd:element name="grayscale" type="CT_GrayscaleEffect" minOccurs="1" maxOccurs="1"/>
1673     <xsd:element name="hsl" type="CT_HSLEffect" minOccurs="1" maxOccurs="1"/>
1674     <xsd:element name="innerShdw" type="CT_InnerShadowEffect" minOccurs="1" maxOccurs="1"/>
1675     <xsd:element name="lum" type="CT_LuminanceEffect" minOccurs="1" maxOccurs="1"/>
1676     <xsd:element name="outerShdw" type="CT_OuterShadowEffect" minOccurs="1" maxOccurs="1"/>
1677     <xsd:element name="prstShdw" type="CT_PresetShadowEffect" minOccurs="1" maxOccurs="1"/>
1678     <xsd:element name="reflection" type="CT_ReflectionEffect" minOccurs="1" maxOccurs="1"/>
1679     <xsd:element name="relOff" type="CT_RelativeOffsetEffect" minOccurs="1" maxOccurs="1"/>
1680     <xsd:element name="softEdge" type="CT_SoftEdgesEffect" minOccurs="1" maxOccurs="1"/>
1681     <xsd:element name="tint" type="CT_TintEffect" minOccurs="1" maxOccurs="1"/>
1682     <xsd:element name="xfrm" type="CT_TransformEffect" minOccurs="1" maxOccurs="1"/>
1683   </xsd:choice>
1684 </xsd:group>
1685 <xsd:simpleType name="ST_EffectContainerType">
1686   <xsd:restriction base="xsd:token">
1687     <xsd:enumeration value="sib"/>
1688     <xsd:enumeration value="tree"/>
1689   </xsd:restriction>
1690 </xsd:simpleType>
1691 <xsd:complexType name="CT_EffectContainer">
1692   <xsd:group ref="EG_Effect" minOccurs="0" maxOccurs="unbounded"/>
1693   <xsd:attribute name="type" type="ST_EffectContainerType" use="optional" default="sib"/>
1694   <xsd:attribute name="name" type="xsd:token" use="optional"/>
1695 </xsd:complexType>
1696 <xsd:complexType name="CT_AlphaModulateEffect">
1697   <xsd:sequence>
1698     <xsd:element name="cont" type="CT_EffectContainer" minOccurs="1" maxOccurs="1"/>
1699   </xsd:sequence>
1700 </xsd:complexType>
1701 <xsd:complexType name="CT_BlendEffect">
1702   <xsd:sequence>
1703     <xsd:element name="cont" type="CT_EffectContainer" minOccurs="1" maxOccurs="1"/>
1704   </xsd:sequence>
1705   <xsd:attribute name="blend" type="ST_BlendMode" use="required"/>
1706 </xsd:complexType>
1707 <xsd:complexType name="CT_EffectList">
1708   <xsd:sequence>
1709     <xsd:element name="blur" type="CT_BlurEffect" minOccurs="0" maxOccurs="1"/>
1710     <xsd:element name="fillOverlay" type="CT_FillOverlayEffect" minOccurs="0" maxOccurs="1"/>
1711     <xsd:element name="glow" type="CT_GlowEffect" minOccurs="0" maxOccurs="1"/>
1712     <xsd:element name="innerShdw" type="CT_InnerShadowEffect" minOccurs="0" maxOccurs="1"/>
1713     <xsd:element name="outerShdw" type="CT_OuterShadowEffect" minOccurs="0" maxOccurs="1"/>
1714     <xsd:element name="prstShdw" type="CT_PresetShadowEffect" minOccurs="0" maxOccurs="1"/>
1715     <xsd:element name="reflection" type="CT_ReflectionEffect" minOccurs="0" maxOccurs="1"/>
1716     <xsd:element name="softEdge" type="CT_SoftEdgesEffect" minOccurs="0" maxOccurs="1"/>
1717   </xsd:sequence>
1718 </xsd:complexType>
1719 <xsd:group name="EG_EffectProperties">
1720   <xsd:choice>
1721     <xsd:element name="effectList" type="CT_EffectList" minOccurs="1" maxOccurs="1"/>

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1722     <xsd:element name="effectDag" type="CT_EffectContainer" minOccurs="1" maxOccurs="1"/>
1723   </xsd:choice>
1724 </xsd:group>
1725 <xsd:complexType name="CT_EffectProperties">
1726   <xsd:sequence>
1727     <xsd:group ref="EG_EffectProperties" minOccurs="1" maxOccurs="1"/>
1728   </xsd:sequence>
1729 </xsd:complexType>
1730 <xsd:element name="blip" type="CT_Blip"/>
1731 <xsd:simpleType name="ST_ShapeType">
1732   <xsd:restriction base="xsd:token">
1733     <xsd:enumeration value="line"/>
1734     <xsd:enumeration value="lineInv"/>
1735     <xsd:enumeration value="triangle"/>
1736     <xsd:enumeration value="rtTriangle"/>
1737     <xsd:enumeration value="rect"/>
1738     <xsd:enumeration value="diamond"/>
1739     <xsd:enumeration value="parallelogram"/>
1740     <xsd:enumeration value="trapezoid"/>
1741     <xsd:enumeration value="nonIsoscelesTrapezoid"/>
1742     <xsd:enumeration value="pentagon"/>
1743     <xsd:enumeration value="hexagon"/>
1744     <xsd:enumeration value="heptagon"/>
1745     <xsd:enumeration value="octagon"/>
1746     <xsd:enumeration value="decagon"/>
1747     <xsd:enumeration value="dodecagon"/>
1748     <xsd:enumeration value="star4"/>
1749     <xsd:enumeration value="star5"/>
1750     <xsd:enumeration value="star6"/>
1751     <xsd:enumeration value="star7"/>
1752     <xsd:enumeration value="star8"/>
1753     <xsd:enumeration value="star10"/>
1754     <xsd:enumeration value="star12"/>
1755     <xsd:enumeration value="star16"/>
1756     <xsd:enumeration value="star24"/>
1757     <xsd:enumeration value="star32"/>
1758     <xsd:enumeration value="roundRect"/>
1759     <xsd:enumeration value="round1Rect"/>
1760     <xsd:enumeration value="round2SameRect"/>
1761     <xsd:enumeration value="round2DiagRect"/>
1762     <xsd:enumeration value="snipRoundRect"/>
1763     <xsd:enumeration value="snip1Rect"/>
1764     <xsd:enumeration value="snip2SameRect"/>
1765     <xsd:enumeration value="snip2DiagRect"/>
1766     <xsd:enumeration value="plaque"/>
1767     <xsd:enumeration value="ellipse"/>
1768     <xsd:enumeration value="teardrop"/>
1769     <xsd:enumeration value="homePlate"/>
1770     <xsd:enumeration value="chevron"/>
1771     <xsd:enumeration value="pieWedge"/>
1772     <xsd:enumeration value="pie"/>
1773     <xsd:enumeration value="blockArc"/>
1774     <xsd:enumeration value="donut"/>

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1775 <xsd:enumeration value="noSmoking"/>
1776 <xsd:enumeration value="rightArrow"/>
1777 <xsd:enumeration value="leftArrow"/>
1778 <xsd:enumeration value="upArrow"/>
1779 <xsd:enumeration value="downArrow"/>
1780 <xsd:enumeration value="stripedRightArrow"/>
1781 <xsd:enumeration value="notchedRightArrow"/>
1782 <xsd:enumeration value="bentUpArrow"/>
1783 <xsd:enumeration value="leftRightArrow"/>
1784 <xsd:enumeration value="upDownArrow"/>
1785 <xsd:enumeration value="leftUpArrow"/>
1786 <xsd:enumeration value="leftRightUpArrow"/>
1787 <xsd:enumeration value="quadArrow"/>
1788 <xsd:enumeration value="leftArrowCallout"/>
1789 <xsd:enumeration value="rightArrowCallout"/>
1790 <xsd:enumeration value="upArrowCallout"/>
1791 <xsd:enumeration value="downArrowCallout"/>
1792 <xsd:enumeration value="leftRightArrowCallout"/>
1793 <xsd:enumeration value="upDownArrowCallout"/>
1794 <xsd:enumeration value="quadArrowCallout"/>
1795 <xsd:enumeration value="bentArrow"/>
1796 <xsd:enumeration value="uturnArrow"/>
1797 <xsd:enumeration value="circularArrow"/>
1798 <xsd:enumeration value="leftCircularArrow"/>
1799 <xsd:enumeration value="leftRightCircularArrow"/>
1800 <xsd:enumeration value="curvedRightArrow"/>
1801 <xsd:enumeration value="curvedLeftArrow"/>
1802 <xsd:enumeration value="curvedUpArrow"/>
1803 <xsd:enumeration value="curvedDownArrow"/>
1804 <xsd:enumeration value="swooshArrow"/>
1805 <xsd:enumeration value="cube"/>
1806 <xsd:enumeration value="can"/>
1807 <xsd:enumeration value="lightningBolt"/>
1808 <xsd:enumeration value="heart"/>
1809 <xsd:enumeration value="sun"/>
1810 <xsd:enumeration value="moon"/>
1811 <xsd:enumeration value="smileyFace"/>
1812 <xsd:enumeration value="irregularSeal1"/>
1813 <xsd:enumeration value="irregularSeal2"/>
1814 <xsd:enumeration value="foldedCorner"/>
1815 <xsd:enumeration value="bevel"/>
1816 <xsd:enumeration value="frame"/>
1817 <xsd:enumeration value="halfFrame"/>
1818 <xsd:enumeration value="corner"/>
1819 <xsd:enumeration value="diagStripe"/>
1820 <xsd:enumeration value="chord"/>
1821 <xsd:enumeration value="arc"/>
1822 <xsd:enumeration value="leftBracket"/>
1823 <xsd:enumeration value="rightBracket"/>
1824 <xsd:enumeration value="leftBrace"/>
1825 <xsd:enumeration value="rightBrace"/>
1826 <xsd:enumeration value="bracketPair"/>
1827 <xsd:enumeration value="bracePair"/>

```



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1828     <xsd:enumeration value="straightConnector1"/>
1829     <xsd:enumeration value="bentConnector2"/>
1830     <xsd:enumeration value="bentConnector3"/>
1831     <xsd:enumeration value="bentConnector4"/>
1832     <xsd:enumeration value="bentConnector5"/>
1833     <xsd:enumeration value="curvedConnector2"/>
1834     <xsd:enumeration value="curvedConnector3"/>
1835     <xsd:enumeration value="curvedConnector4"/>
1836     <xsd:enumeration value="curvedConnector5"/>
1837     <xsd:enumeration value="callout1"/>
1838     <xsd:enumeration value="callout2"/>
1839     <xsd:enumeration value="callout3"/>
1840     <xsd:enumeration value="accentCallout1"/>
1841     <xsd:enumeration value="accentCallout2"/>
1842     <xsd:enumeration value="accentCallout3"/>
1843     <xsd:enumeration value="borderCallout1"/>
1844     <xsd:enumeration value="borderCallout2"/>
1845     <xsd:enumeration value="borderCallout3"/>
1846     <xsd:enumeration value="accentBorderCallout1"/>
1847     <xsd:enumeration value="accentBorderCallout2"/>
1848     <xsd:enumeration value="accentBorderCallout3"/>
1849     <xsd:enumeration value="wedgeRectCallout"/>
1850     <xsd:enumeration value="wedgeRoundRectCallout"/>
1851     <xsd:enumeration value="wedgeEllipseCallout"/>
1852     <xsd:enumeration value="cloudCallout"/>
1853     <xsd:enumeration value="cloud"/>
1854     <xsd:enumeration value="ribbon"/>
1855     <xsd:enumeration value="ribbon2"/>
1856     <xsd:enumeration value="ellipseRibbon"/>
1857     <xsd:enumeration value="ellipseRibbon2"/>
1858     <xsd:enumeration value="leftRightRibbon"/>
1859     <xsd:enumeration value="verticalScroll"/>
1860     <xsd:enumeration value="horizontalScroll"/>
1861     <xsd:enumeration value="wave"/>
1862     <xsd:enumeration value="doubleWave"/>
1863     <xsd:enumeration value="plus"/>
1864     <xsd:enumeration value="flowChartProcess"/>
1865     <xsd:enumeration value="flowChartDecision"/>
1866     <xsd:enumeration value="flowChartInputOutput"/>
1867     <xsd:enumeration value="flowChartPredefinedProcess"/>
1868     <xsd:enumeration value="flowChartInternalStorage"/>
1869     <xsd:enumeration value="flowChartDocument"/>
1870     <xsd:enumeration value="flowChartMultidocument"/>
1871     <xsd:enumeration value="flowChartTerminator"/>
1872     <xsd:enumeration value="flowChartPreparation"/>
1873     <xsd:enumeration value="flowChartManualInput"/>
1874     <xsd:enumeration value="flowChartManualOperation"/>
1875     <xsd:enumeration value="flowChartConnector"/>
1876     <xsd:enumeration value="flowChartPunchedCard"/>
1877     <xsd:enumeration value="flowChartPunchedTape"/>
1878     <xsd:enumeration value="flowChartSummingJunction"/>
1879     <xsd:enumeration value="flowChartOr"/>
1880     <xsd:enumeration value="flowChartCollate"/>

```



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1881     <xsd:enumeration value="flowChartSort"/>
1882     <xsd:enumeration value="flowChartExtract"/>
1883     <xsd:enumeration value="flowChartMerge"/>
1884     <xsd:enumeration value="flowChartOfflineStorage"/>
1885     <xsd:enumeration value="flowChartOnlineStorage"/>
1886     <xsd:enumeration value="flowChartMagneticTape"/>
1887     <xsd:enumeration value="flowChartMagneticDisk"/>
1888     <xsd:enumeration value="flowChartMagneticDrum"/>
1889     <xsd:enumeration value="flowChartDisplay"/>
1890     <xsd:enumeration value="flowChartDelay"/>
1891     <xsd:enumeration value="flowChartAlternateProcess"/>
1892     <xsd:enumeration value="flowChartOffpageConnector"/>
1893     <xsd:enumeration value="actionButtonBlank"/>
1894     <xsd:enumeration value="actionButtonHome"/>
1895     <xsd:enumeration value="actionButtonHelp"/>
1896     <xsd:enumeration value="actionButtonInformation"/>
1897     <xsd:enumeration value="actionButtonForwardNext"/>
1898     <xsd:enumeration value="actionButtonBackPrevious"/>
1899     <xsd:enumeration value="actionButtonEnd"/>
1900     <xsd:enumeration value="actionButtonBeginning"/>
1901     <xsd:enumeration value="actionButtonReturn"/>
1902     <xsd:enumeration value="actionButtonDocument"/>
1903     <xsd:enumeration value="actionButtonSound"/>
1904     <xsd:enumeration value="actionButtonMovie"/>
1905     <xsd:enumeration value="gear6"/>
1906     <xsd:enumeration value="gear9"/>
1907     <xsd:enumeration value="funnel"/>
1908     <xsd:enumeration value="mathPlus"/>
1909     <xsd:enumeration value="mathMinus"/>
1910     <xsd:enumeration value="mathMultiply"/>
1911     <xsd:enumeration value="mathDivide"/>
1912     <xsd:enumeration value="mathEqual"/>
1913     <xsd:enumeration value="mathNotEqual"/>
1914     <xsd:enumeration value="cornerTabs"/>
1915     <xsd:enumeration value="squareTabs"/>
1916     <xsd:enumeration value="plaqueTabs"/>
1917     <xsd:enumeration value="chartX"/>
1918     <xsd:enumeration value="chartStar"/>
1919     <xsd:enumeration value="chartPlus"/>
1920 </xsd:restriction>
1921 </xsd:simpleType>
1922 <xsd:simpleType name="ST_TextShapeType">
1923     <xsd:restriction base="xsd:token">
1924         <xsd:enumeration value="textNoShape"/>
1925         <xsd:enumeration value="textPlain"/>
1926         <xsd:enumeration value="textStop"/>
1927         <xsd:enumeration value="textTriangle"/>
1928         <xsd:enumeration value="textTriangleInverted"/>
1929         <xsd:enumeration value="textChevron"/>
1930         <xsd:enumeration value="textChevronInverted"/>
1931         <xsd:enumeration value="textRingInside"/>
1932         <xsd:enumeration value="textRingOutside"/>
1933         <xsd:enumeration value="textArchUp"/>

```



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1934     <xsd:enumeration value="textArchDown"/>
1935     <xsd:enumeration value="textCircle"/>
1936     <xsd:enumeration value="textButton"/>
1937     <xsd:enumeration value="textArchUpPour"/>
1938     <xsd:enumeration value="textArchDownPour"/>
1939     <xsd:enumeration value="textCirclePour"/>
1940     <xsd:enumeration value="textButtonPour"/>
1941     <xsd:enumeration value="textCurveUp"/>
1942     <xsd:enumeration value="textCurveDown"/>
1943     <xsd:enumeration value="textCanUp"/>
1944     <xsd:enumeration value="textCanDown"/>
1945     <xsd:enumeration value="textWave1"/>
1946     <xsd:enumeration value="textWave2"/>
1947     <xsd:enumeration value="textDoubleWave1"/>
1948     <xsd:enumeration value="textWave4"/>
1949     <xsd:enumeration value="textInflate"/>
1950     <xsd:enumeration value="textDeflate"/>
1951     <xsd:enumeration value="textInflateBottom"/>
1952     <xsd:enumeration value="textDeflateBottom"/>
1953     <xsd:enumeration value="textInflateTop"/>
1954     <xsd:enumeration value="textDeflateTop"/>
1955     <xsd:enumeration value="textDeflateInflate"/>
1956     <xsd:enumeration value="textDeflateInflateDeflate"/>
1957     <xsd:enumeration value="textFadeRight"/>
1958     <xsd:enumeration value="textFadeLeft"/>
1959     <xsd:enumeration value="textFadeUp"/>
1960     <xsd:enumeration value="textFadeDown"/>
1961     <xsd:enumeration value="textSlantUp"/>
1962     <xsd:enumeration value="textSlantDown"/>
1963     <xsd:enumeration value="textCascadeUp"/>
1964     <xsd:enumeration value="textCascadeDown"/>
1965 </xsd:restriction>
1966 </xsd:simpleType>
1967 <xsd:simpleType name="ST_GeomGuideName">
1968     <xsd:restriction base="xsd:token"/>
1969 </xsd:simpleType>
1970 <xsd:simpleType name="ST_GeomGuideFormula">
1971     <xsd:restriction base="xsd:string"/>
1972 </xsd:simpleType>
1973 <xsd:complexType name="CT_GeomGuide">
1974     <xsd:attribute name="name" type="ST_GeomGuideName" use="required"/>
1975     <xsd:attribute name="fmla" type="ST_GeomGuideFormula" use="required"/>
1976 </xsd:complexType>
1977 <xsd:complexType name="CT_GeomGuideList">
1978     <xsd:sequence>
1979         <xsd:element name="gd" type="CT_GeomGuide" minOccurs="0" maxOccurs="unbounded"/>
1980     </xsd:sequence>
1981 </xsd:complexType>
1982 <xsd:simpleType name="ST_AdjCoordinate">
1983     <xsd:union memberTypes="ST_Coordinate ST_GeomGuideName"/>
1984 </xsd:simpleType>
1985 <xsd:simpleType name="ST_AdjAngle">
1986     <xsd:union memberTypes="ST_Angle ST_GeomGuideName"/>

```



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1987 </xsd:simpleType>
1988 <xsd:complexType name="CT_AdjPoint2D">
1989     <xsd:attribute name="x" type="ST_AdjCoordinate" use="required"/>
1990     <xsd:attribute name="y" type="ST_AdjCoordinate" use="required"/>
1991 </xsd:complexType>
1992 <xsd:complexType name="CT_GeomRect">
1993     <xsd:attribute name="l" type="ST_AdjCoordinate" use="required"/>
1994     <xsd:attribute name="t" type="ST_AdjCoordinate" use="required"/>
1995     <xsd:attribute name="r" type="ST_AdjCoordinate" use="required"/>
1996     <xsd:attribute name="b" type="ST_AdjCoordinate" use="required"/>
1997 </xsd:complexType>
1998 <xsd:complexType name="CT_XYAdjustHandle">
1999     <xsd:sequence>
2000         <xsd:element name="pos" type="CT_AdjPoint2D" minOccurs="1" maxOccurs="1"/>
2001     </xsd:sequence>
2002     <xsd:attribute name="gdRefX" type="ST_GeomGuideName" use="optional"/>
2003     <xsd:attribute name="minX" type="ST_AdjCoordinate" use="optional"/>
2004     <xsd:attribute name="maxX" type="ST_AdjCoordinate" use="optional"/>
2005     <xsd:attribute name="gdRefY" type="ST_GeomGuideName" use="optional"/>
2006     <xsd:attribute name="minY" type="ST_AdjCoordinate" use="optional"/>
2007     <xsd:attribute name="maxY" type="ST_AdjCoordinate" use="optional"/>
2008 </xsd:complexType>
2009 <xsd:complexType name="CT_PolarAdjustHandle">
2010     <xsd:sequence>
2011         <xsd:element name="pos" type="CT_AdjPoint2D" minOccurs="1" maxOccurs="1"/>
2012     </xsd:sequence>
2013     <xsd:attribute name="gdRefR" type="ST_GeomGuideName" use="optional"/>
2014     <xsd:attribute name="minR" type="ST_AdjCoordinate" use="optional"/>
2015     <xsd:attribute name="maxR" type="ST_AdjCoordinate" use="optional"/>
2016     <xsd:attribute name="gdRefAng" type="ST_GeomGuideName" use="optional"/>
2017     <xsd:attribute name="minAng" type="ST_AdjAngle" use="optional"/>
2018     <xsd:attribute name="maxAng" type="ST_AdjAngle" use="optional"/>
2019 </xsd:complexType>
2020 <xsd:complexType name="CT_ConnectionSite">
2021     <xsd:sequence>
2022         <xsd:element name="pos" type="CT_AdjPoint2D" minOccurs="1" maxOccurs="1"/>
2023     </xsd:sequence>
2024     <xsd:attribute name="ang" type="ST_AdjAngle" use="required"/>
2025 </xsd:complexType>
2026 <xsd:complexType name="CT_AdjustHandleList">
2027     <xsd:choice minOccurs="0" maxOccurs="unbounded">
2028         <xsd:element name="ahXY" type="CT_XYAdjustHandle" minOccurs="1" maxOccurs="1"/>
2029         <xsd:element name="ahPolar" type="CT_PolarAdjustHandle" minOccurs="1" maxOccurs="1"/>
2030     </xsd:choice>
2031 </xsd:complexType>
2032 <xsd:complexType name="CT_ConnectionSiteList">
2033     <xsd:sequence>
2034         <xsd:element name="cxn" type="CT_ConnectionSite" minOccurs="0" maxOccurs="unbounded"/>
2035     </xsd:sequence>
2036 </xsd:complexType>
2037 <xsd:complexType name="CT_Connection">
2038     <xsd:attribute name="id" type="ST_DrawingElementId" use="required"/>
2039     <xsd:attribute name="idx" type="xsd:unsignedInt" use="required"/>

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2040 </xsd:complexType>
2041 <xsd:complexType name="CT_Path2DMoveTo">
2042   <xsd:sequence>
2043     <xsd:element name="pt" type="CT_AdjPoint2D" minOccurs="1" maxOccurs="1"/>
2044   </xsd:sequence>
2045 </xsd:complexType>
2046 <xsd:complexType name="CT_Path2DLineTo">
2047   <xsd:sequence>
2048     <xsd:element name="pt" type="CT_AdjPoint2D" minOccurs="1" maxOccurs="1"/>
2049   </xsd:sequence>
2050 </xsd:complexType>
2051 <xsd:complexType name="CT_Path2DArcTo">
2052   <xsd:attribute name="wR" type="ST_AdjCoordinate" use="required"/>
2053   <xsd:attribute name="hR" type="ST_AdjCoordinate" use="required"/>
2054   <xsd:attribute name="stAng" type="ST_AdjAngle" use="required"/>
2055   <xsd:attribute name="swAng" type="ST_AdjAngle" use="required"/>
2056 </xsd:complexType>
2057 <xsd:complexType name="CT_Path2DQuadBezierTo">
2058   <xsd:sequence>
2059     <xsd:element name="pt" type="CT_AdjPoint2D" minOccurs="2" maxOccurs="2"/>
2060   </xsd:sequence>
2061 </xsd:complexType>
2062 <xsd:complexType name="CT_Path2DCubicBezierTo">
2063   <xsd:sequence>
2064     <xsd:element name="pt" type="CT_AdjPoint2D" minOccurs="3" maxOccurs="3"/>
2065   </xsd:sequence>
2066 </xsd:complexType>
2067 <xsd:complexType name="CT_Path2DClose"/>
2068 <xsd:simpleType name="ST_PathFillMode">
2069   <xsd:restriction base="xsd:token">
2070     <xsd:enumeration value="none"/>
2071     <xsd:enumeration value="norm"/>
2072     <xsd:enumeration value="lighten"/>
2073     <xsd:enumeration value="lightenLess"/>
2074     <xsd:enumeration value="darken"/>
2075     <xsd:enumeration value="darkenLess"/>
2076   </xsd:restriction>
2077 </xsd:simpleType>
2078 <xsd:complexType name="CT_Path2D">
2079   <xsd:choice minOccurs="0" maxOccurs="unbounded">
2080     <xsd:element name="close" type="CT_Path2DClose" minOccurs="1" maxOccurs="1"/>
2081     <xsd:element name="moveTo" type="CT_Path2DMoveTo" minOccurs="1" maxOccurs="1"/>
2082     <xsd:element name="lnTo" type="CT_Path2DLineTo" minOccurs="1" maxOccurs="1"/>
2083     <xsd:element name="arcTo" type="CT_Path2DArcTo" minOccurs="1" maxOccurs="1"/>
2084     <xsd:element name="quadBezTo" type="CT_Path2DQuadBezierTo" minOccurs="1" maxOccurs="1"/>
2085     <xsd:element name="cubicBezTo" type="CT_Path2DCubicBezierTo" minOccurs="1" maxOccurs="1"/>
2086   </xsd:choice>
2087   <xsd:attribute name="w" type="ST_PositiveCoordinate" use="optional" default="0"/>
2088   <xsd:attribute name="h" type="ST_PositiveCoordinate" use="optional" default="0"/>
2089   <xsd:attribute name="fill" type="ST_PathFillMode" use="optional" default="norm"/>
2090   <xsd:attribute name="stroke" type="xsd:boolean" use="optional" default="true"/>
2091   <xsd:attribute name="extrusionOk" type="xsd:boolean" use="optional" default="true"/>
2092 </xsd:complexType>

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2093 <xsd:complexType name="CT_Path2DList">
2094   <xsd:sequence>
2095     <xsd:element name="path" type="CT_Path2D" minOccurs="0" maxOccurs="unbounded"/>
2096   </xsd:sequence>
2097 </xsd:complexType>
2098 <xsd:complexType name="CT_PresetGeometry2D">
2099   <xsd:sequence>
2100     <xsd:element name="avLst" type="CT_GeomGuideList" minOccurs="0" maxOccurs="1"/>
2101   </xsd:sequence>
2102   <xsd:attribute name="prst" type="ST_ShapeType" use="required"/>
2103 </xsd:complexType>
2104 <xsd:complexType name="CT_PresetTextShape">
2105   <xsd:sequence>
2106     <xsd:element name="avLst" type="CT_GeomGuideList" minOccurs="0" maxOccurs="1"/>
2107   </xsd:sequence>
2108   <xsd:attribute name="prst" type="ST_TextShapeType" use="required"/>
2109 </xsd:complexType>
2110 <xsd:complexType name="CT_CustomGeometry2D">
2111   <xsd:sequence>
2112     <xsd:element name="avLst" type="CT_GeomGuideList" minOccurs="0" maxOccurs="1"/>
2113     <xsd:element name="gdLst" type="CT_GeomGuideList" minOccurs="0" maxOccurs="1"/>
2114     <xsd:element name="ahLst" type="CT_AdjustHandleList" minOccurs="0" maxOccurs="1"/>
2115     <xsd:element name="cxnLst" type="CT_ConnectionSiteList" minOccurs="0" maxOccurs="1"/>
2116     <xsd:element name="rect" type="CT_GeomRect" minOccurs="0" maxOccurs="1"/>
2117     <xsd:element name="pathLst" type="CT_Path2DList" minOccurs="1" maxOccurs="1"/>
2118   </xsd:sequence>
2119 </xsd:complexType>
2120 <xsd:group name="EG_Geometry">
2121   <xsd:choice>
2122     <xsd:element name="custGeom" type="CT_CustomGeometry2D" minOccurs="1" maxOccurs="1"/>
2123     <xsd:element name="prstGeom" type="CT_PresetGeometry2D" minOccurs="1" maxOccurs="1"/>
2124   </xsd:choice>
2125 </xsd:group>
2126 <xsd:group name="EG_TextGeometry">
2127   <xsd:choice>
2128     <xsd:element name="custGeom" type="CT_CustomGeometry2D" minOccurs="1" maxOccurs="1"/>
2129     <xsd:element name="prstTxWarp" type="CT_PresetTextShape" minOccurs="1" maxOccurs="1"/>
2130   </xsd:choice>
2131 </xsd:group>
2132 <xsd:simpleType name="ST_LineEndType">
2133   <xsd:restriction base="xsd:token">
2134     <xsd:enumeration value="none"/>
2135     <xsd:enumeration value="triangle"/>
2136     <xsd:enumeration value="stealth"/>
2137     <xsd:enumeration value="diamond"/>
2138     <xsd:enumeration value="oval"/>
2139     <xsd:enumeration value="arrow"/>
2140   </xsd:restriction>
2141 </xsd:simpleType>
2142 <xsd:simpleType name="ST_LineEndWidth">
2143   <xsd:restriction base="xsd:token">
2144     <xsd:enumeration value="sm"/>
2145     <xsd:enumeration value="med"/>

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2146         <xsd:enumeration value="lg"/>
2147     </xsd:restriction>
2148 </xsd:simpleType>
2149 <xsd:simpleType name="ST_LineEndLength">
2150     <xsd:restriction base="xsd:token">
2151         <xsd:enumeration value="sm"/>
2152         <xsd:enumeration value="med"/>
2153         <xsd:enumeration value="lg"/>
2154     </xsd:restriction>
2155 </xsd:simpleType>
2156 <xsd:complexType name="CT_LineEndProperties">
2157     <xsd:attribute name="type" type="ST_LineEndType" use="optional"/>
2158     <xsd:attribute name="w" type="ST_LineEndWidth" use="optional"/>
2159     <xsd:attribute name="len" type="ST_LineEndLength" use="optional"/>
2160 </xsd:complexType>
2161 <xsd:group name="EG_LineFillProperties">
2162     <xsd:choice>
2163         <xsd:element name="noFill" type="CT_NoFillProperties" minOccurs="1" maxOccurs="1"/>
2164         <xsd:element name="solidFill" type="CT_SolidColorFillProperties" minOccurs="1"
2165             maxOccurs="1"/>
2166         <xsd:element name="gradFill" type="CT_GradientFillProperties" minOccurs="1"
2167             maxOccurs="1"/>
2168         <xsd:element name="pattFill" type="CT_PatternFillProperties" minOccurs="1" maxOccurs="1"/>
2169     </xsd:choice>
2170 </xsd:group>
2171 <xsd:complexType name="CT_LineJoinBevel"/>
2172 <xsd:complexType name="CT_LineJoinRound"/>
2173 <xsd:complexType name="CT_LineJoinMiterProperties">
2174     <xsd:attribute name="lim" type="ST_PositivePercentage" use="optional"/>
2175 </xsd:complexType>
2176 <xsd:group name="EG_LineJoinProperties">
2177     <xsd:choice>
2178         <xsd:element name="round" type="CT_LineJoinRound" minOccurs="1" maxOccurs="1"/>
2179         <xsd:element name="bevel" type="CT_LineJoinBevel" minOccurs="1" maxOccurs="1"/>
2180         <xsd:element name="miter" type="CT_LineJoinMiterProperties" minOccurs="1" maxOccurs="1"/>
2181     </xsd:choice>
2182 </xsd:group>
2183 <xsd:simpleType name="ST_PresetLineDashVal">
2184     <xsd:restriction base="xsd:token">
2185         <xsd:enumeration value="solid"/>
2186         <xsd:enumeration value="dot"/>
2187         <xsd:enumeration value="dash"/>
2188         <xsd:enumeration value="lgDash"/>
2189         <xsd:enumeration value="dashDot"/>
2190         <xsd:enumeration value="lgDashDot"/>
2191         <xsd:enumeration value="lgDashDotDot"/>
2192         <xsd:enumeration value="sysDash"/>
2193         <xsd:enumeration value="sysDot"/>
2194         <xsd:enumeration value="sysDashDot"/>
2195         <xsd:enumeration value="sysDashDotDot"/>
2196     </xsd:restriction>
2197 </xsd:simpleType>
2198 <xsd:complexType name="CT_PresetLineDashProperties">

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2199     <xsd:attribute name="val" type="ST_PresetLineDashVal" use="optional"/>
2200 </xsd:complexType>
2201 <xsd:complexType name="CT_DashStop">
2202     <xsd:attribute name="d" type="ST_PositivePercentage" use="required"/>
2203     <xsd:attribute name="sp" type="ST_PositivePercentage" use="required"/>
2204 </xsd:complexType>
2205 <xsd:complexType name="CT_DashStopList">
2206     <xsd:sequence>
2207         <xsd:element name="ds" type="CT_DashStop" minOccurs="0" maxOccurs="unbounded"/>
2208     </xsd:sequence>
2209 </xsd:complexType>
2210 <xsd:group name="EG_LineDashProperties">
2211     <xsd:choice>
2212         <xsd:element name="prstDash" type="CT_PresetLineDashProperties" minOccurs="1"
2213             maxOccurs="1"/>
2214         <xsd:element name="custDash" type="CT_DashStopList" minOccurs="1" maxOccurs="1"/>
2215     </xsd:choice>
2216 </xsd:group>
2217 <xsd:simpleType name="ST_LineCap">
2218     <xsd:restriction base="xsd:token">
2219         <xsd:enumeration value="rnd"/>
2220         <xsd:enumeration value="sq"/>
2221         <xsd:enumeration value="flat"/>
2222     </xsd:restriction>
2223 </xsd:simpleType>
2224 <xsd:simpleType name="ST_LineWidth">
2225     <xsd:restriction base="ST_Coordinate32Unqualified">
2226         <xsd:minInclusive value="0"/>
2227         <xsd:maxInclusive value="20116800"/>
2228     </xsd:restriction>
2229 </xsd:simpleType>
2230 <xsd:simpleType name="ST_PenAlignment">
2231     <xsd:restriction base="xsd:token">
2232         <xsd:enumeration value="ctr"/>
2233         <xsd:enumeration value="in"/>
2234     </xsd:restriction>
2235 </xsd:simpleType>
2236 <xsd:simpleType name="ST_CompoundLine">
2237     <xsd:restriction base="xsd:token">
2238         <xsd:enumeration value="sng"/>
2239         <xsd:enumeration value="dbl"/>
2240         <xsd:enumeration value="thickThin"/>
2241         <xsd:enumeration value="thinThick"/>
2242         <xsd:enumeration value="tri"/>
2243     </xsd:restriction>
2244 </xsd:simpleType>
2245 <xsd:complexType name="CT_LineProperties">
2246     <xsd:sequence>
2247         <xsd:group ref="EG_LineFillProperties" minOccurs="0" maxOccurs="1"/>
2248         <xsd:group ref="EG_LineDashProperties" minOccurs="0" maxOccurs="1"/>
2249         <xsd:group ref="EG_LineJoinProperties" minOccurs="0" maxOccurs="1"/>
2250         <xsd:element name="headEnd" type="CT_LineEndProperties" minOccurs="0" maxOccurs="1"/>
2251         <xsd:element name="tailEnd" type="CT_LineEndProperties" minOccurs="0" maxOccurs="1"/>

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2252     <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
2253   </xsd:sequence>
2254   <xsd:attribute name="w" type="ST_LineWidth" use="optional"/>
2255   <xsd:attribute name="cap" type="ST_LineCap" use="optional"/>
2256   <xsd:attribute name="cmpd" type="ST_CompoundLine" use="optional"/>
2257   <xsd:attribute name="align" type="ST_PenAlignment" use="optional"/>
2258 </xsd:complexType>
2259 <xsd:simpleType name="ST_ShapeID">
2260   <xsd:restriction base="xsd:token"/>
2261 </xsd:simpleType>
2262 <xsd:complexType name="CT_ShapeProperties">
2263   <xsd:sequence>
2264     <xsd:element name="xfrm" type="CT_Transform2D" minOccurs="0" maxOccurs="1"/>
2265     <xsd:group ref="EG_Geometry" minOccurs="0" maxOccurs="1"/>
2266     <xsd:group ref="EG_FillProperties" minOccurs="0" maxOccurs="1"/>
2267     <xsd:element name="ln" type="CT_LineProperties" minOccurs="0" maxOccurs="1"/>
2268     <xsd:group ref="EG_EffectProperties" minOccurs="0" maxOccurs="1"/>
2269     <xsd:element name="scene3d" type="CT_Scene3D" minOccurs="0" maxOccurs="1"/>
2270     <xsd:element name="sp3d" type="CT_Shape3D" minOccurs="0" maxOccurs="1"/>
2271     <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
2272   </xsd:sequence>
2273   <xsd:attribute name="bwMode" type="ST_BlackWhiteMode" use="optional"/>
2274 </xsd:complexType>
2275 <xsd:complexType name="CT_GroupShapeProperties">
2276   <xsd:sequence>
2277     <xsd:element name="xfrm" type="CT_GroupTransform2D" minOccurs="0" maxOccurs="1"/>
2278     <xsd:group ref="EG_FillProperties" minOccurs="0" maxOccurs="1"/>
2279     <xsd:group ref="EG_EffectProperties" minOccurs="0" maxOccurs="1"/>
2280     <xsd:element name="scene3d" type="CT_Scene3D" minOccurs="0" maxOccurs="1"/>
2281     <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
2282   </xsd:sequence>
2283   <xsd:attribute name="bwMode" type="ST_BlackWhiteMode" use="optional"/>
2284 </xsd:complexType>
2285 <xsd:complexType name="CT_StyleMatrixReference">
2286   <xsd:sequence>
2287     <xsd:group ref="EG_ColorChoice" minOccurs="0" maxOccurs="1"/>
2288   </xsd:sequence>
2289   <xsd:attribute name="idx" type="ST_StyleMatrixColumnIndex" use="required"/>
2290 </xsd:complexType>
2291 <xsd:complexType name="CT_FontReference">
2292   <xsd:sequence>
2293     <xsd:group ref="EG_ColorChoice" minOccurs="0" maxOccurs="1"/>
2294   </xsd:sequence>
2295   <xsd:attribute name="idx" type="ST_FontCollectionIndex" use="required"/>
2296 </xsd:complexType>
2297 <xsd:complexType name="CT_ShapeStyle">
2298   <xsd:sequence>
2299     <xsd:element name="lnRef" type="CT_StyleMatrixReference" minOccurs="1" maxOccurs="1"/>
2300     <xsd:element name="fillRef" type="CT_StyleMatrixReference" minOccurs="1" maxOccurs="1"/>
2301     <xsd:element name="effectRef" type="CT_StyleMatrixReference" minOccurs="1" maxOccurs="1"/>
2302     <xsd:element name="fontRef" type="CT_FontReference" minOccurs="1" maxOccurs="1"/>
2303   </xsd:sequence>
2304 </xsd:complexType>

```



```

2305 <xsd:complexType name="CT_DefaultShapeDefinition">
2306   <xsd:sequence>
2307     <xsd:element name="spPr" type="CT_ShapeProperties" minOccurs="1" maxOccurs="1"/>
2308     <xsd:element name="bodyPr" type="CT_TextBodyProperties" minOccurs="1" maxOccurs="1"/>
2309     <xsd:element name="lstStyle" type="CT_TextListStyle" minOccurs="1" maxOccurs="1"/>
2310     <xsd:element name="style" type="CT_ShapeStyle" minOccurs="0" maxOccurs="1"/>
2311     <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
2312   </xsd:sequence>
2313 </xsd:complexType>
2314 <xsd:complexType name="CT_ObjectStyleDefaults">
2315   <xsd:sequence>
2316     <xsd:element name="spDef" type="CT_DefaultShapeDefinition" minOccurs="0" maxOccurs="1"/>
2317     <xsd:element name="lnDef" type="CT_DefaultShapeDefinition" minOccurs="0" maxOccurs="1"/>
2318     <xsd:element name="txDef" type="CT_DefaultShapeDefinition" minOccurs="0" maxOccurs="1"/>
2319     <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
2320   </xsd:sequence>
2321 </xsd:complexType>
2322 <xsd:complexType name="CT_EmptyElement"/>
2323 <xsd:complexType name="CT_ColorMapping">
2324   <xsd:sequence>
2325     <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
2326   </xsd:sequence>
2327   <xsd:attribute name="bg1" type="ST_ColorSchemeIndex" use="required"/>
2328   <xsd:attribute name="tx1" type="ST_ColorSchemeIndex" use="required"/>
2329   <xsd:attribute name="bg2" type="ST_ColorSchemeIndex" use="required"/>
2330   <xsd:attribute name="tx2" type="ST_ColorSchemeIndex" use="required"/>
2331   <xsd:attribute name="accent1" type="ST_ColorSchemeIndex" use="required"/>
2332   <xsd:attribute name="accent2" type="ST_ColorSchemeIndex" use="required"/>
2333   <xsd:attribute name="accent3" type="ST_ColorSchemeIndex" use="required"/>
2334   <xsd:attribute name="accent4" type="ST_ColorSchemeIndex" use="required"/>
2335   <xsd:attribute name="accent5" type="ST_ColorSchemeIndex" use="required"/>
2336   <xsd:attribute name="accent6" type="ST_ColorSchemeIndex" use="required"/>
2337   <xsd:attribute name="hlink" type="ST_ColorSchemeIndex" use="required"/>
2338   <xsd:attribute name="folHlink" type="ST_ColorSchemeIndex" use="required"/>
2339 </xsd:complexType>
2340 <xsd:complexType name="CT_ColorMappingOverride">
2341   <xsd:sequence>
2342     <xsd:choice minOccurs="1" maxOccurs="1">
2343       <xsd:element name="masterClrMapping" type="CT_EmptyElement"/>
2344       <xsd:element name="overrideClrMapping" type="CT_ColorMapping"/>
2345     </xsd:choice>
2346   </xsd:sequence>
2347 </xsd:complexType>
2348 <xsd:complexType name="CT_ColorSchemeAndMapping">
2349   <xsd:sequence>
2350     <xsd:element name="clrScheme" type="CT_ColorScheme" minOccurs="1" maxOccurs="1"/>
2351     <xsd:element name="clrMap" type="CT_ColorMapping" minOccurs="0" maxOccurs="1"/>
2352   </xsd:sequence>
2353 </xsd:complexType>
2354 <xsd:complexType name="CT_ColorSchemeList">
2355   <xsd:sequence>
2356     <xsd:element name="extraClrScheme" type="CT_ColorSchemeAndMapping" minOccurs="0"
2357       maxOccurs="unbounded"/>

```



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2358     </xsd:sequence>
2359 </xsd:complexType>
2360 <xsd:complexType name="CT_OfficeStyleSheet">
2361     <xsd:sequence>
2362         <xsd:element name="themeElements" type="CT_BaseStyles" minOccurs="1" maxOccurs="1"/>
2363         <xsd:element name="objectDefaults" type="CT_ObjectStyleDefaults" minOccurs="0"
2364             maxOccurs="1"/>
2365         <xsd:element name="extraClrSchemeLst" type="CT_ColorSchemeList" minOccurs="0"
2366             maxOccurs="1"/>
2367         <xsd:element name="custClrLst" type="CT_CustomColorList" minOccurs="0" maxOccurs="1"/>
2368         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
2369     </xsd:sequence>
2370     <xsd:attribute name="name" type="xsd:string" use="optional" default=""/>
2371 </xsd:complexType>
2372 <xsd:complexType name="CT_BaseStylesOverride">
2373     <xsd:sequence>
2374         <xsd:element name="clrScheme" type="CT_ColorScheme" minOccurs="0" maxOccurs="1"/>
2375         <xsd:element name="fontScheme" type="CT_FontScheme" minOccurs="0" maxOccurs="1"/>
2376         <xsd:element name="fmtScheme" type="CT_StyleMatrix" minOccurs="0" maxOccurs="1"/>
2377     </xsd:sequence>
2378 </xsd:complexType>
2379 <xsd:complexType name="CT_ClipboardStyleSheet">
2380     <xsd:sequence>
2381         <xsd:element name="themeElements" type="CT_BaseStyles" minOccurs="1" maxOccurs="1"/>
2382         <xsd:element name="clrMap" type="CT_ColorMapping" minOccurs="1" maxOccurs="1"/>
2383     </xsd:sequence>
2384 </xsd:complexType>
2385 <xsd:element name="theme" type="CT_OfficeStyleSheet"/>
2386 <xsd:element name="themeOverride" type="CT_BaseStylesOverride"/>
2387 <xsd:element name="themeManager" type="CT_EmptyElement"/>
2388 <xsd:complexType name="CT_TableCellProperties">
2389     <xsd:sequence>
2390         <xsd:element name="lnL" type="CT_LineProperties" minOccurs="0" maxOccurs="1"/>
2391         <xsd:element name="lnR" type="CT_LineProperties" minOccurs="0" maxOccurs="1"/>
2392         <xsd:element name="lnT" type="CT_LineProperties" minOccurs="0" maxOccurs="1"/>
2393         <xsd:element name="lnB" type="CT_LineProperties" minOccurs="0" maxOccurs="1"/>
2394         <xsd:element name="lnTlToBr" type="CT_LineProperties" minOccurs="0" maxOccurs="1"/>
2395         <xsd:element name="lnBlToTr" type="CT_LineProperties" minOccurs="0" maxOccurs="1"/>
2396         <xsd:element name="cell3D" type="CT_Cell3D" minOccurs="0" maxOccurs="1"/>
2397         <xsd:group ref="EG_FillProperties" minOccurs="0" maxOccurs="1"/>
2398         <xsd:element name="headers" type="CT_Headers" minOccurs="0"/>
2399         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
2400     </xsd:sequence>
2401     <xsd:attribute name="marL" type="ST_Coordinate32" use="optional" default="91440"/>
2402     <xsd:attribute name="marR" type="ST_Coordinate32" use="optional" default="91440"/>
2403     <xsd:attribute name="marT" type="ST_Coordinate32" use="optional" default="45720"/>
2404     <xsd:attribute name="marB" type="ST_Coordinate32" use="optional" default="45720"/>
2405     <xsd:attribute name="vert" type="ST_TextVerticalType" use="optional" default="horz"/>
2406     <xsd:attribute name="anchor" type="ST_TextAnchoringType" use="optional" default="t"/>
2407     <xsd:attribute name="anchorCtr" type="xsd:boolean" use="optional" default="false"/>
2408     <xsd:attribute name="horzOverflow" type="ST_TextHorzOverflowType" use="optional"
2409         default="clip"/>
2410 </xsd:complexType>

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2411 <xsd:complexType name="CT_Headers">
2412     <xsd:sequence minOccurs="0" maxOccurs="unbounded">
2413         <xsd:element name="header" type="xsd:string"/>
2414     </xsd:sequence>
2415 </xsd:complexType>
2416 <xsd:complexType name="CT_TableCol">
2417     <xsd:sequence>
2418         <xsd:element name="extLst" type="CT OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
2419     </xsd:sequence>
2420     <xsd:attribute name="w" type="ST Coordinate" use="required"/>
2421 </xsd:complexType>
2422 <xsd:complexType name="CT_TableGrid">
2423     <xsd:sequence>
2424         <xsd:element name="gridCol" type="CT TableCol" minOccurs="0" maxOccurs="unbounded"/>
2425     </xsd:sequence>
2426 </xsd:complexType>
2427 <xsd:complexType name="CT_TableCell">
2428     <xsd:sequence>
2429         <xsd:element name="txBody" type="CT TextBody" minOccurs="0" maxOccurs="1"/>
2430         <xsd:element name="tcPr" type="CT TableCellProperties" minOccurs="0" maxOccurs="1"/>
2431         <xsd:element name="extLst" type="CT OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
2432     </xsd:sequence>
2433     <xsd:attribute name="rowSpan" type="xsd:int" use="optional" default="1"/>
2434     <xsd:attribute name="gridSpan" type="xsd:int" use="optional" default="1"/>
2435     <xsd:attribute name="hMerge" type="xsd:boolean" use="optional" default="false"/>
2436     <xsd:attribute name="vMerge" type="xsd:boolean" use="optional" default="false"/>
2437     <xsd:attribute name="id" type="xsd:string" use="optional"/>
2438 </xsd:complexType>
2439 <xsd:complexType name="CT_TableRow">
2440     <xsd:sequence>
2441         <xsd:element name="tc" type="CT TableCell" minOccurs="0" maxOccurs="unbounded"/>
2442         <xsd:element name="extLst" type="CT OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
2443     </xsd:sequence>
2444     <xsd:attribute name="h" type="ST Coordinate" use="required"/>
2445 </xsd:complexType>
2446 <xsd:complexType name="CT_TableProperties">
2447     <xsd:sequence>
2448         <xsd:group ref="EG FillProperties" minOccurs="0" maxOccurs="1"/>
2449         <xsd:group ref="EG EffectProperties" minOccurs="0" maxOccurs="1"/>
2450         <xsd:choice minOccurs="0" maxOccurs="1">
2451             <xsd:element name="tableStyle" type="CT TableStyle"/>
2452             <xsd:element name="tableStyleId" type="s:ST Guid"/>
2453         </xsd:choice>
2454         <xsd:element name="extLst" type="CT OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
2455     </xsd:sequence>
2456     <xsd:attribute name="rtl" type="xsd:boolean" use="optional" default="false"/>
2457     <xsd:attribute name="firstRow" type="xsd:boolean" use="optional" default="false"/>
2458     <xsd:attribute name="firstCol" type="xsd:boolean" use="optional" default="false"/>
2459     <xsd:attribute name="lastRow" type="xsd:boolean" use="optional" default="false"/>
2460     <xsd:attribute name="lastCol" type="xsd:boolean" use="optional" default="false"/>
2461     <xsd:attribute name="bandRow" type="xsd:boolean" use="optional" default="false"/>
2462     <xsd:attribute name="bandCol" type="xsd:boolean" use="optional" default="false"/>
2463 </xsd:complexType>

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2464 <xsd:complexType name="CT_Table">
2465   <xsd:sequence>
2466     <xsd:element name="tblPr" type="CT_TableProperties" minOccurs="0" maxOccurs="1"/>
2467     <xsd:element name="tblGrid" type="CT_TableGrid" minOccurs="1" maxOccurs="1"/>
2468     <xsd:element name="tr" type="CT_TableRow" minOccurs="0" maxOccurs="unbounded"/>
2469   </xsd:sequence>
2470 </xsd:complexType>
2471 <xsd:element name="tbl" type="CT_Table"/>
2472 <xsd:complexType name="CT_Cell3D">
2473   <xsd:sequence>
2474     <xsd:element name="bevel" type="CT_Bevel" minOccurs="1" maxOccurs="1"/>
2475     <xsd:element name="lightRig" type="CT_LightRig" minOccurs="0" maxOccurs="1"/>
2476     <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
2477   </xsd:sequence>
2478   <xsd:attribute name="prstMaterial" type="ST_PresetMaterialType" use="optional"
2479     default="plastic"/>
2480 </xsd:complexType>
2481 <xsd:group name="EG_ThemeableFillStyle">
2482   <xsd:choice>
2483     <xsd:element name="fill" type="CT_FillProperties" minOccurs="1" maxOccurs="1"/>
2484     <xsd:element name="fillRef" type="CT_StyleMatrixReference" minOccurs="1" maxOccurs="1"/>
2485   </xsd:choice>
2486 </xsd:group>
2487 <xsd:complexType name="CT_ThemeableLineStyle">
2488   <xsd:choice>
2489     <xsd:element name="ln" type="CT_LineProperties" minOccurs="1" maxOccurs="1"/>
2490     <xsd:element name="lnRef" type="CT_StyleMatrixReference" minOccurs="1" maxOccurs="1"/>
2491   </xsd:choice>
2492 </xsd:complexType>
2493 <xsd:group name="EG_ThemeableEffectStyle">
2494   <xsd:choice>
2495     <xsd:element name="effect" type="CT_EffectProperties" minOccurs="1" maxOccurs="1"/>
2496     <xsd:element name="effectRef" type="CT_StyleMatrixReference" minOccurs="1" maxOccurs="1"/>
2497   </xsd:choice>
2498 </xsd:group>
2499 <xsd:group name="EG_ThemeableFontStyles">
2500   <xsd:choice>
2501     <xsd:element name="font" type="CT_FontCollection" minOccurs="1" maxOccurs="1"/>
2502     <xsd:element name="fontRef" type="CT_FontReference" minOccurs="1" maxOccurs="1"/>
2503   </xsd:choice>
2504 </xsd:group>
2505 <xsd:simpleType name="ST_OnOffStyleType">
2506   <xsd:restriction base="xsd:token">
2507     <xsd:enumeration value="on"/>
2508     <xsd:enumeration value="off"/>
2509     <xsd:enumeration value="def"/>
2510   </xsd:restriction>
2511 </xsd:simpleType>
2512 <xsd:complexType name="CT_TableStyleTextStyle">
2513   <xsd:sequence>
2514     <xsd:group ref="EG_ThemeableFontStyles" minOccurs="0" maxOccurs="1"/>
2515     <xsd:group ref="EG_ColorChoice" minOccurs="0" maxOccurs="1"/>
2516     <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>

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2517     </xsd:sequence>
2518     <xsd:attribute name="b" type="ST_OnOffStyleType" use="optional" default="def"/>
2519     <xsd:attribute name="i" type="ST_OnOffStyleType" use="optional" default="def"/>
2520 </xsd:complexType>
2521 <xsd:complexType name="CT_TableCellBorderStyle">
2522     <xsd:sequence>
2523         <xsd:element name="left" type="CT_ThemeableLineStyle" minOccurs="0" maxOccurs="1"/>
2524         <xsd:element name="right" type="CT_ThemeableLineStyle" minOccurs="0" maxOccurs="1"/>
2525         <xsd:element name="top" type="CT_ThemeableLineStyle" minOccurs="0" maxOccurs="1"/>
2526         <xsd:element name="bottom" type="CT_ThemeableLineStyle" minOccurs="0" maxOccurs="1"/>
2527         <xsd:element name="insideH" type="CT_ThemeableLineStyle" minOccurs="0" maxOccurs="1"/>
2528         <xsd:element name="insideV" type="CT_ThemeableLineStyle" minOccurs="0" maxOccurs="1"/>
2529         <xsd:element name="tl2br" type="CT_ThemeableLineStyle" minOccurs="0" maxOccurs="1"/>
2530         <xsd:element name="tr2bl" type="CT_ThemeableLineStyle" minOccurs="0" maxOccurs="1"/>
2531         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
2532     </xsd:sequence>
2533 </xsd:complexType>
2534 <xsd:complexType name="CT_TableBackgroundStyle">
2535     <xsd:sequence>
2536         <xsd:group ref="EG_ThemeableFillStyle" minOccurs="0" maxOccurs="1"/>
2537         <xsd:group ref="EG_ThemeableEffectStyle" minOccurs="0" maxOccurs="1"/>
2538     </xsd:sequence>
2539 </xsd:complexType>
2540 <xsd:complexType name="CT_TableStyleCellStyle">
2541     <xsd:sequence>
2542         <xsd:element name="tcBdr" type="CT_TableCellBorderStyle" minOccurs="0" maxOccurs="1"/>
2543         <xsd:group ref="EG_ThemeableFillStyle" minOccurs="0" maxOccurs="1"/>
2544         <xsd:element name="cell3D" type="CT_Cell3D" minOccurs="0" maxOccurs="1"/>
2545     </xsd:sequence>
2546 </xsd:complexType>
2547 <xsd:complexType name="CT_TablePartStyle">
2548     <xsd:sequence>
2549         <xsd:element name="tcTxStyle" type="CT_TableStyleTextStyle" minOccurs="0" maxOccurs="1"/>
2550         <xsd:element name="tcStyle" type="CT_TableStyleCellStyle" minOccurs="0" maxOccurs="1"/>
2551     </xsd:sequence>
2552 </xsd:complexType>
2553 <xsd:complexType name="CT_TableStyle">
2554     <xsd:sequence>
2555         <xsd:element name="tblBg" type="CT_TableBackgroundStyle" minOccurs="0" maxOccurs="1"/>
2556         <xsd:element name="wholeTbl" type="CT_TablePartStyle" minOccurs="0" maxOccurs="1"/>
2557         <xsd:element name="band1H" type="CT_TablePartStyle" minOccurs="0" maxOccurs="1"/>
2558         <xsd:element name="band2H" type="CT_TablePartStyle" minOccurs="0" maxOccurs="1"/>
2559         <xsd:element name="band1V" type="CT_TablePartStyle" minOccurs="0" maxOccurs="1"/>
2560         <xsd:element name="band2V" type="CT_TablePartStyle" minOccurs="0" maxOccurs="1"/>
2561         <xsd:element name="lastCol" type="CT_TablePartStyle" minOccurs="0" maxOccurs="1"/>
2562         <xsd:element name="firstCol" type="CT_TablePartStyle" minOccurs="0" maxOccurs="1"/>
2563         <xsd:element name="lastRow" type="CT_TablePartStyle" minOccurs="0" maxOccurs="1"/>
2564         <xsd:element name="seCell" type="CT_TablePartStyle" minOccurs="0" maxOccurs="1"/>
2565         <xsd:element name="swCell" type="CT_TablePartStyle" minOccurs="0" maxOccurs="1"/>
2566         <xsd:element name="firstRow" type="CT_TablePartStyle" minOccurs="0" maxOccurs="1"/>
2567         <xsd:element name="neCell" type="CT_TablePartStyle" minOccurs="0" maxOccurs="1"/>
2568         <xsd:element name="nwCell" type="CT_TablePartStyle" minOccurs="0" maxOccurs="1"/>
2569         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>

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2570     </xsd:sequence>
2571     <xsd:attribute name="styleId" type="s:ST_Guid" use="required"/>
2572     <xsd:attribute name="styleName" type="xsd:string" use="required"/>
2573 </xsd:complexType>
2574 <xsd:complexType name="CT_TableStyleList">
2575     <xsd:sequence>
2576         <xsd:element name="tblStyle" type="CT_TableStyle" minOccurs="0" maxOccurs="unbounded"/>
2577     </xsd:sequence>
2578     <xsd:attribute name="def" type="s:ST_Guid" use="required"/>
2579 </xsd:complexType>
2580 <xsd:element name="tblStyleLst" type="CT_TableStyleList"/>
2581 <xsd:complexType name="CT_TextParagraph">
2582     <xsd:sequence>
2583         <xsd:element name="pPr" type="CT_TextParagraphProperties" minOccurs="0" maxOccurs="1"/>
2584         <xsd:group ref="EG_TextRun" minOccurs="0" maxOccurs="unbounded"/>
2585         <xsd:element name="endParaRPr" type="CT_TextCharacterProperties" minOccurs="0"
2586             maxOccurs="1"/>
2587     </xsd:sequence>
2588 </xsd:complexType>
2589 <xsd:simpleType name="ST_TextAnchoringType">
2590     <xsd:restriction base="xsd:token">
2591         <xsd:enumeration value="t"/>
2592         <xsd:enumeration value="ctr"/>
2593         <xsd:enumeration value="b"/>
2594         <xsd:enumeration value="just"/>
2595         <xsd:enumeration value="dist"/>
2596     </xsd:restriction>
2597 </xsd:simpleType>
2598 <xsd:simpleType name="ST_TextVertOverflowType">
2599     <xsd:restriction base="xsd:token">
2600         <xsd:enumeration value="overflow"/>
2601         <xsd:enumeration value="ellipsis"/>
2602         <xsd:enumeration value="clip"/>
2603     </xsd:restriction>
2604 </xsd:simpleType>
2605 <xsd:simpleType name="ST_TextHorzOverflowType">
2606     <xsd:restriction base="xsd:token">
2607         <xsd:enumeration value="overflow"/>
2608         <xsd:enumeration value="clip"/>
2609     </xsd:restriction>
2610 </xsd:simpleType>
2611 <xsd:simpleType name="ST_TextVerticalType">
2612     <xsd:restriction base="xsd:token">
2613         <xsd:enumeration value="horz"/>
2614         <xsd:enumeration value="vert"/>
2615         <xsd:enumeration value="vert270"/>
2616         <xsd:enumeration value="wordArtVert"/>
2617         <xsd:enumeration value="eaVert"/>
2618         <xsd:enumeration value="mongolianVert"/>
2619         <xsd:enumeration value="wordArtVertRtl"/>
2620     </xsd:restriction>
2621 </xsd:simpleType>
2622 <xsd:simpleType name="ST_TextWrappingType">

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2623     <xsd:restriction base="xsd:token">
2624         <xsd:enumeration value="none"/>
2625         <xsd:enumeration value="square"/>
2626     </xsd:restriction>
2627 </xsd:simpleType>
2628 <xsd:simpleType name="ST_TextColumnCount">
2629     <xsd:restriction base="xsd:int">
2630         <xsd:minInclusive value="1"/>
2631         <xsd:maxInclusive value="16"/>
2632     </xsd:restriction>
2633 </xsd:simpleType>
2634 <xsd:complexType name="CT_TextListStyle">
2635     <xsd:sequence>
2636         <xsd:element name="defPPr" type="CT_TextParagraphProperties" minOccurs="0" maxOccurs="1"/>
2637         <xsd:element name="lv11pPr" type="CT_TextParagraphProperties" minOccurs="0"
2638             maxOccurs="1"/>
2639         <xsd:element name="lv12pPr" type="CT_TextParagraphProperties" minOccurs="0"
2640             maxOccurs="1"/>
2641         <xsd:element name="lv13pPr" type="CT_TextParagraphProperties" minOccurs="0"
2642             maxOccurs="1"/>
2643         <xsd:element name="lv14pPr" type="CT_TextParagraphProperties" minOccurs="0"
2644             maxOccurs="1"/>
2645         <xsd:element name="lv15pPr" type="CT_TextParagraphProperties" minOccurs="0"
2646             maxOccurs="1"/>
2647         <xsd:element name="lv16pPr" type="CT_TextParagraphProperties" minOccurs="0"
2648             maxOccurs="1"/>
2649         <xsd:element name="lv17pPr" type="CT_TextParagraphProperties" minOccurs="0"
2650             maxOccurs="1"/>
2651         <xsd:element name="lv18pPr" type="CT_TextParagraphProperties" minOccurs="0"
2652             maxOccurs="1"/>
2653         <xsd:element name="lv19pPr" type="CT_TextParagraphProperties" minOccurs="0"
2654             maxOccurs="1"/>
2655         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
2656     </xsd:sequence>
2657 </xsd:complexType>
2658 <xsd:simpleType name="ST_TextFontScalePercentOrPercentString">
2659     <xsd:union memberTypes="ST_TextFontScalePercent s:ST_Percentage"/>
2660 </xsd:simpleType>
2661 <xsd:simpleType name="ST_TextFontScalePercent">
2662     <xsd:restriction base="ST_PercentageDecimal">
2663         <xsd:minInclusive value="1000"/>
2664         <xsd:maxInclusive value="100000"/>
2665     </xsd:restriction>
2666 </xsd:simpleType>
2667 <xsd:complexType name="CT_TextNormalAutofit">
2668     <xsd:attribute name="fontScale" type="ST_TextFontScalePercentOrPercentString" use="optional"
2669         default="100%"/>
2670     <xsd:attribute name="lnSpcReduction" type="ST_TextSpacingPercentOrPercentString"
2671         use="optional" default="0%"/>
2672 </xsd:complexType>
2673 <xsd:complexType name="CT_TextShapeAutofit"/>
2674 <xsd:complexType name="CT_TextNoAutofit"/>
2675 <xsd:group name="EG_TextAutofit">

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2676     <xsd:choice>
2677         <xsd:element name="noAutofit" type="CT_TextNoAutofit"/>
2678         <xsd:element name="normAutofit" type="CT_TextNormalAutofit"/>
2679         <xsd:element name="spAutoFit" type="CT_TextShapeAutofit"/>
2680     </xsd:choice>
2681 </xsd:group>
2682 <xsd:complexType name="CT_TextBodyProperties">
2683     <xsd:sequence>
2684         <xsd:element name="prstTxWarp" type="CT_PresetTextShape" minOccurs="0" maxOccurs="1"/>
2685         <xsd:group ref="EG_TextAutofit" minOccurs="0" maxOccurs="1"/>
2686         <xsd:element name="scene3d" type="CT_Scene3D" minOccurs="0" maxOccurs="1"/>
2687         <xsd:group ref="EG_Text3D" minOccurs="0" maxOccurs="1"/>
2688         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
2689     </xsd:sequence>
2690     <xsd:attribute name="rot" type="ST_Angle" use="optional"/>
2691     <xsd:attribute name="spcFirstLastPara" type="xsd:boolean" use="optional"/>
2692     <xsd:attribute name="vertOverflow" type="ST_TextVertOverflowType" use="optional"/>
2693     <xsd:attribute name="horzOverflow" type="ST_TextHorzOverflowType" use="optional"/>
2694     <xsd:attribute name="vert" type="ST_TextVerticalType" use="optional"/>
2695     <xsd:attribute name="wrap" type="ST_TextWrappingType" use="optional"/>
2696     <xsd:attribute name="lIns" type="ST_Coordinate32" use="optional"/>
2697     <xsd:attribute name="tIns" type="ST_Coordinate32" use="optional"/>
2698     <xsd:attribute name="rIns" type="ST_Coordinate32" use="optional"/>
2699     <xsd:attribute name="bIns" type="ST_Coordinate32" use="optional"/>
2700     <xsd:attribute name="numCol" type="ST_TextColumnCount" use="optional"/>
2701     <xsd:attribute name="spcCol" type="ST_PositiveCoordinate32" use="optional"/>
2702     <xsd:attribute name="rtlCol" type="xsd:boolean" use="optional"/>
2703     <xsd:attribute name="fromWordArt" type="xsd:boolean" use="optional"/>
2704     <xsd:attribute name="anchor" type="ST_TextAnchoringType" use="optional"/>
2705     <xsd:attribute name="anchorCtr" type="xsd:boolean" use="optional"/>
2706     <xsd:attribute name="forceAA" type="xsd:boolean" use="optional"/>
2707     <xsd:attribute name="upright" type="xsd:boolean" use="optional" default="false"/>
2708     <xsd:attribute name="compatLnSpc" type="xsd:boolean" use="optional"/>
2709 </xsd:complexType>
2710 <xsd:complexType name="CT_TextBody">
2711     <xsd:sequence>
2712         <xsd:element name="bodyPr" type="CT_TextBodyProperties" minOccurs="1" maxOccurs="1"/>
2713         <xsd:element name="lstStyle" type="CT_TextListStyle" minOccurs="0" maxOccurs="1"/>
2714         <xsd:element name="p" type="CT_TextParagraph" minOccurs="1" maxOccurs="unbounded"/>
2715     </xsd:sequence>
2716 </xsd:complexType>
2717 <xsd:simpleType name="ST_TextBulletStartAtNum">
2718     <xsd:restriction base="xsd:int">
2719         <xsd:minInclusive value="1"/>
2720         <xsd:maxInclusive value="32767"/>
2721     </xsd:restriction>
2722 </xsd:simpleType>
2723 <xsd:simpleType name="ST_TextAutonumberScheme">
2724     <xsd:restriction base="xsd:token">
2725         <xsd:enumeration value="alphaLcParenBoth"/>
2726         <xsd:enumeration value="alphaUcParenBoth"/>
2727         <xsd:enumeration value="alphaLcParenR"/>
2728         <xsd:enumeration value="alphaUcParenR"/>

```



```

2729     <xsd:enumeration value="alphaLcPeriod"/>
2730     <xsd:enumeration value="alphaUcPeriod"/>
2731     <xsd:enumeration value="arabicParenBoth"/>
2732     <xsd:enumeration value="arabicParenR"/>
2733     <xsd:enumeration value="arabicPeriod"/>
2734     <xsd:enumeration value="arabicPlain"/>
2735     <xsd:enumeration value="romanLcParenBoth"/>
2736     <xsd:enumeration value="romanUcParenBoth"/>
2737     <xsd:enumeration value="romanLcParenR"/>
2738     <xsd:enumeration value="romanUcParenR"/>
2739     <xsd:enumeration value="romanLcPeriod"/>
2740     <xsd:enumeration value="romanUcPeriod"/>
2741     <xsd:enumeration value="circleNumDbPlain"/>
2742     <xsd:enumeration value="circleNumWdBlackPlain"/>
2743     <xsd:enumeration value="circleNumWdWhitePlain"/>
2744     <xsd:enumeration value="arabicDbPeriod"/>
2745     <xsd:enumeration value="arabicDbPlain"/>
2746     <xsd:enumeration value="ea1ChsPeriod"/>
2747     <xsd:enumeration value="ea1ChsPlain"/>
2748     <xsd:enumeration value="ea1ChtPeriod"/>
2749     <xsd:enumeration value="ea1ChtPlain"/>
2750     <xsd:enumeration value="ea1JpnChsDbPeriod"/>
2751     <xsd:enumeration value="ea1JpnKorPlain"/>
2752     <xsd:enumeration value="ea1JpnKorPeriod"/>
2753     <xsd:enumeration value="arabic1Minus"/>
2754     <xsd:enumeration value="arabic2Minus"/>
2755     <xsd:enumeration value="hebrew2Minus"/>
2756     <xsd:enumeration value="thaiAlphaPeriod"/>
2757     <xsd:enumeration value="thaiAlphaParenR"/>
2758     <xsd:enumeration value="thaiAlphaParenBoth"/>
2759     <xsd:enumeration value="thaiNumPeriod"/>
2760     <xsd:enumeration value="thaiNumParenR"/>
2761     <xsd:enumeration value="thaiNumParenBoth"/>
2762     <xsd:enumeration value="hindiAlphaPeriod"/>
2763     <xsd:enumeration value="hindiNumPeriod"/>
2764     <xsd:enumeration value="hindiNumParenR"/>
2765     <xsd:enumeration value="hindiAlpha1Period"/>
2766   </xsd:restriction>
2767 </xsd:simpleType>
2768 <xsd:complexType name="CT_TextBulletColorFollowText"/>
2769 <xsd:group name="EG_TextBulletColor">
2770   <xsd:choice>
2771     <xsd:element name="buClrTx" type="CT_TextBulletColorFollowText" minOccurs="1"
2772       maxOccurs="1"/>
2773     <xsd:element name="buClr" type="CT_Color" minOccurs="1" maxOccurs="1"/>
2774   </xsd:choice>
2775 </xsd:group>
2776 <xsd:simpleType name="ST_TextBulletSize">
2777   <xsd:union memberTypes="ST_TextBulletSizePercent ST_TextBulletSizeDecimal"/>
2778 </xsd:simpleType>
2779 <xsd:simpleType name="ST_TextBulletSizePercent">
2780   <xsd:restriction base="xsd:string">
2781     <xsd:pattern value="0*(([2[5-9]]|([3-9][0-9])|([1-3][0-9][0-9])|400)%"/>

```



```

2782     </xsd:restriction>
2783 </xsd:simpleType>
2784 <xsd:simpleType name="ST_TextBulletSizeDecimal">
2785     <xsd:restriction base="ST_PercentageDecimal">
2786         <xsd:minInclusive value="25000"/>
2787         <xsd:maxInclusive value="400000"/>
2788     </xsd:restriction>
2789 </xsd:simpleType>
2790 <xsd:complexType name="CT_TextBulletSizeFollowText"/>
2791 <xsd:complexType name="CT_TextBulletSizePercent">
2792     <xsd:attribute name="val" type="ST_TextBulletSizePercent" use="required"/>
2793 </xsd:complexType>
2794 <xsd:complexType name="CT_TextBulletSizePoint">
2795     <xsd:attribute name="val" type="ST_TextFontSize" use="required"/>
2796 </xsd:complexType>
2797 <xsd:group name="EG_TextBulletSize">
2798     <xsd:choice>
2799         <xsd:element name="buSzTx" type="CT_TextBulletSizeFollowText"/>
2800         <xsd:element name="buSzPct" type="CT_TextBulletSizePercent"/>
2801         <xsd:element name="buSzPts" type="CT_TextBulletSizePoint"/>
2802     </xsd:choice>
2803 </xsd:group>
2804 <xsd:complexType name="CT_TextBulletTypefaceFollowText"/>
2805 <xsd:group name="EG_TextBulletTypeface">
2806     <xsd:choice>
2807         <xsd:element name="buFontTx" type="CT_TextBulletTypefaceFollowText"/>
2808         <xsd:element name="buFont" type="CT_TextFont"/>
2809     </xsd:choice>
2810 </xsd:group>
2811 <xsd:complexType name="CT_TextAutonumberBullet">
2812     <xsd:attribute name="type" type="ST_TextAutonumberScheme" use="required"/>
2813     <xsd:attribute name="startAt" type="ST_TextBulletStartAtNum" use="optional" default="1"/>
2814 </xsd:complexType>
2815 <xsd:complexType name="CT_TextCharBullet">
2816     <xsd:attribute name="char" type="xsd:string" use="required"/>
2817 </xsd:complexType>
2818 <xsd:complexType name="CT_TextBlipBullet">
2819     <xsd:sequence>
2820         <xsd:element name="blip" type="CT_Blip" minOccurs="1" maxOccurs="1"/>
2821     </xsd:sequence>
2822 </xsd:complexType>
2823 <xsd:complexType name="CT_TextNoBullet"/>
2824 <xsd:group name="EG_TextBullet">
2825     <xsd:choice>
2826         <xsd:element name="buNone" type="CT_TextNoBullet"/>
2827         <xsd:element name="buAutoNum" type="CT_TextAutonumberBullet"/>
2828         <xsd:element name="buChar" type="CT_TextCharBullet"/>
2829         <xsd:element name="buBlip" type="CT_TextBlipBullet"/>
2830     </xsd:choice>
2831 </xsd:group>
2832 <xsd:simpleType name="ST_TextPoint">
2833     <xsd:union memberTypes="ST_TextPointUnqualified s:ST_UniversalMeasure"/>
2834 </xsd:simpleType>

```



```

2835 <xsd:simpleType name="ST_TextPointUnqualified">
2836   <xsd:restriction base="xsd:int">
2837     <xsd:minInclusive value="-400000"/>
2838     <xsd:maxInclusive value="400000"/>
2839   </xsd:restriction>
2840 </xsd:simpleType>
2841 <xsd:simpleType name="ST_TextNonNegativePoint">
2842   <xsd:restriction base="xsd:int">
2843     <xsd:minInclusive value="0"/>
2844     <xsd:maxInclusive value="400000"/>
2845   </xsd:restriction>
2846 </xsd:simpleType>
2847 <xsd:simpleType name="ST_TextFontSize">
2848   <xsd:restriction base="xsd:int">
2849     <xsd:minInclusive value="100"/>
2850     <xsd:maxInclusive value="400000"/>
2851   </xsd:restriction>
2852 </xsd:simpleType>
2853 <xsd:simpleType name="ST_TextTypeface">
2854   <xsd:restriction base="xsd:string"/>
2855 </xsd:simpleType>
2856 <xsd:simpleType name="ST_PitchFamily">
2857   <xsd:restriction base="xsd:byte">
2858     <xsd:enumeration value="00"/>
2859     <xsd:enumeration value="01"/>
2860     <xsd:enumeration value="02"/>
2861     <xsd:enumeration value="16"/>
2862     <xsd:enumeration value="17"/>
2863     <xsd:enumeration value="18"/>
2864     <xsd:enumeration value="32"/>
2865     <xsd:enumeration value="33"/>
2866     <xsd:enumeration value="34"/>
2867     <xsd:enumeration value="48"/>
2868     <xsd:enumeration value="49"/>
2869     <xsd:enumeration value="50"/>
2870     <xsd:enumeration value="64"/>
2871     <xsd:enumeration value="65"/>
2872     <xsd:enumeration value="66"/>
2873     <xsd:enumeration value="80"/>
2874     <xsd:enumeration value="81"/>
2875     <xsd:enumeration value="82"/>
2876   </xsd:restriction>
2877 </xsd:simpleType>
2878 <xsd:complexType name="CT_TextFont">
2879   <xsd:attribute name="typeface" type="ST_TextTypeface" use="required"/>
2880   <xsd:attribute name="panose" type="s:ST_Panose" use="optional"/>
2881   <xsd:attribute name="pitchFamily" type="ST_PitchFamily" use="optional" default="0"/>
2882   <xsd:attribute name="charset" type="xsd:byte" use="optional" default="1"/>
2883 </xsd:complexType>
2884 <xsd:simpleType name="ST_TextUnderlineType">
2885   <xsd:restriction base="xsd:token">
2886     <xsd:enumeration value="none"/>
2887     <xsd:enumeration value="words"/>

```



```

2888         <xsd:enumeration value="sng"/>
2889         <xsd:enumeration value="dbl"/>
2890         <xsd:enumeration value="heavy"/>
2891         <xsd:enumeration value="dotted"/>
2892         <xsd:enumeration value="dottedHeavy"/>
2893         <xsd:enumeration value="dash"/>
2894         <xsd:enumeration value="dashHeavy"/>
2895         <xsd:enumeration value="dashLong"/>
2896         <xsd:enumeration value="dashLongHeavy"/>
2897         <xsd:enumeration value="dotDash"/>
2898         <xsd:enumeration value="dotDashHeavy"/>
2899         <xsd:enumeration value="dotDotDash"/>
2900         <xsd:enumeration value="dotDotDashHeavy"/>
2901         <xsd:enumeration value="wavy"/>
2902         <xsd:enumeration value="wavyHeavy"/>
2903         <xsd:enumeration value="wavyDbl"/>
2904     </xsd:restriction>
2905 </xsd:simpleType>
2906 <xsd:complexType name="CT_TextUnderlineLineFollowText"/>
2907 <xsd:complexType name="CT_TextUnderlineFillFollowText"/>
2908 <xsd:complexType name="CT_TextUnderlineFillGroupWrapper">
2909     <xsd:group ref="EG_FillProperties" minOccurs="1" maxOccurs="1"/>
2910 </xsd:complexType>
2911 <xsd:group name="EG_TextUnderlineLine">
2912     <xsd:choice>
2913         <xsd:element name="uLnTx" type="CT_TextUnderlineLineFollowText"/>
2914         <xsd:element name="uLn" type="CT_LineProperties" minOccurs="0" maxOccurs="1"/>
2915     </xsd:choice>
2916 </xsd:group>
2917 <xsd:group name="EG_TextUnderlineFill">
2918     <xsd:choice>
2919         <xsd:element name="uFillTx" type="CT_TextUnderlineFillFollowText"/>
2920         <xsd:element name="uFill" type="CT_TextUnderlineFillGroupWrapper"/>
2921     </xsd:choice>
2922 </xsd:group>
2923 <xsd:simpleType name="ST_TextStrikeType">
2924     <xsd:restriction base="xsd:token">
2925         <xsd:enumeration value="noStrike"/>
2926         <xsd:enumeration value="sngStrike"/>
2927         <xsd:enumeration value="dblStrike"/>
2928     </xsd:restriction>
2929 </xsd:simpleType>
2930 <xsd:simpleType name="ST_TextCapsType">
2931     <xsd:restriction base="xsd:token">
2932         <xsd:enumeration value="none"/>
2933         <xsd:enumeration value="small"/>
2934         <xsd:enumeration value="all"/>
2935     </xsd:restriction>
2936 </xsd:simpleType>
2937 <xsd:complexType name="CT_TextCharacterProperties">
2938     <xsd:sequence>
2939         <xsd:element name="ln" type="CT_LineProperties" minOccurs="0" maxOccurs="1"/>
2940         <xsd:group ref="EG_FillProperties" minOccurs="0" maxOccurs="1"/>

```



```

2941     <xsd:group ref="EG_EffectProperties" minOccurs="0" maxOccurs="1"/>
2942     <xsd:element name="highlight" type="CT_Color" minOccurs="0" maxOccurs="1"/>
2943     <xsd:group ref="EG_TextUnderlineLine" minOccurs="0" maxOccurs="1"/>
2944     <xsd:group ref="EG_TextUnderlineFill" minOccurs="0" maxOccurs="1"/>
2945     <xsd:element name="latin" type="CT_TextFont" minOccurs="0" maxOccurs="1"/>
2946     <xsd:element name="ea" type="CT_TextFont" minOccurs="0" maxOccurs="1"/>
2947     <xsd:element name="cs" type="CT_TextFont" minOccurs="0" maxOccurs="1"/>
2948     <xsd:element name="sym" type="CT_TextFont" minOccurs="0" maxOccurs="1"/>
2949     <xsd:element name="hlinkClick" type="CT_Hyperlink" minOccurs="0" maxOccurs="1"/>
2950     <xsd:element name="hlinkMouseOver" type="CT_Hyperlink" minOccurs="0" maxOccurs="1"/>
2951     <xsd:element name="rtl" type="CT_Boolean" minOccurs="0"/>
2952     <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
2953 </xsd:sequence>
2954 <xsd:attribute name="kumimoji" type="xsd:boolean" use="optional"/>
2955 <xsd:attribute name="lang" type="s:ST_Lang" use="optional"/>
2956 <xsd:attribute name="altLang" type="s:ST_Lang" use="optional"/>
2957 <xsd:attribute name="sz" type="ST_TextFontSize" use="optional"/>
2958 <xsd:attribute name="b" type="xsd:boolean" use="optional"/>
2959 <xsd:attribute name="i" type="xsd:boolean" use="optional"/>
2960 <xsd:attribute name="u" type="ST_TextUnderlineType" use="optional"/>
2961 <xsd:attribute name="strike" type="ST_TextStrikeType" use="optional"/>
2962 <xsd:attribute name="kern" type="ST_TextNonNegativePoint" use="optional"/>
2963 <xsd:attribute name="cap" type="ST_TextCapsType" use="optional"/>
2964 <xsd:attribute name="spc" type="ST_TextPoint" use="optional"/>
2965 <xsd:attribute name="normalizeH" type="xsd:boolean" use="optional"/>
2966 <xsd:attribute name="baseline" type="ST_Percentage" use="optional"/>
2967 <xsd:attribute name="noProof" type="xsd:boolean" use="optional"/>
2968 <xsd:attribute name="dirty" type="xsd:boolean" use="optional" default="true"/>
2969 <xsd:attribute name="err" type="xsd:boolean" use="optional" default="false"/>
2970 <xsd:attribute name="smtClean" type="xsd:boolean" use="optional" default="true"/>
2971 <xsd:attribute name="smtId" type="xsd:unsignedInt" use="optional" default="0"/>
2972 <xsd:attribute name="bmk" type="xsd:string" use="optional"/>
2973 </xsd:complexType>
2974 <xsd:complexType name="CT_Boolean">
2975   <xsd:attribute name="val" type="s:ST_OnOff" default="0"/>
2976 </xsd:complexType>
2977 <xsd:simpleType name="ST_TextSpacingPoint">
2978   <xsd:restriction base="xsd:int">
2979     <xsd:minInclusive value="0"/>
2980     <xsd:maxInclusive value="158400"/>
2981   </xsd:restriction>
2982 </xsd:simpleType>
2983 <xsd:simpleType name="ST_TextSpacingPercentOrPercentString">
2984   <xsd:union memberTypes="ST_TextSpacingPercent s:ST_Percentage"/>
2985 </xsd:simpleType>
2986 <xsd:simpleType name="ST_TextSpacingPercent">
2987   <xsd:restriction base="ST_PercentageDecimal">
2988     <xsd:minInclusive value="0"/>
2989     <xsd:maxInclusive value="13200000"/>
2990   </xsd:restriction>
2991 </xsd:simpleType>
2992 <xsd:complexType name="CT_TextSpacingPercent">
2993   <xsd:attribute name="val" type="ST_TextSpacingPercentOrPercentString" use="required"/>

```



```

2994 </xsd:complexType>
2995 <xsd:complexType name="CT_TextSpacingPoint">
2996   <xsd:attribute name="val" type="ST_TextSpacingPoint" use="required"/>
2997 </xsd:complexType>
2998 <xsd:simpleType name="ST_TextMargin">
2999   <xsd:restriction base="ST_Coordinate32Unqualified">
3000     <xsd:minInclusive value="0"/>
3001     <xsd:maxInclusive value="51206400"/>
3002   </xsd:restriction>
3003 </xsd:simpleType>
3004 <xsd:simpleType name="ST_TextIndent">
3005   <xsd:restriction base="ST_Coordinate32Unqualified">
3006     <xsd:minInclusive value="-51206400"/>
3007     <xsd:maxInclusive value="51206400"/>
3008   </xsd:restriction>
3009 </xsd:simpleType>
3010 <xsd:simpleType name="ST_TextTabAlignType">
3011   <xsd:restriction base="xsd:token">
3012     <xsd:enumeration value="l"/>
3013     <xsd:enumeration value="ctr"/>
3014     <xsd:enumeration value="r"/>
3015     <xsd:enumeration value="dec"/>
3016   </xsd:restriction>
3017 </xsd:simpleType>
3018 <xsd:complexType name="CT_TextTabStop">
3019   <xsd:attribute name="pos" type="ST_Coordinate32" use="optional"/>
3020   <xsd:attribute name="align" type="ST_TextTabAlignType" use="optional"/>
3021 </xsd:complexType>
3022 <xsd:complexType name="CT_TextTabStopList">
3023   <xsd:sequence>
3024     <xsd:element name="tab" type="CT_TextTabStop" minOccurs="0" maxOccurs="32"/>
3025   </xsd:sequence>
3026 </xsd:complexType>
3027 <xsd:complexType name="CT_TextLineBreak">
3028   <xsd:sequence>
3029     <xsd:element name="rPr" type="CT_TextCharacterProperties" minOccurs="0" maxOccurs="1"/>
3030   </xsd:sequence>
3031 </xsd:complexType>
3032 <xsd:complexType name="CT_TextSpacing">
3033   <xsd:choice>
3034     <xsd:element name="spcPct" type="CT_TextSpacingPercent"/>
3035     <xsd:element name="spcPts" type="CT_TextSpacingPoint"/>
3036   </xsd:choice>
3037 </xsd:complexType>
3038 <xsd:simpleType name="ST_TextAlignType">
3039   <xsd:restriction base="xsd:token">
3040     <xsd:enumeration value="l"/>
3041     <xsd:enumeration value="ctr"/>
3042     <xsd:enumeration value="r"/>
3043     <xsd:enumeration value="just"/>
3044     <xsd:enumeration value="justLow"/>
3045     <xsd:enumeration value="dist"/>
3046     <xsd:enumeration value="thaiDist"/>

```



```

3047     </xsd:restriction>
3048 </xsd:simpleType>
3049 <xsd:simpleType name="ST_TextFontAlignType">
3050     <xsd:restriction base="xsd:token">
3051         <xsd:enumeration value="auto"/>
3052         <xsd:enumeration value="t"/>
3053         <xsd:enumeration value="ctr"/>
3054         <xsd:enumeration value="base"/>
3055         <xsd:enumeration value="b"/>
3056     </xsd:restriction>
3057 </xsd:simpleType>
3058 <xsd:simpleType name="ST_TextIndentLevelType">
3059     <xsd:restriction base="xsd:int">
3060         <xsd:minInclusive value="0"/>
3061         <xsd:maxInclusive value="8"/>
3062     </xsd:restriction>
3063 </xsd:simpleType>
3064 <xsd:complexType name="CT_TextParagraphProperties">
3065     <xsd:sequence>
3066         <xsd:element name="lnSpc" type="CT_TextSpacing" minOccurs="0" maxOccurs="1"/>
3067         <xsd:element name="spcBef" type="CT_TextSpacing" minOccurs="0" maxOccurs="1"/>
3068         <xsd:element name="spcAft" type="CT_TextSpacing" minOccurs="0" maxOccurs="1"/>
3069         <xsd:group ref="EG_TextBulletColor" minOccurs="0" maxOccurs="1"/>
3070         <xsd:group ref="EG_TextBulletSize" minOccurs="0" maxOccurs="1"/>
3071         <xsd:group ref="EG_TextBulletTypeface" minOccurs="0" maxOccurs="1"/>
3072         <xsd:group ref="EG_TextBullet" minOccurs="0" maxOccurs="1"/>
3073         <xsd:element name="tabLst" type="CT_TextTabStopList" minOccurs="0" maxOccurs="1"/>
3074         <xsd:element name="defRPr" type="CT_TextCharacterProperties" minOccurs="0" maxOccurs="1"/>
3075         <xsd:element name="extLst" type="CT_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
3076     </xsd:sequence>
3077     <xsd:attribute name="marL" type="ST_TextMargin" use="optional"/>
3078     <xsd:attribute name="marR" type="ST_TextMargin" use="optional"/>
3079     <xsd:attribute name="lvl" type="ST_TextIndentLevelType" use="optional"/>
3080     <xsd:attribute name="indent" type="ST_TextIndent" use="optional"/>
3081     <xsd:attribute name="algn" type="ST_TextAlignType" use="optional"/>
3082     <xsd:attribute name="defTabSz" type="ST_Coordinate32" use="optional"/>
3083     <xsd:attribute name="rtl" type="xsd:boolean" use="optional"/>
3084     <xsd:attribute name="eaLnBrk" type="xsd:boolean" use="optional"/>
3085     <xsd:attribute name="fontAlgn" type="ST_TextFontAlignType" use="optional"/>
3086     <xsd:attribute name="latinLnBrk" type="xsd:boolean" use="optional"/>
3087     <xsd:attribute name="hangingPunct" type="xsd:boolean" use="optional"/>
3088 </xsd:complexType>
3089 <xsd:complexType name="CT_TextField">
3090     <xsd:sequence>
3091         <xsd:element name="rPr" type="CT_TextCharacterProperties" minOccurs="0" maxOccurs="1"/>
3092         <xsd:element name="pPr" type="CT_TextParagraphProperties" minOccurs="0" maxOccurs="1"/>
3093         <xsd:element name="t" type="xsd:string" minOccurs="0" maxOccurs="1"/>
3094     </xsd:sequence>
3095     <xsd:attribute name="id" type="s:ST_Guid" use="required"/>
3096     <xsd:attribute name="type" type="xsd:string" use="optional"/>
3097 </xsd:complexType>
3098 <xsd:group name="EG_TextRun">
3099     <xsd:choice>

```



```

3100     <xsd:element name="r" type="CT_RegularTextRun"/>
3101     <xsd:element name="br" type="CT_TextLineBreak"/>
3102     <xsd:element name="fld" type="CT_TextField"/>
3103   </xsd:choice>
3104 </xsd:group>
3105 <xsd:complexType name="CT_RegularTextRun">
3106   <xsd:sequence>
3107     <xsd:element name="rPr" type="CT_TextCharacterProperties" minOccurs="0" maxOccurs="1"/>
3108     <xsd:element name="t" type="xsd:string" minOccurs="1" maxOccurs="1"/>
3109   </xsd:sequence>
3110 </xsd:complexType>
3111 </xsd:schema>

```

## A.5.2 DrawingML - Picture

This schema is available in the file dml-picture.xsd.

```

1 <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
2   xmlns="http://schemas.openxmlformats.org/drawingml/2006/picture"
3   xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" elementFormDefault="qualified"
4   targetNamespace="http://schemas.openxmlformats.org/drawingml/2006/picture">
5   <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="dml-
6     main.xsd"/>
7   <xsd:complexType name="CT_PictureNonVisual">
8     <xsd:sequence>
9       <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
10      <xsd:element name="cNvPicPr" type="a:CT_NonVisualPictureProperties" minOccurs="1"
11        maxOccurs="1"/>
12    </xsd:sequence>
13  </xsd:complexType>
14  <xsd:complexType name="CT_Picture">
15    <xsd:sequence minOccurs="1" maxOccurs="1">
16      <xsd:element name="nvPicPr" type="CT_PictureNonVisual" minOccurs="1" maxOccurs="1"/>
17      <xsd:element name="blipFill" type="a:CT_BlipFillProperties" minOccurs="1" maxOccurs="1"/>
18      <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="1" maxOccurs="1"/>
19    </xsd:sequence>
20  </xsd:complexType>
21  <xsd:element name="pic" type="CT_Picture"/>
22 </xsd:schema>

```

## A.5.3 DrawingML - Locked Canvas

This schema is available in the file dml-lockedCanvas.xsd.

```

1 <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
2   xmlns="http://schemas.openxmlformats.org/drawingml/2006/lockedCanvas"
3   xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main"
4   xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
5   elementFormDefault="qualified"
6   targetNamespace="http://schemas.openxmlformats.org/drawingml/2006/lockedCanvas">
7   <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="dml-
8     main.xsd"/>
9   <xsd:element name="lockedCanvas" type="a:CT_GvmlGroupShape"/>

```



```
</xsd:schema>
```

## A.5.4 DrawingML - WordprocessingML Drawing

This schema is available in the file dml-wordprocessingDrawing.xsd.

```

1 <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
2   xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main"
3   xmlns:w="http://schemas.openxmlformats.org/wordprocessingml/2006/main"
4   xmlns:dpct="http://schemas.openxmlformats.org/drawingml/2006/picture"
5   xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
6   xmlns="http://schemas.openxmlformats.org/drawingml/2006/wordprocessingDrawing"
7   targetNamespace="http://schemas.openxmlformats.org/drawingml/2006/wordprocessingDrawing"
8   elementFormDefault="qualified">
9
10   <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="dml-
11     main.xsd"/>
12   <xsd:import schemaLocation="wml.xsd"
13     namespace="http://schemas.openxmlformats.org/wordprocessingml/2006/main"/>
14   <xsd:import
15     namespace="http://schemas.openxmlformats.org/drawingml/2006/picture"
16     schemaLocation="dml-picture.xsd"/>
17   <xsd:import
18     namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
19     schemaLocation="shared-relationshipReference.xsd"/>
20     <xsd:complexType name="CT_EffectExtent">
21       <xsd:attribute name="l" type="a:ST_Coordinate" use="required"/>
22       <xsd:attribute name="t" type="a:ST_Coordinate" use="required"/>
23       <xsd:attribute name="r" type="a:ST_Coordinate" use="required"/>
24       <xsd:attribute name="b" type="a:ST_Coordinate" use="required"/>
25     </xsd:complexType>
26     <xsd:simpleType name="ST_WrapDistance">
27       <xsd:restriction base="xsd:unsignedInt"/>
28     </xsd:simpleType>
29     <xsd:complexType name="CT_Inline">
30       <xsd:sequence>
31         <xsd:element name="extent" type="a:CT_PositiveSize2D"/>
32         <xsd:element name="effectExtent" type="CT_EffectExtent" minOccurs="0"/>
33         <xsd:element name="docPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
34         <xsd:element name="cNvGraphicFramePr" type="a:CT_NonVisualGraphicFrameProperties"
35           minOccurs="0" maxOccurs="1"/>
36         <xsd:element ref="a:graphic" minOccurs="1" maxOccurs="1"/>
37       </xsd:sequence>
38       <xsd:attribute name="distT" type="ST_WrapDistance" use="optional"/>
39       <xsd:attribute name="distB" type="ST_WrapDistance" use="optional"/>
40       <xsd:attribute name="distL" type="ST_WrapDistance" use="optional"/>
41       <xsd:attribute name="distR" type="ST_WrapDistance" use="optional"/>
42     </xsd:complexType>
43     <xsd:simpleType name="ST_WrapText">
44       <xsd:restriction base="xsd:token">
45         <xsd:enumeration value="bothSides"/>
46         <xsd:enumeration value="left"/>
47         <xsd:enumeration value="right"/>

```



```

47     <xsd:enumeration value="largest"/>
48   </xsd:restriction>
49 </xsd:simpleType>
50 <xsd:complexType name="CT_WrapPath">
51   <xsd:sequence>
52     <xsd:element name="start" type="a:CT_Point2D" minOccurs="1" maxOccurs="1"/>
53     <xsd:element name="lineTo" type="a:CT_Point2D" minOccurs="2" maxOccurs="unbounded"/>
54   </xsd:sequence>
55   <xsd:attribute name="edited" type="xsd:boolean" use="optional"/>
56 </xsd:complexType>
57 <xsd:complexType name="CT_WrapNone"/>
58 <xsd:complexType name="CT_WrapSquare">
59   <xsd:sequence>
60     <xsd:element name="effectExtent" type="CT_EffectExtent" minOccurs="0"/>
61   </xsd:sequence>
62   <xsd:attribute name="wrapText" type="ST_WrapText" use="required"/>
63   <xsd:attribute name="distT" type="ST_WrapDistance" use="optional"/>
64   <xsd:attribute name="distB" type="ST_WrapDistance" use="optional"/>
65   <xsd:attribute name="distL" type="ST_WrapDistance" use="optional"/>
66   <xsd:attribute name="distR" type="ST_WrapDistance" use="optional"/>
67 </xsd:complexType>
68 <xsd:complexType name="CT_WrapTight">
69   <xsd:sequence>
70     <xsd:element name="wrapPolygon" type="CT_WrapPath" minOccurs="1" maxOccurs="1"/>
71   </xsd:sequence>
72   <xsd:attribute name="wrapText" type="ST_WrapText" use="required"/>
73   <xsd:attribute name="distL" type="ST_WrapDistance" use="optional"/>
74   <xsd:attribute name="distR" type="ST_WrapDistance" use="optional"/>
75 </xsd:complexType>
76 <xsd:complexType name="CT_WrapThrough">
77   <xsd:sequence>
78     <xsd:element name="wrapPolygon" type="CT_WrapPath" minOccurs="1" maxOccurs="1"/>
79   </xsd:sequence>
80   <xsd:attribute name="wrapText" type="ST_WrapText" use="required"/>
81   <xsd:attribute name="distL" type="ST_WrapDistance" use="optional"/>
82   <xsd:attribute name="distR" type="ST_WrapDistance" use="optional"/>
83 </xsd:complexType>
84 <xsd:complexType name="CT_WrapTopBottom">
85   <xsd:sequence>
86     <xsd:element name="effectExtent" type="CT_EffectExtent" minOccurs="0"/>
87   </xsd:sequence>
88   <xsd:attribute name="distT" type="ST_WrapDistance" use="optional"/>
89   <xsd:attribute name="distB" type="ST_WrapDistance" use="optional"/>
90 </xsd:complexType>
91 <xsd:group name="EG_WrapType">
92   <xsd:sequence>
93     <xsd:choice minOccurs="1" maxOccurs="1">
94       <xsd:element name="wrapNone" type="CT_WrapNone" minOccurs="1" maxOccurs="1"/>
95       <xsd:element name="wrapSquare" type="CT_WrapSquare" minOccurs="1" maxOccurs="1"/>
96       <xsd:element name="wrapTight" type="CT_WrapTight" minOccurs="1" maxOccurs="1"/>
97       <xsd:element name="wrapThrough" type="CT_WrapThrough" minOccurs="1" maxOccurs="1"/>
98       <xsd:element name="wrapTopAndBottom" type="CT_WrapTopBottom" minOccurs="1"
99         maxOccurs="1"/>

```



```

100         </xsd:choice>
101     </xsd:sequence>
102 </xsd:group>
103 <xsd:simpleType name="ST_PositionOffset">
104     <xsd:restriction base="xsd:int"/>
105 </xsd:simpleType>
106 <xsd:simpleType name="ST_AlignH">
107     <xsd:restriction base="xsd:token">
108         <xsd:enumeration value="left"/>
109         <xsd:enumeration value="right"/>
110         <xsd:enumeration value="center"/>
111         <xsd:enumeration value="inside"/>
112         <xsd:enumeration value="outside"/>
113     </xsd:restriction>
114 </xsd:simpleType>
115 <xsd:simpleType name="ST_RelFromH">
116     <xsd:restriction base="xsd:token">
117         <xsd:enumeration value="margin"/>
118         <xsd:enumeration value="page"/>
119         <xsd:enumeration value="column"/>
120         <xsd:enumeration value="character"/>
121         <xsd:enumeration value="leftMargin"/>
122         <xsd:enumeration value="rightMargin"/>
123         <xsd:enumeration value="insideMargin"/>
124         <xsd:enumeration value="outsideMargin"/>
125     </xsd:restriction>
126 </xsd:simpleType>
127 <xsd:complexType name="CT_PosH">
128     <xsd:sequence>
129         <xsd:choice minOccurs="1" maxOccurs="1">
130             <xsd:element name="align" type="ST_AlignH" minOccurs="1" maxOccurs="1"/>
131             <xsd:element name="posOffset" type="ST_PositionOffset" minOccurs="1" maxOccurs="1"/>
132         </xsd:choice>
133     </xsd:sequence>
134     <xsd:attribute name="relativeFrom" type="ST_RelFromH" use="required"/>
135 </xsd:complexType>
136 <xsd:simpleType name="ST_AlignV">
137     <xsd:restriction base="xsd:token">
138         <xsd:enumeration value="top"/>
139         <xsd:enumeration value="bottom"/>
140         <xsd:enumeration value="center"/>
141         <xsd:enumeration value="inside"/>
142         <xsd:enumeration value="outside"/>
143     </xsd:restriction>
144 </xsd:simpleType>
145 <xsd:simpleType name="ST_RelFromV">
146     <xsd:restriction base="xsd:token">
147         <xsd:enumeration value="margin"/>
148         <xsd:enumeration value="page"/>
149         <xsd:enumeration value="paragraph"/>
150         <xsd:enumeration value="line"/>
151         <xsd:enumeration value="topMargin"/>
152         <xsd:enumeration value="bottomMargin"/>

```



```

153     <xsd:enumeration value="insideMargin"/>
154     <xsd:enumeration value="outsideMargin"/>
155 </xsd:restriction>
156 </xsd:simpleType>
157 <xsd:complexType name="CT_PosV">
158     <xsd:sequence>
159         <xsd:choice minOccurs="1" maxOccurs="1">
160             <xsd:element name="align" type="ST_AlignV" minOccurs="1" maxOccurs="1"/>
161             <xsd:element name="posOffset" type="ST_PositionOffset" minOccurs="1" maxOccurs="1"/>
162         </xsd:choice>
163     </xsd:sequence>
164     <xsd:attribute name="relativeFrom" type="ST_RelFromV" use="required"/>
165 </xsd:complexType>
166 <xsd:complexType name="CT_Anchor">
167     <xsd:sequence>
168         <xsd:element name="simplePos" type="a:CT_Point2D"/>
169         <xsd:element name="positionH" type="CT_PosH"/>
170         <xsd:element name="positionV" type="CT_PosV"/>
171         <xsd:element name="extent" type="a:CT_PositiveSize2D"/>
172         <xsd:element name="effectExtent" type="CT_EffectExtent" minOccurs="0"/>
173         <xsd:group ref="EG_WrapType"/>
174         <xsd:element name="docPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
175         <xsd:element name="cNvGraphicFramePr" type="a:CT_NonVisualGraphicFrameProperties"
176             minOccurs="0" maxOccurs="1"/>
177         <xsd:element ref="a:graphic" minOccurs="1" maxOccurs="1"/>
178     </xsd:sequence>
179     <xsd:attribute name="distT" type="ST_WrapDistance" use="optional"/>
180     <xsd:attribute name="distB" type="ST_WrapDistance" use="optional"/>
181     <xsd:attribute name="distL" type="ST_WrapDistance" use="optional"/>
182     <xsd:attribute name="distR" type="ST_WrapDistance" use="optional"/>
183     <xsd:attribute name="simplePos" type="xsd:boolean"/>
184     <xsd:attribute name="relativeHeight" type="xsd:unsignedInt" use="required"/>
185     <xsd:attribute name="behindDoc" type="xsd:boolean" use="required"/>
186     <xsd:attribute name="locked" type="xsd:boolean" use="required"/>
187     <xsd:attribute name="layoutInCell" type="xsd:boolean" use="required"/>
188     <xsd:attribute name="hidden" type="xsd:boolean" use="optional"/>
189     <xsd:attribute name="allowOverlap" type="xsd:boolean" use="required"/>
190 </xsd:complexType>
191 <xsd:complexType name="CT_TxbxContent">
192     <xsd:group ref="w:EG_BlockLevelElts" minOccurs="1" maxOccurs="unbounded"/>
193 </xsd:complexType>
194 <xsd:complexType name="CT_TextboxInfo">
195     <xsd:sequence>
196         <xsd:element name="txbxContent" type="CT_TxbxContent" minOccurs="1" maxOccurs="1"/>
197         <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
198             maxOccurs="1"/>
199     </xsd:sequence>
200     <xsd:attribute name="id" type="xsd:unsignedShort" use="optional" default="0"/>
201 </xsd:complexType>
202 <xsd:complexType name="CT_LinkedTextboxInformation">
203     <xsd:sequence>
204         <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
205             maxOccurs="1"/>

```



```

206     </xsd:sequence>
207     <xsd:attribute name="id" type="xsd:unsignedShort" use="required"/>
208     <xsd:attribute name="seq" type="xsd:unsignedShort" use="required"/>
209 </xsd:complexType>
210     <xsd:complexType name="CT_WordprocessingShape">
211     <xsd:sequence minOccurs="1" maxOccurs="1">
212         <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="0" maxOccurs="1"/>
213         <xsd:choice minOccurs="1" maxOccurs="1">
214             <xsd:element name="cNvSpPr" type="a:CT_NonVisualDrawingShapeProps" minOccurs="1"
215                 maxOccurs="1"/>
216             <xsd:element name="cNvCnPr" type="a:CT_NonVisualConnectorProperties" minOccurs="1"
217                 maxOccurs="1"/>
218         </xsd:choice>
219         <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="1" maxOccurs="1"/>
220         <xsd:element name="style" type="a:CT_ShapeStyle" minOccurs="0" maxOccurs="1"/>
221         <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
222             maxOccurs="1"/>
223         <xsd:choice minOccurs="0" maxOccurs="1">
224             <xsd:element name="txbx" type="CT_TextboxInfo" minOccurs="1" maxOccurs="1"/>
225             <xsd:element name="linkedTxbx" type="CT_LinkedTextboxInformation" minOccurs="1"
226                 maxOccurs="1"/>
227         </xsd:choice>
228         <xsd:element name="bodyPr" type="a:CT_TextBodyProperties" minOccurs="1" maxOccurs="1"/>
229     </xsd:sequence>
230     <xsd:attribute name="normalEastAsianFlow" type="xsd:boolean" use="optional" default="false"/>
231 </xsd:complexType>
232 <xsd:complexType name="CT_GraphicFrame">
233     <xsd:sequence>
234         <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
235         <xsd:element name="cNvFrPr" type="a:CT_NonVisualGraphicFrameProperties" minOccurs="1"
236             maxOccurs="1"/>
237         <xsd:element name="xfrm" type="a:CT_Transform2D" minOccurs="1" maxOccurs="1"/>
238         <xsd:element ref="a:graphic" minOccurs="1" maxOccurs="1"/>
239         <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
240             maxOccurs="1"/>
241     </xsd:sequence>
242 </xsd:complexType>
243 <xsd:complexType name="CT_WordprocessingContentPartNonVisual">
244     <xsd:sequence>
245         <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="0" maxOccurs="1"/>
246         <xsd:element name="cNvContentPartPr" type="a:CT_NonVisualContentPartProperties"
247             minOccurs="0" maxOccurs="1"/>
248     </xsd:sequence>
249 </xsd:complexType>
250 <xsd:complexType name="CT_WordprocessingContentPart">
251     <xsd:sequence>
252         <xsd:element name="nvContentPartPr" type="CT_WordprocessingContentPartNonVisual"
253             minOccurs="0" maxOccurs="1"/>
254         <xsd:element name="xfrm" type="a:CT_Transform2D" minOccurs="0" maxOccurs="1"/>
255         <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
256             maxOccurs="1"/>
257     </xsd:sequence>
258     <xsd:attribute name="bwMode" type="a:ST_BlackWhiteMode" use="optional"/>

```



```

259     <xsd:attribute ref="r:id" use="required"/>
260 </xsd:complexType>
261 <xsd:complexType name="CT_WordprocessingGroup">
262     <xsd:sequence minOccurs="1" maxOccurs="1">
263         <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="0" maxOccurs="1"/>
264         <xsd:element name="cNvGrpSpPr" type="a:CT_NonVisualGroupDrawingShapeProps" minOccurs="1"
265             maxOccurs="1"/>
266         <xsd:element name="grpSpPr" type="a:CT_GroupShapeProperties" minOccurs="1" maxOccurs="1"/>
267         <xsd:choice minOccurs="0" maxOccurs="unbounded">
268             <xsd:element ref="wsp"/>
269             <xsd:element name="grpSp" type="CT_WordprocessingGroup"/>
270             <xsd:element name="graphicFrame" type="CT_GraphicFrame"/>
271             <xsd:element ref="dpct:pic"/>
272             <xsd:element name="contentPart" type="CT_WordprocessingContentPart"/>
273         </xsd:choice>
274         <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
275             maxOccurs="1"/>
276     </xsd:sequence>
277 </xsd:complexType>
278 <xsd:complexType name="CT_WordprocessingCanvas">
279     <xsd:sequence minOccurs="1" maxOccurs="1">
280         <xsd:element name="bg" type="a:CT_BackgroundFormatting" minOccurs="0" maxOccurs="1"/>
281         <xsd:element name="whole" type="a:CT_WholeE2oFormatting" minOccurs="0" maxOccurs="1"/>
282         <xsd:choice minOccurs="0" maxOccurs="unbounded">
283             <xsd:element ref="wsp"/>
284             <xsd:element ref="dpct:pic"/>
285             <xsd:element name="contentPart" type="CT_WordprocessingContentPart"/>
286             <xsd:element ref="wgp"/>
287             <xsd:element name="graphicFrame" type="CT_GraphicFrame"/>
288         </xsd:choice>
289         <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
290             maxOccurs="1"/>
291     </xsd:sequence>
292 </xsd:complexType>
293 <xsd:element name="wpc" type="CT_WordprocessingCanvas"/>
294 <xsd:element name="wgp" type="CT_WordprocessingGroup"/>
295 <xsd:element name="wsp" type="CT_WordprocessingShape"/>
296 <xsd:element name="inline" type="CT Inline"/>
297 <xsd:element name="anchor" type="CT Anchor"/>
298 </xsd:schema>

```

### A.5.5 DrawingML - SpreadsheetML Drawing

This schema is available in the file dml-spreadsheetDrawing.xsd.

```

1 <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
2   xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main"
3   xmlns="http://schemas.openxmlformats.org/drawingml/2006/spreadsheetDrawing"
4   xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
5   targetNamespace="http://schemas.openxmlformats.org/drawingml/2006/spreadsheetDrawing"
6   elementFormDefault="qualified">
7   <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="dml-
8     main.xsd"/>

```



```

9    <xsd:import schemaLocation="shared-relationshipReference.xsd"
10    namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships"/>
11    <xsd:element name="from" type="CT_Marker"/>
12    <xsd:element name="to" type="CT_Marker"/>
13    <xsd:complexType name="CT_AnchorClientData">
14        <xsd:attribute name="fLocksWithSheet" type="xsd:boolean" use="optional" default="true"/>
15        <xsd:attribute name="fPrintsWithSheet" type="xsd:boolean" use="optional" default="true"/>
16    </xsd:complexType>
17    <xsd:complexType name="CT_ShapeNonVisual">
18        <xsd:sequence>
19            <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
20            <xsd:element name="cNvSpPr" type="a:CT_NonVisualDrawingShapeProps" minOccurs="1"
21                maxOccurs="1"/>
22        </xsd:sequence>
23    </xsd:complexType>
24    <xsd:complexType name="CT_Shape">
25        <xsd:sequence>
26            <xsd:element name="nvSpPr" type="CT_ShapeNonVisual" minOccurs="1" maxOccurs="1"/>
27            <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="1" maxOccurs="1"/>
28            <xsd:element name="style" type="a:CT_ShapeStyle" minOccurs="0" maxOccurs="1"/>
29            <xsd:element name="txBody" type="a:CT_TextBody" minOccurs="0" maxOccurs="1"/>
30        </xsd:sequence>
31        <xsd:attribute name="macro" type="xsd:string" use="optional"/>
32        <xsd:attribute name="textlink" type="xsd:string" use="optional"/>
33        <xsd:attribute name="fLocksText" type="xsd:boolean" use="optional" default="true"/>
34        <xsd:attribute name="fPublished" type="xsd:boolean" use="optional" default="false"/>
35    </xsd:complexType>
36    <xsd:complexType name="CT_ConnectorNonVisual">
37        <xsd:sequence>
38            <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
39            <xsd:element name="cNvCxnSpPr" type="a:CT_NonVisualConnectorProperties" minOccurs="1"
40                maxOccurs="1"/>
41        </xsd:sequence>
42    </xsd:complexType>
43    <xsd:complexType name="CT_Connector">
44        <xsd:sequence>
45            <xsd:element name="nvCxnSpPr" type="CT_ConnectorNonVisual" minOccurs="1" maxOccurs="1"/>
46            <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="1" maxOccurs="1"/>
47            <xsd:element name="style" type="a:CT_ShapeStyle" minOccurs="0" maxOccurs="1"/>
48        </xsd:sequence>
49        <xsd:attribute name="macro" type="xsd:string" use="optional"/>
50        <xsd:attribute name="fPublished" type="xsd:boolean" use="optional" default="false"/>
51    </xsd:complexType>
52    <xsd:complexType name="CT_PictureNonVisual">
53        <xsd:sequence>
54            <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
55            <xsd:element name="cNvPicPr" type="a:CT_NonVisualPictureProperties" minOccurs="1"
56                maxOccurs="1"/>
57        </xsd:sequence>
58    </xsd:complexType>
59    <xsd:complexType name="CT_Picture">
60        <xsd:sequence>
61            <xsd:element name="nvPicPr" type="CT_PictureNonVisual" minOccurs="1" maxOccurs="1"/>

```



```

62      <xsd:element name="blipFill" type="a:CT_BlipFillProperties" minOccurs="1" maxOccurs="1"/>
63      <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="1" maxOccurs="1"/>
64      <xsd:element name="style" type="a:CT_ShapeStyle" minOccurs="0" maxOccurs="1"/>
65    </xsd:sequence>
66    <xsd:attribute name="macro" type="xsd:string" use="optional" default=""/>
67    <xsd:attribute name="fPublished" type="xsd:boolean" use="optional" default="false"/>
68  </xsd:complexType>
69  <xsd:complexType name="CT_GraphicalObjectFrameNonVisual">
70    <xsd:sequence>
71      <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
72      <xsd:element name="cNvGraphicFramePr" type="a:CT_NonVisualGraphicFrameProperties"
73        minOccurs="1" maxOccurs="1"/>
74    </xsd:sequence>
75  </xsd:complexType>
76  <xsd:complexType name="CT_GraphicalObjectFrame">
77    <xsd:sequence>
78      <xsd:element name="nvGraphicFramePr" type="CT_GraphicalObjectFrameNonVisual" minOccurs="1"
79        maxOccurs="1"/>
80      <xsd:element name="xfrm" type="a:CT_Transform2D" minOccurs="1" maxOccurs="1"/>
81      <xsd:element ref="a:graphic" minOccurs="1" maxOccurs="1"/>
82    </xsd:sequence>
83    <xsd:attribute name="macro" type="xsd:string" use="optional"/>
84    <xsd:attribute name="fPublished" type="xsd:boolean" use="optional" default="false"/>
85  </xsd:complexType>
86  <xsd:complexType name="CT_GroupShapeNonVisual">
87    <xsd:sequence>
88      <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
89      <xsd:element name="cNvGrpSpPr" type="a:CT_NonVisualGroupDrawingShapeProps" minOccurs="1"
90        maxOccurs="1"/>
91    </xsd:sequence>
92  </xsd:complexType>
93  <xsd:complexType name="CT_GroupShape">
94    <xsd:sequence>
95      <xsd:element name="nvGrpSpPr" type="CT_GroupShapeNonVisual" minOccurs="1" maxOccurs="1"/>
96      <xsd:element name="grpSpPr" type="a:CT_GroupShapeProperties" minOccurs="1" maxOccurs="1"/>
97      <xsd:choice minOccurs="0" maxOccurs="unbounded">
98        <xsd:element name="sp" type="CT_Shape"/>
99        <xsd:element name="grpSp" type="CT_GroupShape"/>
100       <xsd:element name="graphicFrame" type="CT_GraphicalObjectFrame"/>
101       <xsd:element name="cxnSp" type="CT_Connector"/>
102       <xsd:element name="pic" type="CT_Picture"/>
103     </xsd:choice>
104    </xsd:sequence>
105  </xsd:complexType>
106  <xsd:group name="EG_ObjectChoices">
107    <xsd:sequence>
108      <xsd:choice minOccurs="1" maxOccurs="1">
109        <xsd:element name="sp" type="CT_Shape"/>
110        <xsd:element name="grpSp" type="CT_GroupShape"/>
111        <xsd:element name="graphicFrame" type="CT_GraphicalObjectFrame"/>
112        <xsd:element name="cxnSp" type="CT_Connector"/>
113        <xsd:element name="pic" type="CT_Picture"/>
114        <xsd:element name="contentPart" type="CT_Rel"/>

```



```

115         </xsd:choice>
116     </xsd:sequence>
117 </xsd:group>
118 <xsd:complexType name="CT_Rel">
119     <xsd:attribute ref="r:id" use="required"/>
120 </xsd:complexType>
121 <xsd:simpleType name="ST_ColID">
122     <xsd:restriction base="xsd:int">
123         <xsd:minInclusive value="0"/>
124     </xsd:restriction>
125 </xsd:simpleType>
126 <xsd:simpleType name="ST_RowID">
127     <xsd:restriction base="xsd:int">
128         <xsd:minInclusive value="0"/>
129     </xsd:restriction>
130 </xsd:simpleType>
131 <xsd:complexType name="CT_Marker">
132     <xsd:sequence>
133         <xsd:element name="col" type="ST_ColID"/>
134         <xsd:element name="colOff" type="a:ST_Coordinate"/>
135         <xsd:element name="row" type="ST_RowID"/>
136         <xsd:element name="rowOff" type="a:ST_Coordinate"/>
137     </xsd:sequence>
138 </xsd:complexType>
139 <xsd:simpleType name="ST_EditAs">
140     <xsd:restriction base="xsd:token">
141         <xsd:enumeration value="twoCell"/>
142         <xsd:enumeration value="oneCell"/>
143         <xsd:enumeration value="absolute"/>
144     </xsd:restriction>
145 </xsd:simpleType>
146 <xsd:complexType name="CT_TwoCellAnchor">
147     <xsd:sequence>
148         <xsd:element name="from" type="CT_Marker"/>
149         <xsd:element name="to" type="CT_Marker"/>
150         <xsd:group ref="EG_ObjectChoices"/>
151         <xsd:element name="clientData" type="CT_AnchorClientData" minOccurs="1" maxOccurs="1"/>
152     </xsd:sequence>
153     <xsd:attribute name="editAs" type="ST_EditAs" use="optional" default="twoCell"/>
154 </xsd:complexType>
155 <xsd:complexType name="CT_OneCellAnchor">
156     <xsd:sequence>
157         <xsd:element name="from" type="CT_Marker"/>
158         <xsd:element name="ext" type="a:CT_PositiveSize2D"/>
159         <xsd:group ref="EG_ObjectChoices"/>
160         <xsd:element name="clientData" type="CT_AnchorClientData" minOccurs="1" maxOccurs="1"/>
161     </xsd:sequence>
162 </xsd:complexType>
163 <xsd:complexType name="CT_AbsoluteAnchor">
164     <xsd:sequence>
165         <xsd:element name="pos" type="a:CT_Point2D"/>
166         <xsd:element name="ext" type="a:CT_PositiveSize2D"/>
167         <xsd:group ref="EG_ObjectChoices"/>

```



```

168     <xsd:element name="clientData" type="CT_AnchorClientData" minOccurs="1" maxOccurs="1"/>
169   </xsd:sequence>
170 </xsd:complexType>
171 <xsd:group name="EG_Anchor">
172   <xsd:choice>
173     <xsd:element name="twoCellAnchor" type="CT_TwoCellAnchor"/>
174     <xsd:element name="oneCellAnchor" type="CT_OneCellAnchor"/>
175     <xsd:element name="absoluteAnchor" type="CT_AbsoluteAnchor"/>
176   </xsd:choice>
177 </xsd:group>
178 <xsd:complexType name="CT_Drawing">
179   <xsd:sequence>
180     <xsd:group ref="EG_Anchor" minOccurs="0" maxOccurs="unbounded"/>
181   </xsd:sequence>
182 </xsd:complexType>
183 <xsd:element name="wsDr" type="CT_Drawing"/>
184 </xsd:schema>

```

## A.6 DrawingML - Components

### A.6.1 DrawingML - Charts

This schema is available in the file dml-chart.xsd.

```

1 <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
2   xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main"
3   xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
4   xmlns="http://schemas.openxmlformats.org/drawingml/2006/chart"
5   xmlns:cd="http://schemas.openxmlformats.org/drawingml/2006/chartDrawing"
6   xmlns:s="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
7   targetNamespace="http://schemas.openxmlformats.org/drawingml/2006/chart"
8   elementFormDefault="qualified" attributeFormDefault="unqualified" blockDefault="#all">
9   <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
10     schemaLocation="shared-relationshipReference.xsd"/>
11   <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="dml-
12     main.xsd"/>
13   <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/chartDrawing"
14     schemaLocation="dml-chartDrawing.xsd"/>
15   <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
16     schemaLocation="shared-commonSimpleTypes.xsd"/>
17   <xsd:complexType name="CT_Boolean">
18     <xsd:attribute name="val" type="xsd:boolean" use="optional" default="true"/>
19   </xsd:complexType>
20   <xsd:complexType name="CT_Double">
21     <xsd:attribute name="val" type="xsd:double" use="required"/>
22   </xsd:complexType>
23   <xsd:complexType name="CT_UnsignedInt">
24     <xsd:attribute name="val" type="xsd:unsignedInt" use="required"/>
25   </xsd:complexType>
26   <xsd:complexType name="CT_RelId">
27     <xsd:attribute ref="r:id" use="required"/>
28   </xsd:complexType>
29   <xsd:complexType name="CT_Extension">

```



```

30     <xsd:sequence>
31         <xsd:any processContents="lax"/>
32     </xsd:sequence>
33     <xsd:attribute name="uri" type="xsd:token"/>
34 </xsd:complexType>
35 <xsd:complexType name="CT_ExtensionList">
36     <xsd:sequence>
37         <xsd:element name="ext" type="CT_Extension" minOccurs="0" maxOccurs="unbounded"/>
38     </xsd:sequence>
39 </xsd:complexType>
40 <xsd:complexType name="CT_NumVal">
41     <xsd:sequence>
42         <xsd:element name="v" type="s:ST_Xstring" minOccurs="1" maxOccurs="1"/>
43     </xsd:sequence>
44     <xsd:attribute name="idx" type="xsd:unsignedInt" use="required"/>
45     <xsd:attribute name="formatCode" type="s:ST_Xstring" use="optional"/>
46 </xsd:complexType>
47 <xsd:complexType name="CT_NumData">
48     <xsd:sequence>
49         <xsd:element name="formatCode" type="s:ST_Xstring" minOccurs="0" maxOccurs="1"/>
50         <xsd:element name="ptCount" type="CT_UnsignedInt" minOccurs="0" maxOccurs="1"/>
51         <xsd:element name="pt" type="CT_NumVal" minOccurs="0" maxOccurs="unbounded"/>
52         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
53     </xsd:sequence>
54 </xsd:complexType>
55 <xsd:complexType name="CT_NumRef">
56     <xsd:sequence>
57         <xsd:element name="f" type="xsd:string" minOccurs="1" maxOccurs="1"/>
58         <xsd:element name="numCache" type="CT_NumData" minOccurs="0" maxOccurs="1"/>
59         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
60     </xsd:sequence>
61 </xsd:complexType>
62 <xsd:complexType name="CT_NumDataSource">
63     <xsd:sequence>
64         <xsd:choice minOccurs="1" maxOccurs="1">
65             <xsd:element name="numRef" type="CT_NumRef" minOccurs="1" maxOccurs="1"/>
66             <xsd:element name="numLit" type="CT_NumData" minOccurs="1" maxOccurs="1"/>
67         </xsd:choice>
68     </xsd:sequence>
69 </xsd:complexType>
70 <xsd:complexType name="CT_StrVal">
71     <xsd:sequence>
72         <xsd:element name="v" type="s:ST_Xstring" minOccurs="1" maxOccurs="1"/>
73     </xsd:sequence>
74     <xsd:attribute name="idx" type="xsd:unsignedInt" use="required"/>
75 </xsd:complexType>
76 <xsd:complexType name="CT_StrData">
77     <xsd:sequence>
78         <xsd:element name="ptCount" type="CT_UnsignedInt" minOccurs="0" maxOccurs="1"/>
79         <xsd:element name="pt" type="CT_StrVal" minOccurs="0" maxOccurs="unbounded"/>
80         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
81     </xsd:sequence>
82 </xsd:complexType>

```



```

83 <xsd:complexType name="CT_StrRef">
84   <xsd:sequence>
85     <xsd:element name="f" type="xsd:string" minOccurs="1" maxOccurs="1"/>
86     <xsd:element name="strCache" type="CT_StrData" minOccurs="0" maxOccurs="1"/>
87     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
88   </xsd:sequence>
89 </xsd:complexType>
90 <xsd:complexType name="CT_Tx">
91   <xsd:sequence>
92     <xsd:choice minOccurs="1" maxOccurs="1">
93       <xsd:element name="strRef" type="CT_StrRef" minOccurs="1" maxOccurs="1"/>
94       <xsd:element name="rich" type="a:CT_TextBody" minOccurs="1" maxOccurs="1"/>
95     </xsd:choice>
96   </xsd:sequence>
97 </xsd:complexType>
98 <xsd:complexType name="CT_TextLanguageID">
99   <xsd:attribute name="val" type="s:ST_Lang" use="required"/>
100 </xsd:complexType>
101 <xsd:complexType name="CT_Lvl">
102   <xsd:sequence>
103     <xsd:element name="pt" type="CT_StrVal" minOccurs="0" maxOccurs="unbounded"/>
104   </xsd:sequence>
105 </xsd:complexType>
106 <xsd:complexType name="CT_MultiLvlStrData">
107   <xsd:sequence>
108     <xsd:element name="ptCount" type="CT_UnsignedInt" minOccurs="0" maxOccurs="1"/>
109     <xsd:element name="lvl" type="CT_Lvl" minOccurs="0" maxOccurs="unbounded"/>
110     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
111   </xsd:sequence>
112 </xsd:complexType>
113 <xsd:complexType name="CT_MultiLvlStrRef">
114   <xsd:sequence>
115     <xsd:element name="f" type="xsd:string" minOccurs="1" maxOccurs="1"/>
116     <xsd:element name="multiLvlStrCache" type="CT_MultiLvlStrData" minOccurs="0"
117       maxOccurs="1"/>
118     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
119   </xsd:sequence>
120 </xsd:complexType>
121 <xsd:complexType name="CT_AxDataSource">
122   <xsd:sequence>
123     <xsd:choice minOccurs="1" maxOccurs="1">
124       <xsd:element name="multiLvlStrRef" type="CT_MultiLvlStrRef" minOccurs="1"
125         maxOccurs="1"/>
126       <xsd:element name="numRef" type="CT_NumRef" minOccurs="1" maxOccurs="1"/>
127       <xsd:element name="numLit" type="CT_NumData" minOccurs="1" maxOccurs="1"/>
128       <xsd:element name="strRef" type="CT_StrRef" minOccurs="1" maxOccurs="1"/>
129       <xsd:element name="strLit" type="CT_StrData" minOccurs="1" maxOccurs="1"/>
130     </xsd:choice>
131   </xsd:sequence>
132 </xsd:complexType>
133 <xsd:complexType name="CT_SerTx">
134   <xsd:sequence>
135     <xsd:choice minOccurs="1" maxOccurs="1">

```



```

136         <xsd:element name="strRef" type="CT_StrRef" minOccurs="1" maxOccurs="1"/>
137         <xsd:element name="v" type="s:ST_Xstring" minOccurs="1" maxOccurs="1"/>
138     </xsd:choice>
139 </xsd:sequence>
140 </xsd:complexType>
141 <xsd:simpleType name="ST_LayoutTarget">
142     <xsd:restriction base="xsd:string">
143         <xsd:enumeration value="inner"/>
144         <xsd:enumeration value="outer"/>
145     </xsd:restriction>
146 </xsd:simpleType>
147 <xsd:complexType name="CT_LayoutTarget">
148     <xsd:attribute name="val" type="ST_LayoutTarget" default="outer"/>
149 </xsd:complexType>
150 <xsd:simpleType name="ST_LayoutMode">
151     <xsd:restriction base="xsd:string">
152         <xsd:enumeration value="edge"/>
153         <xsd:enumeration value="factor"/>
154     </xsd:restriction>
155 </xsd:simpleType>
156 <xsd:complexType name="CT_LayoutMode">
157     <xsd:attribute name="val" type="ST_LayoutMode" default="factor"/>
158 </xsd:complexType>
159 <xsd:complexType name="CT_ManualLayout">
160     <xsd:sequence>
161         <xsd:element name="layoutTarget" type="CT_LayoutTarget" minOccurs="0" maxOccurs="1"/>
162         <xsd:element name="xMode" type="CT_LayoutMode" minOccurs="0" maxOccurs="1"/>
163         <xsd:element name="yMode" type="CT_LayoutMode" minOccurs="0" maxOccurs="1"/>
164         <xsd:element name="wMode" type="CT_LayoutMode" minOccurs="0" maxOccurs="1"/>
165         <xsd:element name="hMode" type="CT_LayoutMode" minOccurs="0" maxOccurs="1"/>
166         <xsd:element name="x" type="CT_Double" minOccurs="0" maxOccurs="1"/>
167         <xsd:element name="y" type="CT_Double" minOccurs="0" maxOccurs="1"/>
168         <xsd:element name="w" type="CT_Double" minOccurs="0" maxOccurs="1"/>
169         <xsd:element name="h" type="CT_Double" minOccurs="0" maxOccurs="1"/>
170         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
171     </xsd:sequence>
172 </xsd:complexType>
173 <xsd:complexType name="CT_Layout">
174     <xsd:sequence>
175         <xsd:element name="manualLayout" type="CT_ManualLayout" minOccurs="0" maxOccurs="1"/>
176         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
177     </xsd:sequence>
178 </xsd:complexType>
179 <xsd:complexType name="CT_Title">
180     <xsd:sequence>
181         <xsd:element name="tx" type="CT_Tx" minOccurs="0" maxOccurs="1"/>
182         <xsd:element name="layout" type="CT_Layout" minOccurs="0" maxOccurs="1"/>
183         <xsd:element name="overlay" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
184         <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
185         <xsd:element name="txPr" type="a:CT_TextBody" minOccurs="0" maxOccurs="1"/>
186         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
187     </xsd:sequence>
188 </xsd:complexType>

```



```

189 <xsd:simpleType name="ST_RotX">
190   <xsd:restriction base="xsd:byte">
191     <xsd:minInclusive value="-90"/>
192     <xsd:maxInclusive value="90"/>
193   </xsd:restriction>
194 </xsd:simpleType>
195 <xsd:complexType name="CT_RotX">
196   <xsd:attribute name="val" type="ST_RotX" default="0"/>
197 </xsd:complexType>
198 <xsd:simpleType name="ST_HPercent">
199   <xsd:restriction base="xsd:unsignedShort">
200     <xsd:minInclusive value="5"/>
201     <xsd:maxInclusive value="500"/>
202   </xsd:restriction>
203   <xsd:union memberTypes="ST_HPercentWithSymbol ST_HPercentUShort"/>
204 </xsd:simpleType>
205 <xsd:simpleType name="ST_HPercentWithSymbol">
206   <xsd:restriction base="xsd:string">
207     <xsd:pattern value="0*(([5-9])|([1-9][0-9])|([1-4][0-9][0-9])|500)%"/>
208   </xsd:restriction>
209 </xsd:simpleType>
210 <xsd:simpleType name="ST_HPercentUShort">
211   <xsd:restriction base="xsd:unsignedShort">
212     <xsd:minInclusive value="5"/>
213     <xsd:maxInclusive value="500"/>
214   </xsd:restriction>
215 </xsd:simpleType>
216 <xsd:complexType name="CT_HPercent">
217   <xsd:attribute name="val" type="ST_HPercent" default="100%"/>
218 </xsd:complexType>
219 <xsd:simpleType name="ST_RotY">
220   <xsd:restriction base="xsd:unsignedShort">
221     <xsd:minInclusive value="0"/>
222     <xsd:maxInclusive value="360"/>
223   </xsd:restriction>
224 </xsd:simpleType>
225 <xsd:complexType name="CT_RotY">
226   <xsd:attribute name="val" type="ST_RotY" default="0"/>
227 </xsd:complexType>
228 <xsd:simpleType name="ST_DepthPercent">
229   <xsd:union memberTypes="ST_DepthPercentWithSymbol ST_DepthPercentUShort"/>
230 </xsd:simpleType>
231 <xsd:simpleType name="ST_DepthPercentWithSymbol">
232   <xsd:restriction base="xsd:string">
233     <xsd:pattern value="0*(([2-9][0-9])|([1-9][0-9][0-9])|(1[0-9][0-9][0-9])|2000)%"/>
234   </xsd:restriction>
235 </xsd:simpleType>
236 <xsd:simpleType name="ST_DepthPercentUShort">
237   <xsd:restriction base="xsd:unsignedShort">
238     <xsd:minInclusive value="20"/>
239     <xsd:maxInclusive value="2000"/>
240   </xsd:restriction>
241 </xsd:simpleType>

```



```

242 <xsd:complexType name="CT_DepthPercent">
243   <xsd:attribute name="val" type="ST_DepthPercent" default="100%"/>
244 </xsd:complexType>
245 <xsd:simpleType name="ST_Perspective">
246   <xsd:restriction base="xsd:unsignedByte">
247     <xsd:minInclusive value="0"/>
248     <xsd:maxInclusive value="240"/>
249   </xsd:restriction>
250 </xsd:simpleType>
251 <xsd:complexType name="CT_Perspective">
252   <xsd:attribute name="val" type="ST_Perspective" default="30"/>
253 </xsd:complexType>
254 <xsd:complexType name="CT_View3D">
255   <xsd:sequence>
256     <xsd:element name="rotX" type="CT_RotX" minOccurs="0" maxOccurs="1"/>
257     <xsd:element name="hPercent" type="CT_HPercent" minOccurs="0" maxOccurs="1"/>
258     <xsd:element name="rotY" type="CT_RotY" minOccurs="0" maxOccurs="1"/>
259     <xsd:element name="depthPercent" type="CT_DepthPercent" minOccurs="0" maxOccurs="1"/>
260     <xsd:element name="rAngAx" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
261     <xsd:element name="perspective" type="CT_Perspective" minOccurs="0" maxOccurs="1"/>
262     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
263   </xsd:sequence>
264 </xsd:complexType>
265 <xsd:complexType name="CT_Surface">
266   <xsd:sequence>
267     <xsd:element name="thickness" type="CT_Thickness" minOccurs="0" maxOccurs="1"/>
268     <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
269     <xsd:element name="pictureOptions" type="CT_PictureOptions" minOccurs="0" maxOccurs="1"/>
270     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
271   </xsd:sequence>
272 </xsd:complexType>
273 <xsd:simpleType name="ST_Thickness">
274   <xsd:union memberTypes="ST_ThicknessPercent xsd:unsignedInt"/>
275 </xsd:simpleType>
276 <xsd:simpleType name="ST_ThicknessPercent">
277   <xsd:restriction base="xsd:string">
278     <xsd:pattern value="([0-9]+)%"/>
279   </xsd:restriction>
280 </xsd:simpleType>
281 <xsd:complexType name="CT_Thickness">
282   <xsd:attribute name="val" type="ST_Thickness" use="required"/>
283 </xsd:complexType>
284 <xsd:complexType name="CT_DTable">
285   <xsd:sequence>
286     <xsd:element name="showHorzBorder" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
287     <xsd:element name="showVertBorder" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
288     <xsd:element name="showOutline" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
289     <xsd:element name="showKeys" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
290     <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
291     <xsd:element name="txPr" type="a:CT_TextBody" minOccurs="0" maxOccurs="1"/>
292     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
293   </xsd:sequence>
294 </xsd:complexType>

```



```

295 <xsd:simpleType name="ST_GapAmount">
296   <xsd:union memberTypes="ST_GapAmountPercent ST_GapAmountUShort"/>
297 </xsd:simpleType>
298 <xsd:simpleType name="ST_GapAmountPercent">
299   <xsd:restriction base="xsd:string">
300     <xsd:pattern value="0*(([0-9])|([1-9][0-9])|([1-4][0-9][0-9])|500)%"/>
301   </xsd:restriction>
302 </xsd:simpleType>
303 <xsd:simpleType name="ST_GapAmountUShort">
304   <xsd:restriction base="xsd:unsignedShort">
305     <xsd:minInclusive value="0"/>
306     <xsd:maxInclusive value="500"/>
307   </xsd:restriction>
308 </xsd:simpleType>
309 <xsd:complexType name="CT_GapAmount">
310   <xsd:attribute name="val" type="ST_GapAmount" default="150%"/>
311 </xsd:complexType>
312 <xsd:simpleType name="ST_Overlap">
313   <xsd:union memberTypes="ST_OverlapPercent ST_OverlapByte"/>
314 </xsd:simpleType>
315 <xsd:simpleType name="ST_OverlapPercent">
316   <xsd:restriction base="xsd:string">
317     <xsd:pattern value="(-?0*(([0-9])|([1-9][0-9])|100))%"/>
318   </xsd:restriction>
319 </xsd:simpleType>
320 <xsd:simpleType name="ST_OverlapByte">
321   <xsd:restriction base="xsd:byte">
322     <xsd:minInclusive value="-100"/>
323     <xsd:maxInclusive value="100"/>
324   </xsd:restriction>
325 </xsd:simpleType>
326 <xsd:complexType name="CT_Overlap">
327   <xsd:attribute name="val" type="ST_Overlap" default="0%"/>
328 </xsd:complexType>
329 <xsd:simpleType name="ST_BubbleScale">
330   <xsd:union memberTypes="ST_BubbleScalePercent ST_BubbleScaleUInt"/>
331 </xsd:simpleType>
332 <xsd:simpleType name="ST_BubbleScalePercent">
333   <xsd:restriction base="xsd:string">
334     <xsd:pattern value="0*(([0-9])|([1-9][0-9])|([1-2][0-9][0-9])|300)%"/>
335   </xsd:restriction>
336 </xsd:simpleType>
337 <xsd:simpleType name="ST_BubbleScaleUInt">
338   <xsd:restriction base="xsd:unsignedInt">
339     <xsd:minInclusive value="0"/>
340     <xsd:maxInclusive value="300"/>
341   </xsd:restriction>
342 </xsd:simpleType>
343 <xsd:complexType name="CT_BubbleScale">
344   <xsd:attribute name="val" type="ST_BubbleScale" default="100%"/>
345 </xsd:complexType>
346 <xsd:simpleType name="ST_SizeRepresents">
347   <xsd:restriction base="xsd:string">

```



```

348         <xsd:enumeration value="area"/>
349         <xsd:enumeration value="w"/>
350     </xsd:restriction>
351 </xsd:simpleType>
352 <xsd:complexType name="CT_SizeRepresents">
353     <xsd:attribute name="val" type="ST_SizeRepresents" default="area"/>
354 </xsd:complexType>
355 <xsd:simpleType name="ST_FirstSliceAng">
356     <xsd:restriction base="xsd:unsignedShort">
357         <xsd:minInclusive value="0"/>
358         <xsd:maxInclusive value="360"/>
359     </xsd:restriction>
360 </xsd:simpleType>
361 <xsd:complexType name="CT_FirstSliceAng">
362     <xsd:attribute name="val" type="ST_FirstSliceAng" default="0"/>
363 </xsd:complexType>
364 <xsd:simpleType name="ST_HoleSize">
365     <xsd:union memberTypes="ST_HoleSizePercent ST_HoleSizeUByte"/>
366 </xsd:simpleType>
367 <xsd:simpleType name="ST_HoleSizePercent">
368     <xsd:restriction base="xsd:string">
369         <xsd:pattern value="0*([1-9]|([1-8][0-9])|90)%"/>
370     </xsd:restriction>
371 </xsd:simpleType>
372 <xsd:simpleType name="ST_HoleSizeUByte">
373     <xsd:restriction base="xsd:unsignedByte">
374         <xsd:minInclusive value="10"/>
375         <xsd:maxInclusive value="90"/>
376     </xsd:restriction>
377 </xsd:simpleType>
378 <xsd:complexType name="CT_HoleSize">
379     <xsd:attribute name="val" type="ST_HoleSize" default="10%"/>
380 </xsd:complexType>
381 <xsd:simpleType name="ST_SplitType">
382     <xsd:restriction base="xsd:string">
383         <xsd:enumeration value="auto"/>
384         <xsd:enumeration value="cust"/>
385         <xsd:enumeration value="percent"/>
386         <xsd:enumeration value="pos"/>
387         <xsd:enumeration value="val"/>
388     </xsd:restriction>
389 </xsd:simpleType>
390 <xsd:complexType name="CT_SplitType">
391     <xsd:attribute name="val" type="ST_SplitType" default="auto"/>
392 </xsd:complexType>
393 <xsd:complexType name="CT_CustSplit">
394     <xsd:sequence>
395         <xsd:element name="secondPiePt" type="CT_UnsignedInt" minOccurs="0"
396             maxOccurs="unbounded"/>
397     </xsd:sequence>
398 </xsd:complexType>
399 <xsd:simpleType name="ST_SecondPieSize">
400     <xsd:union memberTypes="ST_SecondPieSizePercent ST_SecondPieSizeUShort"/>

```



```

401 </xsd:simpleType>
402 <xsd:simpleType name="ST_SecondPieSizePercent">
403   <xsd:restriction base="xsd:string">
404     <xsd:pattern value="0*(([5-9])|([1-9][0-9])|(1[0-9][0-9])|200)%"/>
405   </xsd:restriction>
406 </xsd:simpleType>
407 <xsd:simpleType name="ST_SecondPieSizeUShort">
408   <xsd:restriction base="xsd:unsignedShort">
409     <xsd:minInclusive value="5"/>
410     <xsd:maxInclusive value="200"/>
411   </xsd:restriction>
412 </xsd:simpleType>
413 <xsd:complexType name="CT_SecondPieSize">
414   <xsd:attribute name="val" type="ST_SecondPieSize" default="75%"/>
415 </xsd:complexType>
416 <xsd:complexType name="CT_NumFmt">
417   <xsd:attribute name="formatCode" type="s:ST_Xstring" use="required"/>
418   <xsd:attribute name="sourceLinked" type="xsd:boolean"/>
419 </xsd:complexType>
420 <xsd:simpleType name="ST_LblAlgn">
421   <xsd:restriction base="xsd:string">
422     <xsd:enumeration value="ctr"/>
423     <xsd:enumeration value="l"/>
424     <xsd:enumeration value="r"/>
425   </xsd:restriction>
426 </xsd:simpleType>
427 <xsd:complexType name="CT_LblAlgn">
428   <xsd:attribute name="val" type="ST_LblAlgn" use="required"/>
429 </xsd:complexType>
430 <xsd:simpleType name="ST_DLblPos">
431   <xsd:restriction base="xsd:string">
432     <xsd:enumeration value="bestFit"/>
433     <xsd:enumeration value="b"/>
434     <xsd:enumeration value="ctr"/>
435     <xsd:enumeration value="inBase"/>
436     <xsd:enumeration value="inEnd"/>
437     <xsd:enumeration value="l"/>
438     <xsd:enumeration value="outEnd"/>
439     <xsd:enumeration value="r"/>
440     <xsd:enumeration value="t"/>
441   </xsd:restriction>
442 </xsd:simpleType>
443 <xsd:complexType name="CT_DLblPos">
444   <xsd:attribute name="val" type="ST_DLblPos" use="required"/>
445 </xsd:complexType>
446 <xsd:group name="EG_DLblShared">
447   <xsd:sequence>
448     <xsd:element name="numFmt" type="CT_NumFmt" minOccurs="0" maxOccurs="1"/>
449     <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
450     <xsd:element name="txPr" type="a:CT_TextBody" minOccurs="0" maxOccurs="1"/>
451     <xsd:element name="dLblPos" type="CT_DLblPos" minOccurs="0" maxOccurs="1"/>
452     <xsd:element name="showLegendKey" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
453     <xsd:element name="showVal" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>

```



```

454     <xsd:element name="showCatName" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
455     <xsd:element name="showSerName" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
456     <xsd:element name="showPercent" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
457     <xsd:element name="showBubbleSize" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
458     <xsd:element name="separator" type="xsd:string" minOccurs="0" maxOccurs="1"/>
459   </xsd:sequence>
460 </xsd:group>
461 <xsd:group name="Group_DLbl">
462   <xsd:sequence>
463     <xsd:element name="layout" type="CT_Layout" minOccurs="0" maxOccurs="1"/>
464     <xsd:element name="tx" type="CT_Tx" minOccurs="0" maxOccurs="1"/>
465     <xsd:group ref="EG_DLblShared" minOccurs="1" maxOccurs="1"/>
466   </xsd:sequence>
467 </xsd:group>
468 <xsd:complexType name="CT_DLbl">
469   <xsd:sequence>
470     <xsd:element name="idx" type="CT_UnsignedInt" minOccurs="1" maxOccurs="1"/>
471     <xsd:choice>
472       <xsd:element name="delete" type="CT_Boolean" minOccurs="1" maxOccurs="1"/>
473       <xsd:group ref="Group_DLbl" minOccurs="1" maxOccurs="1"/>
474     </xsd:choice>
475     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
476   </xsd:sequence>
477 </xsd:complexType>
478 <xsd:group name="Group_DLbls">
479   <xsd:sequence>
480     <xsd:group ref="EG_DLblShared" minOccurs="1" maxOccurs="1"/>
481     <xsd:element name="showLeaderLines" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
482     <xsd:element name="leaderLines" type="CT_ChartLines" minOccurs="0" maxOccurs="1"/>
483   </xsd:sequence>
484 </xsd:group>
485 <xsd:complexType name="CT_DLbls">
486   <xsd:sequence>
487     <xsd:element name="dLbl" type="CT_DLbl" minOccurs="0" maxOccurs="unbounded"/>
488     <xsd:choice>
489       <xsd:element name="delete" type="CT_Boolean" minOccurs="1" maxOccurs="1"/>
490       <xsd:group ref="Group_DLbls" minOccurs="1" maxOccurs="1"/>
491     </xsd:choice>
492     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
493   </xsd:sequence>
494 </xsd:complexType>
495 <xsd:simpleType name="ST_MarkerStyle">
496   <xsd:restriction base="xsd:string">
497     <xsd:enumeration value="circle"/>
498     <xsd:enumeration value="dash"/>
499     <xsd:enumeration value="diamond"/>
500     <xsd:enumeration value="dot"/>
501     <xsd:enumeration value="none"/>
502     <xsd:enumeration value="picture"/>
503     <xsd:enumeration value="plus"/>
504     <xsd:enumeration value="square"/>
505     <xsd:enumeration value="star"/>
506     <xsd:enumeration value="triangle"/>

```



```

507         <xsd:enumeration value="x"/>
508         <xsd:enumeration value="auto"/>
509     </xsd:restriction>
510 </xsd:simpleType>
511 <xsd:complexType name="CT_MarkerStyle">
512     <xsd:attribute name="val" type="ST_MarkerStyle" use="required"/>
513 </xsd:complexType>
514 <xsd:simpleType name="ST_MarkerSize">
515     <xsd:restriction base="xsd:unsignedByte">
516         <xsd:minInclusive value="2"/>
517         <xsd:maxInclusive value="72"/>
518     </xsd:restriction>
519 </xsd:simpleType>
520 <xsd:complexType name="CT_MarkerSize">
521     <xsd:attribute name="val" type="ST_MarkerSize" default="5"/>
522 </xsd:complexType>
523 <xsd:complexType name="CT_Marker">
524     <xsd:sequence>
525         <xsd:element name="symbol" type="CT_MarkerStyle" minOccurs="0" maxOccurs="1"/>
526         <xsd:element name="size" type="CT_MarkerSize" minOccurs="0" maxOccurs="1"/>
527         <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
528         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
529     </xsd:sequence>
530 </xsd:complexType>
531 <xsd:complexType name="CT_DPt">
532     <xsd:sequence>
533         <xsd:element name="idx" type="CT_UnsignedInt" minOccurs="1" maxOccurs="1"/>
534         <xsd:element name="invertIfNegative" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
535         <xsd:element name="marker" type="CT_Marker" minOccurs="0" maxOccurs="1"/>
536         <xsd:element name="bubble3D" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
537         <xsd:element name="explosion" type="CT_UnsignedInt" minOccurs="0" maxOccurs="1"/>
538         <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
539         <xsd:element name="pictureOptions" type="CT_PictureOptions" minOccurs="0" maxOccurs="1"/>
540         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
541     </xsd:sequence>
542 </xsd:complexType>
543 <xsd:simpleType name="ST_TrendlineType">
544     <xsd:restriction base="xsd:string">
545         <xsd:enumeration value="exp"/>
546         <xsd:enumeration value="linear"/>
547         <xsd:enumeration value="log"/>
548         <xsd:enumeration value="movingAvg"/>
549         <xsd:enumeration value="poly"/>
550         <xsd:enumeration value="power"/>
551     </xsd:restriction>
552 </xsd:simpleType>
553 <xsd:complexType name="CT_TrendlineType">
554     <xsd:attribute name="val" type="ST_TrendlineType" default="linear"/>
555 </xsd:complexType>
556 <xsd:simpleType name="ST_Order">
557     <xsd:restriction base="xsd:unsignedByte">
558         <xsd:minInclusive value="2"/>
559         <xsd:maxInclusive value="6"/>

```



```

560     </xsd:restriction>
561 </xsd:simpleType>
562 <xsd:complexType name="CT_Order">
563     <xsd:attribute name="val" type="ST_Order" default="2"/>
564 </xsd:complexType>
565 <xsd:simpleType name="ST_Period">
566     <xsd:restriction base="xsd:unsignedInt">
567         <xsd:minInclusive value="2"/>
568     </xsd:restriction>
569 </xsd:simpleType>
570 <xsd:complexType name="CT_Period">
571     <xsd:attribute name="val" type="ST_Period" default="2"/>
572 </xsd:complexType>
573 <xsd:complexType name="CT_TrendlineLbl">
574     <xsd:sequence>
575         <xsd:element name="layout" type="CT_Layout" minOccurs="0" maxOccurs="1"/>
576         <xsd:element name="tx" type="CT_Tx" minOccurs="0" maxOccurs="1"/>
577         <xsd:element name="numFmt" type="CT_NumFmt" minOccurs="0" maxOccurs="1"/>
578         <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
579         <xsd:element name="txPr" type="a:CT_TextBody" minOccurs="0" maxOccurs="1"/>
580         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
581     </xsd:sequence>
582 </xsd:complexType>
583 <xsd:complexType name="CT_Trendline">
584     <xsd:sequence>
585         <xsd:element name="name" type="xsd:string" minOccurs="0" maxOccurs="1"/>
586         <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
587         <xsd:element name="trendlineType" type="CT_TrendlineType" minOccurs="1" maxOccurs="1"/>
588         <xsd:element name="order" type="CT_Order" minOccurs="0" maxOccurs="1"/>
589         <xsd:element name="period" type="CT_Period" minOccurs="0" maxOccurs="1"/>
590         <xsd:element name="forward" type="CT_Double" minOccurs="0" maxOccurs="1"/>
591         <xsd:element name="backward" type="CT_Double" minOccurs="0" maxOccurs="1"/>
592         <xsd:element name="intercept" type="CT_Double" minOccurs="0" maxOccurs="1"/>
593         <xsd:element name="dispRSqr" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
594         <xsd:element name="dispEq" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
595         <xsd:element name="trendlineLbl" type="CT_TrendlineLbl" minOccurs="0" maxOccurs="1"/>
596         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
597     </xsd:sequence>
598 </xsd:complexType>
599 <xsd:simpleType name="ST_ErrDir">
600     <xsd:restriction base="xsd:string">
601         <xsd:enumeration value="x"/>
602         <xsd:enumeration value="y"/>
603     </xsd:restriction>
604 </xsd:simpleType>
605 <xsd:complexType name="CT_ErrDir">
606     <xsd:attribute name="val" type="ST_ErrDir" use="required"/>
607 </xsd:complexType>
608 <xsd:simpleType name="ST_ErrBarType">
609     <xsd:restriction base="xsd:string">
610         <xsd:enumeration value="both"/>
611         <xsd:enumeration value="minus"/>
612         <xsd:enumeration value="plus"/>

```



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613     </xsd:restriction>
614 </xsd:simpleType>
615 <xsd:complexType name="CT_ErrBarType">
616     <xsd:attribute name="val" type="ST_ErrBarType" default="both"/>
617 </xsd:complexType>
618 <xsd:simpleType name="ST_ErrValType">
619     <xsd:restriction base="xsd:string">
620         <xsd:enumeration value="cust"/>
621         <xsd:enumeration value="fixedVal"/>
622         <xsd:enumeration value="percentage"/>
623         <xsd:enumeration value="stdDev"/>
624         <xsd:enumeration value="stdErr"/>
625     </xsd:restriction>
626 </xsd:simpleType>
627 <xsd:complexType name="CT_ErrValType">
628     <xsd:attribute name="val" type="ST_ErrValType" default="fixedVal"/>
629 </xsd:complexType>
630 <xsd:complexType name="CT_ErrBars">
631     <xsd:sequence>
632         <xsd:element name="errDir" type="CT_ErrDir" minOccurs="0" maxOccurs="1"/>
633         <xsd:element name="errBarType" type="CT_ErrBarType" minOccurs="1" maxOccurs="1"/>
634         <xsd:element name="errValType" type="CT_ErrValType" minOccurs="1" maxOccurs="1"/>
635         <xsd:element name="noEndCap" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
636         <xsd:element name="plus" type="CT_NumDataSource" minOccurs="0" maxOccurs="1"/>
637         <xsd:element name="minus" type="CT_NumDataSource" minOccurs="0" maxOccurs="1"/>
638         <xsd:element name="val" type="CT_Double" minOccurs="0" maxOccurs="1"/>
639         <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
640         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
641     </xsd:sequence>
642 </xsd:complexType>
643 <xsd:complexType name="CT_UpDownBar">
644     <xsd:sequence>
645         <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
646     </xsd:sequence>
647 </xsd:complexType>
648 <xsd:complexType name="CT_UpDownBars">
649     <xsd:sequence>
650         <xsd:element name="gapWidth" type="CT_GapAmount" minOccurs="0" maxOccurs="1"/>
651         <xsd:element name="upBars" type="CT_UpDownBar" minOccurs="0" maxOccurs="1"/>
652         <xsd:element name="downBars" type="CT_UpDownBar" minOccurs="0" maxOccurs="1"/>
653         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
654     </xsd:sequence>
655 </xsd:complexType>
656 <xsd:group name="EG_SerShared">
657     <xsd:sequence>
658         <xsd:element name="idx" type="CT_UnsignedInt" minOccurs="1" maxOccurs="1"/>
659         <xsd:element name="order" type="CT_UnsignedInt" minOccurs="1" maxOccurs="1"/>
660         <xsd:element name="tx" type="CT_SerTx" minOccurs="0" maxOccurs="1"/>
661         <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
662     </xsd:sequence>
663 </xsd:group>
664 <xsd:complexType name="CT_LineSer">
665     <xsd:sequence>

```



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666     <xsd:group ref="EG_SerShared" minOccurs="1" maxOccurs="1"/>
667     <xsd:element name="marker" type="CT_Marker" minOccurs="0" maxOccurs="1"/>
668     <xsd:element name="dPt" type="CT_DPt" minOccurs="0" maxOccurs="unbounded"/>
669     <xsd:element name="dLbls" type="CT_DLbls" minOccurs="0" maxOccurs="1"/>
670     <xsd:element name="trendline" type="CT_Trendline" minOccurs="0" maxOccurs="unbounded"/>
671     <xsd:element name="errBars" type="CT_ErrBars" minOccurs="0" maxOccurs="1"/>
672     <xsd:element name="cat" type="CT_AxDataSource" minOccurs="0" maxOccurs="1"/>
673     <xsd:element name="val" type="CT_NumDataSource" minOccurs="0" maxOccurs="1"/>
674     <xsd:element name="smooth" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
675     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
676   </xsd:sequence>
677 </xsd:complexType>
678 <xsd:complexType name="CT_ScatterSer">
679   <xsd:sequence>
680     <xsd:group ref="EG_SerShared" minOccurs="1" maxOccurs="1"/>
681     <xsd:element name="marker" type="CT_Marker" minOccurs="0" maxOccurs="1"/>
682     <xsd:element name="dPt" type="CT_DPt" minOccurs="0" maxOccurs="unbounded"/>
683     <xsd:element name="dLbls" type="CT_DLbls" minOccurs="0" maxOccurs="1"/>
684     <xsd:element name="trendline" type="CT_Trendline" minOccurs="0" maxOccurs="unbounded"/>
685     <xsd:element name="errBars" type="CT_ErrBars" minOccurs="0" maxOccurs="2"/>
686     <xsd:element name="xVal" type="CT_AxDataSource" minOccurs="0" maxOccurs="1"/>
687     <xsd:element name="yVal" type="CT_NumDataSource" minOccurs="0" maxOccurs="1"/>
688     <xsd:element name="smooth" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
689     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
690   </xsd:sequence>
691 </xsd:complexType>
692 <xsd:complexType name="CT_RadarSer">
693   <xsd:sequence>
694     <xsd:group ref="EG_SerShared" minOccurs="1" maxOccurs="1"/>
695     <xsd:element name="marker" type="CT_Marker" minOccurs="0" maxOccurs="1"/>
696     <xsd:element name="dPt" type="CT_DPt" minOccurs="0" maxOccurs="unbounded"/>
697     <xsd:element name="dLbls" type="CT_DLbls" minOccurs="0" maxOccurs="1"/>
698     <xsd:element name="cat" type="CT_AxDataSource" minOccurs="0" maxOccurs="1"/>
699     <xsd:element name="val" type="CT_NumDataSource" minOccurs="0" maxOccurs="1"/>
700     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
701   </xsd:sequence>
702 </xsd:complexType>
703 <xsd:complexType name="CT_BarSer">
704   <xsd:sequence>
705     <xsd:group ref="EG_SerShared" minOccurs="1" maxOccurs="1"/>
706     <xsd:element name="invertIfNegative" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
707     <xsd:element name="pictureOptions" type="CT_PictureOptions" minOccurs="0" maxOccurs="1"/>
708     <xsd:element name="dPt" type="CT_DPt" minOccurs="0" maxOccurs="unbounded"/>
709     <xsd:element name="dLbls" type="CT_DLbls" minOccurs="0" maxOccurs="1"/>
710     <xsd:element name="trendline" type="CT_Trendline" minOccurs="0" maxOccurs="unbounded"/>
711     <xsd:element name="errBars" type="CT_ErrBars" minOccurs="0" maxOccurs="1"/>
712     <xsd:element name="cat" type="CT_AxDataSource" minOccurs="0" maxOccurs="1"/>
713     <xsd:element name="val" type="CT_NumDataSource" minOccurs="0" maxOccurs="1"/>
714     <xsd:element name="shape" type="CT_Shape" minOccurs="0" maxOccurs="1"/>
715     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
716   </xsd:sequence>
717 </xsd:complexType>
718 <xsd:complexType name="CT_AreaSer">

```



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719     <xsd:sequence>
720       <xsd:group ref="EG_SerShared" minOccurs="1" maxOccurs="1"/>
721       <xsd:element name="pictureOptions" type="CT_PictureOptions" minOccurs="0" maxOccurs="1"/>
722       <xsd:element name="dPt" type="CT_DPt" minOccurs="0" maxOccurs="unbounded"/>
723       <xsd:element name="dLbls" type="CT_DLbls" minOccurs="0" maxOccurs="1"/>
724       <xsd:element name="trendline" type="CT_Trendline" minOccurs="0" maxOccurs="unbounded"/>
725       <xsd:element name="errBars" type="CT_ErrBars" minOccurs="0" maxOccurs="2"/>
726       <xsd:element name="cat" type="CT_AxDataSource" minOccurs="0" maxOccurs="1"/>
727       <xsd:element name="val" type="CT_NumDataSource" minOccurs="0" maxOccurs="1"/>
728       <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
729     </xsd:sequence>
730   </xsd:complexType>
731   <xsd:complexType name="CT_PieSer">
732     <xsd:sequence>
733       <xsd:group ref="EG_SerShared" minOccurs="1" maxOccurs="1"/>
734       <xsd:element name="explosion" type="CT_UnsignedInt" minOccurs="0" maxOccurs="1"/>
735       <xsd:element name="dPt" type="CT_DPt" minOccurs="0" maxOccurs="unbounded"/>
736       <xsd:element name="dLbls" type="CT_DLbls" minOccurs="0" maxOccurs="1"/>
737       <xsd:element name="cat" type="CT_AxDataSource" minOccurs="0" maxOccurs="1"/>
738       <xsd:element name="val" type="CT_NumDataSource" minOccurs="0" maxOccurs="1"/>
739       <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
740     </xsd:sequence>
741   </xsd:complexType>
742   <xsd:complexType name="CT_BubbleSer">
743     <xsd:sequence>
744       <xsd:group ref="EG_SerShared" minOccurs="1" maxOccurs="1"/>
745       <xsd:element name="invertIfNegative" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
746       <xsd:element name="dPt" type="CT_DPt" minOccurs="0" maxOccurs="unbounded"/>
747       <xsd:element name="dLbls" type="CT_DLbls" minOccurs="0" maxOccurs="1"/>
748       <xsd:element name="trendline" type="CT_Trendline" minOccurs="0" maxOccurs="unbounded"/>
749       <xsd:element name="errBars" type="CT_ErrBars" minOccurs="0" maxOccurs="2"/>
750       <xsd:element name="xVal" type="CT_AxDataSource" minOccurs="0" maxOccurs="1"/>
751       <xsd:element name="yVal" type="CT_NumDataSource" minOccurs="0" maxOccurs="1"/>
752       <xsd:element name="bubbleSize" type="CT_NumDataSource" minOccurs="0" maxOccurs="1"/>
753       <xsd:element name="bubble3D" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
754       <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
755     </xsd:sequence>
756   </xsd:complexType>
757   <xsd:complexType name="CT_SurfaceSer">
758     <xsd:sequence>
759       <xsd:group ref="EG_SerShared" minOccurs="1" maxOccurs="1"/>
760       <xsd:element name="cat" type="CT_AxDataSource" minOccurs="0" maxOccurs="1"/>
761       <xsd:element name="val" type="CT_NumDataSource" minOccurs="0" maxOccurs="1"/>
762       <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
763     </xsd:sequence>
764   </xsd:complexType>
765   <xsd:simpleType name="ST_Grouping">
766     <xsd:restriction base="xsd:string">
767       <xsd:enumeration value="percentStacked"/>
768       <xsd:enumeration value="standard"/>
769       <xsd:enumeration value="stacked"/>
770     </xsd:restriction>
771   </xsd:simpleType>

```



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772 <xsd:complexType name="CT_Grouping">
773   <xsd:attribute name="val" type="ST_Grouping" default="standard"/>
774 </xsd:complexType>
775 <xsd:complexType name="CT_ChartLines">
776   <xsd:sequence>
777     <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
778   </xsd:sequence>
779 </xsd:complexType>
780 <xsd:group name="EG_LineChartShared">
781   <xsd:sequence>
782     <xsd:element name="grouping" type="CT_Grouping" minOccurs="1" maxOccurs="1"/>
783     <xsd:element name="varyColors" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
784     <xsd:element name="ser" type="CT_LineSer" minOccurs="0" maxOccurs="unbounded"/>
785     <xsd:element name="dLbls" type="CT_DLbls" minOccurs="0" maxOccurs="1"/>
786     <xsd:element name="dropLines" type="CT_ChartLines" minOccurs="0" maxOccurs="1"/>
787   </xsd:sequence>
788 </xsd:group>
789 <xsd:complexType name="CT_LineChart">
790   <xsd:sequence>
791     <xsd:group ref="EG_LineChartShared" minOccurs="1" maxOccurs="1"/>
792     <xsd:element name="hiLowLines" type="CT_ChartLines" minOccurs="0" maxOccurs="1"/>
793     <xsd:element name="upDownBars" type="CT_UpDownBars" minOccurs="0" maxOccurs="1"/>
794     <xsd:element name="marker" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
795     <xsd:element name="smooth" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
796     <xsd:element name="axId" type="CT_UnsignedInt" minOccurs="2" maxOccurs="2"/>
797     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
798   </xsd:sequence>
799 </xsd:complexType>
800 <xsd:complexType name="CT_Line3DChart">
801   <xsd:sequence>
802     <xsd:group ref="EG_LineChartShared" minOccurs="1" maxOccurs="1"/>
803     <xsd:element name="gapDepth" type="CT_GapAmount" minOccurs="0" maxOccurs="1"/>
804     <xsd:element name="axId" type="CT_UnsignedInt" minOccurs="3" maxOccurs="3"/>
805     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
806   </xsd:sequence>
807 </xsd:complexType>
808 <xsd:complexType name="CT_StockChart">
809   <xsd:sequence>
810     <xsd:element name="ser" type="CT_LineSer" minOccurs="3" maxOccurs="4"/>
811     <xsd:element name="dLbls" type="CT_DLbls" minOccurs="0" maxOccurs="1"/>
812     <xsd:element name="dropLines" type="CT_ChartLines" minOccurs="0" maxOccurs="1"/>
813     <xsd:element name="hiLowLines" type="CT_ChartLines" minOccurs="0" maxOccurs="1"/>
814     <xsd:element name="upDownBars" type="CT_UpDownBars" minOccurs="0" maxOccurs="1"/>
815     <xsd:element name="axId" type="CT_UnsignedInt" minOccurs="2" maxOccurs="2"/>
816     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
817   </xsd:sequence>
818 </xsd:complexType>
819 <xsd:simpleType name="ST_ScatterStyle">
820   <xsd:restriction base="xsd:string">
821     <xsd:enumeration value="none"/>
822     <xsd:enumeration value="line"/>
823     <xsd:enumeration value="lineMarker"/>
824     <xsd:enumeration value="marker"/>

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825         <xsd:enumeration value="smooth"/>
826         <xsd:enumeration value="smoothMarker"/>
827     </xsd:restriction>
828 </xsd:simpleType>
829 <xsd:complexType name="CT_ScatterStyle">
830     <xsd:attribute name="val" type="ST_ScatterStyle" default="marker"/>
831 </xsd:complexType>
832 <xsd:complexType name="CT_ScatterChart">
833     <xsd:sequence>
834         <xsd:element name="scatterStyle" type="CT_ScatterStyle" minOccurs="1" maxOccurs="1"/>
835         <xsd:element name="varyColors" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
836         <xsd:element name="ser" type="CT_ScatterSer" minOccurs="0" maxOccurs="unbounded"/>
837         <xsd:element name="dLbls" type="CT_DLbls" minOccurs="0" maxOccurs="1"/>
838         <xsd:element name="axId" type="CT_UnsignedInt" minOccurs="2" maxOccurs="2"/>
839         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
840     </xsd:sequence>
841 </xsd:complexType>
842 <xsd:simpleType name="ST_RadarStyle">
843     <xsd:restriction base="xsd:string">
844         <xsd:enumeration value="standard"/>
845         <xsd:enumeration value="marker"/>
846         <xsd:enumeration value="filled"/>
847     </xsd:restriction>
848 </xsd:simpleType>
849 <xsd:complexType name="CT_RadarStyle">
850     <xsd:attribute name="val" type="ST_RadarStyle" default="standard"/>
851 </xsd:complexType>
852 <xsd:complexType name="CT_RadarChart">
853     <xsd:sequence>
854         <xsd:element name="radarStyle" type="CT_RadarStyle" minOccurs="1" maxOccurs="1"/>
855         <xsd:element name="varyColors" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
856         <xsd:element name="ser" type="CT_RadarSer" minOccurs="0" maxOccurs="unbounded"/>
857         <xsd:element name="dLbls" type="CT_DLbls" minOccurs="0" maxOccurs="1"/>
858         <xsd:element name="axId" type="CT_UnsignedInt" minOccurs="2" maxOccurs="2"/>
859         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
860     </xsd:sequence>
861 </xsd:complexType>
862 <xsd:simpleType name="ST_BarGrouping">
863     <xsd:restriction base="xsd:string">
864         <xsd:enumeration value="percentStacked"/>
865         <xsd:enumeration value="clustered"/>
866         <xsd:enumeration value="standard"/>
867         <xsd:enumeration value="stacked"/>
868     </xsd:restriction>
869 </xsd:simpleType>
870 <xsd:complexType name="CT_BarGrouping">
871     <xsd:attribute name="val" type="ST_BarGrouping" default="clustered"/>
872 </xsd:complexType>
873 <xsd:simpleType name="ST_BarDir">
874     <xsd:restriction base="xsd:string">
875         <xsd:enumeration value="bar"/>
876         <xsd:enumeration value="col"/>
877     </xsd:restriction>

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878 </xsd:simpleType>
879 <xsd:complexType name="CT_BarDir">
880   <xsd:attribute name="val" type="ST_BarDir" default="col"/>
881 </xsd:complexType>
882 <xsd:simpleType name="ST_Shape">
883   <xsd:restriction base="xsd:string">
884     <xsd:enumeration value="cone"/>
885     <xsd:enumeration value="coneToMax"/>
886     <xsd:enumeration value="box"/>
887     <xsd:enumeration value="cylinder"/>
888     <xsd:enumeration value="pyramid"/>
889     <xsd:enumeration value="pyramidToMax"/>
890   </xsd:restriction>
891 </xsd:simpleType>
892 <xsd:complexType name="CT_Shape">
893   <xsd:attribute name="val" type="ST_Shape" default="box"/>
894 </xsd:complexType>
895 <xsd:group name="EG_BarChartShared">
896   <xsd:sequence>
897     <xsd:element name="barDir" type="CT_BarDir" minOccurs="1" maxOccurs="1"/>
898     <xsd:element name="grouping" type="CT_BarGrouping" minOccurs="0" maxOccurs="1"/>
899     <xsd:element name="varyColors" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
900     <xsd:element name="ser" type="CT_BarSer" minOccurs="0" maxOccurs="unbounded"/>
901     <xsd:element name="dLbls" type="CT_DLbls" minOccurs="0" maxOccurs="1"/>
902   </xsd:sequence>
903 </xsd:group>
904 <xsd:complexType name="CT_BarChart">
905   <xsd:sequence>
906     <xsd:group ref="EG_BarChartShared" minOccurs="1" maxOccurs="1"/>
907     <xsd:element name="gapWidth" type="CT_GapAmount" minOccurs="0" maxOccurs="1"/>
908     <xsd:element name="overlap" type="CT_Overlap" minOccurs="0" maxOccurs="1"/>
909     <xsd:element name="serLines" type="CT_ChartLines" minOccurs="0" maxOccurs="unbounded"/>
910     <xsd:element name="axId" type="CT_UnsignedInt" minOccurs="2" maxOccurs="2"/>
911     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
912   </xsd:sequence>
913 </xsd:complexType>
914 <xsd:complexType name="CT_Bar3DChart">
915   <xsd:sequence>
916     <xsd:group ref="EG_BarChartShared" minOccurs="1" maxOccurs="1"/>
917     <xsd:element name="gapWidth" type="CT_GapAmount" minOccurs="0" maxOccurs="1"/>
918     <xsd:element name="gapDepth" type="CT_GapAmount" minOccurs="0" maxOccurs="1"/>
919     <xsd:element name="shape" type="CT_Shape" minOccurs="0" maxOccurs="1"/>
920     <xsd:element name="axId" type="CT_UnsignedInt" minOccurs="2" maxOccurs="3"/>
921     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
922   </xsd:sequence>
923 </xsd:complexType>
924 <xsd:group name="EG_AreaChartShared">
925   <xsd:sequence>
926     <xsd:element name="grouping" type="CT_Grouping" minOccurs="0" maxOccurs="1"/>
927     <xsd:element name="varyColors" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
928     <xsd:element name="ser" type="CT_AreaSer" minOccurs="0" maxOccurs="unbounded"/>
929     <xsd:element name="dLbls" type="CT_DLbls" minOccurs="0" maxOccurs="1"/>
930     <xsd:element name="dropLines" type="CT_ChartLines" minOccurs="0" maxOccurs="1"/>

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931     </xsd:sequence>
932 </xsd:group>
933 <xsd:complexType name="CT_AreaChart">
934     <xsd:sequence>
935         <xsd:group ref="EG_AreaChartShared" minOccurs="1" maxOccurs="1"/>
936         <xsd:element name="axId" type="CT_UnsignedInt" minOccurs="2" maxOccurs="2"/>
937         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
938     </xsd:sequence>
939 </xsd:complexType>
940 <xsd:complexType name="CT_Area3DChart">
941     <xsd:sequence>
942         <xsd:group ref="EG_AreaChartShared" minOccurs="1" maxOccurs="1"/>
943         <xsd:element name="gapDepth" type="CT_GapAmount" minOccurs="0" maxOccurs="1"/>
944         <xsd:element name="axId" type="CT_UnsignedInt" minOccurs="2" maxOccurs="3"/>
945         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
946     </xsd:sequence>
947 </xsd:complexType>
948 <xsd:group name="EG_PieChartShared">
949     <xsd:sequence>
950         <xsd:element name="varyColors" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
951         <xsd:element name="ser" type="CT_PieSer" minOccurs="0" maxOccurs="unbounded"/>
952         <xsd:element name="dLbls" type="CT_DLbls" minOccurs="0" maxOccurs="1"/>
953     </xsd:sequence>
954 </xsd:group>
955 <xsd:complexType name="CT_PieChart">
956     <xsd:sequence>
957         <xsd:group ref="EG_PieChartShared" minOccurs="1" maxOccurs="1"/>
958         <xsd:element name="firstSliceAng" type="CT_FirstSliceAng" minOccurs="0" maxOccurs="1"/>
959         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
960     </xsd:sequence>
961 </xsd:complexType>
962 <xsd:complexType name="CT_Pie3DChart">
963     <xsd:sequence>
964         <xsd:group ref="EG_PieChartShared" minOccurs="1" maxOccurs="1"/>
965         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
966     </xsd:sequence>
967 </xsd:complexType>
968 <xsd:complexType name="CT_DoughnutChart">
969     <xsd:sequence>
970         <xsd:group ref="EG_PieChartShared" minOccurs="1" maxOccurs="1"/>
971         <xsd:element name="firstSliceAng" type="CT_FirstSliceAng" minOccurs="0" maxOccurs="1"/>
972         <xsd:element name="holeSize" type="CT_HoleSize" minOccurs="0" maxOccurs="1"/>
973         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
974     </xsd:sequence>
975 </xsd:complexType>
976 <xsd:simpleType name="ST_OfPieType">
977     <xsd:restriction base="xsd:string">
978         <xsd:enumeration value="pie"/>
979         <xsd:enumeration value="bar"/>
980     </xsd:restriction>
981 </xsd:simpleType>
982 <xsd:complexType name="CT_OfPieType">
983     <xsd:attribute name="val" type="ST_OfPieType" default="pie"/>

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984 </xsd:complexType>
985 <xsd:complexType name="CT_OfPieChart">
986   <xsd:sequence>
987     <xsd:element name="ofPieType" type="CT_OfPieType" minOccurs="1" maxOccurs="1"/>
988     <xsd:group ref="EG_PieChartShared" minOccurs="1" maxOccurs="1"/>
989     <xsd:element name="gapWidth" type="CT_GapAmount" minOccurs="0" maxOccurs="1"/>
990     <xsd:element name="splitType" type="CT_SplitType" minOccurs="0" maxOccurs="1"/>
991     <xsd:element name="splitPos" type="CT_Double" minOccurs="0" maxOccurs="1"/>
992     <xsd:element name="custSplit" type="CT_CustSplit" minOccurs="0" maxOccurs="1"/>
993     <xsd:element name="secondPieSize" type="CT_SecondPieSize" minOccurs="0" maxOccurs="1"/>
994     <xsd:element name="serLines" type="CT_ChartLines" minOccurs="0" maxOccurs="unbounded"/>
995     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
996   </xsd:sequence>
997 </xsd:complexType>
998 <xsd:complexType name="CT_BubbleChart">
999   <xsd:sequence>
1000     <xsd:element name="varyColors" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1001     <xsd:element name="ser" type="CT_BubbleSer" minOccurs="0" maxOccurs="unbounded"/>
1002     <xsd:element name="dLbls" type="CT_DLbls" minOccurs="0" maxOccurs="1"/>
1003     <xsd:element name="bubble3D" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1004     <xsd:element name="bubbleScale" type="CT_BubbleScale" minOccurs="0" maxOccurs="1"/>
1005     <xsd:element name="showNegBubbles" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1006     <xsd:element name="sizeRepresents" type="CT_SizeRepresents" minOccurs="0" maxOccurs="1"/>
1007     <xsd:element name="axId" type="CT_UnsignedInt" minOccurs="2" maxOccurs="2"/>
1008     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1009   </xsd:sequence>
1010 </xsd:complexType>
1011 <xsd:complexType name="CT_BandFmt">
1012   <xsd:sequence>
1013     <xsd:element name="idx" type="CT_UnsignedInt" minOccurs="1" maxOccurs="1"/>
1014     <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
1015   </xsd:sequence>
1016 </xsd:complexType>
1017 <xsd:complexType name="CT_BandFmts">
1018   <xsd:sequence>
1019     <xsd:element name="bandFmt" type="CT_BandFmt" minOccurs="0" maxOccurs="unbounded"/>
1020   </xsd:sequence>
1021 </xsd:complexType>
1022 <xsd:group name="EG_SurfaceChartShared">
1023   <xsd:sequence>
1024     <xsd:element name="wireframe" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1025     <xsd:element name="ser" type="CT_SurfaceSer" minOccurs="0" maxOccurs="unbounded"/>
1026     <xsd:element name="bandFmts" type="CT_BandFmts" minOccurs="0" maxOccurs="1"/>
1027   </xsd:sequence>
1028 </xsd:group>
1029 <xsd:complexType name="CT_SurfaceChart">
1030   <xsd:sequence>
1031     <xsd:group ref="EG_SurfaceChartShared" minOccurs="1" maxOccurs="1"/>
1032     <xsd:element name="axId" type="CT_UnsignedInt" minOccurs="2" maxOccurs="3"/>
1033     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1034   </xsd:sequence>
1035 </xsd:complexType>
1036 <xsd:complexType name="CT_Surface3DChart">

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1037     <xsd:sequence>
1038         <xsd:group ref="EG_SurfaceChartShared" minOccurs="1" maxOccurs="1"/>
1039         <xsd:element name="axId" type="CT_UnsignedInt" minOccurs="3" maxOccurs="3"/>
1040         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1041     </xsd:sequence>
1042 </xsd:complexType>
1043 <xsd:simpleType name="ST_AxPos">
1044     <xsd:restriction base="xsd:string">
1045         <xsd:enumeration value="b"/>
1046         <xsd:enumeration value="l"/>
1047         <xsd:enumeration value="r"/>
1048         <xsd:enumeration value="t"/>
1049     </xsd:restriction>
1050 </xsd:simpleType>
1051 <xsd:complexType name="CT_AxPos">
1052     <xsd:attribute name="val" type="ST_AxPos" use="required"/>
1053 </xsd:complexType>
1054 <xsd:simpleType name="ST_Crosses">
1055     <xsd:restriction base="xsd:string">
1056         <xsd:enumeration value="autoZero"/>
1057         <xsd:enumeration value="max"/>
1058         <xsd:enumeration value="min"/>
1059     </xsd:restriction>
1060 </xsd:simpleType>
1061 <xsd:complexType name="CT_Crosses">
1062     <xsd:attribute name="val" type="ST_Crosses" use="required"/>
1063 </xsd:complexType>
1064 <xsd:simpleType name="ST_CrossBetween">
1065     <xsd:restriction base="xsd:string">
1066         <xsd:enumeration value="between"/>
1067         <xsd:enumeration value="midCat"/>
1068     </xsd:restriction>
1069 </xsd:simpleType>
1070 <xsd:complexType name="CT_CrossBetween">
1071     <xsd:attribute name="val" type="ST_CrossBetween" use="required"/>
1072 </xsd:complexType>
1073 <xsd:simpleType name="ST_TickMark">
1074     <xsd:restriction base="xsd:string">
1075         <xsd:enumeration value="cross"/>
1076         <xsd:enumeration value="in"/>
1077         <xsd:enumeration value="none"/>
1078         <xsd:enumeration value="out"/>
1079     </xsd:restriction>
1080 </xsd:simpleType>
1081 <xsd:complexType name="CT_TickMark">
1082     <xsd:attribute name="val" type="ST_TickMark" default="cross"/>
1083 </xsd:complexType>
1084 <xsd:simpleType name="ST_TickLblPos">
1085     <xsd:restriction base="xsd:string">
1086         <xsd:enumeration value="high"/>
1087         <xsd:enumeration value="low"/>
1088         <xsd:enumeration value="nextTo"/>
1089         <xsd:enumeration value="none"/>

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1090     </xsd:restriction>
1091 </xsd:simpleType>
1092 <xsd:complexType name="CT_TickLblPos">
1093     <xsd:attribute name="val" type="ST_TickLblPos" default="nextTo"/>
1094 </xsd:complexType>
1095 <xsd:simpleType name="ST_Skip">
1096     <xsd:restriction base="xsd:unsignedInt">
1097         <xsd:minInclusive value="1"/>
1098     </xsd:restriction>
1099 </xsd:simpleType>
1100 <xsd:complexType name="CT_Skip">
1101     <xsd:attribute name="val" type="ST_Skip" use="required"/>
1102 </xsd:complexType>
1103 <xsd:simpleType name="ST_TimeUnit">
1104     <xsd:restriction base="xsd:string">
1105         <xsd:enumeration value="days"/>
1106         <xsd:enumeration value="months"/>
1107         <xsd:enumeration value="years"/>
1108     </xsd:restriction>
1109 </xsd:simpleType>
1110 <xsd:complexType name="CT_TimeUnit">
1111     <xsd:attribute name="val" type="ST_TimeUnit" default="days"/>
1112 </xsd:complexType>
1113 <xsd:simpleType name="ST_AxisUnit">
1114     <xsd:restriction base="xsd:double">
1115         <xsd:minExclusive value="0"/>
1116     </xsd:restriction>
1117 </xsd:simpleType>
1118 <xsd:complexType name="CT_AxisUnit">
1119     <xsd:attribute name="val" type="ST_AxisUnit" use="required"/>
1120 </xsd:complexType>
1121 <xsd:simpleType name="ST_BuiltInUnit">
1122     <xsd:restriction base="xsd:string">
1123         <xsd:enumeration value="hundreds"/>
1124         <xsd:enumeration value="thousands"/>
1125         <xsd:enumeration value="tenThousands"/>
1126         <xsd:enumeration value="hundredThousands"/>
1127         <xsd:enumeration value="millions"/>
1128         <xsd:enumeration value="tenMillions"/>
1129         <xsd:enumeration value="hundredMillions"/>
1130         <xsd:enumeration value="billions"/>
1131         <xsd:enumeration value="trillions"/>
1132     </xsd:restriction>
1133 </xsd:simpleType>
1134 <xsd:complexType name="CT_BuiltInUnit">
1135     <xsd:attribute name="val" type="ST_BuiltInUnit" default="thousands"/>
1136 </xsd:complexType>
1137 <xsd:simpleType name="ST_PictureFormat">
1138     <xsd:restriction base="xsd:string">
1139         <xsd:enumeration value="stretch"/>
1140         <xsd:enumeration value="stack"/>
1141         <xsd:enumeration value="stackScale"/>
1142     </xsd:restriction>

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1143 </xsd:simpleType>
1144 <xsd:complexType name="CT_PictureFormat">
1145   <xsd:attribute name="val" type="ST_PictureFormat" use="required"/>
1146 </xsd:complexType>
1147 <xsd:simpleType name="ST_PictureStackUnit">
1148   <xsd:restriction base="xsd:double">
1149     <xsd:minExclusive value="0"/>
1150   </xsd:restriction>
1151 </xsd:simpleType>
1152 <xsd:complexType name="CT_PictureStackUnit">
1153   <xsd:attribute name="val" type="ST_PictureStackUnit" use="required"/>
1154 </xsd:complexType>
1155 <xsd:complexType name="CT_PictureOptions">
1156   <xsd:sequence>
1157     <xsd:element name="applyToFront" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1158     <xsd:element name="applyToSides" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1159     <xsd:element name="applyToEnd" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1160     <xsd:element name="pictureFormat" type="CT_PictureFormat" minOccurs="0" maxOccurs="1"/>
1161     <xsd:element name="pictureStackUnit" type="CT_PictureStackUnit" minOccurs="0"
1162       maxOccurs="1"/>
1163   </xsd:sequence>
1164 </xsd:complexType>
1165 <xsd:complexType name="CT_DispUnitsLbl">
1166   <xsd:sequence>
1167     <xsd:element name="layout" type="CT_Layout" minOccurs="0" maxOccurs="1"/>
1168     <xsd:element name="tx" type="CT_Tx" minOccurs="0" maxOccurs="1"/>
1169     <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
1170     <xsd:element name="txPr" type="a:CT_TextBody" minOccurs="0" maxOccurs="1"/>
1171   </xsd:sequence>
1172 </xsd:complexType>
1173 <xsd:complexType name="CT_DispUnits">
1174   <xsd:sequence>
1175     <xsd:choice>
1176       <xsd:element name="custUnit" type="CT_Double" minOccurs="1" maxOccurs="1"/>
1177       <xsd:element name="builtInUnit" type="CT_BuiltInUnit" minOccurs="1" maxOccurs="1"/>
1178     </xsd:choice>
1179     <xsd:element name="dispUnitsLbl" type="CT_DispUnitsLbl" minOccurs="0" maxOccurs="1"/>
1180     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1181   </xsd:sequence>
1182 </xsd:complexType>
1183 <xsd:simpleType name="ST_Orientation">
1184   <xsd:restriction base="xsd:string">
1185     <xsd:enumeration value="maxMin"/>
1186     <xsd:enumeration value="minMax"/>
1187   </xsd:restriction>
1188 </xsd:simpleType>
1189 <xsd:complexType name="CT_Orientation">
1190   <xsd:attribute name="val" type="ST_Orientation" default="minMax"/>
1191 </xsd:complexType>
1192 <xsd:simpleType name="ST_LogBase">
1193   <xsd:restriction base="xsd:double">
1194     <xsd:minInclusive value="2"/>
1195     <xsd:maxInclusive value="1000"/>

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1196     </xsd:restriction>
1197 </xsd:simpleType>
1198 <xsd:complexType name="CT_LogBase">
1199     <xsd:attribute name="val" type="ST_LogBase" use="required"/>
1200 </xsd:complexType>
1201 <xsd:complexType name="CT_Scaling">
1202     <xsd:sequence>
1203         <xsd:element name="logBase" type="CT_LogBase" minOccurs="0" maxOccurs="1"/>
1204         <xsd:element name="orientation" type="CT_Orientation" minOccurs="0" maxOccurs="1"/>
1205         <xsd:element name="max" type="CT_Double" minOccurs="0" maxOccurs="1"/>
1206         <xsd:element name="min" type="CT_Double" minOccurs="0" maxOccurs="1"/>
1207         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1208     </xsd:sequence>
1209 </xsd:complexType>
1210 <xsd:simpleType name="ST_LblOffset">
1211     <xsd:union memberTypes="ST_LblOffsetPercent ST_LblOffsetUShort"/>
1212 </xsd:simpleType>
1213 <xsd:simpleType name="ST_LblOffsetPercent">
1214     <xsd:restriction base="xsd:string">
1215         <xsd:pattern value="0*([0-9])|([1-9][0-9])|([1-9][0-9][0-9])|1000)%"/>
1216     </xsd:restriction>
1217 </xsd:simpleType>
1218 <xsd:simpleType name="ST_LblOffsetUShort">
1219     <xsd:restriction base="xsd:unsignedShort">
1220         <xsd:minInclusive value="0"/>
1221         <xsd:maxInclusive value="1000"/>
1222     </xsd:restriction>
1223 </xsd:simpleType>
1224 <xsd:complexType name="CT_LblOffset">
1225     <xsd:attribute name="val" type="ST_LblOffset" default="100%"/>
1226 </xsd:complexType>
1227 <xsd:group name="EG_AxShared">
1228     <xsd:sequence>
1229         <xsd:element name="axId" type="CT_UnsignedInt" minOccurs="1" maxOccurs="1"/>
1230         <xsd:element name="scaling" type="CT_Scaling" minOccurs="1" maxOccurs="1"/>
1231         <xsd:element name="delete" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1232         <xsd:element name="axPos" type="CT_AxPos" minOccurs="1" maxOccurs="1"/>
1233         <xsd:element name="majorGridlines" type="CT_ChartLines" minOccurs="0" maxOccurs="1"/>
1234         <xsd:element name="minorGridlines" type="CT_ChartLines" minOccurs="0" maxOccurs="1"/>
1235         <xsd:element name="title" type="CT_Title" minOccurs="0" maxOccurs="1"/>
1236         <xsd:element name="numFmt" type="CT_NumFmt" minOccurs="0" maxOccurs="1"/>
1237         <xsd:element name="majorTickMark" type="CT_TickMark" minOccurs="0" maxOccurs="1"/>
1238         <xsd:element name="minorTickMark" type="CT_TickMark" minOccurs="0" maxOccurs="1"/>
1239         <xsd:element name="tickLblPos" type="CT_TickLblPos" minOccurs="0" maxOccurs="1"/>
1240         <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
1241         <xsd:element name="txPr" type="a:CT_TextBody" minOccurs="0" maxOccurs="1"/>
1242         <xsd:element name="crossAx" type="CT_UnsignedInt" minOccurs="1" maxOccurs="1"/>
1243         <xsd:choice minOccurs="0" maxOccurs="1">
1244             <xsd:element name="crosses" type="CT_Crosses" minOccurs="1" maxOccurs="1"/>
1245             <xsd:element name="crossesAt" type="CT_Double" minOccurs="1" maxOccurs="1"/>
1246         </xsd:choice>
1247     </xsd:sequence>
1248 </xsd:group>

```



```

1249 <xsd:complexType name="CT_CatAx">
1250   <xsd:sequence>
1251     <xsd:group ref="EG_AxShared" minOccurs="1" maxOccurs="1"/>
1252     <xsd:element name="auto" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1253     <xsd:element name="lblAlign" type="CT_LblAlign" minOccurs="0" maxOccurs="1"/>
1254     <xsd:element name="lblOffset" type="CT_LblOffset" minOccurs="0" maxOccurs="1"/>
1255     <xsd:element name="tickLblSkip" type="CT_Skip" minOccurs="0" maxOccurs="1"/>
1256     <xsd:element name="tickMarkSkip" type="CT_Skip" minOccurs="0" maxOccurs="1"/>
1257     <xsd:element name="noMultiLvlLbl" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1258     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1259   </xsd:sequence>
1260 </xsd:complexType>
1261 <xsd:complexType name="CT_DateAx">
1262   <xsd:sequence>
1263     <xsd:group ref="EG_AxShared" minOccurs="1" maxOccurs="1"/>
1264     <xsd:element name="auto" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1265     <xsd:element name="lblOffset" type="CT_LblOffset" minOccurs="0" maxOccurs="1"/>
1266     <xsd:element name="baseTimeUnit" type="CT_TimeUnit" minOccurs="0" maxOccurs="1"/>
1267     <xsd:element name="majorUnit" type="CT_AxisUnit" minOccurs="0" maxOccurs="1"/>
1268     <xsd:element name="majorTimeUnit" type="CT_TimeUnit" minOccurs="0" maxOccurs="1"/>
1269     <xsd:element name="minorUnit" type="CT_AxisUnit" minOccurs="0" maxOccurs="1"/>
1270     <xsd:element name="minorTimeUnit" type="CT_TimeUnit" minOccurs="0" maxOccurs="1"/>
1271     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1272   </xsd:sequence>
1273 </xsd:complexType>
1274 <xsd:complexType name="CT_SerAx">
1275   <xsd:sequence>
1276     <xsd:group ref="EG_AxShared" minOccurs="1" maxOccurs="1"/>
1277     <xsd:element name="tickLblSkip" type="CT_Skip" minOccurs="0" maxOccurs="1"/>
1278     <xsd:element name="tickMarkSkip" type="CT_Skip" minOccurs="0" maxOccurs="1"/>
1279     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1280   </xsd:sequence>
1281 </xsd:complexType>
1282 <xsd:complexType name="CT_ValAx">
1283   <xsd:sequence>
1284     <xsd:group ref="EG_AxShared" minOccurs="1" maxOccurs="1"/>
1285     <xsd:element name="crossBetween" type="CT_CrossBetween" minOccurs="0" maxOccurs="1"/>
1286     <xsd:element name="majorUnit" type="CT_AxisUnit" minOccurs="0" maxOccurs="1"/>
1287     <xsd:element name="minorUnit" type="CT_AxisUnit" minOccurs="0" maxOccurs="1"/>
1288     <xsd:element name="dispUnits" type="CT_DispUnits" minOccurs="0" maxOccurs="1"/>
1289     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1290   </xsd:sequence>
1291 </xsd:complexType>
1292 <xsd:complexType name="CT_PlotArea">
1293   <xsd:sequence>
1294     <xsd:element name="layout" type="CT_Layout" minOccurs="0" maxOccurs="1"/>
1295     <xsd:choice minOccurs="1" maxOccurs="unbounded">
1296       <xsd:element name="areaChart" type="CT_AreaChart" minOccurs="1" maxOccurs="1"/>
1297       <xsd:element name="area3DChart" type="CT_Area3DChart" minOccurs="1" maxOccurs="1"/>
1298       <xsd:element name="lineChart" type="CT_LineChart" minOccurs="1" maxOccurs="1"/>
1299       <xsd:element name="line3DChart" type="CT_Line3DChart" minOccurs="1" maxOccurs="1"/>
1300       <xsd:element name="stockChart" type="CT_StockChart" minOccurs="1" maxOccurs="1"/>
1301       <xsd:element name="radarChart" type="CT_RadarChart" minOccurs="1" maxOccurs="1"/>

```



```

1302     <xsd:element name="scatterChart" type="CT_ScatterChart" minOccurs="1" maxOccurs="1"/>
1303     <xsd:element name="pieChart" type="CT_PieChart" minOccurs="1" maxOccurs="1"/>
1304     <xsd:element name="pie3DChart" type="CT_Pie3DChart" minOccurs="1" maxOccurs="1"/>
1305     <xsd:element name="doughnutChart" type="CT_DoughnutChart" minOccurs="1" maxOccurs="1"/>
1306     <xsd:element name="barChart" type="CT_BarChart" minOccurs="1" maxOccurs="1"/>
1307     <xsd:element name="bar3DChart" type="CT_Bar3DChart" minOccurs="1" maxOccurs="1"/>
1308     <xsd:element name="ofPieChart" type="CT_OfPieChart" minOccurs="1" maxOccurs="1"/>
1309     <xsd:element name="surfaceChart" type="CT_SurfaceChart" minOccurs="1" maxOccurs="1"/>
1310     <xsd:element name="surface3DChart" type="CT_Surface3DChart" minOccurs="1"
1311         maxOccurs="1"/>
1312     <xsd:element name="bubbleChart" type="CT_BubbleChart" minOccurs="1" maxOccurs="1"/>
1313 </xsd:choice>
1314 <xsd:choice minOccurs="0" maxOccurs="unbounded">
1315     <xsd:element name="valAx" type="CT_ValAx" minOccurs="1" maxOccurs="1"/>
1316     <xsd:element name="catAx" type="CT_CatAx" minOccurs="1" maxOccurs="1"/>
1317     <xsd:element name="dateAx" type="CT_DateAx" minOccurs="1" maxOccurs="1"/>
1318     <xsd:element name="serAx" type="CT_SerAx" minOccurs="1" maxOccurs="1"/>
1319 </xsd:choice>
1320 <xsd:element name="dTable" type="CT_DTable" minOccurs="0" maxOccurs="1"/>
1321 <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
1322 <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1323 </xsd:sequence>
1324 </xsd:complexType>
1325 <xsd:complexType name="CT_PivotFmt">
1326     <xsd:sequence>
1327         <xsd:element name="idx" type="CT_UnsignedInt" minOccurs="1" maxOccurs="1"/>
1328         <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
1329         <xsd:element name="txPr" type="a:CT_TextBody" minOccurs="0" maxOccurs="1"/>
1330         <xsd:element name="marker" type="CT_Marker" minOccurs="0" maxOccurs="1"/>
1331         <xsd:element name="dLbl" type="CT_DLbl" minOccurs="0" maxOccurs="1"/>
1332         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1333     </xsd:sequence>
1334 </xsd:complexType>
1335 <xsd:complexType name="CT_PivotFmts">
1336     <xsd:sequence>
1337         <xsd:element name="pivotFmt" type="CT_PivotFmt" minOccurs="0" maxOccurs="unbounded"/>
1338     </xsd:sequence>
1339 </xsd:complexType>
1340 <xsd:simpleType name="ST_LegendPos">
1341     <xsd:restriction base="xsd:string">
1342         <xsd:enumeration value="b"/>
1343         <xsd:enumeration value="tr"/>
1344         <xsd:enumeration value="l"/>
1345         <xsd:enumeration value="r"/>
1346         <xsd:enumeration value="t"/>
1347     </xsd:restriction>
1348 </xsd:simpleType>
1349 <xsd:complexType name="CT_LegendPos">
1350     <xsd:attribute name="val" type="ST_LegendPos" default="r"/>
1351 </xsd:complexType>
1352 <xsd:group name="EG_LegendEntryData">
1353     <xsd:sequence>
1354         <xsd:element name="txPr" type="a:CT_TextBody" minOccurs="0" maxOccurs="1"/>

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1355     </xsd:sequence>
1356 </xsd:group>
1357 <xsd:complexType name="CT_LegendEntry">
1358     <xsd:sequence>
1359         <xsd:element name="idx" type="CT UnsignedInt" minOccurs="1" maxOccurs="1"/>
1360         <xsd:choice>
1361             <xsd:element name="delete" type="CT Boolean" minOccurs="1" maxOccurs="1"/>
1362             <xsd:group ref="EG_LegendEntryData" minOccurs="1" maxOccurs="1"/>
1363         </xsd:choice>
1364         <xsd:element name="extLst" type="CT ExtensionList" minOccurs="0" maxOccurs="1"/>
1365     </xsd:sequence>
1366 </xsd:complexType>
1367 <xsd:complexType name="CT_Legend">
1368     <xsd:sequence>
1369         <xsd:element name="legendPos" type="CT LegendPos" minOccurs="0" maxOccurs="1"/>
1370         <xsd:element name="legendEntry" type="CT LegendEntry" minOccurs="0"
1371             maxOccurs="unbounded"/>
1372         <xsd:element name="layout" type="CT Layout" minOccurs="0" maxOccurs="1"/>
1373         <xsd:element name="overlay" type="CT Boolean" minOccurs="0" maxOccurs="1"/>
1374         <xsd:element name="spPr" type="a:CT ShapeProperties" minOccurs="0" maxOccurs="1"/>
1375         <xsd:element name="txPr" type="a:CT TextBody" minOccurs="0" maxOccurs="1"/>
1376         <xsd:element name="extLst" type="CT ExtensionList" minOccurs="0" maxOccurs="1"/>
1377     </xsd:sequence>
1378 </xsd:complexType>
1379 <xsd:simpleType name="ST_DisbBlanksAs">
1380     <xsd:restriction base="xsd:string">
1381         <xsd:enumeration value="span"/>
1382         <xsd:enumeration value="gap"/>
1383         <xsd:enumeration value="zero"/>
1384     </xsd:restriction>
1385 </xsd:simpleType>
1386 <xsd:complexType name="CT_DisbBlanksAs">
1387     <xsd:attribute name="val" type="ST_DisbBlanksAs" default="zero"/>
1388 </xsd:complexType>
1389 <xsd:complexType name="CT_Chart">
1390     <xsd:sequence>
1391         <xsd:element name="title" type="CT Title" minOccurs="0" maxOccurs="1"/>
1392         <xsd:element name="autoTitleDeleted" type="CT Boolean" minOccurs="0" maxOccurs="1"/>
1393         <xsd:element name="pivotFmts" type="CT PivotFmts" minOccurs="0" maxOccurs="1"/>
1394         <xsd:element name="view3D" type="CT View3D" minOccurs="0" maxOccurs="1"/>
1395         <xsd:element name="floor" type="CT Surface" minOccurs="0" maxOccurs="1"/>
1396         <xsd:element name="sideWall" type="CT Surface" minOccurs="0" maxOccurs="1"/>
1397         <xsd:element name="backWall" type="CT Surface" minOccurs="0" maxOccurs="1"/>
1398         <xsd:element name="plotArea" type="CT PlotArea" minOccurs="1" maxOccurs="1"/>
1399         <xsd:element name="legend" type="CT Legend" minOccurs="0" maxOccurs="1"/>
1400         <xsd:element name="plotVisOnly" type="CT Boolean" minOccurs="0" maxOccurs="1"/>
1401         <xsd:element name="disbBlanksAs" type="CT_DisbBlanksAs" minOccurs="0" maxOccurs="1"/>
1402         <xsd:element name="showDLblsOverMax" type="CT Boolean" minOccurs="0" maxOccurs="1"/>
1403         <xsd:element name="extLst" type="CT ExtensionList" minOccurs="0" maxOccurs="1"/>
1404     </xsd:sequence>
1405 </xsd:complexType>
1406 <xsd:simpleType name="ST_Style">
1407     <xsd:restriction base="xsd:unsignedByte">

```



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1408         <xsd:minInclusive value="1"/>
1409         <xsd:maxInclusive value="48"/>
1410     </xsd:restriction>
1411 </xsd:simpleType>
1412 <xsd:complexType name="CT_Style">
1413     <xsd:attribute name="val" type="ST_Style" use="required"/>
1414 </xsd:complexType>
1415 <xsd:complexType name="CT_PivotSource">
1416     <xsd:sequence>
1417         <xsd:element name="name" type="s:ST_Xstring" minOccurs="1" maxOccurs="1"/>
1418         <xsd:element name="fmtId" type="CT_UnsignedInt" minOccurs="1" maxOccurs="1"/>
1419         <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="unbounded"/>
1420     </xsd:sequence>
1421 </xsd:complexType>
1422 <xsd:complexType name="CT_Protection">
1423     <xsd:sequence>
1424         <xsd:element name="chartObject" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1425         <xsd:element name="data" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1426         <xsd:element name="formatting" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1427         <xsd:element name="selection" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1428         <xsd:element name="userInterface" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1429     </xsd:sequence>
1430 </xsd:complexType>
1431 <xsd:complexType name="CT_HeaderFooter">
1432     <xsd:sequence>
1433         <xsd:element name="oddHeader" type="s:ST_Xstring" minOccurs="0" maxOccurs="1"/>
1434         <xsd:element name="oddFooter" type="s:ST_Xstring" minOccurs="0" maxOccurs="1"/>
1435         <xsd:element name="evenHeader" type="s:ST_Xstring" minOccurs="0" maxOccurs="1"/>
1436         <xsd:element name="evenFooter" type="s:ST_Xstring" minOccurs="0" maxOccurs="1"/>
1437         <xsd:element name="firstHeader" type="s:ST_Xstring" minOccurs="0" maxOccurs="1"/>
1438         <xsd:element name="firstFooter" type="s:ST_Xstring" minOccurs="0" maxOccurs="1"/>
1439     </xsd:sequence>
1440     <xsd:attribute name="alignWithMargins" type="xsd:boolean" default="true"/>
1441     <xsd:attribute name="differentOddEven" type="xsd:boolean" default="false"/>
1442     <xsd:attribute name="differentFirst" type="xsd:boolean" default="false"/>
1443 </xsd:complexType>
1444 <xsd:complexType name="CT_PageMargins">
1445     <xsd:attribute name="l" type="xsd:double" use="required"/>
1446     <xsd:attribute name="r" type="xsd:double" use="required"/>
1447     <xsd:attribute name="t" type="xsd:double" use="required"/>
1448     <xsd:attribute name="b" type="xsd:double" use="required"/>
1449     <xsd:attribute name="header" type="xsd:double" use="required"/>
1450     <xsd:attribute name="footer" type="xsd:double" use="required"/>
1451 </xsd:complexType>
1452 <xsd:simpleType name="ST_PageSetupOrientation">
1453     <xsd:restriction base="xsd:string">
1454         <xsd:enumeration value="default"/>
1455         <xsd:enumeration value="portrait"/>
1456         <xsd:enumeration value="landscape"/>
1457     </xsd:restriction>
1458 </xsd:simpleType>
1459 <xsd:complexType name="CT_ExternalData">
1460     <xsd:sequence>

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1461     <xsd:element name="autoUpdate" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1462   </xsd:sequence>
1463   <xsd:attribute ref="r:id" use="required"/>
1464 </xsd:complexType>
1465 <xsd:complexType name="CT_PageSetup">
1466   <xsd:attribute name="paperSize" type="xsd:unsignedInt" use="optional" default="1"/>
1467   <xsd:attribute name="paperHeight" type="s:ST_PositiveUniversalMeasure" use="optional"/>
1468   <xsd:attribute name="paperWidth" type="s:ST_PositiveUniversalMeasure" use="optional"/>
1469   <xsd:attribute name="firstPageNumber" type="xsd:unsignedInt" use="optional" default="1"/>
1470   <xsd:attribute name="orientation" type="ST_PageSetupOrientation" use="optional"
1471     default="default"/>
1472   <xsd:attribute name="blackAndWhite" type="xsd:boolean" use="optional" default="false"/>
1473   <xsd:attribute name="draft" type="xsd:boolean" use="optional" default="false"/>
1474   <xsd:attribute name="useFirstPageNumber" type="xsd:boolean" use="optional" default="false"/>
1475   <xsd:attribute name="horizontalDpi" type="xsd:int" use="optional" default="600"/>
1476   <xsd:attribute name="verticalDpi" type="xsd:int" use="optional" default="600"/>
1477   <xsd:attribute name="copies" type="xsd:unsignedInt" use="optional" default="1"/>
1478 </xsd:complexType>
1479 <xsd:complexType name="CT_PrintSettings">
1480   <xsd:sequence>
1481     <xsd:element name="headerFooter" type="CT_HeaderFooter" minOccurs="0" maxOccurs="1"/>
1482     <xsd:element name="pageMargins" type="CT_PageMargins" minOccurs="0" maxOccurs="1"/>
1483     <xsd:element name="pageSetup" type="CT_PageSetup" minOccurs="0" maxOccurs="1"/>
1484     <xsd:element name="legacyDrawingHF" type="CT_RelId" minOccurs="0" maxOccurs="1"/>
1485   </xsd:sequence>
1486 </xsd:complexType>
1487 <xsd:complexType name="CT_ChartSpace">
1488   <xsd:sequence>
1489     <xsd:element name="date1904" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1490     <xsd:element name="lang" type="CT_TextLanguageID" minOccurs="0" maxOccurs="1"/>
1491     <xsd:element name="roundedCorners" type="CT_Boolean" minOccurs="0" maxOccurs="1"/>
1492     <xsd:element name="style" type="CT_Style" minOccurs="0" maxOccurs="1"/>
1493     <xsd:element name="clrMapOvr" type="a:CT_ColorMapping" minOccurs="0" maxOccurs="1"/>
1494     <xsd:element name="pivotSource" type="CT_PivotSource" minOccurs="0" maxOccurs="1"/>
1495     <xsd:element name="protection" type="CT_Protection" minOccurs="0" maxOccurs="1"/>
1496     <xsd:element name="chart" type="CT_Chart" minOccurs="1" maxOccurs="1"/>
1497     <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
1498     <xsd:element name="txPr" type="a:CT_TextBody" minOccurs="0" maxOccurs="1"/>
1499     <xsd:element name="externalData" type="CT_ExternalData" minOccurs="0" maxOccurs="1"/>
1500     <xsd:element name="printSettings" type="CT_PrintSettings" minOccurs="0" maxOccurs="1"/>
1501     <xsd:element name="userShapes" type="CT_RelId" minOccurs="0" maxOccurs="1"/>
1502     <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
1503   </xsd:sequence>
1504 </xsd:complexType>
1505 <xsd:element name="chartSpace" type="CT_ChartSpace"/>
1506 <xsd:element name="userShapes" type="cdr:CT_Drawing"/>
1507 <xsd:element name="chart" type="CT_RelId"/>
1508 </xsd:schema>

```

## A.6.2 DrawingML - Chart Drawings

This schema is available in the file dml-chartDrawing.xsd.



```

1 <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
2   xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main"
3   xmlns="http://schemas.openxmlformats.org/drawingml/2006/chartDrawing"
4   targetNamespace="http://schemas.openxmlformats.org/drawingml/2006/chartDrawing"
5   elementFormDefault="qualified">
6   <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="dml-
7     main.xsd"/>
8   <xsd:complexType name="CT_ShapeNonVisual">
9     <xsd:sequence>
10       <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
11       <xsd:element name="cNvSpPr" type="a:CT_NonVisualDrawingShapeProps" minOccurs="1"
12         maxOccurs="1"/>
13     </xsd:sequence>
14   </xsd:complexType>
15   <xsd:complexType name="CT_Shape">
16     <xsd:sequence>
17       <xsd:element name="nvSpPr" type="CT_ShapeNonVisual" minOccurs="1" maxOccurs="1"/>
18       <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="1" maxOccurs="1"/>
19       <xsd:element name="style" type="a:CT_ShapeStyle" minOccurs="0" maxOccurs="1"/>
20       <xsd:element name="txBody" type="a:CT_TextBody" minOccurs="0" maxOccurs="1"/>
21     </xsd:sequence>
22     <xsd:attribute name="macro" type="xsd:string" use="optional"/>
23     <xsd:attribute name="textlink" type="xsd:string" use="optional"/>
24     <xsd:attribute name="fLocksText" type="xsd:boolean" use="optional" default="true"/>
25     <xsd:attribute name="fPublished" type="xsd:boolean" use="optional" default="false"/>
26   </xsd:complexType>
27   <xsd:complexType name="CT_ConnectorNonVisual">
28     <xsd:sequence>
29       <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
30       <xsd:element name="cNvCxnSpPr" type="a:CT_NonVisualConnectorProperties" minOccurs="1"
31         maxOccurs="1"/>
32     </xsd:sequence>
33   </xsd:complexType>
34   <xsd:complexType name="CT_Connector">
35     <xsd:sequence>
36       <xsd:element name="nvCxnSpPr" type="CT_ConnectorNonVisual" minOccurs="1" maxOccurs="1"/>
37       <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="1" maxOccurs="1"/>
38       <xsd:element name="style" type="a:CT_ShapeStyle" minOccurs="0" maxOccurs="1"/>
39     </xsd:sequence>
40     <xsd:attribute name="macro" type="xsd:string" use="optional"/>
41     <xsd:attribute name="fPublished" type="xsd:boolean" use="optional" default="false"/>
42   </xsd:complexType>
43   <xsd:complexType name="CT_PictureNonVisual">
44     <xsd:sequence>
45       <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
46       <xsd:element name="cNvPicPr" type="a:CT_NonVisualPictureProperties" minOccurs="1"
47         maxOccurs="1"/>
48     </xsd:sequence>
49   </xsd:complexType>
50   <xsd:complexType name="CT_Picture">
51     <xsd:sequence>
52       <xsd:element name="nvPicPr" type="CT_PictureNonVisual" minOccurs="1" maxOccurs="1"/>
53       <xsd:element name="blipFill" type="a:CT_BlipFillProperties" minOccurs="1" maxOccurs="1"/>

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54      <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="1" maxOccurs="1"/>
55      <xsd:element name="style" type="a:CT_ShapeStyle" minOccurs="0" maxOccurs="1"/>
56    </xsd:sequence>
57    <xsd:attribute name="macro" type="xsd:string" use="optional" default=""/>
58    <xsd:attribute name="fPublished" type="xsd:boolean" use="optional" default="false"/>
59  </xsd:complexType>
60  <xsd:complexType name="CT_GraphicFrameNonVisual">
61    <xsd:sequence>
62      <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
63      <xsd:element name="cNvGraphicFramePr" type="a:CT_NonVisualGraphicFrameProperties"
64        minOccurs="1" maxOccurs="1"/>
65    </xsd:sequence>
66  </xsd:complexType>
67  <xsd:complexType name="CT_GraphicFrame">
68    <xsd:sequence>
69      <xsd:element name="nvGraphicFramePr" type="CT_GraphicFrameNonVisual" minOccurs="1"
70        maxOccurs="1"/>
71      <xsd:element name="xfrm" type="a:CT_Transform2D" minOccurs="1" maxOccurs="1"/>
72      <xsd:element ref="a:graphic" minOccurs="1" maxOccurs="1"/>
73    </xsd:sequence>
74    <xsd:attribute name="macro" type="xsd:string" use="optional"/>
75    <xsd:attribute name="fPublished" type="xsd:boolean" use="optional" default="false"/>
76  </xsd:complexType>
77  <xsd:complexType name="CT_GroupShapeNonVisual">
78    <xsd:sequence>
79      <xsd:element name="cNvPr" type="a:CT_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
80      <xsd:element name="cNvGrpSpPr" type="a:CT_NonVisualGroupDrawingShapeProps" minOccurs="1"
81        maxOccurs="1"/>
82    </xsd:sequence>
83  </xsd:complexType>
84  <xsd:complexType name="CT_GroupShape">
85    <xsd:sequence>
86      <xsd:element name="nvGrpSpPr" type="CT_GroupShapeNonVisual" minOccurs="1" maxOccurs="1"/>
87      <xsd:element name="grpSpPr" type="a:CT_GroupShapeProperties" minOccurs="1" maxOccurs="1"/>
88      <xsd:choice minOccurs="0" maxOccurs="unbounded">
89        <xsd:element name="sp" type="CT_Shape"/>
90        <xsd:element name="grpSp" type="CT_GroupShape"/>
91        <xsd:element name="graphicFrame" type="CT_GraphicFrame"/>
92        <xsd:element name="cxnSp" type="CT_Connector"/>
93        <xsd:element name="pic" type="CT_Picture"/>
94      </xsd:choice>
95    </xsd:sequence>
96  </xsd:complexType>
97  <xsd:group name="EG_ObjectChoices">
98    <xsd:sequence>
99      <xsd:choice minOccurs="1" maxOccurs="1">
100        <xsd:element name="sp" type="CT_Shape"/>
101        <xsd:element name="grpSp" type="CT_GroupShape"/>
102        <xsd:element name="graphicFrame" type="CT_GraphicFrame"/>
103        <xsd:element name="cxnSp" type="CT_Connector"/>
104        <xsd:element name="pic" type="CT_Picture"/>
105      </xsd:choice>
106    </xsd:sequence>

```



```

107 </xsd:group>
108 <xsd:simpleType name="ST_MarkerCoordinate">
109   <xsd:restriction base="xsd:double">
110     <xsd:minInclusive value="0.0"/>
111     <xsd:maxInclusive value="1.0"/>
112   </xsd:restriction>
113 </xsd:simpleType>
114 <xsd:complexType name="CT_Marker">
115   <xsd:sequence>
116     <xsd:element name="x" type="ST_MarkerCoordinate" minOccurs="1" maxOccurs="1"/>
117     <xsd:element name="y" type="ST_MarkerCoordinate" minOccurs="1" maxOccurs="1"/>
118   </xsd:sequence>
119 </xsd:complexType>
120 <xsd:complexType name="CT_RelSizeAnchor">
121   <xsd:sequence>
122     <xsd:element name="from" type="CT_Marker"/>
123     <xsd:element name="to" type="CT_Marker"/>
124     <xsd:group ref="EG_ObjectChoices"/>
125   </xsd:sequence>
126 </xsd:complexType>
127 <xsd:complexType name="CT_AbsSizeAnchor">
128   <xsd:sequence>
129     <xsd:element name="from" type="CT_Marker"/>
130     <xsd:element name="ext" type="a:CT_PositiveSize2D"/>
131     <xsd:group ref="EG_ObjectChoices"/>
132   </xsd:sequence>
133 </xsd:complexType>
134 <xsd:group name="EG_Anchor">
135   <xsd:choice>
136     <xsd:element name="relSizeAnchor" type="CT_RelSizeAnchor"/>
137     <xsd:element name="absSizeAnchor" type="CT_AbsSizeAnchor"/>
138   </xsd:choice>
139 </xsd:group>
140 <xsd:complexType name="CT_Drawing">
141   <xsd:sequence>
142     <xsd:group ref="EG_Anchor" minOccurs="0" maxOccurs="unbounded"/>
143   </xsd:sequence>
144 </xsd:complexType>
145 </xsd:schema>

```

### A.6.3 DrawingML - Diagrams

This schema is available in the file dml-diagram.xsd.

```

1 <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
2   xmlns="http://schemas.openxmlformats.org/drawingml/2006/diagram"
3   xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main"
4   xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
5   xmlns:s="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
6   targetNamespace="http://schemas.openxmlformats.org/drawingml/2006/diagram"
7   elementFormDefault="qualified" attributeFormDefault="unqualified">
8   <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
9     schemaLocation="shared-relationshipReference.xsd"/>

```



```

10 <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="dml-
11   main.xsd"/>
12 <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
13   schemaLocation="shared-commonSimpleTypes.xsd"/>
14 <xsd:complexType name="CT_CTName">
15   <xsd:attribute name="lang" type="xsd:string" use="optional" default=""/>
16   <xsd:attribute name="val" type="xsd:string" use="required"/>
17 </xsd:complexType>
18 <xsd:complexType name="CT_CTDescription">
19   <xsd:attribute name="lang" type="xsd:string" use="optional" default=""/>
20   <xsd:attribute name="val" type="xsd:string" use="required"/>
21 </xsd:complexType>
22 <xsd:complexType name="CT_CTCategory">
23   <xsd:attribute name="type" type="xsd:anyURI" use="required"/>
24   <xsd:attribute name="pri" type="xsd:unsignedInt" use="required"/>
25 </xsd:complexType>
26 <xsd:complexType name="CT_CTCategories">
27   <xsd:sequence minOccurs="0" maxOccurs="unbounded">
28     <xsd:element name="cat" type="CT_CTCategory" minOccurs="0" maxOccurs="unbounded"/>
29   </xsd:sequence>
30 </xsd:complexType>
31 <xsd:simpleType name="ST_ClrAppMethod">
32   <xsd:restriction base="xsd:token">
33     <xsd:enumeration value="span"/>
34     <xsd:enumeration value="cycle"/>
35     <xsd:enumeration value="repeat"/>
36   </xsd:restriction>
37 </xsd:simpleType>
38 <xsd:simpleType name="ST_HueDir">
39   <xsd:restriction base="xsd:token">
40     <xsd:enumeration value="cw"/>
41     <xsd:enumeration value="ccw"/>
42   </xsd:restriction>
43 </xsd:simpleType>
44 <xsd:complexType name="CT_Colors">
45   <xsd:sequence>
46     <xsd:group ref="a:EG_ColorChoice" minOccurs="0" maxOccurs="unbounded"/>
47   </xsd:sequence>
48   <xsd:attribute name="meth" type="ST_ClrAppMethod" use="optional" default="span"/>
49   <xsd:attribute name="hueDir" type="ST_HueDir" use="optional" default="cw"/>
50 </xsd:complexType>
51 <xsd:complexType name="CT_CTStyleLabel">
52   <xsd:sequence>
53     <xsd:element name="fillClrLst" type="CT_Colors" minOccurs="0" maxOccurs="1"/>
54     <xsd:element name="linClrLst" type="CT_Colors" minOccurs="0" maxOccurs="1"/>
55     <xsd:element name="effectClrLst" type="CT_Colors" minOccurs="0" maxOccurs="1"/>
56     <xsd:element name="txLinClrLst" type="CT_Colors" minOccurs="0" maxOccurs="1"/>
57     <xsd:element name="txFillClrLst" type="CT_Colors" minOccurs="0" maxOccurs="1"/>
58     <xsd:element name="txEffectClrLst" type="CT_Colors" minOccurs="0" maxOccurs="1"/>
59     <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
60       maxOccurs="1"/>
61   </xsd:sequence>
62   <xsd:attribute name="name" type="xsd:string" use="required"/>

```



```

63 </xsd:complexType>
64 <xsd:complexType name="CT_ColorTransform">
65   <xsd:sequence>
66     <xsd:element name="title" type="CT_CTName" minOccurs="0" maxOccurs="unbounded"/>
67     <xsd:element name="desc" type="CT_CTDescription" minOccurs="0" maxOccurs="unbounded"/>
68     <xsd:element name="catLst" type="CT_CTCategories" minOccurs="0"/>
69     <xsd:element name="styleLbl" type="CT_CTStyleLabel" minOccurs="0" maxOccurs="unbounded"/>
70     <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
71       maxOccurs="1"/>
72   </xsd:sequence>
73   <xsd:attribute name="uniqueId" type="xsd:string" use="optional" default=""/>
74   <xsd:attribute name="minVer" type="xsd:string" use="optional" />
75 </xsd:complexType>
76 <xsd:element name="colorsDef" type="CT_ColorTransform"/>
77 <xsd:complexType name="CT_ColorTransformHeader">
78   <xsd:sequence>
79     <xsd:element name="title" type="CT_CTName" minOccurs="1" maxOccurs="unbounded"/>
80     <xsd:element name="desc" type="CT_CTDescription" minOccurs="1" maxOccurs="unbounded"/>
81     <xsd:element name="catLst" type="CT_CTCategories" minOccurs="0"/>
82     <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
83       maxOccurs="1"/>
84   </xsd:sequence>
85   <xsd:attribute name="uniqueId" type="xsd:string" use="required"/>
86   <xsd:attribute name="minVer" type="xsd:string" use="optional" />
87   <xsd:attribute name="resId" type="xsd:int" use="optional" default="0"/>
88 </xsd:complexType>
89 <xsd:element name="colorsDefHdr" type="CT_ColorTransformHeader"/>
90 <xsd:complexType name="CT_ColorTransformHeaderLst">
91   <xsd:sequence>
92     <xsd:element name="colorsDefHdr" type="CT_ColorTransformHeader" minOccurs="0"
93       maxOccurs="unbounded"/>
94   </xsd:sequence>
95 </xsd:complexType>
96 <xsd:element name="colorsDefHdrLst" type="CT_ColorTransformHeaderLst"/>
97 <xsd:simpleType name="ST_PtType">
98   <xsd:restriction base="xsd:token">
99     <xsd:enumeration value="node"/>
100    <xsd:enumeration value="asst"/>
101    <xsd:enumeration value="doc"/>
102    <xsd:enumeration value="pres"/>
103    <xsd:enumeration value="parTrans"/>
104    <xsd:enumeration value="sibTrans"/>
105  </xsd:restriction>
106 </xsd:simpleType>
107 <xsd:complexType name="CT_Pt">
108   <xsd:sequence>
109     <xsd:element name="prSet" type="CT_ElemPropSet" minOccurs="0" maxOccurs="1"/>
110     <xsd:element name="spPr" type="a:CT_ShapeProperties" minOccurs="0" maxOccurs="1"/>
111     <xsd:element name="t" type="a:CT_TextBody" minOccurs="0" maxOccurs="1"/>
112     <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
113       maxOccurs="1"/>
114   </xsd:sequence>
115   <xsd:attribute name="modelId" type="ST_ModelId" use="required"/>

```



```

116     <xsd:attribute name="type" type="ST PtType" use="optional" default="node"/>
117     <xsd:attribute name="cxnId" type="ST ModelId" use="optional" default="0"/>
118 </xsd:complexType>
119 <xsd:complexType name="CT_PtList">
120     <xsd:sequence>
121         <xsd:element name="pt" type="CT Pt" minOccurs="0" maxOccurs="unbounded"/>
122     </xsd:sequence>
123 </xsd:complexType>
124 <xsd:simpleType name="ST_CxnType">
125     <xsd:restriction base="xsd:token">
126         <xsd:enumeration value="parOf"/>
127         <xsd:enumeration value="presOf"/>
128         <xsd:enumeration value="presParOf"/>
129         <xsd:enumeration value="unknownRelationship"/>
130     </xsd:restriction>
131 </xsd:simpleType>
132 <xsd:complexType name="CT_Cxn">
133     <xsd:sequence>
134         <xsd:element name="extLst" type="a:CT OfficeArtExtensionList" minOccurs="0"
135             maxOccurs="1"/>
136     </xsd:sequence>
137     <xsd:attribute name="modelId" type="ST ModelId" use="required"/>
138     <xsd:attribute name="type" type="ST CxnType" use="optional" default="parOf"/>
139     <xsd:attribute name="srcId" type="ST ModelId" use="required"/>
140     <xsd:attribute name="destId" type="ST ModelId" use="required"/>
141     <xsd:attribute name="srcOrd" type="xsd:unsignedInt" use="required"/>
142     <xsd:attribute name="destOrd" type="xsd:unsignedInt" use="required"/>
143     <xsd:attribute name="parTransId" type="ST ModelId" use="optional" default="0"/>
144     <xsd:attribute name="sibTransId" type="ST ModelId" use="optional" default="0"/>
145     <xsd:attribute name="presId" type="xsd:string" use="optional" default=""/>
146 </xsd:complexType>
147 <xsd:complexType name="CT_CxnList">
148     <xsd:sequence>
149         <xsd:element name="cxn" type="CT Cxn" minOccurs="0" maxOccurs="unbounded"/>
150     </xsd:sequence>
151 </xsd:complexType>
152 <xsd:complexType name="CT_DataModel">
153     <xsd:sequence>
154         <xsd:element name="ptLst" type="CT PtList"/>
155         <xsd:element name="cxnLst" type="CT CxnList" minOccurs="0" maxOccurs="1"/>
156         <xsd:element name="bg" type="a:CT BackgroundFormatting" minOccurs="0"/>
157         <xsd:element name="whole" type="a:CT WholeE2oFormatting" minOccurs="0"/>
158         <xsd:element name="extLst" type="a:CT OfficeArtExtensionList" minOccurs="0"
159             maxOccurs="1"/>
160     </xsd:sequence>
161 </xsd:complexType>
162 <xsd:element name="dataModel" type="CT_DataModel"/>
163 <xsd:attributeGroup name="AG_IteratorAttributes">
164     <xsd:attribute name="axis" type="ST AxisTypes" use="optional" default="none"/>
165     <xsd:attribute name="ptType" type="ST ElementTypes" use="optional" default="all"/>
166     <xsd:attribute name="hideLastTrans" type="ST Booleans" use="optional" default="true"/>
167     <xsd:attribute name="st" type="ST Ints" use="optional" default="1"/>
168     <xsd:attribute name="cnt" type="ST UnsignedInts" use="optional" default="0"/>

```



```

169     <xsd:attribute name="step" type="ST_Ints" use="optional" default="1"/>
170 </xsd:attributeGroup>
171 <xsd:attributeGroup name="AG_ConstraintAttributes">
172     <xsd:attribute name="type" type="ST_ConstraintType" use="required"/>
173     <xsd:attribute name="for" type="ST_ConstraintRelationship" use="optional" default="self"/>
174     <xsd:attribute name="forName" type="xsd:string" use="optional" default=""/>
175     <xsd:attribute name="ptType" type="ST_ElementType" use="optional" default="all"/>
176 </xsd:attributeGroup>
177 <xsd:attributeGroup name="AG_ConstraintRefAttributes">
178     <xsd:attribute name="refType" type="ST_ConstraintType" use="optional" default="none"/>
179     <xsd:attribute name="refFor" type="ST_ConstraintRelationship" use="optional" default="self"/>
180     <xsd:attribute name="refForName" type="xsd:string" use="optional" default=""/>
181     <xsd:attribute name="refPtType" type="ST_ElementType" use="optional" default="all"/>
182 </xsd:attributeGroup>
183 <xsd:complexType name="CT_Constraint">
184     <xsd:sequence>
185         <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
186             maxOccurs="1"/>
187     </xsd:sequence>
188     <xsd:attributeGroup ref="AG_ConstraintAttributes"/>
189     <xsd:attributeGroup ref="AG_ConstraintRefAttributes"/>
190     <xsd:attribute name="op" type="ST_BoolOperator" use="optional" default="none"/>
191     <xsd:attribute name="val" type="xsd:double" use="optional" default="0"/>
192     <xsd:attribute name="fact" type="xsd:double" use="optional" default="1"/>
193 </xsd:complexType>
194 <xsd:complexType name="CT_Constraints">
195     <xsd:sequence>
196         <xsd:element name="constr" type="CT_Constraint" minOccurs="0" maxOccurs="unbounded"/>
197     </xsd:sequence>
198 </xsd:complexType>
199 <xsd:complexType name="CT_NumericRule">
200     <xsd:sequence>
201         <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
202             maxOccurs="1"/>
203     </xsd:sequence>
204     <xsd:attributeGroup ref="AG_ConstraintAttributes"/>
205     <xsd:attribute name="val" type="xsd:double" use="optional" default="NaN"/>
206     <xsd:attribute name="fact" type="xsd:double" use="optional" default="NaN"/>
207     <xsd:attribute name="max" type="xsd:double" use="optional" default="NaN"/>
208 </xsd:complexType>
209 <xsd:complexType name="CT_Rules">
210     <xsd:sequence>
211         <xsd:element name="rule" type="CT_NumericRule" minOccurs="0" maxOccurs="unbounded"/>
212     </xsd:sequence>
213 </xsd:complexType>
214 <xsd:complexType name="CT_PresentationOf">
215     <xsd:sequence>
216         <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
217             maxOccurs="1"/>
218     </xsd:sequence>
219     <xsd:attributeGroup ref="AG_IteratorAttributes"/>
220 </xsd:complexType>
221 <xsd:simpleType name="ST_LayoutShapeType" final="restriction">

```



```

222     <xsd:union memberTypes="a:ST_ShapeType ST_OutputShapeType"/>
223   </xsd:simpleType>
224   <xsd:simpleType name="ST_Index1">
225     <xsd:restriction base="xsd:unsignedInt">
226       <xsd:minInclusive value="1"/>
227     </xsd:restriction>
228   </xsd:simpleType>
229   <xsd:complexType name="CT_Adj">
230     <xsd:attribute name="idx" type="ST_Index1" use="required"/>
231     <xsd:attribute name="val" type="xsd:double" use="required"/>
232   </xsd:complexType>
233   <xsd:complexType name="CT_AdjLst">
234     <xsd:sequence>
235       <xsd:element name="adj" type="CT_Adj" minOccurs="0" maxOccurs="unbounded"/>
236     </xsd:sequence>
237   </xsd:complexType>
238   <xsd:complexType name="CT_Shape">
239     <xsd:sequence>
240       <xsd:element name="adjLst" type="CT_AdjLst" minOccurs="0" maxOccurs="1"/>
241       <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
242         maxOccurs="1"/>
243     </xsd:sequence>
244     <xsd:attribute name="rot" type="xsd:double" use="optional" default="0"/>
245     <xsd:attribute name="type" type="ST_LayoutShapeType" use="optional" default="none"/>
246     <xsd:attribute ref="r:blip" use="optional"/>
247     <xsd:attribute name="zOrderOff" type="xsd:int" use="optional" default="0"/>
248     <xsd:attribute name="hideGeom" type="xsd:boolean" use="optional" default="false"/>
249     <xsd:attribute name="lkTxEntry" type="xsd:boolean" use="optional" default="false"/>
250     <xsd:attribute name="blipPhldr" type="xsd:boolean" use="optional" default="false"/>
251   </xsd:complexType>
252   <xsd:complexType name="CT_Parameter">
253     <xsd:attribute name="type" type="ST_ParameterId" use="required"/>
254     <xsd:attribute name="val" type="ST_ParameterVal" use="required"/>
255   </xsd:complexType>
256   <xsd:complexType name="CT_Algorithm">
257     <xsd:sequence>
258       <xsd:element name="param" type="CT_Parameter" minOccurs="0" maxOccurs="unbounded"/>
259       <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
260         maxOccurs="1"/>
261     </xsd:sequence>
262     <xsd:attribute name="type" type="ST_AlgorithmType" use="required"/>
263     <xsd:attribute name="rev" type="xsd:unsignedInt" use="optional" default="0"/>
264   </xsd:complexType>
265   <xsd:complexType name="CT_LayoutNode">
266     <xsd:choice minOccurs="0" maxOccurs="unbounded">
267       <xsd:element name="alg" type="CT_Algorithm" minOccurs="0" maxOccurs="1"/>
268       <xsd:element name="shape" type="CT_Shape" minOccurs="0" maxOccurs="1"/>
269       <xsd:element name="presOf" type="CT_PresentationOf" minOccurs="0" maxOccurs="1"/>
270       <xsd:element name="constrLst" type="CT_Constraints" minOccurs="0" maxOccurs="1"/>
271       <xsd:element name="ruleLst" type="CT_Rules" minOccurs="0" maxOccurs="1"/>
272       <xsd:element name="varLst" type="CT_LayoutVariablePropertySet" minOccurs="0"
273         maxOccurs="1"/>
274       <xsd:element name="forEach" type="CT_ForEach"/>

```



```

275     <xsd:element name="layoutNode" type="CT_LayoutNode"/>
276     <xsd:element name="choose" type="CT_Choose"/>
277     <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
278         maxOccurs="1"/>
279 </xsd:choice>
280 <xsd:attribute name="name" type="xsd:string" use="optional" default=""/>
281 <xsd:attribute name="styleLbl" type="xsd:string" use="optional" default=""/>
282 <xsd:attribute name="chOrder" type="ST_ChildOrderType" use="optional" default="b"/>
283 <xsd:attribute name="moveWith" type="xsd:string" use="optional" default=""/>
284 </xsd:complexType>
285 <xsd:complexType name="CT_ForEach">
286     <xsd:choice minOccurs="0" maxOccurs="unbounded">
287         <xsd:element name="alg" type="CT_Algorithm" minOccurs="0" maxOccurs="1"/>
288         <xsd:element name="shape" type="CT_Shape" minOccurs="0" maxOccurs="1"/>
289         <xsd:element name="presOf" type="CT_PresentationOf" minOccurs="0" maxOccurs="1"/>
290         <xsd:element name="constrLst" type="CT_Constraints" minOccurs="0" maxOccurs="1"/>
291         <xsd:element name="ruleLst" type="CT_Rules" minOccurs="0" maxOccurs="1"/>
292         <xsd:element name="forEach" type="CT_ForEach"/>
293         <xsd:element name="layoutNode" type="CT_LayoutNode"/>
294         <xsd:element name="choose" type="CT_Choose"/>
295         <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
296             maxOccurs="1"/>
297     </xsd:choice>
298     <xsd:attribute name="name" type="xsd:string" use="optional" default=""/>
299     <xsd:attribute name="ref" type="xsd:string" use="optional" default=""/>
300     <xsd:attributeGroup ref="AG_IteratorAttributes"/>
301 </xsd:complexType>
302 <xsd:complexType name="CT_When">
303     <xsd:choice minOccurs="0" maxOccurs="unbounded">
304         <xsd:element name="alg" type="CT_Algorithm" minOccurs="0" maxOccurs="1"/>
305         <xsd:element name="shape" type="CT_Shape" minOccurs="0" maxOccurs="1"/>
306         <xsd:element name="presOf" type="CT_PresentationOf" minOccurs="0" maxOccurs="1"/>
307         <xsd:element name="constrLst" type="CT_Constraints" minOccurs="0" maxOccurs="1"/>
308         <xsd:element name="ruleLst" type="CT_Rules" minOccurs="0" maxOccurs="1"/>
309         <xsd:element name="forEach" type="CT_ForEach"/>
310         <xsd:element name="layoutNode" type="CT_LayoutNode"/>
311         <xsd:element name="choose" type="CT_Choose"/>
312         <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
313             maxOccurs="1"/>
314     </xsd:choice>
315     <xsd:attribute name="name" type="xsd:string" use="optional" default=""/>
316     <xsd:attributeGroup ref="AG_IteratorAttributes"/>
317     <xsd:attribute name="func" type="ST_FunctionType" use="required"/>
318     <xsd:attribute name="arg" type="ST_FunctionArgument" use="optional" default="none"/>
319     <xsd:attribute name="op" type="ST_FunctionOperator" use="required"/>
320     <xsd:attribute name="val" type="ST_FunctionValue" use="required"/>
321 </xsd:complexType>
322 <xsd:complexType name="CT_Otherwise">
323     <xsd:choice minOccurs="0" maxOccurs="unbounded">
324         <xsd:element name="alg" type="CT_Algorithm" minOccurs="0" maxOccurs="1"/>
325         <xsd:element name="shape" type="CT_Shape" minOccurs="0" maxOccurs="1"/>
326         <xsd:element name="presOf" type="CT_PresentationOf" minOccurs="0" maxOccurs="1"/>
327         <xsd:element name="constrLst" type="CT_Constraints" minOccurs="0" maxOccurs="1"/>

```



```

328     <xsd:element name="ruleLst" type="CT_Rules" minOccurs="0" maxOccurs="1"/>
329     <xsd:element name="forEach" type="CT_ForEach"/>
330     <xsd:element name="layoutNode" type="CT_LayoutNode"/>
331     <xsd:element name="choose" type="CT_Choose"/>
332     <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
333         maxOccurs="1"/>
334 </xsd:choice>
335     <xsd:attribute name="name" type="xsd:string" use="optional" default=""/>
336 </xsd:complexType>
337 <xsd:complexType name="CT_Choose">
338     <xsd:sequence>
339         <xsd:element name="if" type="CT_When" maxOccurs="unbounded"/>
340         <xsd:element name="else" type="CT_Otherwise" minOccurs="0"/>
341     </xsd:sequence>
342     <xsd:attribute name="name" type="xsd:string" use="optional" default=""/>
343 </xsd:complexType>
344 <xsd:complexType name="CT_SampleData">
345     <xsd:sequence>
346         <xsd:element name="dataModel" type="CT_DataModel" minOccurs="0"/>
347     </xsd:sequence>
348     <xsd:attribute name="useDef" type="xsd:boolean" use="optional" default="false"/>
349 </xsd:complexType>
350 <xsd:complexType name="CT_Category">
351     <xsd:attribute name="type" type="xsd:anyURI" use="required"/>
352     <xsd:attribute name="pri" type="xsd:unsignedInt" use="required"/>
353 </xsd:complexType>
354 <xsd:complexType name="CT_Categories">
355     <xsd:sequence>
356         <xsd:element name="cat" type="CT_Category" minOccurs="0" maxOccurs="unbounded"/>
357     </xsd:sequence>
358 </xsd:complexType>
359 <xsd:complexType name="CT_Name">
360     <xsd:attribute name="lang" type="xsd:string" use="optional" default=""/>
361     <xsd:attribute name="val" type="xsd:string" use="required"/>
362 </xsd:complexType>
363 <xsd:complexType name="CT_Description">
364     <xsd:attribute name="lang" type="xsd:string" use="optional" default=""/>
365     <xsd:attribute name="val" type="xsd:string" use="required"/>
366 </xsd:complexType>
367 <xsd:complexType name="CT_DiagramDefinition">
368     <xsd:sequence>
369         <xsd:element name="title" type="CT_Name" minOccurs="0" maxOccurs="unbounded"/>
370         <xsd:element name="desc" type="CT_Description" minOccurs="0" maxOccurs="unbounded"/>
371         <xsd:element name="catLst" type="CT_Categories" minOccurs="0"/>
372         <xsd:element name="sampData" type="CT_SampleData" minOccurs="0"/>
373         <xsd:element name="styleData" type="CT_SampleData" minOccurs="0"/>
374         <xsd:element name="clrData" type="CT_SampleData" minOccurs="0"/>
375         <xsd:element name="layoutNode" type="CT_LayoutNode"/>
376         <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
377             maxOccurs="1"/>
378     </xsd:sequence>
379     <xsd:attribute name="uniqueId" type="xsd:string" use="optional" default=""/>
380     <xsd:attribute name="minVer" type="xsd:string" use="optional" />

```



```

381     <xsd:attribute name="defStyle" type="xsd:string" use="optional" default=""/>
382 </xsd:complexType>
383 <xsd:element name="layoutDef" type="CT_DiagramDefinition"/>
384 <xsd:complexType name="CT_DiagramDefinitionHeader">
385     <xsd:sequence>
386         <xsd:element name="title" type="CT_Name" minOccurs="1" maxOccurs="unbounded"/>
387         <xsd:element name="desc" type="CT_Description" minOccurs="1" maxOccurs="unbounded"/>
388         <xsd:element name="catLst" type="CT_Categories" minOccurs="0"/>
389         <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
390             maxOccurs="1"/>
391     </xsd:sequence>
392     <xsd:attribute name="uniqueId" type="xsd:string" use="required"/>
393     <xsd:attribute name="minVer" type="xsd:string" use="optional" />
394     <xsd:attribute name="defStyle" type="xsd:string" use="optional" default=""/>
395     <xsd:attribute name="resId" type="xsd:int" use="optional" default="0"/>
396 </xsd:complexType>
397 <xsd:element name="layoutDefHdr" type="CT_DiagramDefinitionHeader"/>
398 <xsd:complexType name="CT_DiagramDefinitionHeaderLst">
399     <xsd:sequence>
400         <xsd:element name="layoutDefHdr" type="CT_DiagramDefinitionHeader" minOccurs="0"
401             maxOccurs="unbounded"/>
402     </xsd:sequence>
403 </xsd:complexType>
404 <xsd:element name="layoutDefHdrLst" type="CT_DiagramDefinitionHeaderLst"/>
405 <xsd:complexType name="CT_RelIds">
406     <xsd:attribute ref="r:dm" use="required"/>
407     <xsd:attribute ref="r:lo" use="required"/>
408     <xsd:attribute ref="r:qs" use="required"/>
409     <xsd:attribute ref="r:cs" use="required"/>
410 </xsd:complexType>
411 <xsd:element name="relIds" type="CT_RelIds"/>
412 <xsd:simpleType name="ST_ParameterVal">
413     <xsd:union memberTypes="ST_DiagramHorizontalAlignment ST_VerticalAlignment ST_ChildDirection
414         ST_ChildAlignment ST_SecondaryChildAlignment ST_LinearDirection ST_SecondaryLinearDirection
415         ST_StartingElement ST_BendPoint ST_ConnectorRouting ST_ArrowheadStyle ST_ConnectorDimension
416         ST_RotationPath ST_CenterShapeMapping ST_NodeHorizontalAlignment ST_NodeVerticalAlignment
417         ST_FallbackDimension ST_TextDirection ST_PyramidAccentPosition ST_PyramidAccentTextMargin
418         ST_TextBlockDirection ST_TextAnchorHorizontal ST_TextAnchorVertical ST_DiagramTextAlignment
419         ST_AutoTextRotation ST_GrowDirection ST_FlowDirection ST_ContinueDirection ST_Breakpoint
420         ST_Offset ST_HierarchyAlignment xsd:int xsd:double xsd:boolean xsd:string
421         ST_ConnectorPoint"/>
422 </xsd:simpleType>
423 <xsd:simpleType name="ST_ModelId">
424     <xsd:union memberTypes="xsd:int s:ST_Guid"/>
425 </xsd:simpleType>
426 <xsd:simpleType name="ST_PrSetCustVal">
427     <xsd:union memberTypes="s:ST_Percentage xsd:int"/>
428 </xsd:simpleType>
429 <xsd:complexType name="CT_ElemPropSet">
430     <xsd:sequence>
431         <xsd:element name="presLayoutVars" type="CT_LayoutVariablePropertySet" minOccurs="0"
432             maxOccurs="1"/>
433         <xsd:element name="style" type="a:CT_ShapeStyle" minOccurs="0" maxOccurs="1"/>

```



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434     </xsd:sequence>
435     <xsd:attribute name="presAssocID" type="ST_ModelId" use="optional"/>
436     <xsd:attribute name="presName" type="xsd:string" use="optional"/>
437     <xsd:attribute name="presStyleLbl" type="xsd:string" use="optional"/>
438     <xsd:attribute name="presStyleIdx" type="xsd:int" use="optional"/>
439     <xsd:attribute name="presStyleCnt" type="xsd:int" use="optional"/>
440     <xsd:attribute name="loTypeId" type="xsd:string" use="optional"/>
441     <xsd:attribute name="loCatId" type="xsd:string" use="optional"/>
442     <xsd:attribute name="qsTypeId" type="xsd:string" use="optional"/>
443     <xsd:attribute name="qsCatId" type="xsd:string" use="optional"/>
444     <xsd:attribute name="csTypeId" type="xsd:string" use="optional"/>
445     <xsd:attribute name="csCatId" type="xsd:string" use="optional"/>
446     <xsd:attribute name="coherent3DOff" type="xsd:boolean" use="optional"/>
447     <xsd:attribute name="phldrT" type="xsd:string" use="optional"/>
448     <xsd:attribute name="phldr" type="xsd:boolean" use="optional"/>
449     <xsd:attribute name="custAng" type="xsd:int" use="optional"/>
450     <xsd:attribute name="custFlipVert" type="xsd:boolean" use="optional"/>
451     <xsd:attribute name="custFlipHor" type="xsd:boolean" use="optional"/>
452     <xsd:attribute name="custSzX" type="xsd:int" use="optional"/>
453     <xsd:attribute name="custSzY" type="xsd:int" use="optional"/>
454     <xsd:attribute name="custScaleX" type="ST_PrSetCustVal" use="optional"/>
455     <xsd:attribute name="custScaleY" type="ST_PrSetCustVal" use="optional"/>
456     <xsd:attribute name="custT" type="xsd:boolean" use="optional"/>
457     <xsd:attribute name="custLinFactX" type="ST_PrSetCustVal" use="optional"/>
458     <xsd:attribute name="custLinFactY" type="ST_PrSetCustVal" use="optional"/>
459     <xsd:attribute name="custLinFactNeighborX" type="ST_PrSetCustVal" use="optional"/>
460     <xsd:attribute name="custLinFactNeighborY" type="ST_PrSetCustVal" use="optional"/>
461     <xsd:attribute name="custRadScaleRad" type="ST_PrSetCustVal" use="optional"/>
462     <xsd:attribute name="custRadScaleInc" type="ST_PrSetCustVal" use="optional"/>
463 </xsd:complexType>
464 <xsd:simpleType name="ST_Direction" final="restriction">
465     <xsd:restriction base="xsd:token">
466         <xsd:enumeration value="norm"/>
467         <xsd:enumeration value="rev"/>
468     </xsd:restriction>
469 </xsd:simpleType>
470 <xsd:simpleType name="ST_HierBranchStyle" final="restriction">
471     <xsd:restriction base="xsd:token">
472         <xsd:enumeration value="l"/>
473         <xsd:enumeration value="r"/>
474         <xsd:enumeration value="hang"/>
475         <xsd:enumeration value="std"/>
476         <xsd:enumeration value="init"/>
477     </xsd:restriction>
478 </xsd:simpleType>
479 <xsd:simpleType name="ST_AnimOneStr" final="restriction">
480     <xsd:restriction base="xsd:token">
481         <xsd:enumeration value="none"/>
482         <xsd:enumeration value="one"/>
483         <xsd:enumeration value="branch"/>
484     </xsd:restriction>
485 </xsd:simpleType>
486 <xsd:simpleType name="ST_AnimLvlStr" final="restriction">

```



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487     <xsd:restriction base="xsd:token">
488         <xsd:enumeration value="none"/>
489         <xsd:enumeration value="lvl"/>
490         <xsd:enumeration value="ctr"/>
491     </xsd:restriction>
492 </xsd:simpleType>
493 <xsd:complexType name="CT_OrgChart">
494     <xsd:attribute name="val" type="xsd:boolean" default="false" use="optional"/>
495 </xsd:complexType>
496 <xsd:simpleType name="ST_NodeCount">
497     <xsd:restriction base="xsd:int">
498         <xsd:minInclusive value="-1"/>
499     </xsd:restriction>
500 </xsd:simpleType>
501 <xsd:complexType name="CT_ChildMax">
502     <xsd:attribute name="val" type="ST_NodeCount" default="-1" use="optional"/>
503 </xsd:complexType>
504 <xsd:complexType name="CT_ChildPref">
505     <xsd:attribute name="val" type="ST_NodeCount" default="-1" use="optional"/>
506 </xsd:complexType>
507 <xsd:complexType name="CT_BulletEnabled">
508     <xsd:attribute name="val" type="xsd:boolean" default="false" use="optional"/>
509 </xsd:complexType>
510 <xsd:complexType name="CT_Direction">
511     <xsd:attribute name="val" type="ST_Direction" default="norm" use="optional"/>
512 </xsd:complexType>
513 <xsd:complexType name="CT_HierBranchStyle">
514     <xsd:attribute name="val" type="ST_HierBranchStyle" default="std" use="optional"/>
515 </xsd:complexType>
516 <xsd:complexType name="CT_AnimOne">
517     <xsd:attribute name="val" type="ST_AnimOneStr" default="one" use="optional"/>
518 </xsd:complexType>
519 <xsd:complexType name="CT_AnimLvl">
520     <xsd:attribute name="val" type="ST_AnimLvlStr" default="none" use="optional"/>
521 </xsd:complexType>
522 <xsd:simpleType name="ST_ResizeHandlesStr" final="restriction">
523     <xsd:restriction base="xsd:token">
524         <xsd:enumeration value="exact"/>
525         <xsd:enumeration value="rel"/>
526     </xsd:restriction>
527 </xsd:simpleType>
528 <xsd:complexType name="CT_ResizeHandles">
529     <xsd:attribute name="val" type="ST_ResizeHandlesStr" default="rel" use="optional"/>
530 </xsd:complexType>
531 <xsd:complexType name="CT_LayoutVariablePropertySet">
532     <xsd:sequence>
533         <xsd:element name="orgChart" type="CT_OrgChart" minOccurs="0" maxOccurs="1"/>
534         <xsd:element name="chMax" type="CT_ChildMax" minOccurs="0" maxOccurs="1"/>
535         <xsd:element name="chPref" type="CT_ChildPref" minOccurs="0" maxOccurs="1"/>
536         <xsd:element name="bulletEnabled" type="CT_BulletEnabled" minOccurs="0" maxOccurs="1"/>
537         <xsd:element name="dir" type="CT_Direction" minOccurs="0" maxOccurs="1"/>
538         <xsd:element name="hierBranch" type="CT_HierBranchStyle" minOccurs="0" maxOccurs="1"/>
539         <xsd:element name="animOne" type="CT_AnimOne" minOccurs="0" maxOccurs="1"/>

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540     <xsd:element name="animLvl" type="CT_AnimLvl" minOccurs="0" maxOccurs="1"/>
541     <xsd:element name="resizeHandles" type="CT_ResizeHandles" minOccurs="0" maxOccurs="1"/>
542   </xsd:sequence>
543 </xsd:complexType>
544 <xsd:complexType name="CT_SDName">
545   <xsd:attribute name="lang" type="xsd:string" use="optional" default=""/>
546   <xsd:attribute name="val" type="xsd:string" use="required"/>
547 </xsd:complexType>
548 <xsd:complexType name="CT_SDDescription">
549   <xsd:attribute name="lang" type="xsd:string" use="optional" default=""/>
550   <xsd:attribute name="val" type="xsd:string" use="required"/>
551 </xsd:complexType>
552 <xsd:complexType name="CT_SDCategory">
553   <xsd:attribute name="type" type="xsd:anyURI" use="required"/>
554   <xsd:attribute name="pri" type="xsd:unsignedInt" use="required"/>
555 </xsd:complexType>
556 <xsd:complexType name="CT_SDCategories">
557   <xsd:sequence minOccurs="0" maxOccurs="unbounded">
558     <xsd:element name="cat" type="CT_SDCategory" minOccurs="0" maxOccurs="unbounded"/>
559   </xsd:sequence>
560 </xsd:complexType>
561 <xsd:complexType name="CT_TextProps">
562   <xsd:sequence>
563     <xsd:group ref="a:EG_Text3D" minOccurs="0" maxOccurs="1"/>
564   </xsd:sequence>
565 </xsd:complexType>
566 <xsd:complexType name="CT_StyleLabel">
567   <xsd:sequence>
568     <xsd:element name="scene3d" type="a:CT_Scene3D" minOccurs="0" maxOccurs="1"/>
569     <xsd:element name="sp3d" type="a:CT_Shape3D" minOccurs="0" maxOccurs="1"/>
570     <xsd:element name="txPr" type="CT_TextProps" minOccurs="0" maxOccurs="1"/>
571     <xsd:element name="style" type="a:CT_ShapeStyle" minOccurs="0" maxOccurs="1"/>
572     <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
573       maxOccurs="1"/>
574   </xsd:sequence>
575   <xsd:attribute name="name" type="xsd:string" use="required"/>
576 </xsd:complexType>
577 <xsd:complexType name="CT_StyleDefinition">
578   <xsd:sequence>
579     <xsd:element name="title" type="CT_SDName" minOccurs="0" maxOccurs="unbounded"/>
580     <xsd:element name="desc" type="CT_SDDescription" minOccurs="0" maxOccurs="unbounded"/>
581     <xsd:element name="catLst" type="CT_SDCategories" minOccurs="0"/>
582     <xsd:element name="scene3d" type="a:CT_Scene3D" minOccurs="0" maxOccurs="1"/>
583     <xsd:element name="styleLbl" type="CT_StyleLabel" minOccurs="1" maxOccurs="unbounded"/>
584     <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
585       maxOccurs="1"/>
586   </xsd:sequence>
587   <xsd:attribute name="uniqueId" type="xsd:string" use="optional" default=""/>
588   <xsd:attribute name="minVer" type="xsd:string" use="optional" />
589 </xsd:complexType>
590 <xsd:element name="styleDef" type="CT_StyleDefinition"/>
591 <xsd:complexType name="CT_StyleDefinitionHeader">
592   <xsd:sequence>

```



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593     <xsd:element name="title" type="CT_SDName" minOccurs="1" maxOccurs="unbounded"/>
594     <xsd:element name="desc" type="CT_SDDescription" minOccurs="1" maxOccurs="unbounded"/>
595     <xsd:element name="catLst" type="CT_SDCategories" minOccurs="0"/>
596     <xsd:element name="extLst" type="a:CT_OfficeArtExtensionList" minOccurs="0"
597         maxOccurs="1"/>
598 </xsd:sequence>
599 <xsd:attribute name="uniqueId" type="xsd:string" use="required"/>
600 <xsd:attribute name="minVer" type="xsd:string" use="optional" />
601 <xsd:attribute name="resId" type="xsd:int" use="optional" default="0"/>
602 </xsd:complexType>
603 <xsd:element name="styleDefHdr" type="CT_StyleDefinitionHeader"/>
604 <xsd:complexType name="CT_StyleDefinitionHeaderLst">
605     <xsd:sequence>
606         <xsd:element name="styleDefHdr" type="CT_StyleDefinitionHeader" minOccurs="0"
607             maxOccurs="unbounded"/>
608     </xsd:sequence>
609 </xsd:complexType>
610 <xsd:element name="styleDefHdrLst" type="CT_StyleDefinitionHeaderLst"/>
611 <xsd:simpleType name="ST_AlgorithmType" final="restriction">
612     <xsd:restriction base="xsd:token">
613         <xsd:enumeration value="composite"/>
614         <xsd:enumeration value="conn"/>
615         <xsd:enumeration value="cycle"/>
616         <xsd:enumeration value="hierChild"/>
617         <xsd:enumeration value="hierRoot"/>
618         <xsd:enumeration value="pyra"/>
619         <xsd:enumeration value="lin"/>
620         <xsd:enumeration value="sp"/>
621         <xsd:enumeration value="tx"/>
622         <xsd:enumeration value="snake"/>
623     </xsd:restriction>
624 </xsd:simpleType>
625 <xsd:simpleType name="ST_AxisType" final="restriction">
626     <xsd:restriction base="xsd:token">
627         <xsd:enumeration value="self"/>
628         <xsd:enumeration value="ch"/>
629         <xsd:enumeration value="des"/>
630         <xsd:enumeration value="desOrSelf"/>
631         <xsd:enumeration value="par"/>
632         <xsd:enumeration value="ancst"/>
633         <xsd:enumeration value="ancstOrSelf"/>
634         <xsd:enumeration value="followSib"/>
635         <xsd:enumeration value="precedSib"/>
636         <xsd:enumeration value="follow"/>
637         <xsd:enumeration value="preced"/>
638         <xsd:enumeration value="root"/>
639         <xsd:enumeration value="none"/>
640     </xsd:restriction>
641 </xsd:simpleType>
642 <xsd:simpleType name="ST_AxisTypes">
643     <xsd:list itemType="ST_AxisType"/>
644 </xsd:simpleType>
645 <xsd:simpleType name="ST_BoolOperator" final="restriction">

```



```

646     <xsd:restriction base="xsd:token">
647         <xsd:enumeration value="none"/>
648         <xsd:enumeration value="equ"/>
649         <xsd:enumeration value="gte"/>
650         <xsd:enumeration value="lte"/>
651     </xsd:restriction>
652 </xsd:simpleType>
653 <xsd:simpleType name="ST_ChildOrderType" final="restriction">
654     <xsd:restriction base="xsd:token">
655         <xsd:enumeration value="b"/>
656         <xsd:enumeration value="t"/>
657     </xsd:restriction>
658 </xsd:simpleType>
659 <xsd:simpleType name="ST_ConstraintType" final="restriction">
660     <xsd:restriction base="xsd:token">
661         <xsd:enumeration value="none"/>
662         <xsd:enumeration value="alignOff"/>
663         <xsd:enumeration value="begMarg"/>
664         <xsd:enumeration value="bendDist"/>
665         <xsd:enumeration value="begPad"/>
666         <xsd:enumeration value="b"/>
667         <xsd:enumeration value="bMarg"/>
668         <xsd:enumeration value="bOff"/>
669         <xsd:enumeration value="ctrX"/>
670         <xsd:enumeration value="ctrXOff"/>
671         <xsd:enumeration value="ctrY"/>
672         <xsd:enumeration value="ctrYOff"/>
673         <xsd:enumeration value="connDist"/>
674         <xsd:enumeration value="diam"/>
675         <xsd:enumeration value="endMarg"/>
676         <xsd:enumeration value="endPad"/>
677         <xsd:enumeration value="h"/>
678         <xsd:enumeration value="hArH"/>
679         <xsd:enumeration value="hOff"/>
680         <xsd:enumeration value="l"/>
681         <xsd:enumeration value="lMarg"/>
682         <xsd:enumeration value="lOff"/>
683         <xsd:enumeration value="r"/>
684         <xsd:enumeration value="rMarg"/>
685         <xsd:enumeration value="rOff"/>
686         <xsd:enumeration value="primFontSz"/>
687         <xsd:enumeration value="pyraAcctRatio"/>
688         <xsd:enumeration value="secFontSz"/>
689         <xsd:enumeration value="sibSp"/>
690         <xsd:enumeration value="secSibSp"/>
691         <xsd:enumeration value="sp"/>
692         <xsd:enumeration value="stemThick"/>
693         <xsd:enumeration value="t"/>
694         <xsd:enumeration value="tMarg"/>
695         <xsd:enumeration value="tOff"/>
696         <xsd:enumeration value="userA"/>
697         <xsd:enumeration value="userB"/>
698         <xsd:enumeration value="userC"/>

```



```

699     <xsd:enumeration value="userD"/>
700     <xsd:enumeration value="userE"/>
701     <xsd:enumeration value="userF"/>
702     <xsd:enumeration value="userG"/>
703     <xsd:enumeration value="userH"/>
704     <xsd:enumeration value="userI"/>
705     <xsd:enumeration value="userJ"/>
706     <xsd:enumeration value="userK"/>
707     <xsd:enumeration value="userL"/>
708     <xsd:enumeration value="userM"/>
709     <xsd:enumeration value="userN"/>
710     <xsd:enumeration value="userO"/>
711     <xsd:enumeration value="userP"/>
712     <xsd:enumeration value="userQ"/>
713     <xsd:enumeration value="userR"/>
714     <xsd:enumeration value="userS"/>
715     <xsd:enumeration value="userT"/>
716     <xsd:enumeration value="userU"/>
717     <xsd:enumeration value="userV"/>
718     <xsd:enumeration value="userW"/>
719     <xsd:enumeration value="userX"/>
720     <xsd:enumeration value="userY"/>
721     <xsd:enumeration value="userZ"/>
722     <xsd:enumeration value="w"/>
723     <xsd:enumeration value="wArH"/>
724     <xsd:enumeration value="wOff"/>
725 </xsd:restriction>
726 </xsd:simpleType>
727 <xsd:simpleType name="ST_ConstraintRelationship" final="restriction">
728     <xsd:restriction base="xsd:token">
729         <xsd:enumeration value="self"/>
730         <xsd:enumeration value="ch"/>
731         <xsd:enumeration value="des"/>
732     </xsd:restriction>
733 </xsd:simpleType>
734 <xsd:simpleType name="ST_ElementType" final="restriction">
735     <xsd:restriction base="xsd:token">
736         <xsd:enumeration value="all"/>
737         <xsd:enumeration value="doc"/>
738         <xsd:enumeration value="node"/>
739         <xsd:enumeration value="norm"/>
740         <xsd:enumeration value="nonNorm"/>
741         <xsd:enumeration value="asst"/>
742         <xsd:enumeration value="nonAsst"/>
743         <xsd:enumeration value="parTrans"/>
744         <xsd:enumeration value="pres"/>
745         <xsd:enumeration value="sibTrans"/>
746     </xsd:restriction>
747 </xsd:simpleType>
748 <xsd:simpleType name="ST_ElementTypes">
749     <xsd:list itemType="ST_ElementType"/>
750 </xsd:simpleType>
751 <xsd:simpleType name="ST_ParameterId" final="restriction">

```



```

752     <xsd:restriction base="xsd:token">
753         <xsd:enumeration value="horzAlign"/>
754         <xsd:enumeration value="vertAlign"/>
755         <xsd:enumeration value="chDir"/>
756         <xsd:enumeration value="chAlign"/>
757         <xsd:enumeration value="secChAlign"/>
758         <xsd:enumeration value="linDir"/>
759         <xsd:enumeration value="secLinDir"/>
760         <xsd:enumeration value="stElem"/>
761         <xsd:enumeration value="bendPt"/>
762         <xsd:enumeration value="connRout"/>
763         <xsd:enumeration value="begSty"/>
764         <xsd:enumeration value="endSty"/>
765         <xsd:enumeration value="dim"/>
766         <xsd:enumeration value="rotPath"/>
767         <xsd:enumeration value="ctrShpMap"/>
768         <xsd:enumeration value="nodeHorzAlign"/>
769         <xsd:enumeration value="nodeVertAlign"/>
770         <xsd:enumeration value="fallback"/>
771         <xsd:enumeration value="txDir"/>
772         <xsd:enumeration value="pyraAcctPos"/>
773         <xsd:enumeration value="pyraAcctTxMar"/>
774         <xsd:enumeration value="txBldir"/>
775         <xsd:enumeration value="txAnchorHorz"/>
776         <xsd:enumeration value="txAnchorVert"/>
777         <xsd:enumeration value="txAnchorHorzCh"/>
778         <xsd:enumeration value="txAnchorVertCh"/>
779         <xsd:enumeration value="parTxLTRAlign"/>
780         <xsd:enumeration value="parTxRTLAlign"/>
781         <xsd:enumeration value="shpTxLTRAlignCh"/>
782         <xsd:enumeration value="shpTxRTLAlignCh"/>
783         <xsd:enumeration value="autoTxRot"/>
784         <xsd:enumeration value="grDir"/>
785         <xsd:enumeration value="flowDir"/>
786         <xsd:enumeration value="contDir"/>
787         <xsd:enumeration value="bkpt"/>
788         <xsd:enumeration value="off"/>
789         <xsd:enumeration value="hierAlign"/>
790         <xsd:enumeration value="bkPtFixedVal"/>
791         <xsd:enumeration value="stBulletLvl"/>
792         <xsd:enumeration value="stAng"/>
793         <xsd:enumeration value="spanAng"/>
794         <xsd:enumeration value="ar"/>
795         <xsd:enumeration value="lnSpPar"/>
796         <xsd:enumeration value="lnSpAfParP"/>
797         <xsd:enumeration value="lnSpCh"/>
798         <xsd:enumeration value="lnSpAfChP"/>
799         <xsd:enumeration value="rtShortDist"/>
800         <xsd:enumeration value="alignTx"/>
801         <xsd:enumeration value="pyraLvlNode"/>
802         <xsd:enumeration value="pyraAcctBkgdNode"/>
803         <xsd:enumeration value="pyraAcctTxNode"/>
804         <xsd:enumeration value="srcNode"/>

```



```

805         <xsd:enumeration value="dstNode"/>
806         <xsd:enumeration value="begPts"/>
807         <xsd:enumeration value="endPts"/>
808     </xsd:restriction>
809 </xsd:simpleType>
810 <xsd:simpleType name="ST_Ints">
811     <xsd:list itemType="xsd:int"/>
812 </xsd:simpleType>
813 <xsd:simpleType name="ST_UnsignedInts">
814     <xsd:list itemType="xsd:unsignedInt"/>
815 </xsd:simpleType>
816 <xsd:simpleType name="ST_Booleans">
817     <xsd:list itemType="xsd:boolean"/>
818 </xsd:simpleType>
819 <xsd:simpleType name="ST_FunctionType" final="restriction">
820     <xsd:restriction base="xsd:token">
821         <xsd:enumeration value="cnt"/>
822         <xsd:enumeration value="pos"/>
823         <xsd:enumeration value="revPos"/>
824         <xsd:enumeration value="posEven"/>
825         <xsd:enumeration value="posOdd"/>
826         <xsd:enumeration value="var"/>
827         <xsd:enumeration value="depth"/>
828         <xsd:enumeration value="maxDepth"/>
829     </xsd:restriction>
830 </xsd:simpleType>
831 <xsd:simpleType name="ST_FunctionOperator" final="restriction">
832     <xsd:restriction base="xsd:token">
833         <xsd:enumeration value="equ"/>
834         <xsd:enumeration value="neq"/>
835         <xsd:enumeration value="gt"/>
836         <xsd:enumeration value="lt"/>
837         <xsd:enumeration value="gte"/>
838         <xsd:enumeration value="lte"/>
839     </xsd:restriction>
840 </xsd:simpleType>
841 <xsd:simpleType name="ST_DiagramHorizontalAlignment" final="restriction">
842     <xsd:restriction base="xsd:token">
843         <xsd:enumeration value="l"/>
844         <xsd:enumeration value="ctr"/>
845         <xsd:enumeration value="r"/>
846         <xsd:enumeration value="none"/>
847     </xsd:restriction>
848 </xsd:simpleType>
849 <xsd:simpleType name="ST_VerticalAlignment" final="restriction">
850     <xsd:restriction base="xsd:token">
851         <xsd:enumeration value="t"/>
852         <xsd:enumeration value="mid"/>
853         <xsd:enumeration value="b"/>
854         <xsd:enumeration value="none"/>
855     </xsd:restriction>
856 </xsd:simpleType>
857 <xsd:simpleType name="ST_ChildDirection" final="restriction">

```



```

858     <xsd:restriction base="xsd:token">
859         <xsd:enumeration value="horz"/>
860         <xsd:enumeration value="vert"/>
861     </xsd:restriction>
862 </xsd:simpleType>
863 <xsd:simpleType name="ST_ChildAlignment" final="restriction">
864     <xsd:restriction base="xsd:token">
865         <xsd:enumeration value="t"/>
866         <xsd:enumeration value="b"/>
867         <xsd:enumeration value="l"/>
868         <xsd:enumeration value="r"/>
869     </xsd:restriction>
870 </xsd:simpleType>
871 <xsd:simpleType name="ST_SecondaryChildAlignment" final="restriction">
872     <xsd:restriction base="xsd:token">
873         <xsd:enumeration value="none"/>
874         <xsd:enumeration value="t"/>
875         <xsd:enumeration value="b"/>
876         <xsd:enumeration value="l"/>
877         <xsd:enumeration value="r"/>
878     </xsd:restriction>
879 </xsd:simpleType>
880 <xsd:simpleType name="ST_LinearDirection" final="restriction">
881     <xsd:restriction base="xsd:token">
882         <xsd:enumeration value="fromL"/>
883         <xsd:enumeration value="fromR"/>
884         <xsd:enumeration value="fromT"/>
885         <xsd:enumeration value="fromB"/>
886     </xsd:restriction>
887 </xsd:simpleType>
888 <xsd:simpleType name="ST_SecondaryLinearDirection" final="restriction">
889     <xsd:restriction base="xsd:token">
890         <xsd:enumeration value="none"/>
891         <xsd:enumeration value="fromL"/>
892         <xsd:enumeration value="fromR"/>
893         <xsd:enumeration value="fromT"/>
894         <xsd:enumeration value="fromB"/>
895     </xsd:restriction>
896 </xsd:simpleType>
897 <xsd:simpleType name="ST_StartingElement" final="restriction">
898     <xsd:restriction base="xsd:token">
899         <xsd:enumeration value="node"/>
900         <xsd:enumeration value="trans"/>
901     </xsd:restriction>
902 </xsd:simpleType>
903 <xsd:simpleType name="ST_RotationPath" final="restriction">
904     <xsd:restriction base="xsd:token">
905         <xsd:enumeration value="none"/>
906         <xsd:enumeration value="alongPath"/>
907     </xsd:restriction>
908 </xsd:simpleType>
909 <xsd:simpleType name="ST_CenterShapeMapping" final="restriction">
910     <xsd:restriction base="xsd:token">

```



```

911         <xsd:enumeration value="none"/>
912         <xsd:enumeration value="fNode"/>
913     </xsd:restriction>
914 </xsd:simpleType>
915 <xsd:simpleType name="ST_BendPoint" final="restriction">
916     <xsd:restriction base="xsd:token">
917         <xsd:enumeration value="beg"/>
918         <xsd:enumeration value="def"/>
919         <xsd:enumeration value="end"/>
920     </xsd:restriction>
921 </xsd:simpleType>
922 <xsd:simpleType name="ST_ConnectorRouting" final="restriction">
923     <xsd:restriction base="xsd:token">
924         <xsd:enumeration value="stra"/>
925         <xsd:enumeration value="bend"/>
926         <xsd:enumeration value="curve"/>
927         <xsd:enumeration value="longCurve"/>
928     </xsd:restriction>
929 </xsd:simpleType>
930 <xsd:simpleType name="ST_ArrowheadStyle" final="restriction">
931     <xsd:restriction base="xsd:token">
932         <xsd:enumeration value="auto"/>
933         <xsd:enumeration value="arr"/>
934         <xsd:enumeration value="noArr"/>
935     </xsd:restriction>
936 </xsd:simpleType>
937 <xsd:simpleType name="ST_ConnectorDimension" final="restriction">
938     <xsd:restriction base="xsd:token">
939         <xsd:enumeration value="1D"/>
940         <xsd:enumeration value="2D"/>
941         <xsd:enumeration value="cust"/>
942     </xsd:restriction>
943 </xsd:simpleType>
944 <xsd:simpleType name="ST_ConnectorPoint" final="restriction">
945     <xsd:restriction base="xsd:token">
946         <xsd:enumeration value="auto"/>
947         <xsd:enumeration value="bCtr"/>
948         <xsd:enumeration value="ctr"/>
949         <xsd:enumeration value="midL"/>
950         <xsd:enumeration value="midR"/>
951         <xsd:enumeration value="tCtr"/>
952         <xsd:enumeration value="bL"/>
953         <xsd:enumeration value="bR"/>
954         <xsd:enumeration value="tL"/>
955         <xsd:enumeration value="tR"/>
956         <xsd:enumeration value="radial"/>
957     </xsd:restriction>
958 </xsd:simpleType>
959 <xsd:simpleType name="ST_NodeHorizontalAlignment" final="restriction">
960     <xsd:restriction base="xsd:token">
961         <xsd:enumeration value="l"/>
962         <xsd:enumeration value="ctr"/>
963         <xsd:enumeration value="r"/>

```



```

964     </xsd:restriction>
965 </xsd:simpleType>
966 <xsd:simpleType name="ST_NodeVerticalAlignment" final="restriction">
967     <xsd:restriction base="xsd:token">
968         <xsd:enumeration value="t"/>
969         <xsd:enumeration value="mid"/>
970         <xsd:enumeration value="b"/>
971     </xsd:restriction>
972 </xsd:simpleType>
973 <xsd:simpleType name="ST_FallbackDimension" final="restriction">
974     <xsd:restriction base="xsd:token">
975         <xsd:enumeration value="1D"/>
976         <xsd:enumeration value="2D"/>
977     </xsd:restriction>
978 </xsd:simpleType>
979 <xsd:simpleType name="ST_TextDirection" final="restriction">
980     <xsd:restriction base="xsd:token">
981         <xsd:enumeration value="fromT"/>
982         <xsd:enumeration value="fromB"/>
983     </xsd:restriction>
984 </xsd:simpleType>
985 <xsd:simpleType name="ST_PyramidAccentPosition" final="restriction">
986     <xsd:restriction base="xsd:token">
987         <xsd:enumeration value="bef"/>
988         <xsd:enumeration value="aft"/>
989     </xsd:restriction>
990 </xsd:simpleType>
991 <xsd:simpleType name="ST_PyramidAccentTextMargin" final="restriction">
992     <xsd:restriction base="xsd:token">
993         <xsd:enumeration value="step"/>
994         <xsd:enumeration value="stack"/>
995     </xsd:restriction>
996 </xsd:simpleType>
997 <xsd:simpleType name="ST_TextBlockDirection" final="restriction">
998     <xsd:restriction base="xsd:token">
999         <xsd:enumeration value="horz"/>
1000         <xsd:enumeration value="vert"/>
1001     </xsd:restriction>
1002 </xsd:simpleType>
1003 <xsd:simpleType name="ST_TextAnchorHorizontal" final="restriction">
1004     <xsd:restriction base="xsd:token">
1005         <xsd:enumeration value="none"/>
1006         <xsd:enumeration value="ctr"/>
1007     </xsd:restriction>
1008 </xsd:simpleType>
1009 <xsd:simpleType name="ST_TextAnchorVertical" final="restriction">
1010     <xsd:restriction base="xsd:token">
1011         <xsd:enumeration value="t"/>
1012         <xsd:enumeration value="mid"/>
1013         <xsd:enumeration value="b"/>
1014     </xsd:restriction>
1015 </xsd:simpleType>
1016 <xsd:simpleType name="ST_DiagramTextAlignment" final="restriction">

```



```

1017     <xsd:restriction base="xsd:token">
1018         <xsd:enumeration value="l"/>
1019         <xsd:enumeration value="ctr"/>
1020         <xsd:enumeration value="r"/>
1021     </xsd:restriction>
1022 </xsd:simpleType>
1023 <xsd:simpleType name="ST_AutoTextRotation" final="restriction">
1024     <xsd:restriction base="xsd:token">
1025         <xsd:enumeration value="none"/>
1026         <xsd:enumeration value="upr"/>
1027         <xsd:enumeration value="grav"/>
1028     </xsd:restriction>
1029 </xsd:simpleType>
1030 <xsd:simpleType name="ST_GrowDirection" final="restriction">
1031     <xsd:restriction base="xsd:token">
1032         <xsd:enumeration value="tL"/>
1033         <xsd:enumeration value="tR"/>
1034         <xsd:enumeration value="bL"/>
1035         <xsd:enumeration value="bR"/>
1036     </xsd:restriction>
1037 </xsd:simpleType>
1038 <xsd:simpleType name="ST_FlowDirection" final="restriction">
1039     <xsd:restriction base="xsd:token">
1040         <xsd:enumeration value="row"/>
1041         <xsd:enumeration value="col"/>
1042     </xsd:restriction>
1043 </xsd:simpleType>
1044 <xsd:simpleType name="ST_ContinueDirection" final="restriction">
1045     <xsd:restriction base="xsd:token">
1046         <xsd:enumeration value="revDir"/>
1047         <xsd:enumeration value="sameDir"/>
1048     </xsd:restriction>
1049 </xsd:simpleType>
1050 <xsd:simpleType name="ST_Breakpoint" final="restriction">
1051     <xsd:restriction base="xsd:token">
1052         <xsd:enumeration value="endCnv"/>
1053         <xsd:enumeration value="bal"/>
1054         <xsd:enumeration value="fixed"/>
1055     </xsd:restriction>
1056 </xsd:simpleType>
1057 <xsd:simpleType name="ST_Offset" final="restriction">
1058     <xsd:restriction base="xsd:token">
1059         <xsd:enumeration value="ctr"/>
1060         <xsd:enumeration value="off"/>
1061     </xsd:restriction>
1062 </xsd:simpleType>
1063 <xsd:simpleType name="ST_HierarchyAlignment" final="restriction">
1064     <xsd:restriction base="xsd:token">
1065         <xsd:enumeration value="tL"/>
1066         <xsd:enumeration value="tR"/>
1067         <xsd:enumeration value="tCtrCh"/>
1068         <xsd:enumeration value="tCtrDes"/>
1069         <xsd:enumeration value="bL"/>

```



```

1070     <xsd:enumeration value="bR"/>
1071     <xsd:enumeration value="bCtrCh"/>
1072     <xsd:enumeration value="bCtrDes"/>
1073     <xsd:enumeration value="lT"/>
1074     <xsd:enumeration value="lB"/>
1075     <xsd:enumeration value="lCtrCh"/>
1076     <xsd:enumeration value="lCtrDes"/>
1077     <xsd:enumeration value="rT"/>
1078     <xsd:enumeration value="rB"/>
1079     <xsd:enumeration value="rCtrCh"/>
1080     <xsd:enumeration value="rCtrDes"/>
1081   </xsd:restriction>
1082 </xsd:simpleType>
1083 <xsd:simpleType name="ST_FunctionValue" final="restriction">
1084   <xsd:union memberTypes="xsd:int xsd:boolean ST_Direction ST_HierBranchStyle ST_AnimOneStr
1085     ST_AnimLvlStr ST_ResizeHandlesStr"/>
1086 </xsd:simpleType>
1087 <xsd:simpleType name="ST_VariableType" final="restriction">
1088   <xsd:restriction base="xsd:token">
1089     <xsd:enumeration value="none"/>
1090     <xsd:enumeration value="orgChart"/>
1091     <xsd:enumeration value="chMax"/>
1092     <xsd:enumeration value="chPref"/>
1093     <xsd:enumeration value="bulEnabled"/>
1094     <xsd:enumeration value="dir"/>
1095     <xsd:enumeration value="hierBranch"/>
1096     <xsd:enumeration value="animOne"/>
1097     <xsd:enumeration value="animLvl"/>
1098     <xsd:enumeration value="resizeHandles"/>
1099   </xsd:restriction>
1100 </xsd:simpleType>
1101 <xsd:simpleType name="ST_FunctionArgument" final="restriction">
1102   <xsd:union memberTypes="ST_VariableType"/>
1103 </xsd:simpleType>
1104 <xsd:simpleType name="ST_OutputShapeType" final="restriction">
1105   <xsd:restriction base="xsd:token">
1106     <xsd:enumeration value="none"/>
1107     <xsd:enumeration value="conn"/>
1108   </xsd:restriction>
1109 </xsd:simpleType>
1110 </xsd:schema>

```

## A.7 VML

### A.7.1 VML

This schema is available in the file vml-main.xsd.

```

1 <xsd:schema xmlns="urn:schemas-microsoft-com:vml" xmlns:pvm1="urn:schemas-microsoft-
2   com:office:powerpoint" xmlns:o="urn:schemas-microsoft-com:office:office"
3   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
4   xmlns:w="http://schemas.openxmlformats.org/wordprocessingml/2006/main" xmlns:w10="urn:schemas-
5   microsoft-com:office:word"

```



```

6  xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships" xmlns:x="urn:schemas-
7  microsoft-com:office:excel"
8  xmlns:s="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
9  targetNamespace="urn:schemas-microsoft-com:vm1" elementFormDefault="qualified"
10 attributeFormDefault="unqualified">
11   <xsd:import namespace="urn:schemas-microsoft-com:office:office" schemaLocation="vm1-
12     officeDrawing.xsd"/>
13   <xsd:import namespace="http://schemas.openxmlformats.org/wordprocessingml/2006/main"
14     schemaLocation="wml.xsd"/>
15   <xsd:import namespace="urn:schemas-microsoft-com:office:word" schemaLocation="vm1-
16     wordprocessingDrawing.xsd"/>
17   <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
18     schemaLocation="shared-relationshipReference.xsd"/>
19   <xsd:import namespace="urn:schemas-microsoft-com:office:excel" schemaLocation="vm1-
20     spreadsheetDrawing.xsd"/>
21   <xsd:import namespace="urn:schemas-microsoft-com:office:powerpoint" schemaLocation="vm1-
22     presentationDrawing.xsd"/>
23   <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
24     schemaLocation="shared-commonSimpleTypes.xsd"/>
25   <xsd:attributeGroup name="AG_Id">
26     <xsd:attribute name="id" type="xsd:string" use="optional"/>
27   </xsd:attributeGroup>
28   <xsd:attributeGroup name="AG_Style">
29     <xsd:attribute name="style" type="xsd:string" use="optional"/>
30   </xsd:attributeGroup>
31   <xsd:attributeGroup name="AG_Type">
32     <xsd:attribute name="type" type="xsd:string" use="optional"/>
33   </xsd:attributeGroup>
34   <xsd:attributeGroup name="AG_Adj">
35     <xsd:attribute name="adj" type="xsd:string" use="optional"/>
36   </xsd:attributeGroup>
37   <xsd:attributeGroup name="AG_Path">
38     <xsd:attribute name="path" type="xsd:string" use="optional"/>
39   </xsd:attributeGroup>
40   <xsd:attributeGroup name="AG_Fill">
41     <xsd:attribute name="filled" type="s:ST TrueFalse" use="optional"/>
42     <xsd:attribute name="fillcolor" type="s:ST ColorType" use="optional"/>
43   </xsd:attributeGroup>
44   <xsd:attributeGroup name="AG_ChromaKey">
45     <xsd:attribute name="chromakey" type="s:ST ColorType" use="optional"/>
46   </xsd:attributeGroup>
47   <xsd:attributeGroup name="AG_Ext">
48     <xsd:attribute name="ext" form="qualified" type="ST Ext"/>
49   </xsd:attributeGroup>
50   <xsd:attributeGroup name="AG_CoreAttributes">
51     <xsd:attributeGroup ref="AG_Id"/>
52     <xsd:attributeGroup ref="AG_Style"/>
53     <xsd:attribute name="href" type="xsd:string" use="optional"/>
54     <xsd:attribute name="target" type="xsd:string" use="optional"/>
55     <xsd:attribute name="class" type="xsd:string" use="optional"/>
56     <xsd:attribute name="title" type="xsd:string" use="optional"/>
57     <xsd:attribute name="alt" type="xsd:string" use="optional"/>
58     <xsd:attribute name="coordsize" type="xsd:string" use="optional"/>

```



```

59     <xsd:attribute name="coordorigin" type="xsd:string" use="optional"/>
60     <xsd:attribute name="wrapcoords" type="xsd:string" use="optional"/>
61     <xsd:attribute name="print" type="s:ST TrueFalse" use="optional"/>
62 </xsd:attributeGroup>
63 <xsd:attributeGroup name="AG_ShapeAttributes">
64     <xsd:attributeGroup ref="AG_ChromaKey"/>
65     <xsd:attributeGroup ref="AG_Fill"/>
66     <xsd:attribute name="opacity" type="xsd:string" use="optional"/>
67     <xsd:attribute name="stroked" type="s:ST TrueFalse" use="optional"/>
68     <xsd:attribute name="strokecolor" type="s:ST ColorType" use="optional"/>
69     <xsd:attribute name="strokeweight" type="xsd:string" use="optional"/>
70     <xsd:attribute name="insetpen" type="s:ST TrueFalse" use="optional"/>
71 </xsd:attributeGroup>
72 <xsd:attributeGroup name="AG_OfficeCoreAttributes">
73     <xsd:attribute ref="o:spid"/>
74     <xsd:attribute ref="o:oned"/>
75     <xsd:attribute ref="o:regroupid"/>
76     <xsd:attribute ref="o:doubleclicknotify"/>
77     <xsd:attribute ref="o:button"/>
78     <xsd:attribute ref="o:userhidden"/>
79     <xsd:attribute ref="o:bullet"/>
80     <xsd:attribute ref="o:hr"/>
81     <xsd:attribute ref="o:hrrstd"/>
82     <xsd:attribute ref="o:hrrnoshade"/>
83     <xsd:attribute ref="o:hrrpct"/>
84     <xsd:attribute ref="o:hrralign"/>
85     <xsd:attribute ref="o:allowincell"/>
86     <xsd:attribute ref="o:allowoverlap"/>
87     <xsd:attribute ref="o:userdrawn"/>
88     <xsd:attribute ref="o:bordertopcolor"/>
89     <xsd:attribute ref="o:borderleftcolor"/>
90     <xsd:attribute ref="o:borderbottomcolor"/>
91     <xsd:attribute ref="o:borderrightcolor"/>
92     <xsd:attribute ref="o:dgmLayout"/>
93     <xsd:attribute ref="o:dgmnodekind"/>
94     <xsd:attribute ref="o:dgmLayoutmru"/>
95     <xsd:attribute ref="o:insetmode"/>
96 </xsd:attributeGroup>
97 <xsd:attributeGroup name="AG_OfficeShapeAttributes">
98     <xsd:attribute ref="o:spt"/>
99     <xsd:attribute ref="o:connectortype"/>
100     <xsd:attribute ref="o:bwmode"/>
101     <xsd:attribute ref="o:bwpure"/>
102     <xsd:attribute ref="o:bwnormal"/>
103     <xsd:attribute ref="o:forcedash"/>
104     <xsd:attribute ref="o:oleicon"/>
105     <xsd:attribute ref="o:ole"/>
106     <xsd:attribute ref="o:preferrelative"/>
107     <xsd:attribute ref="o:cliptowrap"/>
108     <xsd:attribute ref="o:clip"/>
109 </xsd:attributeGroup>
110 <xsd:attributeGroup name="AG_AllCoreAttributes">
111     <xsd:attributeGroup ref="AG_CoreAttributes"/>

```



```

112     <xsd:attributeGroup ref="AG_OfficeCoreAttributes"/>
113 </xsd:attributeGroup>
114 <xsd:attributeGroup name="AG_AllShapeAttributes">
115     <xsd:attributeGroup ref="AG_ShapeAttributes"/>
116     <xsd:attributeGroup ref="AG_OfficeShapeAttributes"/>
117 </xsd:attributeGroup>
118 <xsd:attributeGroup name="AG_ImageAttributes">
119     <xsd:attribute name="src" type="xsd:string" use="optional"/>
120     <xsd:attribute name="cropleft" type="xsd:string" use="optional"/>
121     <xsd:attribute name="croptop" type="xsd:string" use="optional"/>
122     <xsd:attribute name="cropright" type="xsd:string" use="optional"/>
123     <xsd:attribute name="cropbottom" type="xsd:string" use="optional"/>
124     <xsd:attribute name="gain" type="xsd:string" use="optional"/>
125     <xsd:attribute name="blacklevel" type="xsd:string" use="optional"/>
126     <xsd:attribute name="gamma" type="xsd:string" use="optional"/>
127     <xsd:attribute name="grayscale" type="s:ST TrueFalse" use="optional"/>
128     <xsd:attribute name="bilevel" type="s:ST TrueFalse" use="optional"/>
129 </xsd:attributeGroup>
130 <xsd:attributeGroup name="AG_StrokeAttributes">
131     <xsd:attribute name="on" type="s:ST TrueFalse" use="optional"/>
132     <xsd:attribute name="weight" type="xsd:string" use="optional"/>
133     <xsd:attribute name="color" type="s:ST ColorType" use="optional"/>
134     <xsd:attribute name="opacity" type="xsd:string" use="optional"/>
135     <xsd:attribute name="linestyle" type="ST StrokeLineStyle" use="optional"/>
136     <xsd:attribute name="miterlimit" type="xsd:decimal" use="optional"/>
137     <xsd:attribute name="joinstyle" type="ST StrokeJoinStyle" use="optional"/>
138     <xsd:attribute name="endcap" type="ST StrokeEndCap" use="optional"/>
139     <xsd:attribute name="dashstyle" type="xsd:string" use="optional"/>
140     <xsd:attribute name="filltype" type="ST FillType" use="optional"/>
141     <xsd:attribute name="src" type="xsd:string" use="optional"/>
142     <xsd:attribute name="imageaspect" type="ST ImageAspect" use="optional"/>
143     <xsd:attribute name="imagesize" type="xsd:string" use="optional"/>
144     <xsd:attribute name="imagealignshape" type="s:ST TrueFalse" use="optional"/>
145     <xsd:attribute name="color2" type="s:ST ColorType" use="optional"/>
146     <xsd:attribute name="startarrow" type="ST StrokeArrowType" use="optional"/>
147     <xsd:attribute name="startarrowwidth" type="ST StrokeArrowWidth" use="optional"/>
148     <xsd:attribute name="startarrowlength" type="ST StrokeArrowLength" use="optional"/>
149     <xsd:attribute name="endarrow" type="ST StrokeArrowType" use="optional"/>
150     <xsd:attribute name="endarrowwidth" type="ST StrokeArrowWidth" use="optional"/>
151     <xsd:attribute name="endarrowlength" type="ST StrokeArrowLength" use="optional"/>
152     <xsd:attribute ref="o:href"/>
153     <xsd:attribute ref="o:althref"/>
154     <xsd:attribute ref="o:title"/>
155     <xsd:attribute ref="o:forcedash"/>
156     <xsd:attribute ref="r:id" use="optional"/>
157     <xsd:attribute name="insetpen" type="s:ST TrueFalse" use="optional"/>
158     <xsd:attribute ref="o:relid"/>
159 </xsd:attributeGroup>
160 <xsd:group name="EG_ShapeElements">
161     <xsd:choice>
162         <xsd:element ref="path"/>
163         <xsd:element ref="formulas"/>
164         <xsd:element ref="handles"/>

```



```

165     <xsd:element ref="fill"/>
166     <xsd:element ref="stroke"/>
167     <xsd:element ref="shadow"/>
168     <xsd:element ref="textbox"/>
169     <xsd:element ref="textpath"/>
170     <xsd:element ref="imagedata"/>
171     <xsd:element ref="o:skew"/>
172     <xsd:element ref="o:extrusion"/>
173     <xsd:element ref="o:callout"/>
174     <xsd:element ref="o:lock"/>
175     <xsd:element ref="o:clippath"/>
176     <xsd:element ref="o:signatureline"/>
177     <xsd:element ref="w10:wrap"/>
178     <xsd:element ref="w10:anchorlock"/>
179     <xsd:element ref="w10:bordertop"/>
180     <xsd:element ref="w10:borderbottom"/>
181     <xsd:element ref="w10:borderleft"/>
182     <xsd:element ref="w10:borderright"/>
183     <xsd:element ref="x:ClientData" minOccurs="0"/>
184     <xsd:element ref="pvm1:textdata" minOccurs="0"/>
185   </xsd:choice>
186 </xsd:group>
187 <xsd:element name="shape" type="CT_Shape"/>
188 <xsd:element name="shapetype" type="CT_Shapetype"/>
189 <xsd:element name="group" type="CT_Group"/>
190 <xsd:element name="background" type="CT_Background"/>
191 <xsd:complexType name="CT_Shape">
192   <xsd:choice maxOccurs="unbounded">
193     <xsd:group ref="EG_ShapeElements"/>
194     <xsd:element ref="o:ink"/>
195     <xsd:element ref="pvm1:iscomment"/>
196     <xsd:element ref="o:equationxml"/>
197   </xsd:choice>
198   <xsd:attributeGroup ref="AG_AllCoreAttributes"/>
199   <xsd:attributeGroup ref="AG_AllShapeAttributes"/>
200   <xsd:attributeGroup ref="AG_Type"/>
201   <xsd:attributeGroup ref="AG_Adj"/>
202   <xsd:attributeGroup ref="AG_Path"/>
203   <xsd:attribute ref="o:gfxdata"/>
204   <xsd:attribute name="equationxml" type="xsd:string" use="optional"/>
205 </xsd:complexType>
206 <xsd:complexType name="CT_Shapetype">
207   <xsd:sequence>
208     <xsd:group ref="EG_ShapeElements" minOccurs="0" maxOccurs="unbounded"/>
209     <xsd:element ref="o:complex" minOccurs="0"/>
210   </xsd:sequence>
211   <xsd:attributeGroup ref="AG_AllCoreAttributes"/>
212   <xsd:attributeGroup ref="AG_AllShapeAttributes"/>
213   <xsd:attributeGroup ref="AG_Adj"/>
214   <xsd:attributeGroup ref="AG_Path"/>
215   <xsd:attribute ref="o:master"/>
216 </xsd:complexType>
217 <xsd:complexType name="CT_Group">

```



```

218     <xsd:choice maxOccurs="unbounded">
219         <xsd:group ref="EG_ShapeElements"/>
220         <xsd:element ref="group"/>
221         <xsd:element ref="shape"/>
222         <xsd:element ref="shapetype"/>
223         <xsd:element ref="arc"/>
224         <xsd:element ref="curve"/>
225         <xsd:element ref="image"/>
226         <xsd:element ref="line"/>
227         <xsd:element ref="oval"/>
228         <xsd:element ref="polyline"/>
229         <xsd:element ref="rect"/>
230         <xsd:element ref="roundrect"/>
231         <xsd:element ref="o:diagram"/>
232     </xsd:choice>
233     <xsd:attributeGroup ref="AG_AllCoreAttributes"/>
234     <xsd:attributeGroup ref="AG_Fill"/>
235     <xsd:attribute name="editas" type="ST_EditAs" use="optional"/>
236     <xsd:attribute ref="o:tableproperties"/>
237     <xsd:attribute ref="o:tablelimits"/>
238 </xsd:complexType>
239 <xsd:complexType name="CT_Background">
240     <xsd:sequence>
241         <xsd:element ref="fill" minOccurs="0"/>
242     </xsd:sequence>
243     <xsd:attributeGroup ref="AG_Id"/>
244     <xsd:attributeGroup ref="AG_Fill"/>
245     <xsd:attribute ref="o:bwmode"/>
246     <xsd:attribute ref="o:bwpure"/>
247     <xsd:attribute ref="o:bwnormal"/>
248     <xsd:attribute ref="o:targetscreenSize"/>
249 </xsd:complexType>
250 <xsd:element name="fill" type="CT_Fill"/>
251 <xsd:element name="formulas" type="CT_Formulas"/>
252 <xsd:element name="handles" type="CT_Handles"/>
253 <xsd:element name="imagedata" type="CT_ImageData"/>
254 <xsd:element name="path" type="CT_Path"/>
255 <xsd:element name="textbox" type="CT_Textbox"/>
256 <xsd:element name="shadow" type="CT_Shadow"/>
257 <xsd:element name="stroke" type="CT_Stroke"/>
258 <xsd:element name="textpath" type="CT_TextPath"/>
259 <xsd:complexType name="CT_Fill">
260     <xsd:sequence>
261         <xsd:element ref="o:fill" minOccurs="0"/>
262     </xsd:sequence>
263     <xsd:attributeGroup ref="AG_Id"/>
264     <xsd:attribute name="type" type="ST_FillType" use="optional"/>
265     <xsd:attribute name="on" type="s:ST_TrueFalse" use="optional"/>
266     <xsd:attribute name="color" type="s:ST_ColorType" use="optional"/>
267     <xsd:attribute name="opacity" type="xsd:string" use="optional"/>
268     <xsd:attribute name="color2" type="s:ST_ColorType" use="optional"/>
269     <xsd:attribute name="src" type="xsd:string" use="optional"/>
270     <xsd:attribute ref="o:href"/>

```



```

271     <xsd:attribute ref="o:althref"/>
272     <xsd:attribute name="size" type="xsd:string" use="optional"/>
273     <xsd:attribute name="origin" type="xsd:string" use="optional"/>
274     <xsd:attribute name="position" type="xsd:string" use="optional"/>
275     <xsd:attribute name="aspect" type="ST ImageAspect" use="optional"/>
276     <xsd:attribute name="colors" type="xsd:string" use="optional"/>
277     <xsd:attribute name="angle" type="xsd:decimal" use="optional"/>
278     <xsd:attribute name="alignshape" type="s:ST TrueFalse" use="optional"/>
279     <xsd:attribute name="focus" type="xsd:string" use="optional"/>
280     <xsd:attribute name="focussize" type="xsd:string" use="optional"/>
281     <xsd:attribute name="focusposition" type="xsd:string" use="optional"/>
282     <xsd:attribute name="method" type="ST FillMethod" use="optional"/>
283     <xsd:attribute ref="o:detectmouseclick"/>
284     <xsd:attribute ref="o:title"/>
285     <xsd:attribute ref="o:opacity2"/>
286     <xsd:attribute name="recolor" type="s:ST TrueFalse" use="optional"/>
287     <xsd:attribute name="rotate" type="s:ST TrueFalse" use="optional"/>
288     <xsd:attribute ref="r:id" use="optional"/>
289     <xsd:attribute ref="o:relid" use="optional"/>
290 </xsd:complexType>
291 <xsd:complexType name="CT_Formulas">
292     <xsd:sequence>
293         <xsd:element name="f" type="CT_F" minOccurs="0" maxOccurs="unbounded"/>
294     </xsd:sequence>
295 </xsd:complexType>
296 <xsd:complexType name="CT_F">
297     <xsd:attribute name="eqn" type="xsd:string"/>
298 </xsd:complexType>
299 <xsd:complexType name="CT_Handles">
300     <xsd:sequence>
301         <xsd:element name="h" type="CT_H" minOccurs="0" maxOccurs="unbounded"/>
302     </xsd:sequence>
303 </xsd:complexType>
304 <xsd:complexType name="CT_H">
305     <xsd:attribute name="position" type="xsd:string"/>
306     <xsd:attribute name="polar" type="xsd:string"/>
307     <xsd:attribute name="map" type="xsd:string"/>
308     <xsd:attribute name="invx" type="s:ST TrueFalse"/>
309     <xsd:attribute name="invy" type="s:ST TrueFalse"/>
310     <xsd:attribute name="switch" type="s:ST TrueFalseBlank"/>
311     <xsd:attribute name="xrange" type="xsd:string"/>
312     <xsd:attribute name="yrange" type="xsd:string"/>
313     <xsd:attribute name="radiusrange" type="xsd:string"/>
314 </xsd:complexType>
315 <xsd:complexType name="CT_ImageData">
316     <xsd:attributeGroup ref="AG_Id"/>
317     <xsd:attributeGroup ref="AG_ImageAttributes"/>
318     <xsd:attributeGroup ref="AG_Chromakey"/>
319     <xsd:attribute name="embosscolor" type="s:ST ColorType" use="optional"/>
320     <xsd:attribute name="recolortarget" type="s:ST ColorType"/>
321     <xsd:attribute ref="o:href"/>
322     <xsd:attribute ref="o:althref"/>
323     <xsd:attribute ref="o:title"/>

```



```

324     <xsd:attribute ref="o:oleid"/>
325     <xsd:attribute ref="o:detectmouseclick"/>
326     <xsd:attribute ref="o:movie"/>
327     <xsd:attribute ref="o:relid"/>
328     <xsd:attribute ref="r:id"/>
329     <xsd:attribute ref="r:pict"/>
330     <xsd:attribute ref="r:href"/>
331 </xsd:complexType>
332 <xsd:complexType name="CT_Path">
333     <xsd:attributeGroup ref="AG_Id"/>
334     <xsd:attribute name="v" type="xsd:string" use="optional"/>
335     <xsd:attribute name="limo" type="xsd:string" use="optional"/>
336     <xsd:attribute name="textboxrect" type="xsd:string" use="optional"/>
337     <xsd:attribute name="fillok" type="s:ST TrueFalse" use="optional"/>
338     <xsd:attribute name="strokeok" type="s:ST TrueFalse" use="optional"/>
339     <xsd:attribute name="shadowok" type="s:ST TrueFalse" use="optional"/>
340     <xsd:attribute name="arrowok" type="s:ST TrueFalse" use="optional"/>
341     <xsd:attribute name="gradientshapeok" type="s:ST TrueFalse" use="optional"/>
342     <xsd:attribute name="textpathok" type="s:ST TrueFalse" use="optional"/>
343     <xsd:attribute name="insetpenok" type="s:ST TrueFalse" use="optional"/>
344     <xsd:attribute ref="o:connecttype"/>
345     <xsd:attribute ref="o:connectlocs"/>
346     <xsd:attribute ref="o:connectangles"/>
347     <xsd:attribute ref="o:extrusionok"/>
348 </xsd:complexType>
349 <xsd:complexType name="CT_Shadow">
350     <xsd:attributeGroup ref="AG_Id"/>
351     <xsd:attribute name="on" type="s:ST TrueFalse" use="optional"/>
352     <xsd:attribute name="type" type="ST ShadowType" use="optional"/>
353     <xsd:attribute name="obscured" type="s:ST TrueFalse" use="optional"/>
354     <xsd:attribute name="color" type="s:ST ColorType" use="optional"/>
355     <xsd:attribute name="opacity" type="xsd:string" use="optional"/>
356     <xsd:attribute name="offset" type="xsd:string" use="optional"/>
357     <xsd:attribute name="color2" type="s:ST ColorType" use="optional"/>
358     <xsd:attribute name="offset2" type="xsd:string" use="optional"/>
359     <xsd:attribute name="origin" type="xsd:string" use="optional"/>
360     <xsd:attribute name="matrix" type="xsd:string" use="optional"/>
361 </xsd:complexType>
362 <xsd:complexType name="CT_Stroke">
363     <xsd:sequence>
364         <xsd:element ref="o:left" minOccurs="0"/>
365         <xsd:element ref="o:top" minOccurs="0"/>
366         <xsd:element ref="o:right" minOccurs="0"/>
367         <xsd:element ref="o:bottom" minOccurs="0"/>
368         <xsd:element ref="o:column" minOccurs="0"/>
369     </xsd:sequence>
370     <xsd:attributeGroup ref="AG_Id"/>
371     <xsd:attributeGroup ref="AG_StrokeAttributes"/>
372 </xsd:complexType>
373 <xsd:complexType name="CT_Textbox">
374     <xsd:choice>
375         <xsd:element ref="w:txbxContent" minOccurs="0"/>
376         <xsd:any namespace="##local" processContents="skip"/>

```



```

377     </xsd:choice>
378     <xsd:attributeGroup ref="AG_Id"/>
379     <xsd:attributeGroup ref="AG_Style"/>
380     <xsd:attribute name="inset" type="xsd:string" use="optional"/>
381     <xsd:attribute ref="o:singleclick"/>
382     <xsd:attribute ref="o:insetmode"/>
383 </xsd:complexType>
384 <xsd:complexType name="CT_TextPath">
385     <xsd:attributeGroup ref="AG_Id"/>
386     <xsd:attributeGroup ref="AG_Style"/>
387     <xsd:attribute name="on" type="s:ST TrueFalse" use="optional"/>
388     <xsd:attribute name="fitshape" type="s:ST TrueFalse" use="optional"/>
389     <xsd:attribute name="fitpath" type="s:ST TrueFalse" use="optional"/>
390     <xsd:attribute name="trim" type="s:ST TrueFalse" use="optional"/>
391     <xsd:attribute name="xscale" type="s:ST TrueFalse" use="optional"/>
392     <xsd:attribute name="string" type="xsd:string" use="optional"/>
393 </xsd:complexType>
394 <xsd:element name="arc" type="CT_Arc"/>
395 <xsd:element name="curve" type="CT_Curve"/>
396 <xsd:element name="image" type="CT_Image"/>
397 <xsd:element name="line" type="CT_Line"/>
398 <xsd:element name="oval" type="CT_Oval"/>
399 <xsd:element name="polyline" type="CT_PolyLine"/>
400 <xsd:element name="rect" type="CT_Rect"/>
401 <xsd:element name="roundrect" type="CT_RoundRect"/>
402 <xsd:complexType name="CT_Arc">
403     <xsd:sequence>
404         <xsd:group ref="EG_ShapeElements" minOccurs="0" maxOccurs="unbounded"/>
405     </xsd:sequence>
406     <xsd:attributeGroup ref="AG_AllCoreAttributes"/>
407     <xsd:attributeGroup ref="AG_AllShapeAttributes"/>
408     <xsd:attribute name="startAngle" type="xsd:decimal" use="optional"/>
409     <xsd:attribute name="endAngle" type="xsd:decimal" use="optional"/>
410 </xsd:complexType>
411 <xsd:complexType name="CT_Curve">
412     <xsd:sequence>
413         <xsd:group ref="EG_ShapeElements" minOccurs="0" maxOccurs="unbounded"/>
414     </xsd:sequence>
415     <xsd:attributeGroup ref="AG_AllCoreAttributes"/>
416     <xsd:attributeGroup ref="AG_AllShapeAttributes"/>
417     <xsd:attribute name="from" type="xsd:string" use="optional"/>
418     <xsd:attribute name="control1" type="xsd:string" use="optional"/>
419     <xsd:attribute name="control2" type="xsd:string" use="optional"/>
420     <xsd:attribute name="to" type="xsd:string" use="optional"/>
421 </xsd:complexType>
422 <xsd:complexType name="CT_Image">
423     <xsd:sequence>
424         <xsd:group ref="EG_ShapeElements" minOccurs="0" maxOccurs="unbounded"/>
425     </xsd:sequence>
426     <xsd:attributeGroup ref="AG_AllCoreAttributes"/>
427     <xsd:attributeGroup ref="AG_AllShapeAttributes"/>
428     <xsd:attributeGroup ref="AG_ImageAttributes"/>
429 </xsd:complexType>

```



```

430 <xsd:complexType name="CT_Line">
431   <xsd:sequence>
432     <xsd:group ref="EG_ShapeElements" minOccurs="0" maxOccurs="unbounded"/>
433   </xsd:sequence>
434   <xsd:attributeGroup ref="AG_AllCoreAttributes"/>
435   <xsd:attributeGroup ref="AG_AllShapeAttributes"/>
436   <xsd:attribute name="from" type="xsd:string" use="optional"/>
437   <xsd:attribute name="to" type="xsd:string" use="optional"/>
438 </xsd:complexType>
439 <xsd:complexType name="CT_Oval">
440   <xsd:choice maxOccurs="unbounded">
441     <xsd:group ref="EG_ShapeElements" minOccurs="0" maxOccurs="unbounded"/>
442   </xsd:choice>
443   <xsd:attributeGroup ref="AG_AllCoreAttributes"/>
444   <xsd:attributeGroup ref="AG_AllShapeAttributes"/>
445 </xsd:complexType>
446 <xsd:complexType name="CT_PolyLine">
447   <xsd:choice minOccurs="0" maxOccurs="unbounded">
448     <xsd:group ref="EG_ShapeElements"/>
449     <xsd:element ref="o:ink"/>
450   </xsd:choice>
451   <xsd:attributeGroup ref="AG_AllCoreAttributes"/>
452   <xsd:attributeGroup ref="AG_AllShapeAttributes"/>
453   <xsd:attribute name="points" type="xsd:string" use="optional"/>
454 </xsd:complexType>
455 <xsd:complexType name="CT_Rect">
456   <xsd:choice maxOccurs="unbounded">
457     <xsd:group ref="EG_ShapeElements" minOccurs="0" maxOccurs="unbounded"/>
458   </xsd:choice>
459   <xsd:attributeGroup ref="AG_AllCoreAttributes"/>
460   <xsd:attributeGroup ref="AG_AllShapeAttributes"/>
461 </xsd:complexType>
462 <xsd:complexType name="CT_RoundRect">
463   <xsd:choice maxOccurs="unbounded">
464     <xsd:group ref="EG_ShapeElements" minOccurs="0" maxOccurs="unbounded"/>
465   </xsd:choice>
466   <xsd:attributeGroup ref="AG_AllCoreAttributes"/>
467   <xsd:attributeGroup ref="AG_AllShapeAttributes"/>
468   <xsd:attribute name="arcsz" type="xsd:string" use="optional"/>
469 </xsd:complexType>
470 <xsd:simpleType name="ST_Ext">
471   <xsd:restriction base="xsd:string">
472     <xsd:enumeration value="view"/>
473     <xsd:enumeration value="edit"/>
474     <xsd:enumeration value="backwardCompatible"/>
475   </xsd:restriction>
476 </xsd:simpleType>
477 <xsd:simpleType name="ST_FillType">
478   <xsd:restriction base="xsd:string">
479     <xsd:enumeration value="solid"/>
480     <xsd:enumeration value="gradient"/>
481     <xsd:enumeration value="gradientRadial"/>
482     <xsd:enumeration value="tile"/>

```



```

483         <xsd:enumeration value="pattern"/>
484         <xsd:enumeration value="frame"/>
485     </xsd:restriction>
486 </xsd:simpleType>
487 <xsd:simpleType name="ST_FillMethod">
488     <xsd:restriction base="xsd:string">
489         <xsd:enumeration value="none"/>
490         <xsd:enumeration value="linear"/>
491         <xsd:enumeration value="sigma"/>
492         <xsd:enumeration value="any"/>
493         <xsd:enumeration value="linear sigma"/>
494     </xsd:restriction>
495 </xsd:simpleType>
496 <xsd:simpleType name="ST_ShadowType">
497     <xsd:restriction base="xsd:string">
498         <xsd:enumeration value="single"/>
499         <xsd:enumeration value="double"/>
500         <xsd:enumeration value="emboss"/>
501         <xsd:enumeration value="perspective"/>
502     </xsd:restriction>
503 </xsd:simpleType>
504 <xsd:simpleType name="ST_StrokelineStyle">
505     <xsd:restriction base="xsd:string">
506         <xsd:enumeration value="single"/>
507         <xsd:enumeration value="thinThin"/>
508         <xsd:enumeration value="thinThick"/>
509         <xsd:enumeration value="thickThin"/>
510         <xsd:enumeration value="thickBetweenThin"/>
511     </xsd:restriction>
512 </xsd:simpleType>
513 <xsd:simpleType name="ST_StrokeJoinStyle">
514     <xsd:restriction base="xsd:string">
515         <xsd:enumeration value="round"/>
516         <xsd:enumeration value="bevel"/>
517         <xsd:enumeration value="miter"/>
518     </xsd:restriction>
519 </xsd:simpleType>
520 <xsd:simpleType name="ST_StrokeEndCap">
521     <xsd:restriction base="xsd:string">
522         <xsd:enumeration value="flat"/>
523         <xsd:enumeration value="square"/>
524         <xsd:enumeration value="round"/>
525     </xsd:restriction>
526 </xsd:simpleType>
527 <xsd:simpleType name="ST_StrokeArrowLength">
528     <xsd:restriction base="xsd:string">
529         <xsd:enumeration value="short"/>
530         <xsd:enumeration value="medium"/>
531         <xsd:enumeration value="long"/>
532     </xsd:restriction>
533 </xsd:simpleType>
534 <xsd:simpleType name="ST_StrokeArrowWidth">
535     <xsd:restriction base="xsd:string">

```



```

536         <xsd:enumeration value="narrow"/>
537         <xsd:enumeration value="medium"/>
538         <xsd:enumeration value="wide"/>
539     </xsd:restriction>
540 </xsd:simpleType>
541 <xsd:simpleType name="ST_StrokeArrowType">
542     <xsd:restriction base="xsd:string">
543         <xsd:enumeration value="none"/>
544         <xsd:enumeration value="block"/>
545         <xsd:enumeration value="classic"/>
546         <xsd:enumeration value="oval"/>
547         <xsd:enumeration value="diamond"/>
548         <xsd:enumeration value="open"/>
549     </xsd:restriction>
550 </xsd:simpleType>
551 <xsd:simpleType name="ST_ImageAspect">
552     <xsd:restriction base="xsd:string">
553         <xsd:enumeration value="ignore"/>
554         <xsd:enumeration value="atMost"/>
555         <xsd:enumeration value="atLeast"/>
556     </xsd:restriction>
557 </xsd:simpleType>
558 <xsd:simpleType name="ST_EditAs">
559     <xsd:restriction base="xsd:string">
560         <xsd:enumeration value="canvas"/>
561         <xsd:enumeration value="orgchart"/>
562         <xsd:enumeration value="radial"/>
563         <xsd:enumeration value="cycle"/>
564         <xsd:enumeration value="stacked"/>
565         <xsd:enumeration value="venn"/>
566         <xsd:enumeration value="bullseye"/>
567     </xsd:restriction>
568 </xsd:simpleType>
569 </xsd:schema>

```

## A.7.2 VML - Office Drawing

This schema is available in the file vml-officeDrawing.xsd.

```

1 <xsd:schema xmlns="urn:schemas-microsoft-com:office:office" xmlns:v="urn:schemas-microsoft-com:vml"
2   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
3   xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
4   xmlns:s="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
5   targetNamespace="urn:schemas-microsoft-com:office:office" elementFormDefault="qualified"
6   attributeFormDefault="unqualified">
7     <xsd:import namespace="urn:schemas-microsoft-com:vml" schemaLocation="vml-main.xsd"/>
8     <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
9       schemaLocation="shared-relationshipReference.xsd"/>
10    <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
11      schemaLocation="shared-commonSimpleTypes.xsd"/>
12    <xsd:attribute name="bwmode" type="ST_BWMode"/>
13    <xsd:attribute name="bwpure" type="ST_BWMode"/>
14    <xsd:attribute name="bwnormal" type="ST_BWMode"/>

```



```

15 <xsd:attribute name="targetscreenize" type="ST_ScreenSize"/>
16 <xsd:attribute name="insetmode" type="ST_InsetMode" default="custom"/>
17 <xsd:attribute name="spt" type="xsd:float"/>
18 <xsd:attribute name="wrapcoords" type="xsd:string"/>
19 <xsd:attribute name="oned" type="s:ST_TrueFalse"/>
20 <xsd:attribute name="regroupid" type="xsd:integer"/>
21 <xsd:attribute name="doubleclicknotify" type="s:ST_TrueFalse"/>
22 <xsd:attribute name="connectortype" type="ST_ConnectorType" default="straight"/>
23 <xsd:attribute name="button" type="s:ST_TrueFalse"/>
24 <xsd:attribute name="userhidden" type="s:ST_TrueFalse"/>
25 <xsd:attribute name="forcedash" type="s:ST_TrueFalse"/>
26 <xsd:attribute name="oleicon" type="s:ST_TrueFalse"/>
27 <xsd:attribute name="ole" type="s:ST_TrueFalseBlank"/>
28 <xsd:attribute name="preferrelative" type="s:ST_TrueFalse"/>
29 <xsd:attribute name="cliptowrap" type="s:ST_TrueFalse"/>
30 <xsd:attribute name="clip" type="s:ST_TrueFalse"/>
31 <xsd:attribute name="bullet" type="s:ST_TrueFalse"/>
32 <xsd:attribute name="hr" type="s:ST_TrueFalse"/>
33 <xsd:attribute name="hrstd" type="s:ST_TrueFalse"/>
34 <xsd:attribute name="hrnoshade" type="s:ST_TrueFalse"/>
35 <xsd:attribute name="hrpct" type="xsd:float"/>
36 <xsd:attribute name="hralign" type="ST_HrAlign" default="left"/>
37 <xsd:attribute name="allowincell" type="s:ST_TrueFalse"/>
38 <xsd:attribute name="allowoverlap" type="s:ST_TrueFalse"/>
39 <xsd:attribute name="userdrawn" type="s:ST_TrueFalse"/>
40 <xsd:attribute name="bordertopcolor" type="xsd:string"/>
41 <xsd:attribute name="borderleftcolor" type="xsd:string"/>
42 <xsd:attribute name="borderbottomcolor" type="xsd:string"/>
43 <xsd:attribute name="borderrightcolor" type="xsd:string"/>
44 <xsd:attribute name="connecttype" type="ST_ConnectType"/>
45 <xsd:attribute name="connectlocs" type="xsd:string"/>
46 <xsd:attribute name="connectangles" type="xsd:string"/>
47 <xsd:attribute name="master" type="xsd:string"/>
48 <xsd:attribute name="extrusionok" type="s:ST_TrueFalse"/>
49 <xsd:attribute name="href" type="xsd:string"/>
50 <xsd:attribute name="althref" type="xsd:string"/>
51 <xsd:attribute name="title" type="xsd:string"/>
52 <xsd:attribute name="singleclick" type="s:ST_TrueFalse"/>
53 <xsd:attribute name="oleid" type="xsd:float"/>
54 <xsd:attribute name="detectmouseclick" type="s:ST_TrueFalse"/>
55 <xsd:attribute name="movie" type="xsd:float"/>
56 <xsd:attribute name="spid" type="xsd:string"/>
57 <xsd:attribute name="opacity2" type="xsd:string"/>
58 <xsd:attribute name="relid" type="r:ST_RelationshipId"/>
59 <xsd:attribute name="dgmlayout" type="ST_DiagramLayout"/>
60 <xsd:attribute name="dgmnodekind" type="xsd:integer"/>
61 <xsd:attribute name="dgmlayoutmru" type="ST_DiagramLayout"/>
62 <xsd:attribute name="gfxdata" type="xsd:base64Binary"/>
63 <xsd:attribute name="tableproperties" type="xsd:string"/>
64 <xsd:attribute name="tablelimits" type="xsd:string"/>
65 <xsd:element name="shapedefaults" type="CT_ShapeDefaults"/>
66 <xsd:element name="shapelayout" type="CT_ShapeLayout"/>
67 <xsd:element name="signatureline" type="CT_SignatureLine"/>

```



```

68 <xsd:element name="ink" type="CT_Ink"/>
69 <xsd:element name="diagram" type="CT_Diagram"/>
70 <xsd:element name="equationxml" type="CT_EquationXml"/>
71 <xsd:complexType name="CT_ShapeDefaults">
72   <xsd:all minOccurs="0">
73     <xsd:element ref="v:fill" minOccurs="0"/>
74     <xsd:element ref="v:stroke" minOccurs="0"/>
75     <xsd:element ref="v:textbox" minOccurs="0"/>
76     <xsd:element ref="v:shadow" minOccurs="0"/>
77     <xsd:element ref="skew" minOccurs="0"/>
78     <xsd:element ref="extrusion" minOccurs="0"/>
79     <xsd:element ref="callout" minOccurs="0"/>
80     <xsd:element ref="lock" minOccurs="0"/>
81     <xsd:element name="colormru" minOccurs="0" type="CT_ColorMru"/>
82     <xsd:element name="colormenu" minOccurs="0" type="CT_ColorMenu"/>
83   </xsd:all>
84   <xsd:attributeGroup ref="v:AG_Ext"/>
85   <xsd:attribute name="spidmax" type="xsd:integer" use="optional"/>
86   <xsd:attribute name="style" type="xsd:string" use="optional"/>
87   <xsd:attribute name="fill" type="s:ST_TrueFalse" use="optional"/>
88   <xsd:attribute name="fillcolor" type="s:ST_ColorType" use="optional"/>
89   <xsd:attribute name="stroke" type="s:ST_TrueFalse" use="optional"/>
90   <xsd:attribute name="strokecolor" type="s:ST_ColorType"/>
91   <xsd:attribute name="allowincell" form="qualified" type="s:ST_TrueFalse"/>
92 </xsd:complexType>
93 <xsd:complexType name="CT_Ink">
94   <xsd:sequence/>
95   <xsd:attribute name="i" type="xsd:string"/>
96   <xsd:attribute name="annotation" type="s:ST_TrueFalse"/>
97   <xsd:attribute name="contentType" type="ST_ContentType" use="optional"/>
98 </xsd:complexType>
99 <xsd:complexType name="CT_SignatureLine">
100   <xsd:attributeGroup ref="v:AG_Ext"/>
101   <xsd:attribute name="issignatureline" type="s:ST_TrueFalse"/>
102   <xsd:attribute name="id" type="s:ST_Guid"/>
103   <xsd:attribute name="provid" type="s:ST_Guid"/>
104   <xsd:attribute name="signinginstructionsset" type="s:ST_TrueFalse"/>
105   <xsd:attribute name="allowcomments" type="s:ST_TrueFalse"/>
106   <xsd:attribute name="showsigndate" type="s:ST_TrueFalse"/>
107   <xsd:attribute name="suggestedsigner" type="xsd:string" form="qualified"/>
108   <xsd:attribute name="suggestedsigner2" type="xsd:string" form="qualified"/>
109   <xsd:attribute name="suggestedsigneremail" type="xsd:string" form="qualified"/>
110   <xsd:attribute name="signinginstructions" type="xsd:string"/>
111   <xsd:attribute name="addlxml" type="xsd:string"/>
112   <xsd:attribute name="sigprovurl" type="xsd:string"/>
113 </xsd:complexType>
114 <xsd:complexType name="CT_ShapeLayout">
115   <xsd:all>
116     <xsd:element name="idmap" type="CT_IdMap" minOccurs="0"/>
117     <xsd:element name="regrouptable" type="CT_RegroupTable" minOccurs="0"/>
118     <xsd:element name="rules" type="CT_Rules" minOccurs="0"/>
119   </xsd:all>
120   <xsd:attributeGroup ref="v:AG_Ext"/>

```



```

121 </xsd:complexType>
122 <xsd:complexType name="CT_IdMap">
123   <xsd:attributeGroup ref="v:AG_Ext"/>
124   <xsd:attribute name="data" type="xsd:string" use="optional"/>
125 </xsd:complexType>
126 <xsd:complexType name="CT_RegroupTable">
127   <xsd:sequence>
128     <xsd:element name="entry" type="CT_Entry" minOccurs="0" maxOccurs="unbounded"/>
129   </xsd:sequence>
130   <xsd:attributeGroup ref="v:AG_Ext"/>
131 </xsd:complexType>
132 <xsd:complexType name="CT_Entry">
133   <xsd:attribute name="new" type="xsd:int" use="optional"/>
134   <xsd:attribute name="old" type="xsd:int" use="optional"/>
135 </xsd:complexType>
136 <xsd:complexType name="CT_Rules">
137   <xsd:sequence>
138     <xsd:element name="r" type="CT_R" minOccurs="0" maxOccurs="unbounded"/>
139   </xsd:sequence>
140   <xsd:attributeGroup ref="v:AG_Ext"/>
141 </xsd:complexType>
142 <xsd:complexType name="CT_R">
143   <xsd:sequence>
144     <xsd:element name="proxy" type="CT_Proxy" minOccurs="0" maxOccurs="unbounded"/>
145   </xsd:sequence>
146   <xsd:attribute name="id" type="xsd:string" use="required"/>
147   <xsd:attribute name="type" type="ST_RType" use="optional"/>
148   <xsd:attribute name="how" type="ST_How" use="optional"/>
149   <xsd:attribute name="idref" type="xsd:string" use="optional"/>
150 </xsd:complexType>
151 <xsd:complexType name="CT_Proxy">
152   <xsd:attribute name="start" type="s:ST_TrueFalseBlank" use="optional" default="false"/>
153   <xsd:attribute name="end" type="s:ST_TrueFalseBlank" use="optional" default="false"/>
154   <xsd:attribute name="idref" type="xsd:string" use="optional"/>
155   <xsd:attribute name="connectloc" type="xsd:int" use="optional"/>
156 </xsd:complexType>
157 <xsd:complexType name="CT_Diagram">
158   <xsd:sequence>
159     <xsd:element name="relationtable" type="CT_RelationTable" minOccurs="0"/>
160   </xsd:sequence>
161   <xsd:attributeGroup ref="v:AG_Ext"/>
162   <xsd:attribute name="dgmstyle" type="xsd:integer" use="optional"/>
163   <xsd:attribute name="autoformat" type="s:ST_TrueFalse" use="optional"/>
164   <xsd:attribute name="reverse" type="s:ST_TrueFalse" use="optional"/>
165   <xsd:attribute name="autolayout" type="s:ST_TrueFalse" use="optional"/>
166   <xsd:attribute name="dgmsex" type="xsd:integer" use="optional"/>
167   <xsd:attribute name="dgmsealey" type="xsd:integer" use="optional"/>
168   <xsd:attribute name="dgmfontsize" type="xsd:integer" use="optional"/>
169   <xsd:attribute name="constrainbounds" type="xsd:string" use="optional"/>
170   <xsd:attribute name="dgmasetextscale" type="xsd:integer" use="optional"/>
171 </xsd:complexType>
172 <xsd:complexType name="CT_EquationXml">
173   <xsd:sequence>

```



```

174     <xsd:any namespace="##any"/>
175   </xsd:sequence>
176   <xsd:attribute name="contentType" type="ST_AlternateMathContentType" use="optional"/>
177 </xsd:complexType>
178 <xsd:simpleType name="ST_AlternateMathContentType">
179   <xsd:restriction base="xsd:string"/>
180 </xsd:simpleType>
181 <xsd:complexType name="CT_RelationTable">
182   <xsd:sequence>
183     <xsd:element name="rel" type="CT_Relation" minOccurs="0" maxOccurs="unbounded"/>
184   </xsd:sequence>
185   <xsd:attributeGroup ref="v:AG_Ext"/>
186 </xsd:complexType>
187 <xsd:complexType name="CT_Relation">
188   <xsd:attributeGroup ref="v:AG_Ext"/>
189   <xsd:attribute name="idsrc" type="xsd:string" use="optional"/>
190   <xsd:attribute name="iddest" type="xsd:string" use="optional"/>
191   <xsd:attribute name="idcntr" type="xsd:string" use="optional"/>
192 </xsd:complexType>
193 <xsd:complexType name="CT_ColorMru">
194   <xsd:attributeGroup ref="v:AG_Ext"/>
195   <xsd:attribute name="colors" type="xsd:string"/>
196 </xsd:complexType>
197 <xsd:complexType name="CT_ColorMenu">
198   <xsd:attributeGroup ref="v:AG_Ext"/>
199   <xsd:attribute name="strokecolor" type="s:ST_ColorType"/>
200   <xsd:attribute name="fillcolor" type="s:ST_ColorType"/>
201   <xsd:attribute name="shadowcolor" type="s:ST_ColorType"/>
202   <xsd:attribute name="extrusioncolor" type="s:ST_ColorType"/>
203 </xsd:complexType>
204 <xsd:element name="skew" type="CT_Skew"/>
205 <xsd:element name="extrusion" type="CT_Extrusion"/>
206 <xsd:element name="callout" type="CT_Callout"/>
207 <xsd:element name="lock" type="CT_Lock"/>
208 <xsd:element name="OLEObject" type="CT_OLEObject"/>
209 <xsd:element name="complex" type="CT_Complex"/>
210 <xsd:element name="left" type="CT_StrokeChild"/>
211 <xsd:element name="top" type="CT_StrokeChild"/>
212 <xsd:element name="right" type="CT_StrokeChild"/>
213 <xsd:element name="bottom" type="CT_StrokeChild"/>
214 <xsd:element name="column" type="CT_StrokeChild"/>
215 <xsd:element name="clippath" type="CT_ClipPath"/>
216 <xsd:element name="fill" type="CT_Fill"/>
217 <xsd:complexType name="CT_Skew">
218   <xsd:attributeGroup ref="v:AG_Ext"/>
219   <xsd:attribute name="id" type="xsd:string" use="optional"/>
220   <xsd:attribute name="on" type="s:ST_TrueFalse" use="optional"/>
221   <xsd:attribute name="offset" type="xsd:string" use="optional"/>
222   <xsd:attribute name="origin" type="xsd:string" use="optional"/>
223   <xsd:attribute name="matrix" type="xsd:string" use="optional"/>
224 </xsd:complexType>
225 <xsd:complexType name="CT_Extrusion">
226   <xsd:attributeGroup ref="v:AG_Ext"/>

```



```

227 <xsd:attribute name="on" type="s:ST TrueFalse" use="optional"/>
228 <xsd:attribute name="type" type="ST ExtrusionType" default="parallel" use="optional"/>
229 <xsd:attribute name="render" type="ST ExtrusionRender" default="solid" use="optional"/>
230 <xsd:attribute name="viewpointorigin" type="xsd:string" use="optional"/>
231 <xsd:attribute name="viewpoint" type="xsd:string" use="optional"/>
232 <xsd:attribute name="plane" type="ST ExtrusionPlane" default="XY" use="optional"/>
233 <xsd:attribute name="skewangle" type="xsd:float" use="optional"/>
234 <xsd:attribute name="skewamt" type="xsd:string" use="optional"/>
235 <xsd:attribute name="foredepth" type="xsd:string" use="optional"/>
236 <xsd:attribute name="backdepth" type="xsd:string" use="optional"/>
237 <xsd:attribute name="orientation" type="xsd:string" use="optional"/>
238 <xsd:attribute name="orientationangle" type="xsd:float" use="optional"/>
239 <xsd:attribute name="lockrotationcenter" type="s:ST TrueFalse" use="optional"/>
240 <xsd:attribute name="autorotationcenter" type="s:ST TrueFalse" use="optional"/>
241 <xsd:attribute name="rotationcenter" type="xsd:string" use="optional"/>
242 <xsd:attribute name="rotationangle" type="xsd:string" use="optional"/>
243 <xsd:attribute name="colormode" type="ST ColorMode" use="optional"/>
244 <xsd:attribute name="color" type="s:ST ColorType" use="optional"/>
245 <xsd:attribute name="shininess" type="xsd:float" use="optional"/>
246 <xsd:attribute name="specularity" type="xsd:string" use="optional"/>
247 <xsd:attribute name="diffusivity" type="xsd:string" use="optional"/>
248 <xsd:attribute name="metal" type="s:ST TrueFalse" use="optional"/>
249 <xsd:attribute name="edge" type="xsd:string" use="optional"/>
250 <xsd:attribute name="facet" type="xsd:string" use="optional"/>
251 <xsd:attribute name="lightface" type="s:ST TrueFalse" use="optional"/>
252 <xsd:attribute name="brightness" type="xsd:string" use="optional"/>
253 <xsd:attribute name="lightposition" type="xsd:string" use="optional"/>
254 <xsd:attribute name="lightlevel" type="xsd:string" use="optional"/>
255 <xsd:attribute name="lightharsh" type="s:ST TrueFalse" use="optional"/>
256 <xsd:attribute name="lightposition2" type="xsd:string" use="optional"/>
257 <xsd:attribute name="lightlevel2" type="xsd:string" use="optional"/>
258 <xsd:attribute name="lightharsh2" type="s:ST TrueFalse" use="optional"/>
259 </xsd:complexType>
260 <xsd:complexType name="CT_Callout">
261 <xsd:attributeGroup ref="v:AG Ext"/>
262 <xsd:attribute name="on" type="s:ST TrueFalse" use="optional"/>
263 <xsd:attribute name="type" type="xsd:string" use="optional"/>
264 <xsd:attribute name="gap" type="xsd:string" use="optional"/>
265 <xsd:attribute name="angle" type="ST Angle" use="optional"/>
266 <xsd:attribute name="dropauto" type="s:ST TrueFalse" use="optional"/>
267 <xsd:attribute name="drop" type="ST CalloutDrop" use="optional"/>
268 <xsd:attribute name="distance" type="xsd:string" use="optional"/>
269 <xsd:attribute name="lengthspecified" type="s:ST TrueFalse" default="f" use="optional"/>
270 <xsd:attribute name="length" type="xsd:string" use="optional"/>
271 <xsd:attribute name="accentbar" type="s:ST TrueFalse" use="optional"/>
272 <xsd:attribute name="textborder" type="s:ST TrueFalse" use="optional"/>
273 <xsd:attribute name="minusx" type="s:ST TrueFalse" use="optional"/>
274 <xsd:attribute name="minusy" type="s:ST TrueFalse" use="optional"/>
275 </xsd:complexType>
276 <xsd:complexType name="CT_Lock">
277 <xsd:attributeGroup ref="v:AG Ext"/>
278 <xsd:attribute name="position" type="s:ST TrueFalse" use="optional"/>
279 <xsd:attribute name="selection" type="s:ST TrueFalse" use="optional"/>

```



```

280 <xsd:attribute name="grouping" type="s:ST TrueFalse" use="optional"/>
281 <xsd:attribute name="ungrouping" type="s:ST TrueFalse" use="optional"/>
282 <xsd:attribute name="rotation" type="s:ST TrueFalse" use="optional"/>
283 <xsd:attribute name="cropping" type="s:ST TrueFalse" use="optional"/>
284 <xsd:attribute name="verticies" type="s:ST TrueFalse" use="optional"/>
285 <xsd:attribute name="adjusthandles" type="s:ST TrueFalse" use="optional"/>
286 <xsd:attribute name="text" type="s:ST TrueFalse" use="optional"/>
287 <xsd:attribute name="aspectratio" type="s:ST TrueFalse" use="optional"/>
288 <xsd:attribute name="shapetype" type="s:ST TrueFalse" use="optional"/>
289 </xsd:complexType>
290 <xsd:complexType name="CT_OLEObject">
291 <xsd:sequence>
292 <xsd:element name="LinkType" type="ST_OLELinkType" minOccurs="0"/>
293 <xsd:element name="LockedField" type="s:ST TrueFalseBlank" minOccurs="0"/>
294 <xsd:element name="FieldCodes" type="xsd:string" minOccurs="0"/>
295 </xsd:sequence>
296 <xsd:attribute name="Type" type="ST_OLEType" use="optional"/>
297 <xsd:attribute name="ProgID" type="xsd:string" use="optional"/>
298 <xsd:attribute name="ShapeID" type="xsd:string" use="optional"/>
299 <xsd:attribute name="DrawAspect" type="ST_OLEDrawAspect" use="optional"/>
300 <xsd:attribute name="ObjectID" type="xsd:string" use="optional"/>
301 <xsd:attribute ref="r:id" use="optional"/>
302 <xsd:attribute name="UpdateMode" type="ST_OLEUpdateMode" use="optional"/>
303 </xsd:complexType>
304 <xsd:complexType name="CT_Complex">
305 <xsd:attributeGroup ref="v:AG_Ext"/>
306 </xsd:complexType>
307 <xsd:complexType name="CT_StrokeChild">
308 <xsd:attributeGroup ref="v:AG_Ext"/>
309 <xsd:attribute name="on" type="s:ST TrueFalse" use="optional"/>
310 <xsd:attribute name="weight" type="xsd:string" use="optional"/>
311 <xsd:attribute name="color" type="s:ST ColorType" use="optional"/>
312 <xsd:attribute name="color2" type="s:ST ColorType" use="optional"/>
313 <xsd:attribute name="opacity" type="xsd:string" use="optional"/>
314 <xsd:attribute name="linestyle" type="v:ST StrokeLineStyle" use="optional"/>
315 <xsd:attribute name="miterlimit" type="xsd:decimal" use="optional"/>
316 <xsd:attribute name="joinstyle" type="v:ST StrokeJoinStyle" use="optional"/>
317 <xsd:attribute name="endcap" type="v:ST StrokeEndCap" use="optional"/>
318 <xsd:attribute name="dashstyle" type="xsd:string" use="optional"/>
319 <xsd:attribute name="insetpen" type="s:ST TrueFalse" use="optional"/>
320 <xsd:attribute name="filltype" type="v:ST FillType" use="optional"/>
321 <xsd:attribute name="src" type="xsd:string" use="optional"/>
322 <xsd:attribute name="imageaspect" type="v:ST ImageAspect" use="optional"/>
323 <xsd:attribute name="imagesize" type="xsd:string" use="optional"/>
324 <xsd:attribute name="imagealignshape" type="s:ST TrueFalse" use="optional"/>
325 <xsd:attribute name="startarrow" type="v:ST StrokeArrowType" use="optional"/>
326 <xsd:attribute name="startarrowwidth" type="v:ST StrokeArrowWidth" use="optional"/>
327 <xsd:attribute name="startarrowlength" type="v:ST StrokeArrowLength" use="optional"/>
328 <xsd:attribute name="endarrow" type="v:ST StrokeArrowType" use="optional"/>
329 <xsd:attribute name="endarrowwidth" type="v:ST StrokeArrowWidth" use="optional"/>
330 <xsd:attribute name="endarrowlength" type="v:ST StrokeArrowLength" use="optional"/>
331 <xsd:attribute ref="href"/>
332 <xsd:attribute ref="althref"/>

```



```

333     <xsd:attribute ref="title"/>
334     <xsd:attribute ref="forcedash"/>
335 </xsd:complexType>
336 <xsd:complexType name="CT_ClipPath">
337     <xsd:attribute name="v" type="xsd:string" use="required" form="qualified"/>
338 </xsd:complexType>
339 <xsd:complexType name="CT_Fill">
340     <xsd:attributeGroup ref="v:AG_Ext"/>
341     <xsd:attribute name="type" type="ST_FillType"/>
342 </xsd:complexType>
343 <xsd:simpleType name="ST_RType">
344     <xsd:restriction base="xsd:string">
345         <xsd:enumeration value="arc"/>
346         <xsd:enumeration value="callout"/>
347         <xsd:enumeration value="connector"/>
348         <xsd:enumeration value="align"/>
349     </xsd:restriction>
350 </xsd:simpleType>
351 <xsd:simpleType name="ST_How">
352     <xsd:restriction base="xsd:string">
353         <xsd:enumeration value="top"/>
354         <xsd:enumeration value="middle"/>
355         <xsd:enumeration value="bottom"/>
356         <xsd:enumeration value="left"/>
357         <xsd:enumeration value="center"/>
358         <xsd:enumeration value="right"/>
359     </xsd:restriction>
360 </xsd:simpleType>
361 <xsd:simpleType name="ST_BWMode">
362     <xsd:restriction base="xsd:string">
363         <xsd:enumeration value="color"/>
364         <xsd:enumeration value="auto"/>
365         <xsd:enumeration value="grayScale"/>
366         <xsd:enumeration value="lightGrayscale"/>
367         <xsd:enumeration value="inverseGray"/>
368         <xsd:enumeration value="grayOutline"/>
369         <xsd:enumeration value="highContrast"/>
370         <xsd:enumeration value="black"/>
371         <xsd:enumeration value="white"/>
372         <xsd:enumeration value="hide"/>
373         <xsd:enumeration value="undrawn"/>
374         <xsd:enumeration value="blackTextAndLines"/>
375     </xsd:restriction>
376 </xsd:simpleType>
377 <xsd:simpleType name="ST_ScreenSize">
378     <xsd:restriction base="xsd:string">
379         <xsd:enumeration value="544,376"/>
380         <xsd:enumeration value="640,480"/>
381         <xsd:enumeration value="720,512"/>
382         <xsd:enumeration value="800,600"/>
383         <xsd:enumeration value="1024,768"/>
384         <xsd:enumeration value="1152,862"/>
385     </xsd:restriction>

```



```

386 </xsd:simpleType>
387 <xsd:simpleType name="ST_InsetMode">
388   <xsd:restriction base="xsd:string">
389     <xsd:enumeration value="auto"/>
390     <xsd:enumeration value="custom"/>
391   </xsd:restriction>
392 </xsd:simpleType>
393 <xsd:simpleType name="ST_ColorMode">
394   <xsd:restriction base="xsd:string">
395     <xsd:enumeration value="auto"/>
396     <xsd:enumeration value="custom"/>
397   </xsd:restriction>
398 </xsd:simpleType>
399 <xsd:simpleType name="ST_ContentType">
400   <xsd:restriction base="xsd:string"/>
401 </xsd:simpleType>
402 <xsd:simpleType name="ST_DiagramLayout">
403   <xsd:restriction base="xsd:integer">
404     <xsd:enumeration value="0"/>
405     <xsd:enumeration value="1"/>
406     <xsd:enumeration value="2"/>
407     <xsd:enumeration value="3"/>
408   </xsd:restriction>
409 </xsd:simpleType>
410 <xsd:simpleType name="ST_ExtrusionType">
411   <xsd:restriction base="xsd:string">
412     <xsd:enumeration value="perspective"/>
413     <xsd:enumeration value="parallel"/>
414   </xsd:restriction>
415 </xsd:simpleType>
416 <xsd:simpleType name="ST_ExtrusionRender">
417   <xsd:restriction base="xsd:string">
418     <xsd:enumeration value="solid"/>
419     <xsd:enumeration value="wireFrame"/>
420     <xsd:enumeration value="boundingCube"/>
421   </xsd:restriction>
422 </xsd:simpleType>
423 <xsd:simpleType name="ST_ExtrusionPlane">
424   <xsd:restriction base="xsd:string">
425     <xsd:enumeration value="XY"/>
426     <xsd:enumeration value="ZX"/>
427     <xsd:enumeration value="YZ"/>
428   </xsd:restriction>
429 </xsd:simpleType>
430 <xsd:simpleType name="ST_Angle">
431   <xsd:restriction base="xsd:string">
432     <xsd:enumeration value="any"/>
433     <xsd:enumeration value="30"/>
434     <xsd:enumeration value="45"/>
435     <xsd:enumeration value="60"/>
436     <xsd:enumeration value="90"/>
437     <xsd:enumeration value="auto"/>
438   </xsd:restriction>

```



```

439 </xsd:simpleType>
440 <xsd:simpleType name="ST_CalloutDrop">
441   <xsd:restriction base="xsd:string"/>
442 </xsd:simpleType>
443 <xsd:simpleType name="ST_CalloutPlacement">
444   <xsd:restriction base="xsd:string">
445     <xsd:enumeration value="top"/>
446     <xsd:enumeration value="center"/>
447     <xsd:enumeration value="bottom"/>
448     <xsd:enumeration value="user"/>
449   </xsd:restriction>
450 </xsd:simpleType>
451 <xsd:simpleType name="ST_ConnectorType">
452   <xsd:restriction base="xsd:string">
453     <xsd:enumeration value="none"/>
454     <xsd:enumeration value="straight"/>
455     <xsd:enumeration value="elbow"/>
456     <xsd:enumeration value="curved"/>
457   </xsd:restriction>
458 </xsd:simpleType>
459 <xsd:simpleType name="ST_HrAlign">
460   <xsd:restriction base="xsd:string">
461     <xsd:enumeration value="left"/>
462     <xsd:enumeration value="right"/>
463     <xsd:enumeration value="center"/>
464   </xsd:restriction>
465 </xsd:simpleType>
466 <xsd:simpleType name="ST_ConnectType">
467   <xsd:restriction base="xsd:string">
468     <xsd:enumeration value="none"/>
469     <xsd:enumeration value="rect"/>
470     <xsd:enumeration value="segments"/>
471     <xsd:enumeration value="custom"/>
472   </xsd:restriction>
473 </xsd:simpleType>
474 <xsd:simpleType name="ST_OLELinkType">
475   <xsd:restriction base="xsd:string"/>
476 </xsd:simpleType>
477 <xsd:simpleType name="ST_OLEType">
478   <xsd:restriction base="xsd:string">
479     <xsd:enumeration value="Embed"/>
480     <xsd:enumeration value="Link"/>
481   </xsd:restriction>
482 </xsd:simpleType>
483 <xsd:simpleType name="ST_OLEDrawAspect">
484   <xsd:restriction base="xsd:string">
485     <xsd:enumeration value="Content"/>
486     <xsd:enumeration value="Icon"/>
487   </xsd:restriction>
488 </xsd:simpleType>
489 <xsd:simpleType name="ST_OLEUpdateMode">
490   <xsd:restriction base="xsd:string">
491     <xsd:enumeration value="Always"/>

```



```

492     <xsd:enumeration value="OnCall"/>
493   </xsd:restriction>
494 </xsd:simpleType>
495 <xsd:simpleType name="ST_FillType">
496   <xsd:restriction base="xsd:string">
497     <xsd:enumeration value="gradientCenter"/>
498     <xsd:enumeration value="solid"/>
499     <xsd:enumeration value="pattern"/>
500     <xsd:enumeration value="tile"/>
501     <xsd:enumeration value="frame"/>
502     <xsd:enumeration value="gradientUnscaled"/>
503     <xsd:enumeration value="gradientRadial"/>
504     <xsd:enumeration value="gradient"/>
505     <xsd:enumeration value="background"/>
506   </xsd:restriction>
507 </xsd:simpleType>
508 </xsd:schema>

```

### A.7.3 VML - WordprocessingML Drawing

This schema is available in the file vml-wordprocessingDrawing.xsd.

```

1 <xsd:schema xmlns="urn:schemas-microsoft-com:office:word"
2   xmlns:xsd="http://www.w3.org/2001/XMLSchema" targetNamespace="urn:schemas-microsoft-com:office:word"
3   elementFormDefault="qualified" attributeFormDefault="unqualified">
4   <xsd:element name="borderTop" type="CT_Border"/>
5   <xsd:element name="borderLeft" type="CT_Border"/>
6   <xsd:element name="borderRight" type="CT_Border"/>
7   <xsd:element name="borderBottom" type="CT_Border"/>
8   <xsd:complexType name="CT_Border">
9     <xsd:attribute name="type" type="ST_BorderType" use="optional"/>
10    <xsd:attribute name="width" type="xsd:positiveInteger" use="optional"/>
11    <xsd:attribute name="shadow" type="ST_BorderShadow" use="optional"/>
12  </xsd:complexType>
13  <xsd:element name="wrap" type="CT_Wrap"/>
14  <xsd:complexType name="CT_Wrap">
15    <xsd:attribute name="type" type="ST_WrapType" use="optional"/>
16    <xsd:attribute name="side" type="ST_WrapSide" use="optional"/>
17    <xsd:attribute name="anchorx" type="ST_HorizontalAnchor" use="optional"/>
18    <xsd:attribute name="anchory" type="ST_VerticalAnchor" use="optional"/>
19  </xsd:complexType>
20  <xsd:element name="anchorlock" type="CT_AnchorLock"/>
21  <xsd:complexType name="CT_AnchorLock"/>
22  <xsd:simpleType name="ST_BorderType">
23    <xsd:restriction base="xsd:string">
24      <xsd:enumeration value="none"/>
25      <xsd:enumeration value="single"/>
26      <xsd:enumeration value="thick"/>
27      <xsd:enumeration value="double"/>
28      <xsd:enumeration value="hairline"/>
29      <xsd:enumeration value="dot"/>
30      <xsd:enumeration value="dash"/>
31      <xsd:enumeration value="dotDash"/>

```



```

32      <xsd:enumeration value="dashDotDot"/>
33      <xsd:enumeration value="triple"/>
34      <xsd:enumeration value="thinThickSmall"/>
35      <xsd:enumeration value="thickThinSmall"/>
36      <xsd:enumeration value="thickBetweenThinSmall"/>
37      <xsd:enumeration value="thinThick"/>
38      <xsd:enumeration value="thickThin"/>
39      <xsd:enumeration value="thickBetweenThin"/>
40      <xsd:enumeration value="thinThickLarge"/>
41      <xsd:enumeration value="thickThinLarge"/>
42      <xsd:enumeration value="thickBetweenThinLarge"/>
43      <xsd:enumeration value="wave"/>
44      <xsd:enumeration value="doubleWave"/>
45      <xsd:enumeration value="dashedSmall"/>
46      <xsd:enumeration value="dashDotStroked"/>
47      <xsd:enumeration value="threeDEmboss"/>
48      <xsd:enumeration value="threeDEngrave"/>
49      <xsd:enumeration value="HTMLOutset"/>
50      <xsd:enumeration value="HTMLInset"/>
51    </xsd:restriction>
52  </xsd:simpleType>
53  <xsd:simpleType name="ST_BorderShadow">
54    <xsd:restriction base="xsd:string">
55      <xsd:enumeration value="t"/>
56      <xsd:enumeration value="true"/>
57      <xsd:enumeration value="f"/>
58      <xsd:enumeration value="false"/>
59    </xsd:restriction>
60  </xsd:simpleType>
61  <xsd:simpleType name="ST_WrapType">
62    <xsd:restriction base="xsd:string">
63      <xsd:enumeration value="topAndBottom"/>
64      <xsd:enumeration value="square"/>
65      <xsd:enumeration value="none"/>
66      <xsd:enumeration value="tight"/>
67      <xsd:enumeration value="through"/>
68    </xsd:restriction>
69  </xsd:simpleType>
70  <xsd:simpleType name="ST_WrapSide">
71    <xsd:restriction base="xsd:string">
72      <xsd:enumeration value="both"/>
73      <xsd:enumeration value="left"/>
74      <xsd:enumeration value="right"/>
75      <xsd:enumeration value="largest"/>
76    </xsd:restriction>
77  </xsd:simpleType>
78  <xsd:simpleType name="ST_HorizontalAnchor">
79    <xsd:restriction base="xsd:string">
80      <xsd:enumeration value="margin"/>
81      <xsd:enumeration value="page"/>
82      <xsd:enumeration value="text"/>
83      <xsd:enumeration value="char"/>
84    </xsd:restriction>

```



```

85     </xsd:simpleType>
86     <xsd:simpleType name="ST_VerticalAnchor">
87         <xsd:restriction base="xsd:string">
88             <xsd:enumeration value="margin"/>
89             <xsd:enumeration value="page"/>
90             <xsd:enumeration value="text"/>
91             <xsd:enumeration value="line"/>
92         </xsd:restriction>
93     </xsd:simpleType>
94 </xsd:schema>

```

### A.7.4 VML - SpreadsheetML Drawing

This schema is available in the file vml-spreadsheetDrawing.xsd.

```

1 <xsd:schema xmlns="urn:schemas-microsoft-com:office:excel"
2   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
3   xmlns:s="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
4   targetNamespace="urn:schemas-microsoft-com:office:excel" elementFormDefault="qualified"
5   attributeFormDefault="unqualified">
6   <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
7     schemaLocation="shared-commonSimpleTypes.xsd"/>
8   <xsd:element name="ClientData" type="CT_ClientData"/>
9   <xsd:complexType name="CT_ClientData">
10     <xsd:choice minOccurs="0" maxOccurs="unbounded">
11       <xsd:element name="MoveWithCells" type="s:ST_TrueFalseBlank"/>
12       <xsd:element name="SizeWithCells" type="s:ST_TrueFalseBlank"/>
13       <xsd:element name="Anchor" type="xsd:string"/>
14       <xsd:element name="Locked" type="s:ST_TrueFalseBlank"/>
15       <xsd:element name="DefaultSize" type="s:ST_TrueFalseBlank"/>
16       <xsd:element name="PrintObject" type="s:ST_TrueFalseBlank"/>
17       <xsd:element name="Disabled" type="s:ST_TrueFalseBlank"/>
18       <xsd:element name="AutoFill" type="s:ST_TrueFalseBlank"/>
19       <xsd:element name="AutoLine" type="s:ST_TrueFalseBlank"/>
20       <xsd:element name="AutoPict" type="s:ST_TrueFalseBlank"/>
21       <xsd:element name="FmlaMacro" type="xsd:string"/>
22       <xsd:element name="TextHAlign" type="xsd:string"/>
23       <xsd:element name="TextVAlign" type="xsd:string"/>
24       <xsd:element name="LockText" type="s:ST_TrueFalseBlank"/>
25       <xsd:element name="JustLastX" type="s:ST_TrueFalseBlank"/>
26       <xsd:element name="SecretEdit" type="s:ST_TrueFalseBlank"/>
27       <xsd:element name="Default" type="s:ST_TrueFalseBlank"/>
28       <xsd:element name="Help" type="s:ST_TrueFalseBlank"/>
29       <xsd:element name="Cancel" type="s:ST_TrueFalseBlank"/>
30       <xsd:element name="Dismiss" type="s:ST_TrueFalseBlank"/>
31       <xsd:element name="Accel" type="xsd:integer"/>
32       <xsd:element name="Accel2" type="xsd:integer"/>
33       <xsd:element name="Row" type="xsd:integer"/>
34       <xsd:element name="Column" type="xsd:integer"/>
35       <xsd:element name="Visible" type="s:ST_TrueFalseBlank"/>
36       <xsd:element name="RowHidden" type="s:ST_TrueFalseBlank"/>
37       <xsd:element name="ColHidden" type="s:ST_TrueFalseBlank"/>
38       <xsd:element name="VTEdit" type="xsd:integer"/>

```



```

39      <xsd:element name="Multiline" type="s:ST TrueFalseBlank"/>
40      <xsd:element name="VScroll" type="s:ST TrueFalseBlank"/>
41      <xsd:element name="ValidIds" type="s:ST TrueFalseBlank"/>
42      <xsd:element name="FmlaRange" type="xsd:string"/>
43      <xsd:element name="WidthMin" type="xsd:integer"/>
44      <xsd:element name="Sel" type="xsd:integer"/>
45      <xsd:element name="NoThreeD2" type="s:ST TrueFalseBlank"/>
46      <xsd:element name="SelType" type="xsd:string"/>
47      <xsd:element name="MultiSel" type="xsd:string"/>
48      <xsd:element name="LCT" type="xsd:string"/>
49      <xsd:element name="ListItem" type="xsd:string"/>
50      <xsd:element name="DropStyle" type="xsd:string"/>
51      <xsd:element name="Colored" type="s:ST TrueFalseBlank"/>
52      <xsd:element name="DropLines" type="xsd:integer"/>
53      <xsd:element name="Checked" type="xsd:integer"/>
54      <xsd:element name="FmlaLink" type="xsd:string"/>
55      <xsd:element name="FmlaPict" type="xsd:string"/>
56      <xsd:element name="NoThreeD" type="s:ST TrueFalseBlank"/>
57      <xsd:element name="FirstButton" type="s:ST TrueFalseBlank"/>
58      <xsd:element name="FmlaGroup" type="xsd:string"/>
59      <xsd:element name="Val" type="xsd:integer"/>
60      <xsd:element name="Min" type="xsd:integer"/>
61      <xsd:element name="Max" type="xsd:integer"/>
62      <xsd:element name="Inc" type="xsd:integer"/>
63      <xsd:element name="Page" type="xsd:integer"/>
64      <xsd:element name="Horiz" type="s:ST TrueFalseBlank"/>
65      <xsd:element name="Dx" type="xsd:integer"/>
66      <xsd:element name="MapOCX" type="s:ST TrueFalseBlank"/>
67      <xsd:element name="CF" type="ST CF"/>
68      <xsd:element name="Camera" type="s:ST TrueFalseBlank"/>
69      <xsd:element name="RecalcAlways" type="s:ST TrueFalseBlank"/>
70      <xsd:element name="AutoScale" type="s:ST TrueFalseBlank"/>
71      <xsd:element name="DDE" type="s:ST TrueFalseBlank"/>
72      <xsd:element name="UIObj" type="s:ST TrueFalseBlank"/>
73      <xsd:element name="ScriptText" type="xsd:string"/>
74      <xsd:element name="ScriptExtended" type="xsd:string"/>
75      <xsd:element name="ScriptLanguage" type="xsd:nonNegativeInteger"/>
76      <xsd:element name="ScriptLocation" type="xsd:nonNegativeInteger"/>
77      <xsd:element name="FmlaTxbx" type="xsd:string"/>
78    </xsd:choice>
79    <xsd:attribute name="ObjectType" type="ST ObjectType" use="required"/>
80  </xsd:complexType>
81  <xsd:simpleType name="ST_CF">
82    <xsd:restriction base="xsd:string"/>
83  </xsd:simpleType>
84  <xsd:simpleType name="ST_ObjectType">
85    <xsd:restriction base="xsd:string">
86      <xsd:enumeration value="Button"/>
87      <xsd:enumeration value="Checkbox"/>
88      <xsd:enumeration value="Dialog"/>
89      <xsd:enumeration value="Drop"/>
90      <xsd:enumeration value="Edit"/>
91      <xsd:enumeration value="GBox"/>

```



```

92         <xsd:enumeration value="Label"/>
93         <xsd:enumeration value="LineA"/>
94         <xsd:enumeration value="List"/>
95         <xsd:enumeration value="Movie"/>
96         <xsd:enumeration value="Note"/>
97         <xsd:enumeration value="Pict"/>
98         <xsd:enumeration value="Radio"/>
99         <xsd:enumeration value="RectA"/>
100        <xsd:enumeration value="Scroll"/>
101        <xsd:enumeration value="Spin"/>
102        <xsd:enumeration value="Shape"/>
103        <xsd:enumeration value="Group"/>
104        <xsd:enumeration value="Rect"/>
105    </xsd:restriction>
106 </xsd:simpleType>
107 </xsd:schema>

```

## A.7.5 VML - PresentationML Drawing

This schema is available in the file vml-presentationDrawing.xsd.

```

1 <xsd:schema xmlns="urn:schemas-microsoft-com:office:powerpoint"
2   xmlns:xsd="http://www.w3.org/2001/XMLSchema" targetNamespace="urn:schemas-microsoft-
3   com:office:powerpoint" elementFormDefault="qualified" attributeFormDefault="unqualified">
4   <xsd:element name="iscomment" type="CT_Empty"/>
5   <xsd:element name="textdata" type="CT_Rel"/>
6   <xsd:complexType name="CT_Empty"/>
7   <xsd:complexType name="CT_Rel">
8     <xsd:attribute name="id" type="xsd:string"/>
9   </xsd:complexType>
10 </xsd:schema>

```

## A.8 Shared MLs

### A.8.1 Math

This schema is available in the file shared-math.xsd.

```

1 <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
2   xmlns="http://schemas.openxmlformats.org/officeDocument/2006/math"
3   xmlns:m="http://schemas.openxmlformats.org/officeDocument/2006/math"
4   xmlns:w="http://schemas.openxmlformats.org/wordprocessingml/2006/main"
5   xmlns:s="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
6   elementFormDefault="qualified" attributeFormDefault="qualified" blockDefault="#all"
7   targetNamespace="http://schemas.openxmlformats.org/officeDocument/2006/math">
8   <xsd:import namespace="http://schemas.openxmlformats.org/wordprocessingml/2006/main"
9     schemaLocation="wml.xsd"/>
10  <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
11    schemaLocation="shared-commonSimpleTypes.xsd"/>
12  <xsd:import namespace="http://www.w3.org/XML/1998/namespace"/>
13  <xsd:simpleType name="ST_Integer255">
14    <xsd:restriction base="xsd:integer">
15      <xsd:minInclusive value="1"/>

```



```

16         <xsd:maxInclusive value="255"/>
17     </xsd:restriction>
18 </xsd:simpleType>
19 <xsd:complexType name="CT_Integer255">
20     <xsd:attribute name="val" type="ST_Integer255" use="required"/>
21 </xsd:complexType>
22 <xsd:simpleType name="ST_Integer2">
23     <xsd:restriction base="xsd:integer">
24         <xsd:minInclusive value="-2"/>
25         <xsd:maxInclusive value="2"/>
26     </xsd:restriction>
27 </xsd:simpleType>
28 <xsd:complexType name="CT_Integer2">
29     <xsd:attribute name="val" type="ST_Integer2" use="required"/>
30 </xsd:complexType>
31 <xsd:simpleType name="ST_SpacingRule">
32     <xsd:restriction base="xsd:integer">
33         <xsd:minInclusive value="0"/>
34         <xsd:maxInclusive value="4"/>
35     </xsd:restriction>
36 </xsd:simpleType>
37 <xsd:complexType name="CT_SpacingRule">
38     <xsd:attribute name="val" type="ST_SpacingRule" use="required"/>
39 </xsd:complexType>
40 <xsd:simpleType name="ST_UnSignedInteger">
41     <xsd:restriction base="xsd:unsignedInt"/>
42 </xsd:simpleType>
43 <xsd:complexType name="CT_UnSignedInteger">
44     <xsd:attribute name="val" type="ST_UnSignedInteger" use="required"/>
45 </xsd:complexType>
46 <xsd:simpleType name="ST_Char">
47     <xsd:restriction base="xsd:string">
48         <xsd:maxLength value="1"/>
49     </xsd:restriction>
50 </xsd:simpleType>
51 <xsd:complexType name="CT_Char">
52     <xsd:attribute name="val" type="ST_Char" use="required"/>
53 </xsd:complexType>
54 <xsd:complexType name="CT_OnOff">
55     <xsd:attribute name="val" type="s:ST_OnOff"/>
56 </xsd:complexType>
57 <xsd:complexType name="CT_String">
58     <xsd:attribute name="val" type="s:ST_String"/>
59 </xsd:complexType>
60 <xsd:complexType name="CT_XAlign">
61     <xsd:attribute name="val" type="s:ST_XAlign" use="required"/>
62 </xsd:complexType>
63 <xsd:complexType name="CT_YAlign">
64     <xsd:attribute name="val" type="s:ST_YAlign" use="required"/>
65 </xsd:complexType>
66 <xsd:simpleType name="ST_Shp">
67     <xsd:restriction base="xsd:string">
68         <xsd:enumeration value="centered"/>

```



```

69         <xsd:enumeration value="match"/>
70     </xsd:restriction>
71 </xsd:simpleType>
72 <xsd:complexType name="CT_Shp">
73     <xsd:attribute name="val" type="ST_Shp" use="required"/>
74 </xsd:complexType>
75 <xsd:simpleType name="ST_FType">
76     <xsd:restriction base="xsd:string">
77         <xsd:enumeration value="bar"/>
78         <xsd:enumeration value="skw"/>
79         <xsd:enumeration value="lin"/>
80         <xsd:enumeration value="noBar"/>
81     </xsd:restriction>
82 </xsd:simpleType>
83 <xsd:complexType name="CT_FType">
84     <xsd:attribute name="val" type="ST_FType" use="required"/>
85 </xsd:complexType>
86 <xsd:simpleType name="ST_LimLoc">
87     <xsd:restriction base="xsd:string">
88         <xsd:enumeration value="undOvr"/>
89         <xsd:enumeration value="subSup"/>
90     </xsd:restriction>
91 </xsd:simpleType>
92 <xsd:complexType name="CT_LimLoc">
93     <xsd:attribute name="val" type="ST_LimLoc" use="required"/>
94 </xsd:complexType>
95 <xsd:simpleType name="ST_TopBot">
96     <xsd:restriction base="xsd:string">
97         <xsd:enumeration value="top"/>
98         <xsd:enumeration value="bot"/>
99     </xsd:restriction>
100 </xsd:simpleType>
101 <xsd:complexType name="CT_TopBot">
102     <xsd:attribute name="val" type="ST_TopBot" use="required"/>
103 </xsd:complexType>
104 <xsd:simpleType name="ST_Script">
105     <xsd:restriction base="xsd:string">
106         <xsd:enumeration value="roman"/>
107         <xsd:enumeration value="script"/>
108         <xsd:enumeration value="fraktur"/>
109         <xsd:enumeration value="double-struck"/>
110         <xsd:enumeration value="sans-serif"/>
111         <xsd:enumeration value="monospace"/>
112     </xsd:restriction>
113 </xsd:simpleType>
114 <xsd:complexType name="CT_Script">
115     <xsd:attribute name="val" type="ST_Script"/>
116 </xsd:complexType>
117 <xsd:simpleType name="ST_Style">
118     <xsd:restriction base="xsd:string">
119         <xsd:enumeration value="p"/>
120         <xsd:enumeration value="b"/>
121         <xsd:enumeration value="i"/>

```



```

122     <xsd:enumeration value="bi"/>
123   </xsd:restriction>
124 </xsd:simpleType>
125 <xsd:complexType name="CT_Style">
126   <xsd:attribute name="val" type="ST_Style"/>
127 </xsd:complexType>
128 <xsd:complexType name="CT_ManualBreak">
129   <xsd:attribute name="alnAt" type="ST_Integer255"/>
130 </xsd:complexType>
131 <xsd:group name="EG_ScriptStyle">
132   <xsd:sequence>
133     <xsd:element name="scr" minOccurs="0" type="CT_Script"/>
134     <xsd:element name="sty" minOccurs="0" type="CT_Style"/>
135   </xsd:sequence>
136 </xsd:group>
137 <xsd:complexType name="CT_RPR">
138   <xsd:sequence>
139     <xsd:element name="lit" minOccurs="0" type="CT_OnOff"/>
140     <xsd:choice>
141       <xsd:element name="nor" minOccurs="0" type="CT_OnOff"/>
142       <xsd:sequence>
143         <xsd:group ref="EG_ScriptStyle"/>
144       </xsd:sequence>
145     </xsd:choice>
146     <xsd:element name="brk" minOccurs="0" type="CT_ManualBreak"/>
147     <xsd:element name="aln" minOccurs="0" type="CT_OnOff"/>
148   </xsd:sequence>
149 </xsd:complexType>
150 <xsd:complexType name="CT_Text">
151   <xsd:simpleContent>
152     <xsd:extension base="s:ST_String">
153       <xsd:attribute ref="xml:space" use="optional"/>
154     </xsd:extension>
155   </xsd:simpleContent>
156 </xsd:complexType>
157 <xsd:complexType name="CT_R">
158   <xsd:sequence>
159     <xsd:element name="rPr" type="CT_RPR" minOccurs="0"/>
160     <xsd:group ref="w:EG_RPr" minOccurs="0"/>
161     <xsd:choice minOccurs="0" maxOccurs="unbounded">
162       <xsd:group ref="w:EG_RunInnerContent"/>
163       <xsd:element name="t" type="CT_Text" minOccurs="0"/>
164     </xsd:choice>
165   </xsd:sequence>
166 </xsd:complexType>
167 <xsd:complexType name="CT_CtrlPr">
168   <xsd:sequence>
169     <xsd:group ref="w:EG_RPrMath" minOccurs="0"/>
170   </xsd:sequence>
171 </xsd:complexType>
172 <xsd:complexType name="CT_AccPr">
173   <xsd:sequence>
174     <xsd:element name="chr" type="CT_Char" minOccurs="0"/>

```



```

175     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
176   </xsd:sequence>
177 </xsd:complexType>
178 <xsd:complexType name="CT_Acc">
179   <xsd:sequence>
180     <xsd:element name="accPr" type="CT_AccPr" minOccurs="0"/>
181     <xsd:element name="e" type="CT_OMathArg"/>
182   </xsd:sequence>
183 </xsd:complexType>
184 <xsd:complexType name="CT_BarPr">
185   <xsd:sequence>
186     <xsd:element name="pos" type="CT_TopBot" minOccurs="0"/>
187     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
188   </xsd:sequence>
189 </xsd:complexType>
190 <xsd:complexType name="CT_Bar">
191   <xsd:sequence>
192     <xsd:element name="barPr" type="CT_BarPr" minOccurs="0"/>
193     <xsd:element name="e" type="CT_OMathArg"/>
194   </xsd:sequence>
195 </xsd:complexType>
196 <xsd:complexType name="CT_BoxPr">
197   <xsd:sequence>
198     <xsd:element name="opEmu" type="CT_OnOff" minOccurs="0"/>
199     <xsd:element name="noBreak" type="CT_OnOff" minOccurs="0"/>
200     <xsd:element name="diff" type="CT_OnOff" minOccurs="0"/>
201     <xsd:element name="brk" type="CT_ManualBreak" minOccurs="0"/>
202     <xsd:element name="aln" type="CT_OnOff" minOccurs="0"/>
203     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
204   </xsd:sequence>
205 </xsd:complexType>
206 <xsd:complexType name="CT_Box">
207   <xsd:sequence>
208     <xsd:element name="boxPr" type="CT_BoxPr" minOccurs="0"/>
209     <xsd:element name="e" type="CT_OMathArg"/>
210   </xsd:sequence>
211 </xsd:complexType>
212 <xsd:complexType name="CT_BorderBoxPr">
213   <xsd:sequence>
214     <xsd:element name="hideTop" type="CT_OnOff" minOccurs="0"/>
215     <xsd:element name="hideBot" type="CT_OnOff" minOccurs="0"/>
216     <xsd:element name="hideLeft" type="CT_OnOff" minOccurs="0"/>
217     <xsd:element name="hideRight" type="CT_OnOff" minOccurs="0"/>
218     <xsd:element name="strikeH" type="CT_OnOff" minOccurs="0"/>
219     <xsd:element name="strikeV" type="CT_OnOff" minOccurs="0"/>
220     <xsd:element name="strikeBLTR" type="CT_OnOff" minOccurs="0"/>
221     <xsd:element name="strikeTLBR" type="CT_OnOff" minOccurs="0"/>
222     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
223   </xsd:sequence>
224 </xsd:complexType>
225 <xsd:complexType name="CT_BorderBox">
226   <xsd:sequence>
227     <xsd:element name="borderBoxPr" type="CT_BorderBoxPr" minOccurs="0"/>

```



```

228     <xsd:element name="e" type="CT_OMathArg"/>
229   </xsd:sequence>
230 </xsd:complexType>
231 <xsd:complexType name="CT_DPr">
232   <xsd:sequence>
233     <xsd:element name="begChr" type="CT_Char" minOccurs="0"/>
234     <xsd:element name="sepChr" type="CT_Char" minOccurs="0"/>
235     <xsd:element name="endChr" type="CT_Char" minOccurs="0"/>
236     <xsd:element name="grow" type="CT_OnOff" minOccurs="0"/>
237     <xsd:element name="shp" type="CT_Shp" minOccurs="0"/>
238     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
239   </xsd:sequence>
240 </xsd:complexType>
241 <xsd:complexType name="CT_D">
242   <xsd:sequence>
243     <xsd:element name="dPr" type="CT_DPr" minOccurs="0"/>
244     <xsd:element name="e" type="CT_OMathArg" maxOccurs="unbounded"/>
245   </xsd:sequence>
246 </xsd:complexType>
247 <xsd:complexType name="CT_EqArrPr">
248   <xsd:sequence>
249     <xsd:element name="baseJc" type="CT_VAlign" minOccurs="0"/>
250     <xsd:element name="maxDist" type="CT_OnOff" minOccurs="0"/>
251     <xsd:element name="objDist" type="CT_OnOff" minOccurs="0"/>
252     <xsd:element name="rSpRule" type="CT_SpacingRule" minOccurs="0"/>
253     <xsd:element name="rSp" type="CT_UnSignedInteger" minOccurs="0"/>
254     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
255   </xsd:sequence>
256 </xsd:complexType>
257 <xsd:complexType name="CT_EqArr">
258   <xsd:sequence>
259     <xsd:element name="eqArrPr" type="CT_EqArrPr" minOccurs="0"/>
260     <xsd:element name="e" type="CT_OMathArg" maxOccurs="unbounded"/>
261   </xsd:sequence>
262 </xsd:complexType>
263 <xsd:complexType name="CT_FPr">
264   <xsd:sequence>
265     <xsd:element name="type" type="CT_FType" minOccurs="0"/>
266     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
267   </xsd:sequence>
268 </xsd:complexType>
269 <xsd:complexType name="CT_F">
270   <xsd:sequence>
271     <xsd:element name="fPr" type="CT_FPr" minOccurs="0"/>
272     <xsd:element name="num" type="CT_OMathArg"/>
273     <xsd:element name="den" type="CT_OMathArg"/>
274   </xsd:sequence>
275 </xsd:complexType>
276 <xsd:complexType name="CT_FuncPr">
277   <xsd:sequence>
278     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
279   </xsd:sequence>
280 </xsd:complexType>

```



```

281 <xsd:complexType name="CT_Func">
282   <xsd:sequence>
283     <xsd:element name="funcPr" type="CT_FuncPr" minOccurs="0"/>
284     <xsd:element name="fName" type="CT_OMathArg"/>
285     <xsd:element name="e" type="CT_OMathArg"/>
286   </xsd:sequence>
287 </xsd:complexType>
288 <xsd:complexType name="CT_GroupChrPr">
289   <xsd:sequence>
290     <xsd:element name="chr" type="CT_Char" minOccurs="0"/>
291     <xsd:element name="pos" type="CT_TopBot" minOccurs="0"/>
292     <xsd:element name="vertJc" type="CT_TopBot" minOccurs="0"/>
293     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
294   </xsd:sequence>
295 </xsd:complexType>
296 <xsd:complexType name="CT_GroupChr">
297   <xsd:sequence>
298     <xsd:element name="groupChrPr" type="CT_GroupChrPr" minOccurs="0"/>
299     <xsd:element name="e" type="CT_OMathArg"/>
300   </xsd:sequence>
301 </xsd:complexType>
302 <xsd:complexType name="CT_LimLowPr">
303   <xsd:sequence>
304     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
305   </xsd:sequence>
306 </xsd:complexType>
307 <xsd:complexType name="CT_LimLow">
308   <xsd:sequence>
309     <xsd:element name="limLowPr" type="CT_LimLowPr" minOccurs="0"/>
310     <xsd:element name="e" type="CT_OMathArg"/>
311     <xsd:element name="lim" type="CT_OMathArg"/>
312   </xsd:sequence>
313 </xsd:complexType>
314 <xsd:complexType name="CT_LimUppPr">
315   <xsd:sequence>
316     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
317   </xsd:sequence>
318 </xsd:complexType>
319 <xsd:complexType name="CT_LimUpp">
320   <xsd:sequence>
321     <xsd:element name="limUppPr" type="CT_LimUppPr" minOccurs="0"/>
322     <xsd:element name="e" type="CT_OMathArg"/>
323     <xsd:element name="lim" type="CT_OMathArg"/>
324   </xsd:sequence>
325 </xsd:complexType>
326 <xsd:complexType name="CT_MCPr">
327   <xsd:sequence>
328     <xsd:element name="count" type="CT_Integer255" minOccurs="0"/>
329     <xsd:element name="mcJc" type="CT_XAlign" minOccurs="0"/>
330   </xsd:sequence>
331 </xsd:complexType>
332 <xsd:complexType name="CT_MC">
333   <xsd:sequence>

```



```

334     <xsd:element name="mcPr" type="CT_MCPPr" minOccurs="0"/>
335   </xsd:sequence>
336 </xsd:complexType>
337 <xsd:complexType name="CT_MCS">
338   <xsd:sequence>
339     <xsd:element name="mc" type="CT_MC" maxOccurs="unbounded"/>
340   </xsd:sequence>
341 </xsd:complexType>
342 <xsd:complexType name="CT_MPr">
343   <xsd:sequence>
344     <xsd:element name="baseJc" type="CT_YAlign" minOccurs="0"/>
345     <xsd:element name="plcHide" type="CT_OnOff" minOccurs="0"/>
346     <xsd:element name="rSpRule" type="CT_SpacingRule" minOccurs="0"/>
347     <xsd:element name="cGpRule" type="CT_SpacingRule" minOccurs="0"/>
348     <xsd:element name="rSp" type="CT_UnSignedInteger" minOccurs="0"/>
349     <xsd:element name="cSp" type="CT_UnSignedInteger" minOccurs="0"/>
350     <xsd:element name="cGp" type="CT_UnSignedInteger" minOccurs="0"/>
351     <xsd:element name="mcs" type="CT_MCS" minOccurs="0"/>
352     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
353   </xsd:sequence>
354 </xsd:complexType>
355 <xsd:complexType name="CT_MR">
356   <xsd:sequence>
357     <xsd:element name="e" type="CT_OMathArg" maxOccurs="unbounded"/>
358   </xsd:sequence>
359 </xsd:complexType>
360 <xsd:complexType name="CT_M">
361   <xsd:sequence>
362     <xsd:element name="mPr" type="CT_MPr" minOccurs="0"/>
363     <xsd:element name="mr" type="CT_MR" maxOccurs="unbounded"/>
364   </xsd:sequence>
365 </xsd:complexType>
366 <xsd:complexType name="CT_NaryPr">
367   <xsd:sequence>
368     <xsd:element name="chr" type="CT_Char" minOccurs="0"/>
369     <xsd:element name="limLoc" type="CT_LimLoc" minOccurs="0"/>
370     <xsd:element name="grow" type="CT_OnOff" minOccurs="0"/>
371     <xsd:element name="subHide" type="CT_OnOff" minOccurs="0"/>
372     <xsd:element name="supHide" type="CT_OnOff" minOccurs="0"/>
373     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
374   </xsd:sequence>
375 </xsd:complexType>
376 <xsd:complexType name="CT_Nary">
377   <xsd:sequence>
378     <xsd:element name="naryPr" type="CT_NaryPr" minOccurs="0"/>
379     <xsd:element name="sub" type="CT_OMathArg"/>
380     <xsd:element name="sup" type="CT_OMathArg"/>
381     <xsd:element name="e" type="CT_OMathArg"/>
382   </xsd:sequence>
383 </xsd:complexType>
384 <xsd:complexType name="CT_PhantPr">
385   <xsd:sequence>
386     <xsd:element name="show" type="CT_OnOff" minOccurs="0"/>

```



```

387     <xsd:element name="zeroWid" type="CT_OnOff" minOccurs="0"/>
388     <xsd:element name="zeroAsc" type="CT_OnOff" minOccurs="0"/>
389     <xsd:element name="zeroDesc" type="CT_OnOff" minOccurs="0"/>
390     <xsd:element name="transp" type="CT_OnOff" minOccurs="0"/>
391     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
392   </xsd:sequence>
393 </xsd:complexType>
394 <xsd:complexType name="CT_Phant">
395   <xsd:sequence>
396     <xsd:element name="phantPr" type="CT_PhantPr" minOccurs="0"/>
397     <xsd:element name="e" type="CT_OMathArg"/>
398   </xsd:sequence>
399 </xsd:complexType>
400 <xsd:complexType name="CT_RadPr">
401   <xsd:sequence>
402     <xsd:element name="degHide" type="CT_OnOff" minOccurs="0"/>
403     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
404   </xsd:sequence>
405 </xsd:complexType>
406 <xsd:complexType name="CT_Rad">
407   <xsd:sequence>
408     <xsd:element name="radPr" type="CT_RadPr" minOccurs="0"/>
409     <xsd:element name="deg" type="CT_OMathArg"/>
410     <xsd:element name="e" type="CT_OMathArg"/>
411   </xsd:sequence>
412 </xsd:complexType>
413 <xsd:complexType name="CT_SPrePr">
414   <xsd:sequence>
415     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
416   </xsd:sequence>
417 </xsd:complexType>
418 <xsd:complexType name="CT_SPre">
419   <xsd:sequence>
420     <xsd:element name="sPrePr" type="CT_SPrePr" minOccurs="0"/>
421     <xsd:element name="sub" type="CT_OMathArg"/>
422     <xsd:element name="sup" type="CT_OMathArg"/>
423     <xsd:element name="e" type="CT_OMathArg"/>
424   </xsd:sequence>
425 </xsd:complexType>
426 <xsd:complexType name="CT_SSubPr">
427   <xsd:sequence>
428     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
429   </xsd:sequence>
430 </xsd:complexType>
431 <xsd:complexType name="CT_SSub">
432   <xsd:sequence>
433     <xsd:element name="sSubPr" type="CT_SSubPr" minOccurs="0"/>
434     <xsd:element name="e" type="CT_OMathArg"/>
435     <xsd:element name="sub" type="CT_OMathArg"/>
436   </xsd:sequence>
437 </xsd:complexType>
438 <xsd:complexType name="CT_SSubSupPr">
439   <xsd:sequence>

```



```

440     <xsd:element name="alnScr" type="CT_OnOff" minOccurs="0"/>
441     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
442   </xsd:sequence>
443 </xsd:complexType>
444 <xsd:complexType name="CT_SSubSup">
445   <xsd:sequence>
446     <xsd:element name="sSubSupPr" type="CT_SSubSupPr" minOccurs="0"/>
447     <xsd:element name="e" type="CT_OMathArg"/>
448     <xsd:element name="sub" type="CT_OMathArg"/>
449     <xsd:element name="sup" type="CT_OMathArg"/>
450   </xsd:sequence>
451 </xsd:complexType>
452 <xsd:complexType name="CT_SSupPr">
453   <xsd:sequence>
454     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
455   </xsd:sequence>
456 </xsd:complexType>
457 <xsd:complexType name="CT_SSup">
458   <xsd:sequence>
459     <xsd:element name="sSupPr" type="CT_SSupPr" minOccurs="0"/>
460     <xsd:element name="e" type="CT_OMathArg"/>
461     <xsd:element name="sup" type="CT_OMathArg"/>
462   </xsd:sequence>
463 </xsd:complexType>
464 <xsd:group name="EG_OMathMathElements">
465   <xsd:choice>
466     <xsd:element name="acc" type="CT_Acc"/>
467     <xsd:element name="bar" type="CT_Bar"/>
468     <xsd:element name="box" type="CT_Box"/>
469     <xsd:element name="borderBox" type="CT_BorderBox"/>
470     <xsd:element name="d" type="CT_D"/>
471     <xsd:element name="eqArr" type="CT_EqArr"/>
472     <xsd:element name="f" type="CT_F"/>
473     <xsd:element name="func" type="CT_Func"/>
474     <xsd:element name="groupChr" type="CT_GroupChr"/>
475     <xsd:element name="limLow" type="CT_LimLow"/>
476     <xsd:element name="limUpp" type="CT_LimUpp"/>
477     <xsd:element name="m" type="CT_M"/>
478     <xsd:element name="nary" type="CT_Nary"/>
479     <xsd:element name="phant" type="CT_Phant"/>
480     <xsd:element name="rad" type="CT_Rad"/>
481     <xsd:element name="sPre" type="CT_SPre"/>
482     <xsd:element name="sSub" type="CT_SSub"/>
483     <xsd:element name="sSubSup" type="CT_SSubSup"/>
484     <xsd:element name="sSup" type="CT_SSup"/>
485     <xsd:element name="r" type="CT_R"/>
486   </xsd:choice>
487 </xsd:group>
488 <xsd:group name="EG_OMathElements">
489   <xsd:choice>
490     <xsd:group ref="EG_OMathMathElements"/>
491     <xsd:group ref="w:EG_PContentMath"/>
492   </xsd:choice>

```



```

493 </xsd:group>
494 <xsd:complexType name="CT_OMathArgPr">
495   <xsd:sequence>
496     <xsd:element name="argSz" type="CT_Integer2" minOccurs="0"/>
497   </xsd:sequence>
498 </xsd:complexType>
499 <xsd:complexType name="CT_OMathArg">
500   <xsd:sequence>
501     <xsd:element name="argPr" type="CT_OMathArgPr" minOccurs="0"/>
502     <xsd:group ref="EG_OMathElements" minOccurs="0" maxOccurs="unbounded"/>
503     <xsd:element name="ctrlPr" type="CT_CtrlPr" minOccurs="0"/>
504   </xsd:sequence>
505 </xsd:complexType>
506 <xsd:simpleType name="ST_Jc">
507   <xsd:restriction base="xsd:string">
508     <xsd:enumeration value="left"/>
509     <xsd:enumeration value="right"/>
510     <xsd:enumeration value="center"/>
511     <xsd:enumeration value="centerGroup"/>
512   </xsd:restriction>
513 </xsd:simpleType>
514 <xsd:complexType name="CT_OMathJc">
515   <xsd:attribute name="val" type="ST_Jc"/>
516 </xsd:complexType>
517 <xsd:complexType name="CT_OMathParaPr">
518   <xsd:sequence>
519     <xsd:element name="jc" type="CT_OMathJc" minOccurs="0"/>
520   </xsd:sequence>
521 </xsd:complexType>
522 <xsd:complexType name="CT_TwipsMeasure">
523   <xsd:attribute name="val" type="s:ST_TwipsMeasure" use="required"/>
524 </xsd:complexType>
525 <xsd:simpleType name="ST_BreakBin">
526   <xsd:restriction base="xsd:string">
527     <xsd:enumeration value="before"/>
528     <xsd:enumeration value="after"/>
529     <xsd:enumeration value="repeat"/>
530   </xsd:restriction>
531 </xsd:simpleType>
532 <xsd:complexType name="CT_BreakBin">
533   <xsd:attribute name="val" type="ST_BreakBin"/>
534 </xsd:complexType>
535 <xsd:simpleType name="ST_BreakBinSub">
536   <xsd:restriction base="xsd:string">
537     <xsd:enumeration value="--"/>
538     <xsd:enumeration value="-+"/>
539     <xsd:enumeration value="+-"/>
540   </xsd:restriction>
541 </xsd:simpleType>
542 <xsd:complexType name="CT_BreakBinSub">
543   <xsd:attribute name="val" type="ST_BreakBinSub"/>
544 </xsd:complexType>
545 <xsd:complexType name="CT_MathPr">

```



```

546     <xsd:sequence>
547         <xsd:element name="mathFont" type="CT_String" minOccurs="0"/>
548         <xsd:element name="brkBin" type="CT_BreakBin" minOccurs="0"/>
549         <xsd:element name="brkBinSub" type="CT_BreakBinSub" minOccurs="0"/>
550         <xsd:element name="smallFrac" type="CT_OnOff" minOccurs="0"/>
551         <xsd:element name="dispDef" type="CT_OnOff" minOccurs="0"/>
552         <xsd:element name="lMargin" type="CT_TwipsMeasure" minOccurs="0"/>
553         <xsd:element name="rMargin" type="CT_TwipsMeasure" minOccurs="0"/>
554         <xsd:element name="defJc" type="CT_OMathJc" minOccurs="0"/>
555         <xsd:element name="preSp" type="CT_TwipsMeasure" minOccurs="0"/>
556         <xsd:element name="postSp" type="CT_TwipsMeasure" minOccurs="0"/>
557         <xsd:element name="interSp" type="CT_TwipsMeasure" minOccurs="0"/>
558         <xsd:element name="intraSp" type="CT_TwipsMeasure" minOccurs="0"/>
559         <xsd:choice minOccurs="0">
560             <xsd:element name="wrapIndent" type="CT_TwipsMeasure"/>
561             <xsd:element name="wrapRight" type="CT_OnOff"/>
562         </xsd:choice>
563         <xsd:element name="intLim" type="CT_LimLoc" minOccurs="0"/>
564         <xsd:element name="naryLim" type="CT_LimLoc" minOccurs="0"/>
565     </xsd:sequence>
566 </xsd:complexType>
567 <xsd:element name="mathPr" type="CT_MathPr"/>
568 <xsd:complexType name="CT_OMathPara">
569     <xsd:sequence>
570         <xsd:element name="oMathParaPr" type="CT_OMathParaPr" minOccurs="0"/>
571         <xsd:element name="oMath" type="CT_OMath" maxOccurs="unbounded"/>
572     </xsd:sequence>
573 </xsd:complexType>
574 <xsd:complexType name="CT_OMath">
575     <xsd:sequence>
576         <xsd:group ref="EG_OMathElements" minOccurs="0" maxOccurs="unbounded"/>
577     </xsd:sequence>
578 </xsd:complexType>
579 <xsd:element name="oMathPara" type="CT_OMathPara"/>
580 <xsd:element name="oMath" type="CT_OMath"/>
581 </xsd:schema>

```

## A.8.2 Extended Properties

This schema is available in the file shared-documentPropertiesExtended.xsd.

```

1  <xsd:schema xmlns="http://schemas.openxmlformats.org/officeDocument/2006/extended-properties"
2    xmlns:xsd="http://www.w3.org/2001/XMLSchema"
3    xmlns:vt="http://schemas.openxmlformats.org/officeDocument/2006/docPropsVTypes"
4    targetNamespace="http://schemas.openxmlformats.org/officeDocument/2006/extended-properties"
5    elementFormDefault="qualified" blockDefault="#all">
6    <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/docPropsVTypes"
7      schemaLocation="shared-documentPropertiesVariantTypes.xsd"/>
8    <xsd:element name="Properties" type="CT_Properties"/>
9    <xsd:complexType name="CT_Properties">
10        <xsd:all>
11            <xsd:element name="Template" minOccurs="0" maxOccurs="1" type="xsd:string"/>
12            <xsd:element name="Manager" minOccurs="0" maxOccurs="1" type="xsd:string"/>

```



```

13      <xsd:element name="Company" minOccurs="0" maxOccurs="1" type="xsd:string"/>
14      <xsd:element name="Pages" minOccurs="0" maxOccurs="1" type="xsd:int"/>
15      <xsd:element name="Words" minOccurs="0" maxOccurs="1" type="xsd:int"/>
16      <xsd:element name="Characters" minOccurs="0" maxOccurs="1" type="xsd:int"/>
17      <xsd:element name="PresentationFormat" minOccurs="0" maxOccurs="1" type="xsd:string"/>
18      <xsd:element name="Lines" minOccurs="0" maxOccurs="1" type="xsd:int"/>
19      <xsd:element name="Paragraphs" minOccurs="0" maxOccurs="1" type="xsd:int"/>
20      <xsd:element name="Slides" minOccurs="0" maxOccurs="1" type="xsd:int"/>
21      <xsd:element name="Notes" minOccurs="0" maxOccurs="1" type="xsd:int"/>
22      <xsd:element name="TotalTime" minOccurs="0" maxOccurs="1" type="xsd:int"/>
23      <xsd:element name="HiddenSlides" minOccurs="0" maxOccurs="1" type="xsd:int"/>
24      <xsd:element name="MMClips" minOccurs="0" maxOccurs="1" type="xsd:int"/>
25      <xsd:element name="ScaleCrop" minOccurs="0" maxOccurs="1" type="xsd:boolean"/>
26      <xsd:element name="HeadingPairs" minOccurs="0" maxOccurs="1" type="CT_VectorVariant"/>
27      <xsd:element name="TitlesOfParts" minOccurs="0" maxOccurs="1" type="CT_VectorLpstr"/>
28      <xsd:element name="LinksUpToDate" minOccurs="0" maxOccurs="1" type="xsd:boolean"/>
29      <xsd:element name="CharactersWithSpaces" minOccurs="0" maxOccurs="1" type="xsd:int"/>
30      <xsd:element name="SharedDoc" minOccurs="0" maxOccurs="1" type="xsd:boolean"/>
31      <xsd:element name="HyperlinkBase" minOccurs="0" maxOccurs="1" type="xsd:string"/>
32      <xsd:element name="HLinks" minOccurs="0" maxOccurs="1" type="CT_VectorVariant"/>
33      <xsd:element name="HyperlinksChanged" minOccurs="0" maxOccurs="1" type="xsd:boolean"/>
34      <xsd:element name="DigSig" minOccurs="0" maxOccurs="1" type="CT_DigSigBlob"/>
35      <xsd:element name="Application" minOccurs="0" maxOccurs="1" type="xsd:string"/>
36      <xsd:element name="AppVersion" minOccurs="0" maxOccurs="1" type="xsd:string"/>
37      <xsd:element name="DocSecurity" minOccurs="0" maxOccurs="1" type="xsd:int"/>
38  </xsd:all>
39  </xsd:complexType>
40  <xsd:complexType name="CT_VectorVariant">
41    <xsd:sequence minOccurs="1" maxOccurs="1">
42      <xsd:element ref="vt:vector"/>
43    </xsd:sequence>
44  </xsd:complexType>
45  <xsd:complexType name="CT_VectorLpstr">
46    <xsd:sequence minOccurs="1" maxOccurs="1">
47      <xsd:element ref="vt:vector"/>
48    </xsd:sequence>
49  </xsd:complexType>
50  <xsd:complexType name="CT_DigSigBlob">
51    <xsd:sequence minOccurs="1" maxOccurs="1">
52      <xsd:element ref="vt:blob"/>
53    </xsd:sequence>
54  </xsd:complexType>
55 </xsd:schema>

```

### A.8.3 Custom Properties

This schema is available in the file `shared-documentPropertiesCustom.xsd`.

```

1 <xsd:schema xmlns="http://schemas.openxmlformats.org/officeDocument/2006/custom-properties"
2   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
3   xmlns:vt="http://schemas.openxmlformats.org/officeDocument/2006/docPropsVTypes"
4   xmlns:s="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"

```



```

5 targetNamespace="http://schemas.openxmlformats.org/officeDocument/2006/custom-properties"
6 blockDefault="#all" elementFormDefault="qualified">
7   <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/docPropsVTypes"
8     schemaLocation="shared-documentPropertiesVariantTypes.xsd"/>
9   <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
10     schemaLocation="shared-commonSimpleTypes.xsd"/>
11   <xsd:element name="Properties" type="CT_Properties"/>
12   <xsd:complexType name="CT_Properties">
13     <xsd:sequence>
14       <xsd:element name="property" minOccurs="0" maxOccurs="unbounded" type="CT_Property"/>
15     </xsd:sequence>
16   </xsd:complexType>
17   <xsd:complexType name="CT_Property">
18     <xsd:choice minOccurs="1" maxOccurs="1">
19       <xsd:element ref="vt:vector"/>
20       <xsd:element ref="vt:array"/>
21       <xsd:element ref="vt:blob"/>
22       <xsd:element ref="vt:oblob"/>
23       <xsd:element ref="vt:empty"/>
24       <xsd:element ref="vt:null"/>
25       <xsd:element ref="vt:i1"/>
26       <xsd:element ref="vt:i2"/>
27       <xsd:element ref="vt:i4"/>
28       <xsd:element ref="vt:i8"/>
29       <xsd:element ref="vt:int"/>
30       <xsd:element ref="vt:ui1"/>
31       <xsd:element ref="vt:ui2"/>
32       <xsd:element ref="vt:ui4"/>
33       <xsd:element ref="vt:ui8"/>
34       <xsd:element ref="vt:uint"/>
35       <xsd:element ref="vt:r4"/>
36       <xsd:element ref="vt:r8"/>
37       <xsd:element ref="vt:decimal"/>
38       <xsd:element ref="vt:lpstr"/>
39       <xsd:element ref="vt:lpwstr"/>
40       <xsd:element ref="vt:bstr"/>
41       <xsd:element ref="vt:date"/>
42       <xsd:element ref="vt:filetime"/>
43       <xsd:element ref="vt:bool"/>
44       <xsd:element ref="vt:cy"/>
45       <xsd:element ref="vt:error"/>
46       <xsd:element ref="vt:stream"/>
47       <xsd:element ref="vt:ostream"/>
48       <xsd:element ref="vt:storage"/>
49       <xsd:element ref="vt:ostorage"/>
50       <xsd:element ref="vt:vstream"/>
51       <xsd:element ref="vt:clsid"/>
52     </xsd:choice>
53     <xsd:attribute name="fmtid" use="required" type="s:ST_Guid"/>
54     <xsd:attribute name="pid" use="required" type="xsd:int"/>
55     <xsd:attribute name="name" use="optional" type="xsd:string"/>
56     <xsd:attribute name="linkTarget" use="optional" type="xsd:string"/>
57   </xsd:complexType>

```



58 </xsd:schema>

## A.8.4 Variant Types

This schema is available in the file shared-documentPropertiesVariantTypes.xsd.

```

1 <xsd:schema xmlns="http://schemas.openxmlformats.org/officeDocument/2006/docPropsVTypes"
2   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
3   xmlns:s="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
4   targetNamespace="http://schemas.openxmlformats.org/officeDocument/2006/docPropsVTypes"
5   blockDefault="#all" elementFormDefault="qualified">
6   <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
7     schemaLocation="shared-commonSimpleTypes.xsd"/>
8   <xsd:simpleType name="ST_VectorBaseType">
9     <xsd:restriction base="xsd:string">
10       <xsd:enumeration value="variant"/>
11       <xsd:enumeration value="i1"/>
12       <xsd:enumeration value="i2"/>
13       <xsd:enumeration value="i4"/>
14       <xsd:enumeration value="i8"/>
15       <xsd:enumeration value="ui1"/>
16       <xsd:enumeration value="ui2"/>
17       <xsd:enumeration value="ui4"/>
18       <xsd:enumeration value="ui8"/>
19       <xsd:enumeration value="r4"/>
20       <xsd:enumeration value="r8"/>
21       <xsd:enumeration value="lpstr"/>
22       <xsd:enumeration value="lpwstr"/>
23       <xsd:enumeration value="bstr"/>
24       <xsd:enumeration value="date"/>
25       <xsd:enumeration value="filetime"/>
26       <xsd:enumeration value="bool"/>
27       <xsd:enumeration value="cy"/>
28       <xsd:enumeration value="error"/>
29       <xsd:enumeration value="clsid"/>
30     </xsd:restriction>
31   </xsd:simpleType>
32   <xsd:simpleType name="ST_ArrayBaseType">
33     <xsd:restriction base="xsd:string">
34       <xsd:enumeration value="variant"/>
35       <xsd:enumeration value="i1"/>
36       <xsd:enumeration value="i2"/>
37       <xsd:enumeration value="i4"/>
38       <xsd:enumeration value="int"/>
39       <xsd:enumeration value="ui1"/>
40       <xsd:enumeration value="ui2"/>
41       <xsd:enumeration value="ui4"/>
42       <xsd:enumeration value="uint"/>
43       <xsd:enumeration value="r4"/>
44       <xsd:enumeration value="r8"/>
45       <xsd:enumeration value="decimal"/>
46       <xsd:enumeration value="bstr"/>
47       <xsd:enumeration value="date"/>

```



```

48         <xsd:enumeration value="bool"/>
49         <xsd:enumeration value="cy"/>
50         <xsd:enumeration value="error"/>
51     </xsd:restriction>
52 </xsd:simpleType>
53 <xsd:simpleType name="ST_Cy">
54     <xsd:restriction base="xsd:string">
55         <xsd:pattern value="\s*[0-9]*\.[0-9]{4}\s*" />
56     </xsd:restriction>
57 </xsd:simpleType>
58 <xsd:simpleType name="ST_Error">
59     <xsd:restriction base="xsd:string">
60         <xsd:pattern value="\s*0x[0-9A-Za-z]{8}\s*" />
61     </xsd:restriction>
62 </xsd:simpleType>
63 <xsd:complexType name="CT_Empty"/>
64 <xsd:complexType name="CT_Null"/>
65 <xsd:complexType name="CT_Vector">
66     <xsd:choice minOccurs="1" maxOccurs="unbounded">
67         <xsd:element ref="variant"/>
68         <xsd:element ref="i1"/>
69         <xsd:element ref="i2"/>
70         <xsd:element ref="i4"/>
71         <xsd:element ref="i8"/>
72         <xsd:element ref="ui1"/>
73         <xsd:element ref="ui2"/>
74         <xsd:element ref="ui4"/>
75         <xsd:element ref="ui8"/>
76         <xsd:element ref="r4"/>
77         <xsd:element ref="r8"/>
78         <xsd:element ref="lpstr"/>
79         <xsd:element ref="lpwstr"/>
80         <xsd:element ref="bstr"/>
81         <xsd:element ref="date"/>
82         <xsd:element ref="filetime"/>
83         <xsd:element ref="bool"/>
84         <xsd:element ref="cy"/>
85         <xsd:element ref="error"/>
86         <xsd:element ref="clsid"/>
87     </xsd:choice>
88     <xsd:attribute name="baseType" type="ST_VectorBaseType" use="required"/>
89     <xsd:attribute name="size" type="xsd:unsignedInt" use="required"/>
90 </xsd:complexType>
91 <xsd:complexType name="CT_Array">
92     <xsd:choice minOccurs="1" maxOccurs="unbounded">
93         <xsd:element ref="variant"/>
94         <xsd:element ref="i1"/>
95         <xsd:element ref="i2"/>
96         <xsd:element ref="i4"/>
97         <xsd:element ref="int"/>
98         <xsd:element ref="ui1"/>
99         <xsd:element ref="ui2"/>
100        <xsd:element ref="ui4"/>

```



```

101         <xsd:element ref="uint"/>
102         <xsd:element ref="r4"/>
103         <xsd:element ref="r8"/>
104         <xsd:element ref="decimal"/>
105         <xsd:element ref="bstr"/>
106         <xsd:element ref="date"/>
107         <xsd:element ref="bool"/>
108         <xsd:element ref="error"/>
109         <xsd:element ref="cy"/>
110     </xsd:choice>
111     <xsd:attribute name="lBounds" type="xsd:int" use="required"/>
112     <xsd:attribute name="uBounds" type="xsd:int" use="required"/>
113     <xsd:attribute name="baseType" type="ST_ArrayBaseType" use="required"/>
114 </xsd:complexType>
115 <xsd:complexType name="CT_Variant">
116     <xsd:choice minOccurs="1" maxOccurs="1">
117         <xsd:element ref="variant"/>
118         <xsd:element ref="vector"/>
119         <xsd:element ref="array"/>
120         <xsd:element ref="blob"/>
121         <xsd:element ref="oblob"/>
122         <xsd:element ref="empty"/>
123         <xsd:element ref="null"/>
124         <xsd:element ref="i1"/>
125         <xsd:element ref="i2"/>
126         <xsd:element ref="i4"/>
127         <xsd:element ref="i8"/>
128         <xsd:element ref="int"/>
129         <xsd:element ref="ui1"/>
130         <xsd:element ref="ui2"/>
131         <xsd:element ref="ui4"/>
132         <xsd:element ref="ui8"/>
133         <xsd:element ref="uint"/>
134         <xsd:element ref="r4"/>
135         <xsd:element ref="r8"/>
136         <xsd:element ref="decimal"/>
137         <xsd:element ref="lpstr"/>
138         <xsd:element ref="lpwstr"/>
139         <xsd:element ref="bstr"/>
140         <xsd:element ref="date"/>
141         <xsd:element ref="filetime"/>
142         <xsd:element ref="bool"/>
143         <xsd:element ref="cy"/>
144         <xsd:element ref="error"/>
145         <xsd:element ref="stream"/>
146         <xsd:element ref="ostream"/>
147         <xsd:element ref="storage"/>
148         <xsd:element ref="ostorage"/>
149         <xsd:element ref="vstream"/>
150         <xsd:element ref="clsid"/>
151     </xsd:choice>
152 </xsd:complexType>
153 <xsd:complexType name="CT_Vstream">

```



```

154     <xsd:simpleContent>
155         <xsd:extension base="xsd:base64Binary">
156             <xsd:attribute name="version" type="s:ST_Guid"/>
157         </xsd:extension>
158     </xsd:simpleContent>
159 </xsd:complexType>
160 <xsd:element name="variant" type="CT_Variant"/>
161 <xsd:element name="vector" type="CT_Vector"/>
162 <xsd:element name="array" type="CT_Array"/>
163 <xsd:element name="blob" type="xsd:base64Binary"/>
164 <xsd:element name="oblob" type="xsd:base64Binary"/>
165 <xsd:element name="empty" type="CT_Empty"/>
166 <xsd:element name="null" type="CT_Null"/>
167 <xsd:element name="i1" type="xsd:byte"/>
168 <xsd:element name="i2" type="xsd:short"/>
169 <xsd:element name="i4" type="xsd:int"/>
170 <xsd:element name="i8" type="xsd:long"/>
171 <xsd:element name="int" type="xsd:int"/>
172 <xsd:element name="ui1" type="xsd:unsignedByte"/>
173 <xsd:element name="ui2" type="xsd:unsignedShort"/>
174 <xsd:element name="ui4" type="xsd:unsignedInt"/>
175 <xsd:element name="ui8" type="xsd:unsignedLong"/>
176 <xsd:element name="uint" type="xsd:unsignedInt"/>
177 <xsd:element name="r4" type="xsd:float"/>
178 <xsd:element name="r8" type="xsd:double"/>
179 <xsd:element name="decimal" type="xsd:decimal"/>
180 <xsd:element name="lpstr" type="xsd:string"/>
181 <xsd:element name="lpwstr" type="xsd:string"/>
182 <xsd:element name="bstr" type="xsd:string"/>
183 <xsd:element name="date" type="xsd:dateTime"/>
184 <xsd:element name="filetime" type="xsd:dateTime"/>
185 <xsd:element name="bool" type="xsd:boolean"/>
186 <xsd:element name="cy" type="ST_Cy"/>
187 <xsd:element name="error" type="ST_Error"/>
188 <xsd:element name="stream" type="xsd:base64Binary"/>
189 <xsd:element name="ostream" type="xsd:base64Binary"/>
190 <xsd:element name="storage" type="xsd:base64Binary"/>
191 <xsd:element name="ostorage" type="xsd:base64Binary"/>
192 <xsd:element name="vstream" type="CT_Vstream"/>
193 <xsd:element name="clsid" type="s:ST_Guid"/>
194 </xsd:schema>

```

### A.8.5 Custom XML Data Properties

This schema is available in the file shared-customXmlDataProperties.xsd.

```

1 <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
2   xmlns="http://schemas.openxmlformats.org/officeDocument/2006/customXml"
3   xmlns:s="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
4   targetNamespace="http://schemas.openxmlformats.org/officeDocument/2006/customXml"
5   elementFormDefault="qualified" attributeFormDefault="qualified" blockDefault="#all">
6   <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
7     schemaLocation="shared-commonSimpleTypes.xsd"/>

```



```

8      <xsd:complexType name="CT_DatastoreSchemaRef">
9          <xsd:attribute name="uri" type="xsd:string" use="required"/>
10     </xsd:complexType>
11     <xsd:complexType name="CT_DatastoreSchemaRefs">
12         <xsd:sequence>
13             <xsd:element name="schemaRef" type="CT_DatastoreSchemaRef" minOccurs="0"
14                 maxOccurs="unbounded"/>
15         </xsd:sequence>
16     </xsd:complexType>
17     <xsd:complexType name="CT_DatastoreItem">
18         <xsd:sequence>
19             <xsd:element name="schemaRefs" type="CT_DatastoreSchemaRefs" minOccurs="0"/>
20         </xsd:sequence>
21         <xsd:attribute name="itemID" type="s:ST_Guid" use="required"/>
22     </xsd:complexType>
23     <xsd:element name="datastoreItem" type="CT_DatastoreItem"/>
24 </xsd:schema>

```

## A.8.6 Bibliography

This schema is available in the file shared-bibliography.xsd.

```

1  <xsd:schema xmlns="http://schemas.openxmlformats.org/officeDocument/2006/bibliography"
2      xmlns:xsd="http://www.w3.org/2001/XMLSchema"
3      xmlns:s="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
4      targetNamespace="http://schemas.openxmlformats.org/officeDocument/2006/bibliography"
5      elementFormDefault="qualified">
6      <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
7          schemaLocation="shared-commonSimpleTypes.xsd"/>
8      <xsd:simpleType name="ST_SourceType">
9          <xsd:restriction base="s:ST_String">
10              <xsd:enumeration value="ArticleInAPeriodical"/>
11              <xsd:enumeration value="Book"/>
12              <xsd:enumeration value="BookSection"/>
13              <xsd:enumeration value="JournalArticle"/>
14              <xsd:enumeration value="ConferenceProceedings"/>
15              <xsd:enumeration value="Report"/>
16              <xsd:enumeration value="SoundRecording"/>
17              <xsd:enumeration value="Performance"/>
18              <xsd:enumeration value="Art"/>
19              <xsd:enumeration value="DocumentFromInternetSite"/>
20              <xsd:enumeration value="InternetSite"/>
21              <xsd:enumeration value="Film"/>
22              <xsd:enumeration value="Interview"/>
23              <xsd:enumeration value="Patent"/>
24              <xsd:enumeration value="ElectronicSource"/>
25              <xsd:enumeration value="Case"/>
26              <xsd:enumeration value="Misc"/>
27          </xsd:restriction>
28      </xsd:simpleType>
29      <xsd:complexType name="CT_NameListType">
30          <xsd:sequence>
31              <xsd:element name="Person" type="CT_PersonType" minOccurs="1" maxOccurs="unbounded"/>

```



```

32     </xsd:sequence>
33 </xsd:complexType>
34 <xsd:complexType name="CT_PersonType">
35     <xsd:sequence>
36         <xsd:element name="Last" type="s:ST String" minOccurs="0" maxOccurs="unbounded"/>
37         <xsd:element name="First" type="s:ST String" minOccurs="0" maxOccurs="unbounded"/>
38         <xsd:element name="Middle" type="s:ST String" minOccurs="0" maxOccurs="unbounded"/>
39     </xsd:sequence>
40 </xsd:complexType>
41 <xsd:complexType name="CT_NameType">
42     <xsd:sequence>
43         <xsd:element name="NameList" type="CT NameListType" minOccurs="1" maxOccurs="1"/>
44     </xsd:sequence>
45 </xsd:complexType>
46 <xsd:complexType name="CT_NameOrCorporateType">
47     <xsd:sequence>
48         <xsd:choice minOccurs="0" maxOccurs="1">
49             <xsd:element name="NameList" type="CT NameListType" minOccurs="1" maxOccurs="1"/>
50             <xsd:element name="Corporate" minOccurs="1" maxOccurs="1" type="s:ST String"/>
51         </xsd:choice>
52     </xsd:sequence>
53 </xsd:complexType>
54 <xsd:complexType name="CT_AuthorType">
55     <xsd:sequence>
56         <xsd:choice minOccurs="0" maxOccurs="unbounded">
57             <xsd:element name="Artist" type="CT NameType"/>
58             <xsd:element name="Author" type="CT NameOrCorporateType"/>
59             <xsd:element name="BookAuthor" type="CT NameType"/>
60             <xsd:element name="Compiler" type="CT NameType"/>
61             <xsd:element name="Composer" type="CT NameType"/>
62             <xsd:element name="Conductor" type="CT NameType"/>
63             <xsd:element name="Counsel" type="CT NameType"/>
64             <xsd:element name="Director" type="CT NameType"/>
65             <xsd:element name="Editor" type="CT NameType"/>
66             <xsd:element name="Interviewee" type="CT NameType"/>
67             <xsd:element name="Interviewer" type="CT NameType"/>
68             <xsd:element name="Inventor" type="CT NameType"/>
69             <xsd:element name="Performer" type="CT NameOrCorporateType"/>
70             <xsd:element name="ProducerName" type="CT NameType"/>
71             <xsd:element name="Translator" type="CT NameType"/>
72             <xsd:element name="Writer" type="CT NameType"/>
73         </xsd:choice>
74     </xsd:sequence>
75 </xsd:complexType>
76 <xsd:complexType name="CT_SourceType">
77     <xsd:sequence>
78         <xsd:choice minOccurs="0" maxOccurs="unbounded">
79             <xsd:element name="AbbreviatedCaseNumber" type="s:ST String"/>
80             <xsd:element name="AlbumTitle" type="s:ST String"/>
81             <xsd:element name="Author" type="CT AuthorType"/>
82             <xsd:element name="BookTitle" type="s:ST String"/>
83             <xsd:element name="Broadcaster" type="s:ST String"/>
84             <xsd:element name="BroadcastTitle" type="s:ST String"/>

```



```

85      <xsd:element name="CaseNumber" type="s:ST String"/>
86      <xsd:element name="ChapterNumber" type="s:ST String"/>
87      <xsd:element name="City" type="s:ST String"/>
88      <xsd:element name="Comments" type="s:ST String"/>
89      <xsd:element name="ConferenceName" type="s:ST String"/>
90      <xsd:element name="CountryRegion" type="s:ST String"/>
91      <xsd:element name="Court" type="s:ST String"/>
92      <xsd:element name="Day" type="s:ST String"/>
93      <xsd:element name="DayAccessed" type="s:ST String"/>
94      <xsd:element name="Department" type="s:ST String"/>
95      <xsd:element name="Distributor" type="s:ST String"/>
96      <xsd:element name="Edition" type="s:ST String"/>
97      <xsd:element name="Guid" type="s:ST String"/>
98      <xsd:element name="Institution" type="s:ST String"/>
99      <xsd:element name="InternetSiteTitle" type="s:ST String"/>
100     <xsd:element name="Issue" type="s:ST String"/>
101     <xsd:element name="JournalName" type="s:ST String"/>
102     <xsd:element name="LCID" type="s:ST Lang"/>
103     <xsd:element name="Medium" type="s:ST String"/>
104     <xsd:element name="Month" type="s:ST String"/>
105     <xsd:element name="MonthAccessed" type="s:ST String"/>
106     <xsd:element name="NumberVolumes" type="s:ST String"/>
107     <xsd:element name="Pages" type="s:ST String"/>
108     <xsd:element name="PatentNumber" type="s:ST String"/>
109     <xsd:element name="PeriodicalTitle" type="s:ST String"/>
110     <xsd:element name="ProductionCompany" type="s:ST String"/>
111     <xsd:element name="PublicationTitle" type="s:ST String"/>
112     <xsd:element name="Publisher" type="s:ST String"/>
113     <xsd:element name="RecordingNumber" type="s:ST String"/>
114     <xsd:element name="RefOrder" type="s:ST String"/>
115     <xsd:element name="Reporter" type="s:ST String"/>
116     <xsd:element name="SourceType" type="ST SourceType"/>
117     <xsd:element name="ShortTitle" type="s:ST String"/>
118     <xsd:element name="StandardNumber" type="s:ST String"/>
119     <xsd:element name="StateProvince" type="s:ST String"/>
120     <xsd:element name="Station" type="s:ST String"/>
121     <xsd:element name="Tag" type="s:ST String"/>
122     <xsd:element name="Theater" type="s:ST String"/>
123     <xsd:element name="ThesisType" type="s:ST String"/>
124     <xsd:element name="Title" type="s:ST String"/>
125     <xsd:element name="Type" type="s:ST String"/>
126     <xsd:element name="URL" type="s:ST String"/>
127     <xsd:element name="Version" type="s:ST String"/>
128     <xsd:element name="Volume" type="s:ST String"/>
129     <xsd:element name="Year" type="s:ST String"/>
130     <xsd:element name="YearAccessed" type="s:ST String"/>
131   </xsd:choice>
132 </xsd:sequence>
133 </xsd:complexType>
134 <xsd:element name="Sources" type="CT Sources"/>
135 <xsd:complexType name="CT_Sources">
136   <xsd:sequence>
137     <xsd:element name="Source" type="CT SourceType" minOccurs="0" maxOccurs="unbounded"/>

```



```

138     </xsd:sequence>
139     <xsd:attribute name="SelectedStyle" type="s:ST_String"/>
140     <xsd:attribute name="StyleName" type="s:ST_String"/>
141     <xsd:attribute name="URI" type="s:ST_String"/>
142 </xsd:complexType>
143 </xsd:schema>

```

### A.8.7 Additional Characteristics

This schema is available in the file shared-additionalCharacteristics.xsd.

```

1 <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
2   xmlns="http://schemas.openxmlformats.org/officeDocument/2006/characteristics"
3   targetNamespace="http://schemas.openxmlformats.org/officeDocument/2006/characteristics"
4   elementFormDefault="qualified">
5   <xsd:complexType name="CT_AdditionalCharacteristics">
6     <xsd:sequence>
7       <xsd:element name="characteristic" type="CT_Characteristic" minOccurs="0"
8         maxOccurs="unbounded"/>
9     </xsd:sequence>
10  </xsd:complexType>
11  <xsd:complexType name="CT_Characteristic">
12    <xsd:attribute name="name" type="xsd:string" use="required"/>
13    <xsd:attribute name="relation" type="ST_Relation" use="required"/>
14    <xsd:attribute name="val" type="xsd:string" use="required"/>
15    <xsd:attribute name="vocabulary" type="xsd:anyURI" use="optional"/>
16  </xsd:complexType>
17  <xsd:simpleType name="ST_Relation">
18    <xsd:restriction base="xsd:string">
19      <xsd:enumeration value="ge"/>
20      <xsd:enumeration value="le"/>
21      <xsd:enumeration value="gt"/>
22      <xsd:enumeration value="lt"/>
23      <xsd:enumeration value="eq"/>
24    </xsd:restriction>
25  </xsd:simpleType>
26  <xsd:element name="additionalCharacteristics" type="CT_AdditionalCharacteristics"/>
27 </xsd:schema>

```

### A.8.8 Office Document Relationships

This schema is available in the file shared-relationshipReference.xsd.

```

1 <xsd:schema xmlns="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
2   xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
3   xmlns:xsd="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified"
4   targetNamespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships"
5   blockDefault="#all">
6   <xsd:simpleType name="ST_RelationshipId">
7     <xsd:restriction base="xsd:string"/>
8   </xsd:simpleType>
9   <xsd:attribute name="id" type="ST_RelationshipId"/>
10  <xsd:attribute name="embed" type="ST_RelationshipId"/>

```



```

11 <xsd:attribute name="link" type="ST_RelationshipId"/>
12 <xsd:attribute name="dm" type="ST_RelationshipId" default=""/>
13 <xsd:attribute name="lo" type="ST_RelationshipId" default=""/>
14 <xsd:attribute name="qs" type="ST_RelationshipId" default=""/>
15 <xsd:attribute name="cs" type="ST_RelationshipId" default=""/>
16 <xsd:attribute name="blip" type="ST_RelationshipId" default=""/>
17 <xsd:attribute name="pict" type="ST_RelationshipId"/>
18 <xsd:attribute name="href" type="ST_RelationshipId"/>
19 <xsd:attribute name="topLeft" type="ST_RelationshipId"/>
20 <xsd:attribute name="topRight" type="ST_RelationshipId"/>
21 <xsd:attribute name="bottomLeft" type="ST_RelationshipId"/>
22 <xsd:attribute name="bottomRight" type="ST_RelationshipId"/>
23 </xsd:schema>

```

### A.8.9 Shared Simple Types

This schema is available in the file shared-commonSimpleTypes.xsd.

```

1 <xsd:schema xmlns="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
2   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
3   targetNamespace="http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
4   elementFormDefault="qualified">
5   <xsd:simpleType name="ST_Lang">
6     <xsd:restriction base="xsd:string"/>
7   </xsd:simpleType>
8   <xsd:simpleType name="ST_HexColorRGB">
9     <xsd:restriction base="xsd:hexBinary">
10       <xsd:length value="3" fixed="true"/>
11     </xsd:restriction>
12   </xsd:simpleType>
13   <xsd:simpleType name="ST_Panose">
14     <xsd:restriction base="xsd:hexBinary">
15       <xsd:length value="10"/>
16     </xsd:restriction>
17   </xsd:simpleType>
18   <xsd:simpleType name="ST_CalendarType">
19     <xsd:restriction base="xsd:string">
20       <xsd:enumeration value="gregorian"/>
21       <xsd:enumeration value="gregorianUs"/>
22       <xsd:enumeration value="gregorianMeFrench"/>
23       <xsd:enumeration value="gregorianArabic"/>
24       <xsd:enumeration value="hijri"/>
25       <xsd:enumeration value="hebrew"/>
26       <xsd:enumeration value="taiwan"/>
27       <xsd:enumeration value="japan"/>
28       <xsd:enumeration value="thai"/>
29       <xsd:enumeration value="korea"/>
30       <xsd:enumeration value="saka"/>
31       <xsd:enumeration value="gregorianXlitEnglish"/>
32       <xsd:enumeration value="gregorianXlitFrench"/>
33       <xsd:enumeration value="none"/>
34     </xsd:restriction>
35   </xsd:simpleType>

```



```

36 <xsd:simpleType name="ST_AlglClass">
37   <xsd:restriction base="xsd:string">
38     <xsd:enumeration value="hash"/>
39     <xsd:enumeration value="custom"/>
40   </xsd:restriction>
41 </xsd:simpleType>
42 <xsd:simpleType name="ST_CryptProv">
43   <xsd:restriction base="xsd:string">
44     <xsd:enumeration value="rsaAES"/>
45     <xsd:enumeration value="rsaFull"/>
46     <xsd:enumeration value="custom"/>
47   </xsd:restriction>
48 </xsd:simpleType>
49 <xsd:simpleType name="ST_AlglType">
50   <xsd:restriction base="xsd:string">
51     <xsd:enumeration value="typeAny"/>
52     <xsd:enumeration value="custom"/>
53   </xsd:restriction>
54 </xsd:simpleType>
55 <xsd:simpleType name="ST_ColorType">
56   <xsd:restriction base="xsd:string"/>
57 </xsd:simpleType>
58 <xsd:simpleType name="ST_Guid">
59   <xsd:restriction base="xsd:token">
60     <xsd:pattern value="\{[0-9A-F]{8}-[0-9A-F]{4}-[0-9A-F]{4}-[0-9A-F]{4}-[0-9A-F]{12}\}"/>
61   </xsd:restriction>
62 </xsd:simpleType>
63 <xsd:simpleType name="ST_OnOff">
64   <xsd:union memberTypes="xsd:boolean ST_OnOff1"/>
65 </xsd:simpleType>
66 <xsd:simpleType name="ST_OnOff1">
67   <xsd:restriction base="xsd:string">
68     <xsd:enumeration value="on"/>
69     <xsd:enumeration value="off"/>
70   </xsd:restriction>
71 </xsd:simpleType>
72 <xsd:simpleType name="ST_String">
73   <xsd:restriction base="xsd:string"/>
74 </xsd:simpleType>
75 <xsd:simpleType name="ST_XmlName">
76   <xsd:restriction base="xsd:NCName">
77     <xsd:minLength value="1"/>
78     <xsd:maxLength value="255"/>
79   </xsd:restriction>
80 </xsd:simpleType>
81 <xsd:simpleType name="ST_TrueFalse">
82   <xsd:restriction base="xsd:string">
83     <xsd:enumeration value="t"/>
84     <xsd:enumeration value="f"/>
85     <xsd:enumeration value="true"/>
86     <xsd:enumeration value="false"/>
87   </xsd:restriction>
88 </xsd:simpleType>

```



```

89 <xsd:simpleType name="ST_TrueFalseBlank">
90   <xsd:restriction base="xsd:string">
91     <xsd:enumeration value="t"/>
92     <xsd:enumeration value="f"/>
93     <xsd:enumeration value="true"/>
94     <xsd:enumeration value="false"/>
95     <xsd:enumeration value=""/>
96     <xsd:enumeration value="True"/>
97     <xsd:enumeration value="False"/>
98   </xsd:restriction>
99 </xsd:simpleType>
100 <xsd:simpleType name="ST_UnsignedDecimalNumber">
101   <xsd:restriction base="xsd:unsignedLong"/>
102 </xsd:simpleType>
103 <xsd:simpleType name="ST_TwipsMeasure">
104   <xsd:union memberTypes="ST_UnsignedDecimalNumber ST_PositiveUniversalMeasure"/>
105 </xsd:simpleType>
106 <xsd:simpleType name="ST_VerticalAlignRun">
107   <xsd:restriction base="xsd:string">
108     <xsd:enumeration value="baseline"/>
109     <xsd:enumeration value="superscript"/>
110     <xsd:enumeration value="subscript"/>
111   </xsd:restriction>
112 </xsd:simpleType>
113 <xsd:simpleType name="ST_Xstring">
114   <xsd:restriction base="xsd:string"/>
115 </xsd:simpleType>
116 <xsd:simpleType name="ST_XAlign">
117   <xsd:restriction base="xsd:string">
118     <xsd:enumeration value="left"/>
119     <xsd:enumeration value="center"/>
120     <xsd:enumeration value="right"/>
121     <xsd:enumeration value="inside"/>
122     <xsd:enumeration value="outside"/>
123   </xsd:restriction>
124 </xsd:simpleType>
125 <xsd:simpleType name="ST_YAlign">
126   <xsd:restriction base="xsd:string">
127     <xsd:enumeration value="inline"/>
128     <xsd:enumeration value="top"/>
129     <xsd:enumeration value="center"/>
130     <xsd:enumeration value="bottom"/>
131     <xsd:enumeration value="inside"/>
132     <xsd:enumeration value="outside"/>
133   </xsd:restriction>
134 </xsd:simpleType>
135 <xsd:simpleType name="ST_ConformanceClass">
136   <xsd:restriction base="xsd:string">
137     <xsd:enumeration value="strict"/>
138     <xsd:enumeration value="transitional"/>
139   </xsd:restriction>
140 </xsd:simpleType>
141 <xsd:simpleType name="ST_UniversalMeasure">

```



```

142     <xsd:restriction base="xsd:string">
143       <xsd:pattern value="-?[0-9]+(\.[0-9]+)?(mm|cm|in|pt|pc|pi)"/>
144     </xsd:restriction>
145   </xsd:simpleType>
146   <xsd:simpleType name="ST_PositiveUniversalMeasure">
147     <xsd:restriction base="ST_UniversalMeasure">
148       <xsd:pattern value="[0-9]+(\.[0-9]+)?(mm|cm|in|pt|pc|pi)"/>
149     </xsd:restriction>
150   </xsd:simpleType>
151   <xsd:simpleType name="ST_Percentage">
152     <xsd:restriction base="xsd:string">
153       <xsd:pattern value="-?[0-9]+(\.[0-9]+)?%/>
154     </xsd:restriction>
155   </xsd:simpleType>
156   <xsd:simpleType name="ST_FixedPercentage">
157     <xsd:restriction base="ST_Percentage">
158       <xsd:pattern value="-?((100)|([0-9][0-9]?))(\.[0-9][0-9]?)?%/>
159     </xsd:restriction>
160   </xsd:simpleType>
161   <xsd:simpleType name="ST_PositivePercentage">
162     <xsd:restriction base="ST_Percentage">
163       <xsd:pattern value="[0-9]+(\.[0-9]+)?%/>
164     </xsd:restriction>
165   </xsd:simpleType>
166   <xsd:simpleType name="ST_PositiveFixedPercentage">
167     <xsd:restriction base="ST_Percentage">
168       <xsd:pattern value="((100)|([0-9][0-9]?))(\.[0-9][0-9]?)?%/>
169     </xsd:restriction>
170   </xsd:simpleType>
171 </xsd:schema>

```

## A.9 Custom XML Schema References

This schema is available in the file `shared-customXmlSchemaProperties.xsd`.

```

1 <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
2   xmlns="http://schemas.openxmlformats.org/schemaLibrary/2006/main"
3   targetNamespace="http://schemas.openxmlformats.org/schemaLibrary/2006/main"
4   attributeFormDefault="qualified" elementFormDefault="qualified">
5   <xsd:complexType name="CT_Schema">
6     <xsd:attribute name="uri" type="xsd:string" default=""/>
7     <xsd:attribute name="manifestLocation" type="xsd:string"/>
8     <xsd:attribute name="schemaLocation" type="xsd:string"/>
9     <xsd:attribute name="schemaLanguage" type="xsd:token"/>
10  </xsd:complexType>
11  <xsd:complexType name="CT_SchemaLibrary">
12    <xsd:sequence>
13      <xsd:element name="schema" type="CT_Schema" minOccurs="0" maxOccurs="unbounded"/>
14    </xsd:sequence>
15  </xsd:complexType>
16  <xsd:element name="schemaLibrary" type="CT_SchemaLibrary"/>
17 </xsd:schema>

```



# Annex B.

## (informative)

### Schemas – RELAX NG

This annex is informative.

#### B.1 General

This Office Open XML specification includes a family of schemas defined using the RELAX NG syntax. The definitions of these schemas follow below, and they also reside in an accompanying file named OfficeOpenXML-RELAXNG-Transitional.zip, which is distributed in electronic form.

As well as the differences between RELAX NG and XML Schemas described in Part 1, §B, “Schemas – RELAX NG”, here are some other differences:

- The RELAX NG schemas represent co-occurrence constraints between elements and attributes. For example, pml.rnc specifies that the pic element and the attribute spid in p\_CT\_OleObject are mutually exclusive. Meanwhile, pml.xsd simply allows both in CT\_OleObject.
- VML drawing parts (§8.1) can be validated against RELAX NG schemas, but cannot be validated against XSD schemas. This is because there are no XSD schemas for the unqualified xml element, which is the root element of VML drawing parts.

#### B.2 WordprocessingML

This schema is available in the file wml.rnc.

```

1 namespace m =
2   "http://schemas.openxmlformats.org/officeDocument/2006/math"
3 namespace o = "urn:schemas-microsoft-com:office:office"
4 namespace r =
5   "http://schemas.openxmlformats.org/officeDocument/2006/relationships"
6 namespace s =
7   "http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
8 namespace sl =
9   "http://schemas.openxmlformats.org/schemaLibrary/2006/main"
10 namespace v = "urn:schemas-microsoft-com:VML"
11 default namespace w =
12   "http://schemas.openxmlformats.org/wordprocessingml/2006/main"
13 namespace w10 = "urn:schemas-microsoft-com:office:word"
14 namespace wp =
15   "http://schemas.openxmlformats.org/drawingml/2006/wordprocessingDrawing"
16 namespace x = "urn:schemas-microsoft-com:office:excel"
17

```



```

18 w_CT_Empty = empty
19 w_CT_OnOff = attribute w:val { s_ST_OnOff }?
20 w_ST_LongHexNumber = xsd:hexBinary { length = "4" }
21 w_CT_LongHexNumber = attribute w:val { w_ST_LongHexNumber }
22 w_ST_ShortHexNumber = xsd:hexBinary { length = "2" }
23 w_ST_UcharHexNumber = xsd:hexBinary { length = "1" }
24 w_CT_Charset =
25     attribute w:val { w_ST_UcharHexNumber }?,
26     attribute w:characterSet { s_ST_String }?
27     ## default value: ISO-8859-1
28 w_ST_DecimalNumberOrPercent =
29     w_ST_UnqualifiedPercentage | s_ST_Percentage
30 w_ST_UnqualifiedPercentage = xsd:integer
31 w_ST_DecimalNumber = xsd:integer
32 w_CT_DecimalNumber = attribute w:val { w_ST_DecimalNumber }
33 w_CT_UnsignedDecimalNumber =
34     attribute w:val { s_ST_UnsignedDecimalNumber }
35 w_CT_DecimalNumberOrPrecent =
36     attribute w:val { w_ST_DecimalNumberOrPercent }
37 w_CT_TwipsMeasure = attribute w:val { s_ST_TwipsMeasure }
38 w_ST_SignedTwipsMeasure = xsd:integer | s_ST_UniversalMeasure
39 w_CT_SignedTwipsMeasure = attribute w:val { w_ST_SignedTwipsMeasure }
40 w_ST_PixelsMeasure = s_ST_UnsignedDecimalNumber
41 w_CT_PixelsMeasure = attribute w:val { w_ST_PixelsMeasure }
42 w_ST_HpsMeasure =
43     s_ST_UnsignedDecimalNumber | s_ST_PositiveUniversalMeasure
44 w_CT_HpsMeasure = attribute w:val { w_ST_HpsMeasure }
45 w_ST_SignedHpsMeasure = xsd:integer | s_ST_UniversalMeasure
46 w_CT_SignedHpsMeasure = attribute w:val { w_ST_SignedHpsMeasure }
47 w_ST_DateTime = xsd:dateTime
48 w_ST_MacroName = xsd:string { maxLength = "33" }
49 w_CT_MacroName = attribute w:val { w_ST_MacroName }
50 w_ST_EighthPointMeasure = s_ST_UnsignedDecimalNumber
51 w_ST_PointMeasure = s_ST_UnsignedDecimalNumber
52 w_CT_String = attribute w:val { s_ST_String }
53 w_ST_TextScale = w_ST_TextScalePercent | w_ST_TextScaleDecimal
54 w_ST_TextScalePercent = xsd:string { pattern = "0*(600|([0-5]?[0-9]?[0-9]))%" }
55 w_ST_TextScaleDecimal = xsd:integer { minInclusive = "0" maxInclusive = "600" }
56 w_CT_TextScale = attribute w:val { w_ST_TextScale }?
57 w_ST_HighlightColor =
58     string "black"
59     | string "blue"
60     | string "cyan"
61     | string "green"
62     | string "magenta"
63     | string "red"
64     | string "yellow"
65     | string "white"
66     | string "darkBlue"
67     | string "darkCyan"
68     | string "darkGreen"
69     | string "darkMagenta"
70     | string "darkRed"

```



```

71 | string "darkYellow"
72 | string "darkGray"
73 | string "lightGray"
74 | string "none"
75 w_CT_Highlight = attribute w:val { w_ST_HighlightColor }
76 w_ST_HexColorAuto = string "auto"
77 w_ST_HexColor = w_ST_HexColorAuto | s_ST_HexColorRGB
78 w_CT_Color =
79     attribute w:val { w_ST_HexColor },
80     attribute w:themeColor { w_ST_ThemeColor }?,
81     attribute w:themeTint { w_ST_UcharHexNumber }?,
82     attribute w:themeShade { w_ST_UcharHexNumber }?
83 w_CT_Lang = attribute w:val { s_ST_Lang }
84 w_CT_Guid = attribute w:val { s_ST_Guid }?
85 w_ST_Underline =
86     string "single"
87     | string "words"
88     | string "double"
89     | string "thick"
90     | string "dotted"
91     | string "dottedHeavy"
92     | string "dash"
93     | string "dashedHeavy"
94     | string "dashLong"
95     | string "dashLongHeavy"
96     | string "dotDash"
97     | string "dashDotHeavy"
98     | string "dotDotDash"
99     | string "dashDotDotHeavy"
100    | string "wave"
101    | string "wavyHeavy"
102    | string "wavyDouble"
103    | string "none"
104 w_CT_Underline =
105     attribute w:val { w_ST_Underline }?,
106     attribute w:color { w_ST_HexColor }?,
107     ## default value: auto
108     attribute w:themeColor { w_ST_ThemeColor }?,
109     attribute w:themeTint { w_ST_UcharHexNumber }?,
110     attribute w:themeShade { w_ST_UcharHexNumber }?
111 w_ST_TextEffect =
112     string "blinkBackground"
113     | string "lights"
114     | string "antsBlack"
115     | string "antsRed"
116     | string "shimmer"
117     | string "sparkle"
118     | string "none"
119 w_CT_TextEffect = attribute w:val { w_ST_TextEffect }
120 w_ST_Border =
121     string "nil"
122     | string "none"
123     | string "single"

```



```

124 | string "thick"
125 | string "double"
126 | string "dotted"
127 | string "dashed"
128 | string "dotDash"
129 | string "dotDotDash"
130 | string "triple"
131 | string "thinThickSmallGap"
132 | string "thickThinSmallGap"
133 | string "thinThickThinSmallGap"
134 | string "thinThickMediumGap"
135 | string "thickThinMediumGap"
136 | string "thinThickThinMediumGap"
137 | string "thinThickLargeGap"
138 | string "thickThinLargeGap"
139 | string "thinThickThinLargeGap"
140 | string "wave"
141 | string "doubleWave"
142 | string "dashSmallGap"
143 | string "dashDotStroked"
144 | string "threeDEmboss"
145 | string "threeDEngrave"
146 | string "outset"
147 | string "inset"
148 | string "apples"
149 | string "archedScallops"
150 | string "babyPacifier"
151 | string "babyRattle"
152 | string "balloons3Colors"
153 | string "balloonsHotAir"
154 | string "basicBlackDashes"
155 | string "basicBlackDots"
156 | string "basicBlackSquares"
157 | string "basicThinLines"
158 | string "basicWhiteDashes"
159 | string "basicWhiteDots"
160 | string "basicWhiteSquares"
161 | string "basicWideInline"
162 | string "basicWideMidline"
163 | string "basicWideOutline"
164 | string "bats"
165 | string "birds"
166 | string "birdsFlight"
167 | string "cabins"
168 | string "cakeSlice"
169 | string "candyCorn"
170 | string "celticKnotwork"
171 | string "certificateBanner"
172 | string "chainLink"
173 | string "champagneBottle"
174 | string "checkedBarBlack"
175 | string "checkedBarColor"
176 | string "checkered"

```



```

177 | string "christmasTree"
178 | string "circlesLines"
179 | string "circlesRectangles"
180 | string "classicalWave"
181 | string "clocks"
182 | string "compass"
183 | string "confetti"
184 | string "confettiGrays"
185 | string "confettiOutline"
186 | string "confettiStreamers"
187 | string "confettiWhite"
188 | string "cornerTriangles"
189 | string "couponCutoutDashes"
190 | string "couponCutoutDots"
191 | string "crazyMaze"
192 | string "creaturesButterfly"
193 | string "creaturesFish"
194 | string "creaturesInsects"
195 | string "creaturesLadyBug"
196 | string "crossStitch"
197 | string "cup"
198 | string "decoArch"
199 | string "decoArchColor"
200 | string "decoBlocks"
201 | string "diamondsGray"
202 | string "doubled"
203 | string "doubleDiamonds"
204 | string "earth1"
205 | string "earth2"
206 | string "earth3"
207 | string "eclipsingSquares1"
208 | string "eclipsingSquares2"
209 | string "eggsBlack"
210 | string "fans"
211 | string "film"
212 | string "firecrackers"
213 | string "flowersBlockPrint"
214 | string "flowersDaisies"
215 | string "flowersModern1"
216 | string "flowersModern2"
217 | string "flowersPansy"
218 | string "flowersRedRose"
219 | string "flowersRoses"
220 | string "flowersTeacup"
221 | string "flowersTiny"
222 | string "gems"
223 | string "gingerbreadMan"
224 | string "gradient"
225 | string "handmade1"
226 | string "handmade2"
227 | string "heartBalloon"
228 | string "heartGray"
229 | string "hearts"

```



230		string	"heebieJeebies"
231		string	"holly"
232		string	"houseFunky"
233		string	"hypnotic"
234		string	"iceCreamCones"
235		string	"lightBulb"
236		string	"lightning1"
237		string	"lightning2"
238		string	"mapPins"
239		string	"mapleLeaf"
240		string	"mapleMuffins"
241		string	"marquee"
242		string	"marqueeToothed"
243		string	"moons"
244		string	"mosaic"
245		string	"musicNotes"
246		string	"northwest"
247		string	"ovals"
248		string	"packages"
249		string	"palmsBlack"
250		string	"palmsColor"
251		string	"paperClips"
252		string	"papyrus"
253		string	"partyFavor"
254		string	"partyGlass"
255		string	"pencils"
256		string	"people"
257		string	"peopleWaving"
258		string	"peopleHats"
259		string	"poinsettias"
260		string	"postageStamp"
261		string	"pumpkin1"
262		string	"pushPinNote2"
263		string	"pushPinNote1"
264		string	"pyramids"
265		string	"pyramidsAbove"
266		string	"quadrants"
267		string	"rings"
268		string	"safari"
269		string	"sawtooth"
270		string	"sawtoothGray"
271		string	"scaredCat"
272		string	"seattle"
273		string	"shadowedSquares"
274		string	"sharksTeeth"
275		string	"shorebirdTracks"
276		string	"skyrocket"
277		string	"snowflakeFancy"
278		string	"snowflakes"
279		string	"sombrero"
280		string	"southwest"
281		string	"stars"
282		string	"starsTop"



```

283 | string "stars3d"
284 | string "starsBlack"
285 | string "starsShadowed"
286 | string "sun"
287 | string "swirligig"
288 | string "tornPaper"
289 | string "tornPaperBlack"
290 | string "trees"
291 | string "triangleParty"
292 | string "triangles"
293 | string "triangle1"
294 | string "triangle2"
295 | string "triangleCircle1"
296 | string "triangleCircle2"
297 | string "shapes1"
298 | string "shapes2"
299 | string "twistedLines1"
300 | string "twistedLines2"
301 | string "vine"
302 | string "waveline"
303 | string "weavingAngles"
304 | string "weavingBraid"
305 | string "weavingRibbon"
306 | string "weavingStrips"
307 | string "whiteFlowers"
308 | string "woodwork"
309 | string "xIllusions"
310 | string "zanyTriangles"
311 | string "zigZag"
312 | string "zigZagStitch"
313 | string "custom"
314 w_CT_Border =
315     attribute w:val { w_ST_Border },
316     attribute w:color { w_ST_HexColor }?,
317     ## default value: auto
318     attribute w:themeColor { w_ST_ThemeColor }?,
319     attribute w:themeTint { w_ST_UcharHexNumber }?,
320     attribute w:themeShade { w_ST_UcharHexNumber }?,
321     attribute w:sz { w_ST_EighthPointMeasure }?,
322     attribute w:space { w_ST_PointMeasure }?,
323     ## default value: 0
324     attribute w:shadow { s_ST_OnOff }?,
325     attribute w:frame { s_ST_OnOff }?
326 w_ST_Shd =
327     string "nil"
328     | string "clear"
329     | string "solid"
330     | string "horzStripe"
331     | string "vertStripe"
332     | string "reverseDiagStripe"
333     | string "diagStripe"
334     | string "horzCross"
335     | string "diagCross"

```



```

336 | string "thinHorzStripe"
337 | string "thinVertStripe"
338 | string "thinReverseDiagStripe"
339 | string "thinDiagStripe"
340 | string "thinHorzCross"
341 | string "thinDiagCross"
342 | string "pct5"
343 | string "pct10"
344 | string "pct12"
345 | string "pct15"
346 | string "pct20"
347 | string "pct25"
348 | string "pct30"
349 | string "pct35"
350 | string "pct37"
351 | string "pct40"
352 | string "pct45"
353 | string "pct50"
354 | string "pct55"
355 | string "pct60"
356 | string "pct62"
357 | string "pct65"
358 | string "pct70"
359 | string "pct75"
360 | string "pct80"
361 | string "pct85"
362 | string "pct87"
363 | string "pct90"
364 | string "pct95"
365 w_CT_Shd =
366   attribute w:val { w_ST_Shd },
367   attribute w:color { w_ST_HexColor }?,
368   attribute w:themeColor { w_ST_ThemeColor }?,
369   attribute w:themeTint { w_ST_UcharHexNumber }?,
370   attribute w:themeShade { w_ST_UcharHexNumber }?,
371   attribute w:fill { w_ST_HexColor }?,
372   attribute w:themeFill { w_ST_ThemeColor }?,
373   attribute w:themeFillTint { w_ST_UcharHexNumber }?,
374   attribute w:themeFillShade { w_ST_UcharHexNumber }?
375 w_CT_VerticalAlignRun = attribute w:val { s_ST_VerticalAlignRun }
376 w_CT_FitText =
377   attribute w:val { s_ST_TwipsMeasure },
378   attribute w:id { w_ST_DecimalNumber }?
379 w_ST_Em =
380   string "none"
381   | string "dot"
382   | string "comma"
383   | string "circle"
384   | string "underDot"
385 w_CT_Em = attribute w:val { w_ST_Em }
386 w_CT_Language =
387   attribute w:val { s_ST_Lang }?,
388   attribute w:eastAsia { s_ST_Lang }?,

```



```

389     attribute w:bidi { s_ST_Lang }?
390 w_ST_CombineBrackets =
391     string "none"
392     | string "round"
393     | string "square"
394     | string "angle"
395     | string "curly"
396 w_CT_EastAsianLayout =
397     attribute w:id { w_ST_DecimalNumber }?,
398     attribute w:combine { s_ST_OnOff }?,
399     attribute w:combineBrackets { w_ST_CombineBrackets }?,
400     attribute w:vert { s_ST_OnOff }?,
401     attribute w:vertCompress { s_ST_OnOff }?
402 w_ST_HeightRule = string "auto" | string "exact" | string "atLeast"
403 w_ST_Wrap =
404     string "auto"
405     | string "notBeside"
406     | string "around"
407     | string "tight"
408     | string "through"
409     | string "none"
410 w_ST_VAnchor = string "text" | string "margin" | string "page"
411 w_ST_HAnchor = string "text" | string "margin" | string "page"
412 w_ST_DropCap = string "none" | string "drop" | string "margin"
413 w_CT_FramePr =
414     attribute w:dropCap { w_ST_DropCap }?,
415     attribute w:lines { w_ST_DecimalNumber }?,
416     attribute w:w { s_ST_TwipsMeasure }?,
417     attribute w:h { s_ST_TwipsMeasure }?,
418     attribute w:vSpace { s_ST_TwipsMeasure }?,
419     attribute w:hSpace { s_ST_TwipsMeasure }?,
420     attribute w:wrap { w_ST_Wrap }?,
421     attribute w:hAnchor { w_ST_HAnchor }?,
422     attribute w:vAnchor { w_ST_VAnchor }?,
423     attribute w:x { w_ST_SignedTwipsMeasure }?,
424     attribute w:xAlign { s_ST_XAlign }?,
425     attribute w:y { w_ST_SignedTwipsMeasure }?,
426     attribute w:yAlign { s_ST_YAlign }?,
427     attribute w:hRule { w_ST_HeightRule }?,
428     attribute w:anchorLock { s_ST_OnOff }?
429 w_ST_TabJc =
430     string "clear"
431     | string "start"
432     | string "center"
433     | string "end"
434     | string "decimal"
435     | string "bar"
436     | string "num"
437     | string "left"
438     | string "right"
439 w_ST_TabTlc =
440     string "none"
441     | string "dot"

```



```

442 | string "hyphen"
443 | string "underscore"
444 | string "heavy"
445 | string "middleDot"
446 w_CT_TabStop =
447   attribute w:val { w_ST_TabJc },
448   attribute w:leader { w_ST_TabTlc }?,
449   attribute w:pos { w_ST_SignedTwipsMeasure }
450 w_ST_LineSpacingRule = string "auto" | string "exact" | string "atLeast"
451 w_CT_Spacing =
452   attribute w:before { s_ST_TwipsMeasure }?,
453   ## default value: 0
454   attribute w:beforeLines { w_ST_DecimalNumber }?,
455   ## default value: 0
456   attribute w:beforeAutospacing { s_ST_OnOff }?,
457   ## default value: off
458   attribute w:after { s_ST_TwipsMeasure }?,
459   ## default value: 0
460   attribute w:afterLines { w_ST_DecimalNumber }?,
461   ## default value: 0
462   attribute w:afterAutospacing { s_ST_OnOff }?,
463   ## default value: off
464   attribute w:line { w_ST_SignedTwipsMeasure }?,
465   ## default value: 0
466   attribute w:lineRule { w_ST_LineSpacingRule }?
467   ## default value: auto
468 w_CT_Ind =
469   attribute w:start { w_ST_SignedTwipsMeasure }?,
470   attribute w:startChars { w_ST_DecimalNumber }?,
471   attribute w:end { w_ST_SignedTwipsMeasure }?,
472   attribute w:endChars { w_ST_DecimalNumber }?,
473   attribute w:left { w_ST_SignedTwipsMeasure }?,
474   attribute w:leftChars { w_ST_DecimalNumber }?,
475   attribute w:right { w_ST_SignedTwipsMeasure }?,
476   attribute w:rightChars { w_ST_DecimalNumber }?,
477   attribute w:hanging { s_ST_TwipsMeasure }?,
478   attribute w:hangingChars { w_ST_DecimalNumber }?,
479   attribute w:firstLine { s_ST_TwipsMeasure }?,
480   attribute w:firstLineChars { w_ST_DecimalNumber }?
481 w_ST_Jc =
482   string "start"
483   | string "center"
484   | string "end"
485   | string "both"
486   | string "mediumKashida"
487   | string "distribute"
488   | string "numTab"
489   | string "highKashida"
490   | string "lowKashida"
491   | string "thaiDistribute"
492   | string "left"
493   | string "right"
494 w_ST_JcTable =

```



```

495     string "center"
496     | string "end"
497     | string "left"
498     | string "right"
499     | string "start"
500 w_CT_Jc = attribute w:val { w_ST_Jc }
501 w_CT_JcTable = attribute w:val { w_ST_JcTable }
502 w_ST_View =
503     string "none"
504     | string "print"
505     | string "outline"
506     | string "masterPages"
507     | string "normal"
508     | string "web"
509 w_CT_View = attribute w:val { w_ST_View }
510 w_ST_Zoom =
511     string "none"
512     | string "fullPage"
513     | string "bestFit"
514     | string "textFit"
515 w_CT_Zoom =
516     attribute w:val { w_ST_Zoom }?,
517     attribute w:percent { w_ST_DecimalNumberOrPercent }
518 w_CT_WritingStyle =
519     attribute w:lang { s_ST_Lang },
520     attribute w:vendorID { s_ST_String },
521     attribute w:dllVersion { s_ST_String },
522     attribute w:nlCheck { s_ST_OnOff }?,
523     ## default value: off
524     attribute w:checkStyle { s_ST_OnOff },
525     attribute w:appName { s_ST_String }
526 w_ST_Proof = string "clean" | string "dirty"
527 w_CT_Proof =
528     attribute w:spelling { w_ST_Proof }?,
529     attribute w:grammar { w_ST_Proof }?
530 w_ST_DocType = xsd:string
531 w_CT_DocType = attribute w:val { w_ST_DocType }
532 w_ST_DocProtect =
533     string "none"
534     | string "readOnly"
535     | string "comments"
536     | string "trackedChanges"
537     | string "forms"
538 w_AG_Password =
539     attribute w:algorithmName { s_ST_String }?,
540     attribute w:hashValue { xsd:base64Binary }?,
541     attribute w:saltValue { xsd:base64Binary }?,
542     attribute w:spinCount { w_ST_DecimalNumber }?
543 w_AG_TransitionalPassword =
544     attribute w:cryptProviderType { s_ST_CryptProv }?,
545     attribute w:cryptAlgorithmClass { s_ST_AlgorithmClass }?,
546     attribute w:cryptAlgorithmType { s_ST_AlgorithmType }?,
547     attribute w:cryptAlgorithmSid { w_ST_DecimalNumber }?,

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```

548     attribute w:cryptSpinCount { w_ST_DecimalNumber }?,
549     attribute w:cryptProvider { s_ST_String }?,
550     attribute w:algIdExt { w_ST_LongHexNumber }?,
551     attribute w:algIdExtSource { s_ST_String }?,
552     attribute w:cryptProviderTypeExt { w_ST_LongHexNumber }?,
553     attribute w:cryptProviderTypeExtSource { s_ST_String }?,
554     attribute w:hash { xsd:base64Binary }?,
555     attribute w:salt { xsd:base64Binary }?
556 w_CT_DocProtect =
557     attribute w:edit { w_ST_DocProtect }?,
558     attribute w:formatting { s_ST_OnOff }?,
559     attribute w:enforcement { s_ST_OnOff }?,
560     w_AG_Password,
561     w_AG_TransitionalPassword
562 w_ST_MailMergeDocType =
563     string "catalog"
564     | string "envelopes"
565     | string "mailingLabels"
566     | string "formLetters"
567     | string "email"
568     | string "fax"
569 w_CT_MailMergeDocType = attribute w:val { w_ST_MailMergeDocType }
570 w_ST_MailMergeDataType = xsd:string
571 w_CT_MailMergeDataType = attribute w:val { w_ST_MailMergeDataType }
572 w_ST_MailMergeDest =
573     string "newDocument"
574     | string "printer"
575     | string "email"
576     | string "fax"
577 w_CT_MailMergeDest = attribute w:val { w_ST_MailMergeDest }
578 w_ST_MailMergeOdsoFMDFieldType = string "null" | string "dbColumn"
579 w_CT_MailMergeOdsoFMDFieldType =
580     attribute w:val { w_ST_MailMergeOdsoFMDFieldType }
581 w_CT_TrackChangesView =
582     attribute w:markup { s_ST_OnOff }?,
583     attribute w:comments { s_ST_OnOff }?,
584     attribute w:insDel { s_ST_OnOff }?,
585     attribute w:formatting { s_ST_OnOff }?,
586     attribute w:inkAnnotations { s_ST_OnOff }?
587 w_CT_Kinsoku =
588     attribute w:lang { s_ST_Lang },
589     attribute w:val { s_ST_String }
590 w_ST_TextDirection =
591     string "tb"
592     | string "rl"
593     | string "lr"
594     | string "tbV"
595     | string "rlV"
596     | string "lrV"
597     | string "btLr"
598     | string "lrTb"
599     | string "lrTbV"
600     | string "tbLrV"

```



```

601 | string "tbl"
602 | string "tbl"
603 w_CT_TextDirection = attribute w:val { w_ST_TextDirection }
604 w_ST_TextAlignment =
605     string "top"
606     | string "center"
607     | string "baseline"
608     | string "bottom"
609     | string "auto"
610 w_CT_TextAlignment = attribute w:val { w_ST_TextAlignment }
611 w_ST_DisplacedByCustomXml = string "next" | string "prev"
612 w_ST_AnnotationVMerge = string "cont" | string "rest"
613 w_CT_Markup = attribute w:id { w_ST_DecimalNumber }
614 w_CT_TrackChange =
615     w_CT_Markup,
616     attribute w:author { s_ST_String },
617     attribute w:date { w_ST_DateTime }?
618 w_CT_CellMergeTrackChange =
619     w_CT_TrackChange,
620     attribute w:vMerge { w_ST_AnnotationVMerge }?,
621     attribute w:vMergeOrig { w_ST_AnnotationVMerge }?
622 w_CT_TrackChangeRange =
623     w_CT_TrackChange,
624     attribute w:displacedByCustomXml { w_ST_DisplacedByCustomXml }?
625 w_CT_MarkupRange =
626     w_CT_Markup,
627     attribute w:displacedByCustomXml { w_ST_DisplacedByCustomXml }?
628 w_CT_BookmarkRange =
629     w_CT_MarkupRange,
630     attribute w:colFirst { w_ST_DecimalNumber }?,
631     attribute w:colLast { w_ST_DecimalNumber }?
632 w_CT_Bookmark =
633     w_CT_BookmarkRange,
634     attribute w:name { s_ST_String }
635 w_CT_MoveBookmark =
636     w_CT_Bookmark,
637     attribute w:author { s_ST_String },
638     attribute w:date { w_ST_DateTime }
639 w_CT_Comment =
640     w_CT_TrackChange,
641     w_EG_BlockLevelElts*,
642     attribute w:initials { s_ST_String }?
643 w_CT_TrackChangeNumbering =
644     w_CT_TrackChange,
645     attribute w:original { s_ST_String }?
646 w_CT_TblPrExChange =
647     w_CT_TrackChange,
648     element tblPrEx { w_CT_TblPrExBase }
649 w_CT_TcPrChange =
650     w_CT_TrackChange,
651     element tcPr { w_CT_TcPrInner }
652 w_CT_TrPrChange =
653     w_CT_TrackChange,

```



```

654     element trPr { w_CT_TrPrBase }
655 w_CT_TblGridChange =
656     w_CT_Markup,
657     element tblGrid { w_CT_TblGridBase }
658 w_CT_TblPrChange =
659     w_CT_TrackChange,
660     element tblPr { w_CT_TblPrBase }
661 w_CT_SectPrChange =
662     w_CT_TrackChange,
663     element sectPr { w_CT_SectPrBase }?
664 w_CT_PPrChange =
665     w_CT_TrackChange,
666     element pPr { w_CT_PPrBase }
667 w_CT_RPrChange =
668     w_CT_TrackChange,
669     element rPr { w_CT_RPrOriginal }
670 w_CT_ParaRPrChange =
671     w_CT_TrackChange,
672     element rPr { w_CT_ParaRPrOriginal }
673 w_CT_RunTrackChange =
674     w_CT_TrackChange, (w_EG_ContentRunContent | m_EG_OMathMathElements)*
675 w_EG_PContentMath = w_EG_PContentBase* | w_EG_ContentRunContentBase*
676 w_EG_PContentBase =
677     element customXml { w_CT_CustomXmlRun }
678     | element fldSimple { w_CT_SimpleField }*
679     | element hyperlink { w_CT_Hyperlink }
680 w_EG_ContentRunContentBase =
681     element smartTag { w_CT_SmartTagRun }
682     | element sdt { w_CT_SdtRun }
683     | w_EG_RunLevelElts*
684 w_EG_CellMarkupElements =
685     element cellIns { w_CT_TrackChange }?
686     | element cellDel { w_CT_TrackChange }?
687     | element cellMerge { w_CT_CellMergeTrackChange }?
688 w_EG_RangeMarkupElements =
689     element bookmarkStart { w_CT_Bookmark }
690     | element bookmarkEnd { w_CT_MarkupRange }
691     | element moveFromRangeStart { w_CT_MoveBookmark }
692     | element moveFromRangeEnd { w_CT_MarkupRange }
693     | element moveToRangeStart { w_CT_MoveBookmark }
694     | element moveToRangeEnd { w_CT_MarkupRange }
695     | element commentRangeStart { w_CT_MarkupRange }
696     | element commentRangeEnd { w_CT_MarkupRange }
697     | element customXmlInsRangeStart { w_CT_TrackChange }
698     | element customXmlInsRangeEnd { w_CT_Markup }
699     | element customXmlDelRangeStart { w_CT_TrackChange }
700     | element customXmlDelRangeEnd { w_CT_Markup }
701     | element customXmlMoveFromRangeStart { w_CT_TrackChange }
702     | element customXmlMoveFromRangeEnd { w_CT_Markup }
703     | element customXmlMoveToRangeStart { w_CT_TrackChange }
704     | element customXmlMoveToRangeEnd { w_CT_Markup }
705 w_CT_NumPr =
706     element ilvl { w_CT_DecimalNumber }?,

```



```

707     element numId { w_CT_DecimalNumber }?,
708     element numberingChange { w_CT_TrackChangeNumbering }?,
709     element ins { w_CT_TrackChange }?
710 w_CT_PBdr =
711     element top { w_CT_Border }?,
712     element left { w_CT_Border }?,
713     element bottom { w_CT_Border }?,
714     element right { w_CT_Border }?,
715     element between { w_CT_Border }?,
716     element bar { w_CT_Border }?
717 w_CT_Tabs = element tab { w_CT_TabStop }+
718 w_ST_TextboxTightWrap =
719     string "none"
720     | string "allLines"
721     | string "firstAndLastLine"
722     | string "firstLineOnly"
723     | string "lastLineOnly"
724 w_CT_TextboxTightWrap = attribute w:val { w_ST_TextboxTightWrap }
725 w_CT_PPr =
726     w_CT_PPrBase,
727     element rPr { w_CT_ParaRPr }?,
728     element sectPr { w_CT_SectPr }?,
729     element pPrChange { w_CT_PPrChange }?
730 w_CT_PPrBase =
731     element pStyle { w_CT_String }?,
732     element keepNext { w_CT_OnOff }?,
733     element keepLines { w_CT_OnOff }?,
734     element pageBreakBefore { w_CT_OnOff }?,
735     element framePr { w_CT_FramePr }?,
736     element widowControl { w_CT_OnOff }?,
737     element numPr { w_CT_NumPr }?,
738     element suppressLineNumbers { w_CT_OnOff }?,
739     element pBdr { w_CT_PBdr }?,
740     element shd { w_CT_Shd }?,
741     element tabs { w_CT_Tabs }?,
742     element suppressAutoHyphens { w_CT_OnOff }?,
743     element kinsoku { w_CT_OnOff }?,
744     element wordWrap { w_CT_OnOff }?,
745     element overflowPunct { w_CT_OnOff }?,
746     element topLinePunct { w_CT_OnOff }?,
747     element autoSpaceDE { w_CT_OnOff }?,
748     element autoSpaceDN { w_CT_OnOff }?,
749     element bidi { w_CT_OnOff }?,
750     element adjustRightInd { w_CT_OnOff }?,
751     element snapToGrid { w_CT_OnOff }?,
752     element spacing { w_CT_Spacing }?,
753     element ind { w_CT_Ind }?,
754     element contextualSpacing { w_CT_OnOff }?,
755     element mirrorIndents { w_CT_OnOff }?,
756     element suppressOverlap { w_CT_OnOff }?,
757     element jc { w_CT_Jc }?,
758     element textDirection { w_CT_TextDirection }?,
759     element textAlignment { w_CT_TextAlignment }?,

```



```

760     element textboxTightWrap { w_CT_TextboxTightWrap }?,
761     element outlineLvl { w_CT_DecimalNumber }?,
762     element divId { w_CT_DecimalNumber }?,
763     element cnfStyle { w_CT_Cnf }?
764 w_CT_PPrGeneral =
765     w_CT_PPrBase,
766     element pPrChange { w_CT_PPrChange }?
767 w_CT_Control =
768     attribute w:name { s_ST_String }?,
769     attribute w:shapeid { s_ST_String }?,
770     r_id?
771 w_CT_Background =
772     attribute w:color { w_ST_HexColor }?,
773     ## default value: auto
774     attribute w:themeColor { w_ST_ThemeColor }?,
775     attribute w:themeTint { w_ST_UcharHexNumber }?,
776     attribute w:themeShade { w_ST_UcharHexNumber }?,
777     (w_any_vml_vml*, w_any_vml_office*)+,
778     element drawing { w_CT_Drawing }?
779 w_CT_Rel = r_id
780 w_CT_Object =
781     attribute w:dxaOrig { s_ST_TwipsMeasure }?,
782     attribute w:dyaOrig { s_ST_TwipsMeasure }?,
783     (w_any_vml_vml*, w_any_vml_office*)+,
784     element drawing { w_CT_Drawing }?,
785     (element control { w_CT_Control }
786      | element objectLink { w_CT_ObjectLink }
787      | element objectEmbed { w_CT_ObjectEmbed }
788      | element movie { w_CT_Rel })?
789 w_CT_Picture =
790     (w_any_vml_vml*, w_any_vml_office*)+,
791     element movie { w_CT_Rel }?,
792     element control { w_CT_Control }?
793 w_CT_ObjectEmbed =
794     attribute w:drawAspect { w_ST_ObjectDrawAspect }?,
795     r_id,
796     attribute w:progId { s_ST_String }?,
797     attribute w:shapeId { s_ST_String }?,
798     attribute w:fieldCodes { s_ST_String }?
799 w_ST_ObjectDrawAspect = string "content" | string "icon"
800 w_CT_ObjectLink =
801     w_CT_ObjectEmbed,
802     attribute w:updateMode { w_ST_ObjectUpdateMode },
803     attribute w:lockedField { s_ST_OnOff }?
804 w_ST_ObjectUpdateMode = string "always" | string "onCall"
805 w_CT_Drawing = (wp_anchor? | wp_inline?)+
806 w_CT_SimpleField =
807     attribute w:instr { s_ST_String },
808     attribute w:fldLock { s_ST_OnOff }?,
809     attribute w:dirty { s_ST_OnOff }?,
810     element fldData { w_CT_Text }?,
811     w_EG_PContent*
812 w_ST_FldCharType = string "begin" | string "separate" | string "end"

```



```

813 w_ST_InfoTextType = string "text" | string "autoText"
814 w_ST_FFHelpTextVal = xsd:string { maxLength = "256" }
815 w_ST_FFStatusTextVal = xsd:string { maxLength = "140" }
816 w_ST_FFName = xsd:string { maxLength = "65" }
817 w_ST_FFTextType =
818     string "regular"
819     | string "number"
820     | string "date"
821     | string "currentTime"
822     | string "currentDate"
823     | string "calculated"
824 w_CT_FFTextType = attribute w:val { w_ST_FFTextType }
825 w_CT_FFName = attribute w:val { w_ST_FFName }?
826 w_CT_FldChar =
827     attribute w:fldCharType { w_ST_FldCharType },
828     attribute w:fldLock { s_ST_OnOff }?,
829     attribute w:dirty { s_ST_OnOff }?,
830     (element fldData { w_CT_Text }?
831     | element ffData { w_CT_FFData }?
832     | element numberingChange { w_CT_TrackChangeNumbering }?)
833 w_CT_Hyperlink =
834     attribute w:tgtFrame { s_ST_String }?,
835     attribute w:tooltip { s_ST_String }?,
836     attribute w:docLocation { s_ST_String }?,
837     attribute w:history { s_ST_OnOff }?,
838     attribute w:anchor { s_ST_String }?,
839     r_id?,
840     w_EG_PContent*
841 w_CT_FFData =
842     (element name { w_CT_FFName }
843     | element label { w_CT_DecimalNumber }?
844     | element tabIndex { w_CT_UnsignedDecimalNumber }?
845     | element enabled { w_CT_OnOff }
846     | element calcOnExit { w_CT_OnOff }
847     | element entryMacro { w_CT_MacroName }?
848     | element exitMacro { w_CT_MacroName }?
849     | element helpText { w_CT_FFHelpText }?
850     | element statusText { w_CT_FFStatusText }?
851     | (element checkBox { w_CT_FFCheckBox }
852     | element ddList { w_CT_FFDDLList }
853     | element textInput { w_CT_FFTextInput })))
854 w_CT_FFHelpText =
855     attribute w:type { w_ST_InfoTextType }?,
856     attribute w:val { w_ST_FFHelpTextVal }?
857 w_CT_FFStatusText =
858     attribute w:type { w_ST_InfoTextType }?,
859     attribute w:val { w_ST_FFStatusTextVal }?
860 w_CT_FFCheckBox =
861     (element size { w_CT_HpsMeasure }
862     | element sizeAuto { w_CT_OnOff }?),
863     element default { w_CT_OnOff }?,
864     element checked { w_CT_OnOff }?
865 w_CT_FFDDLList =

```



```

866     element result { w_CT_DecimalNumber }?,
867     element default { w_CT_DecimalNumber }?,
868     element listEntry { w_CT_String }*
869 w_CT_FFTextInput =
870     element type { w_CT_FFTextType }?,
871     element default { w_CT_String }?,
872     element maxLength { w_CT_DecimalNumber }?,
873     element format { w_CT_String }?
874 w_ST_SectionMark =
875     string "nextPage"
876     | string "nextColumn"
877     | string "continuous"
878     | string "evenPage"
879     | string "oddPage"
880 w_CT_SectType = attribute w:val { w_ST_SectionMark }?
881 w_CT_PaperSource =
882     attribute w:first { w_ST_DecimalNumber }?,
883     attribute w:other { w_ST_DecimalNumber }?
884 w_ST_NumberFormat =
885     string "decimal"
886     | string "upperRoman"
887     | string "lowerRoman"
888     | string "upperLetter"
889     | string "lowerLetter"
890     | string "ordinal"
891     | string "cardinalText"
892     | string "ordinalText"
893     | string "hex"
894     | string "chicago"
895     | string "ideographDigital"
896     | string "japaneseCounting"
897     | string "aiueo"
898     | string "iroha"
899     | string "decimalFullWidth"
900     | string "decimalHalfWidth"
901     | string "japaneseLegal"
902     | string "japaneseDigitalTenThousand"
903     | string "decimalEnclosedCircle"
904     | string "decimalFullWidth2"
905     | string "aiueoFullWidth"
906     | string "irohaFullWidth"
907     | string "decimalZero"
908     | string "bullet"
909     | string "ganada"
910     | string "chosung"
911     | string "decimalEnclosedFullstop"
912     | string "decimalEnclosedParen"
913     | string "decimalEnclosedCircleChinese"
914     | string "ideographEnclosedCircle"
915     | string "ideographTraditional"
916     | string "ideographZodiac"
917     | string "ideographZodiacTraditional"
918     | string "taiwaneseCounting"

```



```

919 | string "ideographLegalTraditional"
920 | string "taiwaneseCountingThousand"
921 | string "taiwaneseDigital"
922 | string "chineseCounting"
923 | string "chineseLegalSimplified"
924 | string "chineseCountingThousand"
925 | string "koreanDigital"
926 | string "koreanCounting"
927 | string "koreanLegal"
928 | string "koreanDigital2"
929 | string "vietnameseCounting"
930 | string "russianLower"
931 | string "russianUpper"
932 | string "none"
933 | string "numberInDash"
934 | string "hebrew1"
935 | string "hebrew2"
936 | string "arabicAlpha"
937 | string "arabicAbjad"
938 | string "hindiVowels"
939 | string "hindiConsonants"
940 | string "hindiNumbers"
941 | string "hindiCounting"
942 | string "thaiLetters"
943 | string "thaiNumbers"
944 | string "thaiCounting"
945 | string "bahtText"
946 | string "dollarText"
947 | string "custom"
948 w_ST_PageOrientation = string "portrait" | string "landscape"
949 w_CT_PageSz =
950     attribute w:w { s_ST_TwipsMeasure }?,
951     attribute w:h { s_ST_TwipsMeasure }?,
952     attribute w:orient { w_ST_PageOrientation }?,
953     attribute w:code { w_ST_DecimalNumber }?
954 w_CT_PageMar =
955     attribute w:top { w_ST_SignedTwipsMeasure },
956     attribute w:right { s_ST_TwipsMeasure },
957     attribute w:bottom { w_ST_SignedTwipsMeasure },
958     attribute w:left { s_ST_TwipsMeasure },
959     attribute w:header { s_ST_TwipsMeasure },
960     attribute w:footer { s_ST_TwipsMeasure },
961     attribute w:gutter { s_ST_TwipsMeasure }
962 w_ST_PageBorderZOrder = string "front" | string "back"
963 w_ST_PageBorderDisplay =
964     string "allPages" | string "firstPage" | string "notFirstPage"
965 w_ST_PageBorderOffset = string "page" | string "text"
966 w_CT_PageBorders =
967     attribute w:zOrder { w_ST_PageBorderZOrder }?,
968     ## default value: front
969     attribute w:display { w_ST_PageBorderDisplay }?,
970     attribute w:offsetFrom { w_ST_PageBorderOffset }?,
971     ## default value: text

```



```

972     element top { w_CT_TopPageBorder }?,
973     element left { w_CT_PageBorder }?,
974     element bottom { w_CT_BottomPageBorder }?,
975     element right { w_CT_PageBorder }?
976 w_CT_PageBorder = w_CT_Border, r_id?
977 w_CT_BottomPageBorder = w_CT_PageBorder, r_bottomLeft?, r_bottomRight?
978 w_CT_TopPageBorder = w_CT_PageBorder, r_topLeft?, r_topRight?
979 w_ST_ChapterSep =
980     string "hyphen"
981     | string "period"
982     | string "colon"
983     | string "emDash"
984     | string "enDash"
985 w_ST_LineNumberRestart =
986     string "newPage" | string "newSection" | string "continuous"
987 w_CT_LineNumber =
988     attribute w:countBy { w_ST_DecimalNumber }?,
989     attribute w:start { w_ST_DecimalNumber }?,
990     ## default value: 1
991     attribute w:distance { s_ST_TwipsMeasure }?,
992     attribute w:restart { w_ST_LineNumberRestart }?
993     ## default value: newPage
994 w_CT_PageNumber =
995     attribute w:fmt { w_ST_NumberFormat }?,
996     ## default value: decimal
997     attribute w:start { w_ST_DecimalNumber }?,
998     attribute w:chapStyle { w_ST_DecimalNumber }?,
999     attribute w:chapSep { w_ST_ChapterSep }?
1000     ## default value: hyphen
1001 w_CT_Column =
1002     attribute w:w { s_ST_TwipsMeasure }?,
1003     attribute w:space { s_ST_TwipsMeasure }?
1004     ## default value: 0
1005 w_CT_Columns =
1006     attribute w:equalWidth { s_ST_OnOff }?,
1007     attribute w:space { s_ST_TwipsMeasure }?,
1008     ## default value: 720
1009     attribute w:num { w_ST_DecimalNumber }?,
1010     ## default value: 1
1011     attribute w:sep { s_ST_OnOff }?,
1012     element col { w_CT_Column }*
1013 w_ST_VerticalJc =
1014     string "top" | string "center" | string "both" | string "bottom"
1015 w_CT_VerticalJc = attribute w:val { w_ST_VerticalJc }
1016 w_ST_DocGrid =
1017     string "default"
1018     | string "lines"
1019     | string "linesAndChars"
1020     | string "snapToChars"
1021 w_CT_DocGrid =
1022     attribute w:type { w_ST_DocGrid }?,
1023     attribute w:linePitch { w_ST_DecimalNumber }?,
1024     attribute w:charSpace { w_ST_DecimalNumber }?

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```

1025 w_ST_HdrFtr = string "even" | string "default" | string "first"
1026 w_ST_FtnEdn =
1027     string "normal"
1028     | string "separator"
1029     | string "continuationSeparator"
1030     | string "continuationNotice"
1031 w_CT_HdrFtrRef =
1032     w_CT_Rel,
1033     attribute w:type { w_ST_HdrFtr }
1034 w_EG_HdrFtrReferences =
1035     element headerReference { w_CT_HdrFtrRef }?
1036     | element footerReference { w_CT_HdrFtrRef }?
1037 w_CT_HdrFtr = w_EG_BlockLevelElts+
1038 w_EG_SectPrContents =
1039     element footnotePr { w_CT_FtnProps }?,
1040     element endnotePr { w_CT_EdnProps }?,
1041     element type { w_CT_SectType }?,
1042     element pgSz { w_CT_PageSz }?,
1043     element pgMar { w_CT_PageMar }?,
1044     element paperSrc { w_CT_PaperSource }?,
1045     element pgBorders { w_CT_PageBorders }?,
1046     element lnNumType { w_CT_LineNumber }?,
1047     element pgNumType { w_CT_PageNumber }?,
1048     element cols { w_CT_Columns }?,
1049     element formProt { w_CT_OnOff }?,
1050     element vAlign { w_CT_VerticalJc }?,
1051     element noEndnote { w_CT_OnOff }?,
1052     element titlePg { w_CT_OnOff }?,
1053     element textDirection { w_CT_TextDirection }?,
1054     element bidi { w_CT_OnOff }?,
1055     element rtlGutter { w_CT_OnOff }?,
1056     element docGrid { w_CT_DocGrid }?,
1057     element printerSettings { w_CT_Rel }?
1058 w_AG_SectPrAttributes =
1059     attribute w:rsidRPr { w_ST_LongHexNumber }?,
1060     attribute w:rsidDel { w_ST_LongHexNumber }?,
1061     attribute w:rsidR { w_ST_LongHexNumber }?,
1062     attribute w:rsidSect { w_ST_LongHexNumber }?
1063 w_CT_SectPrBase = w_AG_SectPrAttributes, w_EG_SectPrContents?
1064 w_CT_SectPr =
1065     w_AG_SectPrAttributes,
1066     w_EG_HdrFtrReferences*,
1067     w_EG_SectPrContents?,
1068     element sectPrChange { w_CT_SectPrChange }?
1069 w_ST_BrType = string "page" | string "column" | string "textWrapping"
1070 w_ST_BrClear =
1071     string "none" | string "left" | string "right" | string "all"
1072 w_CT_Br =
1073     attribute w:type { w_ST_BrType }?,
1074     attribute w:clear { w_ST_BrClear }?
1075 w_ST_PTabAlignment = string "left" | string "center" | string "right"
1076 w_ST_PTabRelativeTo = string "margin" | string "indent"
1077 w_ST_PTabLeader =

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1078     string "none"
1079     | string "dot"
1080     | string "hyphen"
1081     | string "underscore"
1082     | string "middleDot"
1083 w_CT_PTab =
1084     attribute w:alignment { w_ST_PTabAlignment },
1085     attribute w:relativeTo { w_ST_PTabRelativeTo },
1086     attribute w:leader { w_ST_PTabLeader }
1087 w_CT_Sym =
1088     attribute w:font { s_ST_String }?,
1089     attribute w:char { w_ST_ShortHexNumber }?
1090 w_ST_ProofErr =
1091     string "spellStart"
1092     | string "spellEnd"
1093     | string "gramStart"
1094     | string "gramEnd"
1095 w_CT_ProofErr = attribute w:type { w_ST_ProofErr }
1096 w_ST_EdGrp =
1097     string "none"
1098     | string "everyone"
1099     | string "administrators"
1100     | string "contributors"
1101     | string "editors"
1102     | string "owners"
1103     | string "current"
1104 w_CT_Perm =
1105     attribute w:id { s_ST_String },
1106     attribute w:displacedByCustomXml { w_ST_DisplacedByCustomXml }?
1107 w_CT_PermStart =
1108     w_CT_Perm,
1109     attribute w:edGrp { w_ST_EdGrp }?,
1110     attribute w:ed { s_ST_String }?,
1111     attribute w:colFirst { w_ST_DecimalNumber }?,
1112     attribute w:colLast { w_ST_DecimalNumber }?
1113 w_CT_Text = s_ST_String, xml_space?
1114 w_EG_RunInnerContent =
1115     element br { w_CT_Br }
1116     | element t { w_CT_Text }
1117     | element contentPart { w_CT_Rel }
1118     | element delText { w_CT_Text }
1119     | element instrText { w_CT_Text }
1120     | element delInstrText { w_CT_Text }
1121     | element noBreakHyphen { w_CT_Empty }
1122     | element softHyphen { w_CT_Empty }?
1123     | element dayShort { w_CT_Empty }?
1124     | element monthShort { w_CT_Empty }?
1125     | element yearShort { w_CT_Empty }?
1126     | element dayLong { w_CT_Empty }?
1127     | element monthLong { w_CT_Empty }?
1128     | element yearLong { w_CT_Empty }?
1129     | element annotationRef { w_CT_Empty }?
1130     | element footnoteRef { w_CT_Empty }?

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1131 | element endnoteRef { w_CT_Empty }?
1132 | element separator { w_CT_Empty }?
1133 | element continuationSeparator { w_CT_Empty }?
1134 | element sym { w_CT_Sym }?
1135 | element pgNum { w_CT_Empty }?
1136 | element cr { w_CT_Empty }?
1137 | element tab { w_CT_Empty }?
1138 | element object { w_CT_Object }
1139 | element pict { w_CT_Picture }
1140 | element fldChar { w_CT_FldChar }
1141 | element ruby { w_CT_Ruby }
1142 | element footnoteReference { w_CT_FtnEdnRef }
1143 | element endnoteReference { w_CT_FtnEdnRef }
1144 | element commentReference { w_CT_Markup }
1145 | element drawing { w_CT_Drawing }
1146 | element ptab { w_CT_PTab }?
1147 | element lastRenderedPageBreak { w_CT_Empty }?
1148 w_CT_R =
1149   attribute w:rsidRPr { w_ST_LongHexNumber }?,
1150   attribute w:rsidDel { w_ST_LongHexNumber }?,
1151   attribute w:rsidR { w_ST_LongHexNumber }?,
1152   w_EG_RPr?,
1153   w_EG_RunInnerContent*
1154 w_ST_Hint = string "default" | string "eastAsia" | string "cs"
1155 w_ST_Theme =
1156   string "majorEastAsia"
1157   | string "majorBidi"
1158   | string "majorAscii"
1159   | string "majorHAnsi"
1160   | string "minorEastAsia"
1161   | string "minorBidi"
1162   | string "minorAscii"
1163   | string "minorHAnsi"
1164 w_CT_Fonts =
1165   attribute w:hint { w_ST_Hint }?,
1166   attribute w:ascii { s_ST_String }?,
1167   attribute w:hAnsi { s_ST_String }?,
1168   attribute w:eastAsia { s_ST_String }?,
1169   attribute w:cs { s_ST_String }?,
1170   attribute w:asciiTheme { w_ST_Theme }?,
1171   attribute w:hAnsiTheme { w_ST_Theme }?,
1172   attribute w:eastAsiaTheme { w_ST_Theme }?,
1173   attribute w:cstheme { w_ST_Theme }?
1174 w_EG_RPrBase =
1175   element rStyle { w_CT_String }?&
1176   element rFonts { w_CT_Fonts }?&
1177   element b { w_CT_OnOff }?&
1178   element bCs { w_CT_OnOff }?&
1179   element i { w_CT_OnOff }?&
1180   element iCs { w_CT_OnOff }?&
1181   element caps { w_CT_OnOff }?&
1182   element smallCaps { w_CT_OnOff }?&
1183   element strike { w_CT_OnOff }?&

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1184 element dstrike { w_CT_OnOff }?&
1185 element outline { w_CT_OnOff }?&
1186 element shadow { w_CT_OnOff }?&
1187 element emboss { w_CT_OnOff }?&
1188 element imprint { w_CT_OnOff }?&
1189 element noProof { w_CT_OnOff }?&
1190 element snapToGrid { w_CT_OnOff }?&
1191 element vanish { w_CT_OnOff }?&
1192 element webHidden { w_CT_OnOff }?&
1193 element color { w_CT_Color }?&
1194 element spacing { w_CT_SignedTwipsMeasure }?&
1195 element w { w_CT_TextScale }?&
1196 element kern { w_CT_HpsMeasure }?&
1197 element position { w_CT_SignedHpsMeasure }?&
1198 element sz { w_CT_HpsMeasure }?&
1199 element szCs { w_CT_HpsMeasure }?&
1200 element highlight { w_CT_Highlight }?&
1201 element u { w_CT_Underline }?&
1202 element effect { w_CT_TextEffect }?&
1203 element bdr { w_CT_Border }?&
1204 element shd { w_CT_Shadow }?&
1205 element fitText { w_CT_FitText }?&
1206 element vertAlign { w_CT_VerticalAlignRun }?&
1207 element rtl { w_CT_OnOff }?&
1208 element cs { w_CT_OnOff }?&
1209 element em { w_CT_Em }?&
1210 element lang { w_CT_Language }?&
1211 element eastAsianLayout { w_CT_EastAsianLayout }?&
1212 element specVanish { w_CT_OnOff }?&
1213 element oMath { w_CT_OnOff }?
1214 w_EG_RPrContent =
1215   w_EG_RPrBase?,
1216   element rPrChange { w_CT_RPrChange }?
1217 w_CT_RPr = w_EG_RPrContent?
1218 w_EG_RPr = element rPr { w_CT_RPr }?
1219 w_EG_RPrMath =
1220   w_EG_RPr
1221   | element ins { w_CT_MathCtrlIns }
1222   | element del { w_CT_MathCtrlDel }
1223 w_CT_MathCtrlIns =
1224   w_CT_TrackChange,
1225   (element del { w_CT_RPrChange }
1226    | element rPr { w_CT_RPr })?
1227 w_CT_MathCtrlDel =
1228   w_CT_TrackChange,
1229   (element rPr { w_CT_RPr })?
1230 w_CT_RPrOriginal = w_EG_RPrBase*
1231 w_CT_ParaRPrOriginal = w_EG_ParaRPrTrackChanges?, w_EG_RPrBase*
1232 w_CT_ParaRPr =
1233   w_EG_ParaRPrTrackChanges?,
1234   w_EG_RPrBase?,
1235   element rPrChange { w_CT_ParaRPrChange }?
1236 w_EG_ParaRPrTrackChanges =

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1237     element ins { w_CT_TrackChange }?,
1238     element del { w_CT_TrackChange }?,
1239     element moveFrom { w_CT_TrackChange }?,
1240     element moveTo { w_CT_TrackChange }?
1241 w_CT_AltChunk =
1242     r_id?,
1243     element altChunkPr { w_CT_AltChunkPr }?
1244 w_CT_AltChunkPr = element matchSrc { w_CT_OnOff }?
1245 w_ST_RubyAlign =
1246     string "center"
1247     | string "distributeLetter"
1248     | string "distributeSpace"
1249     | string "left"
1250     | string "right"
1251     | string "rightVertical"
1252 w_CT_RubyAlign = attribute w:val { w_ST_RubyAlign }
1253 w_CT_RubyPr =
1254     element rubyAlign { w_CT_RubyAlign },
1255     element hps { w_CT_HpsMeasure },
1256     element hpsRaise { w_CT_HpsMeasure },
1257     element hpsBaseText { w_CT_HpsMeasure },
1258     element lid { w_CT_Lang },
1259     element dirty { w_CT_OnOff }?
1260 w_EG_RubyContent =
1261     element r { w_CT_R }
1262     | w_EG_RunLevelElts*
1263 w_CT_RubyContent = w_EG_RubyContent*
1264 w_CT_Ruby =
1265     element rubyPr { w_CT_RubyPr },
1266     element rt { w_CT_RubyContent },
1267     element rubyBase { w_CT_RubyContent }
1268 w_ST_Lock =
1269     string "sdtLocked"
1270     | string "contentLocked"
1271     | string "unlocked"
1272     | string "sdtContentLocked"
1273 w_CT_Lock = attribute w:val { w_ST_Lock }?
1274 w_CT_SdtListItem =
1275     attribute w:displayText { s_ST_String }?,
1276     attribute w:value { s_ST_String }?
1277 w_ST_SdtDateMappingType =
1278     string "text" | string "date" | string "dateTime"
1279 w_CT_SdtDateMappingType = attribute w:val { w_ST_SdtDateMappingType }?
1280 w_CT_CalendarType = attribute w:val { s_ST_CalendarType }?
1281 w_CT_SdtDate =
1282     attribute w:fullDate { w_ST_DateTime }?,
1283     element dateFormat { w_CT_String }?,
1284     element lid { w_CT_Lang }?,
1285     element storeMappedDataAs { w_CT_SdtDateMappingType }?,
1286     element calendar { w_CT_CalendarType }?
1287 w_CT_SdtComboBox =
1288     attribute w:lastValue { s_ST_String }?,
1289     ## default value:

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1290     element listItem { w_CT_SdtListItem }*
1291 w_CT_SdtDocPart =
1292     element docPartGallery { w_CT_String }?,
1293     element docPartCategory { w_CT_String }?,
1294     element docPartUnique { w_CT_OnOff }?
1295 w_CT_SdtDropDownList =
1296     attribute w:lastValue { s_ST_String }?,
1297     ## default value:
1298     element listItem { w_CT_SdtListItem }*
1299 w_CT_Placeholder = element docPart { w_CT_String }
1300 w_CT_SdtText = attribute w:multiline { s_ST_OnOff }?
1301 w_CT_DataBinding =
1302     attribute w:prefixMappings { s_ST_String }?,
1303     attribute w:xpath { s_ST_String },
1304     attribute w:storeItemID { s_ST_String }
1305 w_CT_SdtPr =
1306     element rPr { w_CT_RPr }?,
1307     element alias { w_CT_String }?,
1308     element tag { w_CT_String }?,
1309     element id { w_CT_DecimalNumber }?,
1310     element lock { w_CT_Lock }?,
1311     element placeholder { w_CT_Placeholder }?,
1312     element temporary { w_CT_OnOff }?,
1313     element showingPlcHdr { w_CT_OnOff }?,
1314     element dataBinding { w_CT_DataBinding }?,
1315     element label { w_CT_DecimalNumber }?,
1316     element tabIndex { w_CT_UnsignedDecimalNumber }?,
1317     (element equation { w_CT_Empty }
1318     | element comboBox { w_CT_SdtComboBox }
1319     | element date { w_CT_SdtDate }
1320     | element docPartObj { w_CT_SdtDocPart }
1321     | element docPartList { w_CT_SdtDocPart }
1322     | element dropDownList { w_CT_SdtDropDownList }
1323     | element picture { w_CT_Empty }
1324     | element richText { w_CT_Empty }
1325     | element text { w_CT_SdtText }
1326     | element citation { w_CT_Empty }
1327     | element group { w_CT_Empty }
1328     | element bibliography { w_CT_Empty })?
1329 w_CT_SdtEndPr = (element rPr { w_CT_RPr }?)+
1330 w_EG_ContentRunContent =
1331     element customXml { w_CT_CustomXmlRun }
1332     | element smartTag { w_CT_SmartTagRun }
1333     | element sdt { w_CT_SdtRun }
1334     | element dir { w_CT_DirContentRun }
1335     | element bdo { w_CT_BdoContentRun }
1336     | element r { w_CT_R }
1337     | w_EG_RunLevelElts*
1338 w_CT_DirContentRun =
1339     attribute w:val { w_ST_Direction }?,
1340     w_EG_PContent*
1341 w_CT_BdoContentRun =
1342     attribute w:val { w_ST_Direction }?,

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1343 w_EG_PContent*
1344 w_ST_Direction = string "ltr" | string "rtl"
1345 w_CT_SdtContentRun = w_EG_PContent*
1346 w_EG_ContentBlockContent =
1347     element customXml { w_CT_CustomXmlBlock }
1348     | element sdt { w_CT_SdtBlock }
1349     | element p { w_CT_P }*
1350     | element tbl { w_CT_Tbl }*
1351     | w_EG_RunLevelElts*
1352 w_CT_SdtContentBlock = w_EG_ContentBlockContent*
1353 w_EG_ContentRowContent =
1354     element tr { w_CT_Row }*
1355     | element customXml { w_CT_CustomXmlRow }
1356     | element sdt { w_CT_SdtRow }
1357     | w_EG_RunLevelElts*
1358 w_CT_SdtContentRow = w_EG_ContentRowContent*
1359 w_EG_ContentCellContent =
1360     element tc { w_CT_Tc }*
1361     | element customXml { w_CT_CustomXmlCell }
1362     | element sdt { w_CT_SdtCell }
1363     | w_EG_RunLevelElts*
1364 w_CT_SdtContentCell = w_EG_ContentCellContent*
1365 w_CT_SdtBlock =
1366     element sdtPr { w_CT_SdtPr }?,
1367     element sdtEndPr { w_CT_SdtEndPr }?,
1368     element sdtContent { w_CT_SdtContentBlock }?
1369 w_CT_SdtRun =
1370     element sdtPr { w_CT_SdtPr }?,
1371     element sdtEndPr { w_CT_SdtEndPr }?,
1372     element sdtContent { w_CT_SdtContentRun }?
1373 w_CT_SdtCell =
1374     element sdtPr { w_CT_SdtPr }?,
1375     element sdtEndPr { w_CT_SdtEndPr }?,
1376     element sdtContent { w_CT_SdtContentCell }?
1377 w_CT_SdtRow =
1378     element sdtPr { w_CT_SdtPr }?,
1379     element sdtEndPr { w_CT_SdtEndPr }?,
1380     element sdtContent { w_CT_SdtContentRow }?
1381 w_CT_Attr =
1382     attribute w:uri { s_ST_String }?,
1383     attribute w:name { s_ST_String },
1384     attribute w:val { s_ST_String }
1385 w_CT_CustomXmlRun =
1386     attribute w:uri { s_ST_String }?,
1387     attribute w:element { s_ST_XmlName },
1388     element customXmlPr { w_CT_CustomXmlPr }?,
1389     w_EG_PContent*
1390 w_CT_SmartTagRun =
1391     attribute w:uri { s_ST_String }?,
1392     attribute w:element { s_ST_XmlName },
1393     element smartTagPr { w_CT_SmartTagPr }?,
1394     w_EG_PContent*
1395 w_CT_CustomXmlBlock =

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```

1396     attribute w:uri { s_ST_String }?,
1397     attribute w:element { s_ST_XmlName },
1398     element customXmlPr { w_CT_CustomXmlPr }?,
1399     w_EG_ContentBlockContent*
1400 w_CT_CustomXmlPr =
1401     element placeholder { w_CT_String }?,
1402     element attr { w_CT_Attr }*
1403 w_CT_CustomXmlRow =
1404     attribute w:uri { s_ST_String }?,
1405     attribute w:element { s_ST_XmlName },
1406     element customXmlPr { w_CT_CustomXmlPr }?,
1407     w_EG_ContentRowContent*
1408 w_CT_CustomXmlCell =
1409     attribute w:uri { s_ST_String }?,
1410     attribute w:element { s_ST_XmlName },
1411     element customXmlPr { w_CT_CustomXmlPr }?,
1412     w_EG_ContentCellContent*
1413 w_CT_SmartTagPr = element attr { w_CT_Attr }*
1414 w_EG_PContent =
1415     w_EG_ContentRunContent*
1416     | element fldSimple { w_CT_SimpleField }*
1417     | element hyperlink { w_CT_Hyperlink }
1418     | element subDoc { w_CT_Rel }
1419 w_CT_P =
1420     attribute w:rsidRPr { w_ST_LongHexNumber }?,
1421     attribute w:rsidR { w_ST_LongHexNumber }?,
1422     attribute w:rsidDel { w_ST_LongHexNumber }?,
1423     attribute w:rsidP { w_ST_LongHexNumber }?,
1424     attribute w:rsidRDefault { w_ST_LongHexNumber }?,
1425     element pPr { w_CT_PPr }?,
1426     w_EG_PContent*
1427 w_ST_TblWidth =
1428     string "nil" | string "pct" | string "dxa" | string "auto"
1429 w_CT_Height =
1430     attribute w:val { s_ST_TwipsMeasure }?,
1431     attribute w:hRule { w_ST_HeightRule }?
1432 w_ST_MeasurementOrPercent = w_ST_DecimalNumberOrPercent | s_ST_UniversalMeasure
1433 w_CT_TblWidth =
1434     attribute w:w { w_ST_MeasurementOrPercent }?,
1435     attribute w:type { w_ST_TblWidth }?
1436 w_CT_TblGridCol = attribute w:w { s_ST_TwipsMeasure }?
1437 w_CT_TblGridBase = element gridCol { w_CT_TblGridCol }*
1438 w_CT_TblGrid =
1439     w_CT_TblGridBase,
1440     element tblGridChange { w_CT_TblGridChange }?
1441 w_CT_TcBorders =
1442     element top { w_CT_Border }?,
1443     element start { w_CT_Border }?,
1444     element left { w_CT_Border }?,
1445     element bottom { w_CT_Border }?,
1446     element end { w_CT_Border }?,
1447     element right { w_CT_Border }?,
1448     element insideH { w_CT_Border }?,

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1449     element insideV { w_CT_Border }?,
1450     element tl2br { w_CT_Border }?,
1451     element tr2bl { w_CT_Border }?
1452 w_CT_TcMar =
1453     element top { w_CT_TblWidth }?,
1454     element start { w_CT_TblWidth }?,
1455     element left { w_CT_TblWidth }?,
1456     element bottom { w_CT_TblWidth }?,
1457     element end { w_CT_TblWidth }?,
1458     element right { w_CT_TblWidth }?
1459 w_ST_Merge = string "continue" | string "restart"
1460 w_CT_VMerge = attribute w:val { w_ST_Merge }?
1461 w_CT_HMerge = attribute w:val { w_ST_Merge }?
1462 w_CT_TcPrBase =
1463     element cnfStyle { w_CT_Cnf }?,
1464     element tcW { w_CT_TblWidth }?,
1465     element gridSpan { w_CT_DecimalNumber }?,
1466     element hMerge { w_CT_HMerge }?,
1467     element vMerge { w_CT_VMerge }?,
1468     element tcBorders { w_CT_TcBorders }?,
1469     element shd { w_CT_Shadow }?,
1470     element nowrap { w_CT_OnOff }?,
1471     element tcMar { w_CT_TcMar }?,
1472     element textDirection { w_CT_TextDirection }?,
1473     element tcFitText { w_CT_OnOff }?,
1474     element vAlign { w_CT_VerticalJc }?,
1475     element hideMark { w_CT_OnOff }?,
1476     element headers { w_CT_Headers }?
1477 w_CT_TcPr =
1478     w_CT_TcPrInner,
1479     element tcPrChange { w_CT_TcPrChange }?
1480 w_CT_TcPrInner = w_CT_TcPrBase, w_EG_CellMarkupElements?
1481 w_CT_Tc =
1482     attribute w:id { s_ST_String }?,
1483     element tcPr { w_CT_TcPr }?,
1484     w_EG_BlockLevelElts+
1485 w_ST_Cnf = xsd:string { length = "12" pattern = "[01]*" }
1486 w_CT_Cnf =
1487     attribute w:val { w_ST_Cnf }?,
1488     attribute w:firstRow { s_ST_OnOff }?,
1489     attribute w:lastRow { s_ST_OnOff }?,
1490     attribute w:firstColumn { s_ST_OnOff }?,
1491     attribute w:lastColumn { s_ST_OnOff }?,
1492     attribute w:oddVBand { s_ST_OnOff }?,
1493     attribute w:evenVBand { s_ST_OnOff }?,
1494     attribute w:oddHBand { s_ST_OnOff }?,
1495     attribute w:evenHBand { s_ST_OnOff }?,
1496     attribute w:firstRowFirstColumn { s_ST_OnOff }?,
1497     attribute w:firstRowLastColumn { s_ST_OnOff }?,
1498     attribute w:lastRowFirstColumn { s_ST_OnOff }?,
1499     attribute w:lastRowLastColumn { s_ST_OnOff }?
1500 w_CT_Headers = element header { w_CT_String }*
1501 w_CT_TrPrBase =

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1502 (element cnfStyle { w_CT_Cnf }?)
1503 | element divId { w_CT_DecimalNumber }?
1504 | element gridBefore { w_CT_DecimalNumber }?
1505 | element gridAfter { w_CT_DecimalNumber }?
1506 | element wBefore { w_CT_TblWidth }?
1507 | element wAfter { w_CT_TblWidth }?
1508 | element cantSplit { w_CT_OnOff }?
1509 | element trHeight { w_CT_Height }?
1510 | element tblHeader { w_CT_OnOff }?
1511 | element tblCellSpacing { w_CT_TblWidth }?
1512 | element jc { w_CT_JcTable }?
1513 | element hidden { w_CT_OnOff }?)+
1514 w_CT_TrPr =
1515   w_CT_TrPrBase,
1516   element ins { w_CT_TrackChange }?,
1517   element del { w_CT_TrackChange }?,
1518   element trPrChange { w_CT_TrPrChange }?
1519 w_CT_Row =
1520   attribute w:rsidRPr { w_ST_LongHexNumber }?,
1521   attribute w:rsidR { w_ST_LongHexNumber }?,
1522   attribute w:rsidDel { w_ST_LongHexNumber }?,
1523   attribute w:rsidTr { w_ST_LongHexNumber }?,
1524   element tblPrEx { w_CT_TblPrEx }?,
1525   element trPr { w_CT_TrPr }?,
1526   w_EG_ContentCellContent*
1527 w_ST_TblLayoutType = string "fixed" | string "autofit"
1528 w_CT_TblLayoutType = attribute w:type { w_ST_TblLayoutType }?
1529 w_ST_TblOverlap = string "never" | string "overlap"
1530 w_CT_TblOverlap = attribute w:val { w_ST_TblOverlap }
1531 w_CT_TblPPr =
1532   attribute w:leftFromText { s_ST_TwipsMeasure }?,
1533   attribute w:rightFromText { s_ST_TwipsMeasure }?,
1534   attribute w:topFromText { s_ST_TwipsMeasure }?,
1535   attribute w:bottomFromText { s_ST_TwipsMeasure }?,
1536   attribute w:vertAnchor { w_ST_VAnchor }?,
1537   attribute w:horzAnchor { w_ST_HAnchor }?,
1538   attribute w:tblpXSpec { s_ST_XAlign }?,
1539   attribute w:tblpX { w_ST_SignedTwipsMeasure }?,
1540   attribute w:tblpYSpec { s_ST_YAlign }?,
1541   attribute w:tblpY { w_ST_SignedTwipsMeasure }?
1542 w_CT_TblCellMar =
1543   element top { w_CT_TblWidth }?,
1544   element start { w_CT_TblWidth }?,
1545   element left { w_CT_TblWidth }?,
1546   element bottom { w_CT_TblWidth }?,
1547   element end { w_CT_TblWidth }?,
1548   element right { w_CT_TblWidth }?
1549 w_CT_TblBorders =
1550   element top { w_CT_Border }?,
1551   element start { w_CT_Border }?,
1552   element left { w_CT_Border }?,
1553   element bottom { w_CT_Border }?,
1554   element end { w_CT_Border }?,

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1555     element right { w_CT_Border }?,
1556     element insideH { w_CT_Border }?,
1557     element insideV { w_CT_Border }?
1558 w_CT_TblPrBase =
1559     element tblStyle { w_CT_String }?,
1560     element tblpPr { w_CT_TblPPr }?,
1561     element tblOverlap { w_CT_TblOverlap }?,
1562     element bidiVisual { w_CT_OnOff }?,
1563     element tblStyleRowBandSize { w_CT_DecimalNumber }?,
1564     element tblStyleColBandSize { w_CT_DecimalNumber }?,
1565     element tblW { w_CT_TblWidth }?,
1566     element jc { w_CT_JcTable }?,
1567     element tblCellSpacing { w_CT_TblWidth }?,
1568     element tblInd { w_CT_TblWidth }?,
1569     element tblBorders { w_CT_TblBorders }?,
1570     element shd { w_CT_Shd }?,
1571     element tblLayout { w_CT_TblLayoutType }?,
1572     element tblCellMar { w_CT_TblCellMar }?,
1573     element tblLook { w_CT_TblLook }?,
1574     element tblCaption { w_CT_String }?,
1575     element tblDescription { w_CT_String }?
1576 w_CT_TblPr =
1577     w_CT_TblPrBase,
1578     element tblPrChange { w_CT_TblPrChange }?
1579 w_CT_TblPrExBase =
1580     element tblW { w_CT_TblWidth }?,
1581     element jc { w_CT_JcTable }?,
1582     element tblCellSpacing { w_CT_TblWidth }?,
1583     element tblInd { w_CT_TblWidth }?,
1584     element tblBorders { w_CT_TblBorders }?,
1585     element shd { w_CT_Shd }?,
1586     element tblLayout { w_CT_TblLayoutType }?,
1587     element tblCellMar { w_CT_TblCellMar }?,
1588     element tblLook { w_CT_TblLook }?
1589 w_CT_TblPrEx =
1590     w_CT_TblPrExBase,
1591     element tblPrExChange { w_CT_TblPrExChange }?
1592 w_CT_Tbl =
1593     w_EG_RangeMarkupElements*,
1594     element tblPr { w_CT_TblPr },
1595     element tblGrid { w_CT_TblGrid },
1596     w_EG_ContentRowContent*
1597 w_CT_TblLook =
1598     attribute w:firstRow { s_ST_OnOff }?,
1599     attribute w:lastRow { s_ST_OnOff }?,
1600     attribute w:firstColumn { s_ST_OnOff }?,
1601     attribute w:lastColumn { s_ST_OnOff }?,
1602     attribute w:noHBand { s_ST_OnOff }?,
1603     attribute w:noVBand { s_ST_OnOff }?,
1604     attribute w:val { w_ST_ShortHexNumber }?
1605 w_ST_FtnPos =
1606     string "pageBottom"
1607     | string "beneathText"

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1608 | string "sectEnd"
1609 | string "docEnd"
1610 w_CT_FtnPos = attribute w:val { w_ST_FtnPos }
1611 w_ST_EdnPos = string "sectEnd" | string "docEnd"
1612 w_CT_EdnPos = attribute w:val { w_ST_EdnPos }
1613 w_CT_NumFmt =
1614     attribute w:val { w_ST_NumberFormat },
1615     attribute w:format { s_ST_String }?
1616 w_ST_RestartNumber =
1617     string "continuous" | string "eachSect" | string "eachPage"
1618 w_CT_NumRestart = attribute w:val { w_ST_RestartNumber }
1619 w_CT_FtnEdnRef =
1620     attribute w:customMarkFollows { s_ST_OnOff }?,
1621     attribute w:id { w_ST_DecimalNumber }
1622 w_CT_FtnEdnSepRef = attribute w:id { w_ST_DecimalNumber }
1623 w_CT_FtnEdn =
1624     attribute w:type { w_ST_FtnEdn }?,
1625     attribute w:id { w_ST_DecimalNumber },
1626     w_EG_BlockLevelElts+
1627 w_EG_FtnEdnNumProps =
1628     element numStart { w_CT_DecimalNumber }?,
1629     element numRestart { w_CT_NumRestart }?
1630 w_CT_FtnProps =
1631     element pos { w_CT_FtnPos }?,
1632     element numFmt { w_CT_NumFmt }?,
1633     w_EG_FtnEdnNumProps?
1634 w_CT_EdnProps =
1635     element pos { w_CT_EdnPos }?,
1636     element numFmt { w_CT_NumFmt }?,
1637     w_EG_FtnEdnNumProps?
1638 w_CT_FtnDocProps =
1639     w_CT_FtnProps,
1640     element footnote { w_CT_FtnEdnSepRef }*
1641 w_CT_EdnDocProps =
1642     w_CT_EdnProps,
1643     element endnote { w_CT_FtnEdnSepRef }*
1644 w_CT_RecipientData =
1645     element active { w_CT_OnOff }?,
1646     element column { w_CT_DecimalNumber },
1647     element uniqueTag { w_CT_Base64Binary}
1648 w_CT_Base64Binary = attribute w:val { xsd:base64Binary }
1649 w_CT_Recipients = element recipientData { w_CT_RecipientData }+
1650 w_recipients = element recipients { w_CT_Recipients }
1651 w_CT_OdsoFieldMapData =
1652     element type { w_CT_MailMergeOdsoFMDFieldType }?,
1653     element name { w_CT_String }?,
1654     element mappedName { w_CT_String }?,
1655     element column { w_CT_DecimalNumber }?,
1656     element lid { w_CT_Lang }?,
1657     element dynamicAddress { w_CT_OnOff }?
1658 w_ST_MailMergeSourceType =
1659     string "database"
1660 | string "addressBook"

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1661 | string "document1"
1662 | string "document2"
1663 | string "text"
1664 | string "email"
1665 | string "native"
1666 | string "legacy"
1667 | string "master"
1668 w_CT_MailMergeSourceType = attribute w:val { w_ST_MailMergeSourceType }
1669 w_CT_Odso =
1670   element udl { w_CT_String }?,
1671   element table { w_CT_String }?,
1672   element src { w_CT_Rel }?,
1673   element colDelim { w_CT_DecimalNumber }?,
1674   element type { w_CT_MailMergeSourceType }?,
1675   element fHdr { w_CT_OnOff }?,
1676   element fieldMapData { w_CT_OdsoFieldMapData }*,
1677   element recipientData { w_CT_Rel }*
1678 w_CT_MailMerge =
1679   element mainDocumentType { w_CT_MailMergeDocType },
1680   element linkToQuery { w_CT_OnOff }?,
1681   element dataType { w_CT_MailMergeDataType },
1682   element connectString { w_CT_String }?,
1683   element query { w_CT_String }?,
1684   element dataSource { w_CT_Rel }?,
1685   element headerSource { w_CT_Rel }?,
1686   element doNotSuppressBlankLines { w_CT_OnOff }?,
1687   element destination { w_CT_MailMergeDest }?,
1688   element addressFieldName { w_CT_String }?,
1689   element mailSubject { w_CT_String }?,
1690   element mailAsAttachment { w_CT_OnOff }?,
1691   element viewMergedData { w_CT_OnOff }?,
1692   element activeRecord { w_CT_DecimalNumber }?,
1693   element checkErrors { w_CT_DecimalNumber }?,
1694   element odso { w_CT_Odso }?
1695 w_ST_TargetScreenSz =
1696   string "544x376"
1697   | string "640x480"
1698   | string "720x512"
1699   | string "800x600"
1700   | string "1024x768"
1701   | string "1152x882"
1702   | string "1152x900"
1703   | string "1280x1024"
1704   | string "1600x1200"
1705   | string "1800x1440"
1706   | string "1920x1200"
1707 w_CT_TargetScreenSz = attribute w:val { w_ST_TargetScreenSz }
1708 w_CT_Compat =
1709   element useSingleBorderforContiguousCells { w_CT_OnOff }?,
1710   element wpJustification { w_CT_OnOff }?,
1711   element noTabHangInd { w_CT_OnOff }?,
1712   element noLeading { w_CT_OnOff }?,
1713   element spaceForUL { w_CT_OnOff }?,

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1714 element noColumnBalance { w_CT_OnOff }?,
1715 element balanceSingleByteDoubleByteWidth { w_CT_OnOff }?,
1716 element noExtraLineSpacing { w_CT_OnOff }?,
1717 element doNotLeaveBackslashAlone { w_CT_OnOff }?,
1718 element ulTrailSpace { w_CT_OnOff }?,
1719 element doNotExpandShiftReturn { w_CT_OnOff }?,
1720 element spacingInWholePoints { w_CT_OnOff }?,
1721 element lineWrapLikeWord6 { w_CT_OnOff }?,
1722 element printBodyTextBeforeHeader { w_CT_OnOff }?,
1723 element printColBlack { w_CT_OnOff }?,
1724 element wpSpaceWidth { w_CT_OnOff }?,
1725 element showBreaksInFrames { w_CT_OnOff }?,
1726 element subFontBySize { w_CT_OnOff }?,
1727 element suppressBottomSpacing { w_CT_OnOff }?,
1728 element suppressTopSpacing { w_CT_OnOff }?,
1729 element suppressSpacingAtTopOfPage { w_CT_OnOff }?,
1730 element suppressTopSpacingWP { w_CT_OnOff }?,
1731 element suppressSpBfAfterPgBrk { w_CT_OnOff }?,
1732 element swapBordersFacingPages { w_CT_OnOff }?,
1733 element convMailMergeEsc { w_CT_OnOff }?,
1734 element truncateFontHeightsLikeWP6 { w_CT_OnOff }?,
1735 element mwSmallCaps { w_CT_OnOff }?,
1736 element usePrinterMetrics { w_CT_OnOff }?,
1737 element doNotSuppressParagraphBorders { w_CT_OnOff }?,
1738 element wrapTrailSpaces { w_CT_OnOff }?,
1739 element footnoteLayoutLikeWW8 { w_CT_OnOff }?,
1740 element shapeLayoutLikeWW8 { w_CT_OnOff }?,
1741 element alignTablesRowByRow { w_CT_OnOff }?,
1742 element forgetLastTabAlignment { w_CT_OnOff }?,
1743 element adjustLineHeightInTable { w_CT_OnOff }?,
1744 element autoSpaceLikeWord95 { w_CT_OnOff }?,
1745 element noSpaceRaiseLower { w_CT_OnOff }?,
1746 element doNotUseHTMLParagraphAutoSpacing { w_CT_OnOff }?,
1747 element layoutRawTableWidth { w_CT_OnOff }?,
1748 element layoutTableRowsApart { w_CT_OnOff }?,
1749 element useWord97LineBreakRules { w_CT_OnOff }?,
1750 element doNotBreakWrappedTables { w_CT_OnOff }?,
1751 element doNotSnapToGridInCell { w_CT_OnOff }?,
1752 element selectFldWithFirstOrLastChar { w_CT_OnOff }?,
1753 element applyBreakingRules { w_CT_OnOff }?,
1754 element doNotWrapTextWithPunct { w_CT_OnOff }?,
1755 element doNotUseEastAsianBreakRules { w_CT_OnOff }?,
1756 element useWord2002TableStyleRules { w_CT_OnOff }?,
1757 element growAutofit { w_CT_OnOff }?,
1758 element useFELayout { w_CT_OnOff }?,
1759 element useNormalStyleForList { w_CT_OnOff }?,
1760 element doNotUseIndentAsNumberingTabStop { w_CT_OnOff }?,
1761 element useAltKinsokuLineBreakRules { w_CT_OnOff }?,
1762 element allowSpaceOfSameStyleInTable { w_CT_OnOff }?,
1763 element doNotSuppressIndentation { w_CT_OnOff }?,
1764 element doNotAutofitConstrainedTables { w_CT_OnOff }?,
1765 element autofitToFirstFixedWidthCell { w_CT_OnOff }?,
1766 element underlineTabInNumList { w_CT_OnOff }?,

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1767     element displayHangulFixedWidth { w_CT_OnOff }?,
1768     element splitPgBreakAndParaMark { w_CT_OnOff }?,
1769     element doNotVertAlignCellWithSp { w_CT_OnOff }?,
1770     element doNotBreakConstrainedForcedTable { w_CT_OnOff }?,
1771     element doNotVertAlignInTxbx { w_CT_OnOff }?,
1772     element useAnsiKerningPairs { w_CT_OnOff }?,
1773     element cachedColBalance { w_CT_OnOff }?,
1774     element compatSetting { w_CT_CompatSetting }*
1775 w_CT_CompatSetting =
1776     attribute w:name { s_ST_String }?,
1777     attribute w:uri { s_ST_String }?,
1778     attribute w:val { s_ST_String }?
1779 w_CT_DocVar =
1780     attribute w:name { s_ST_String },
1781     attribute w:val { s_ST_String }
1782 w_CT_DocVars = element docVar { w_CT_DocVar }*
1783 w_CT_DocRsids =
1784     element rsidRoot { w_CT_LongHexNumber }?,
1785     element rsid { w_CT_LongHexNumber }*
1786 w_ST_CharacterSpacing =
1787     string "doNotCompress"
1788     | string "compressPunctuation"
1789     | string "compressPunctuationAndJapaneseKana"
1790 w_CT_CharacterSpacing = attribute w:val { w_ST_CharacterSpacing }
1791 w_CT_SaveThroughXslt =
1792     r_id?,
1793     attribute w:solutionID { s_ST_String }?
1794 w_CT_RPrDefault = element rPr { w_CT_RPr }?
1795 w_CT_PPrDefault = element pPr { w_CT_PPrGeneral }?
1796 w_CT_DocDefaults =
1797     element rPrDefault { w_CT_RPrDefault }?,
1798     element pPrDefault { w_CT_PPrDefault }?
1799 w_ST_WmlColorSchemeIndex =
1800     string "dark1"
1801     | string "light1"
1802     | string "dark2"
1803     | string "light2"
1804     | string "accent1"
1805     | string "accent2"
1806     | string "accent3"
1807     | string "accent4"
1808     | string "accent5"
1809     | string "accent6"
1810     | string "hyperlink"
1811     | string "followedHyperlink"
1812 w_CT_ColorSchemeMapping =
1813     attribute w:bg1 { w_ST_WmlColorSchemeIndex }?,
1814     attribute w:t1 { w_ST_WmlColorSchemeIndex }?,
1815     attribute w:bg2 { w_ST_WmlColorSchemeIndex }?,
1816     attribute w:t2 { w_ST_WmlColorSchemeIndex }?,
1817     attribute w:accent1 { w_ST_WmlColorSchemeIndex }?,
1818     attribute w:accent2 { w_ST_WmlColorSchemeIndex }?,
1819     attribute w:accent3 { w_ST_WmlColorSchemeIndex }?,

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1820 attribute w:accent4 { w_ST_WmlColorSchemeIndex }?,
1821 attribute w:accent5 { w_ST_WmlColorSchemeIndex }?,
1822 attribute w:accent6 { w_ST_WmlColorSchemeIndex }?,
1823 attribute w:hyperlink { w_ST_WmlColorSchemeIndex }?,
1824 attribute w:followedHyperlink { w_ST_WmlColorSchemeIndex }?
1825 w_CT_ReadingModeInkLockDown =
1826 attribute w:actualPg { s_ST_OnOff },
1827 attribute w:w { w_ST_PixelsMeasure },
1828 attribute w:h { w_ST_PixelsMeasure },
1829 attribute w:fontSz { w_ST_DecimalNumberOrPercent }
1830 w_CT_WriteProtection =
1831 attribute w:recommended { s_ST_OnOff }?,
1832 w_AG_Password,
1833 w_AG_TransitionalPassword
1834 w_CT_Settings =
1835 element writeProtection { w_CT_WriteProtection }?,
1836 element view { w_CT_View }?,
1837 element zoom { w_CT_Zoom }?,
1838 element removePersonalInformation { w_CT_OnOff }?,
1839 element removeDateAndTime { w_CT_OnOff }?,
1840 element doNotDisplayPageBoundaries { w_CT_OnOff }?,
1841 element displayBackgroundShape { w_CT_OnOff }?,
1842 element printPostScriptOverText { w_CT_OnOff }?,
1843 element printFractionalCharacterWidth { w_CT_OnOff }?,
1844 element printFormsData { w_CT_OnOff }?,
1845 element embedTrueTypeFonts { w_CT_OnOff }?,
1846 element embedSystemFonts { w_CT_OnOff }?,
1847 element saveSubsetFonts { w_CT_OnOff }?,
1848 element saveFormsData { w_CT_OnOff }?,
1849 element mirrorMargins { w_CT_OnOff }?,
1850 element alignBordersAndEdges { w_CT_OnOff }?,
1851 element bordersDoNotSurroundHeader { w_CT_OnOff }?,
1852 element bordersDoNotSurroundFooter { w_CT_OnOff }?,
1853 element gutterAtTop { w_CT_OnOff }?,
1854 element hideSpellingErrors { w_CT_OnOff }?,
1855 element hideGrammaticalErrors { w_CT_OnOff }?,
1856 element activeWritingStyle { w_CT_WritingStyle }*,
1857 element proofState { w_CT_Proof }?,
1858 element formsDesign { w_CT_OnOff }?,
1859 element attachedTemplate { w_CT_Rel }?,
1860 element linkStyles { w_CT_OnOff }?,
1861 element stylePaneFormatFilter { w_CT_StylePaneFilter }?,
1862 element stylePaneSortMethod { w_CT_StyleSort }?,
1863 element documentType { w_CT_DocType }?,
1864 element mailMerge { w_CT_MailMerge }?,
1865 element revisionView { w_CT_TrackChangesView }?,
1866 element trackRevisions { w_CT_OnOff }?,
1867 element doNotTrackMoves { w_CT_OnOff }?,
1868 element doNotTrackFormatting { w_CT_OnOff }?,
1869 element documentProtection { w_CT_DocProtect }?,
1870 element autoFormatOverride { w_CT_OnOff }?,
1871 element styleLockTheme { w_CT_OnOff }?,
1872 element styleLockQFSet { w_CT_OnOff }?,

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1873 element defaultTabStop { w_CT_TwipsMeasure }?,
1874 element autoHyphenation { w_CT_OnOff }?,
1875 element consecutiveHyphenLimit { w_CT_DecimalNumber }?,
1876 element hyphenationZone { w_CT_TwipsMeasure }?,
1877 element doNotHyphenateCaps { w_CT_OnOff }?,
1878 element showEnvelope { w_CT_OnOff }?,
1879 element summaryLength { w_CT_DecimalNumberOrPrecent }?,
1880 element clickAndTypeStyle { w_CT_String }?,
1881 element defaultTableStyle { w_CT_String }?,
1882 element evenAndOddHeaders { w_CT_OnOff }?,
1883 element bookFoldRevPrinting { w_CT_OnOff }?,
1884 element bookFoldPrinting { w_CT_OnOff }?,
1885 element bookFoldPrintingSheets { w_CT_DecimalNumber }?,
1886 element drawingGridHorizontalSpacing { w_CT_TwipsMeasure }?,
1887 element drawingGridVerticalSpacing { w_CT_TwipsMeasure }?,
1888 element displayHorizontalDrawingGridEvery { w_CT_DecimalNumber }?,
1889 element displayVerticalDrawingGridEvery { w_CT_DecimalNumber }?,
1890 element doNotUseMarginsForDrawingGridOrigin { w_CT_OnOff }?,
1891 element drawingGridHorizontalOrigin { w_CT_TwipsMeasure }?,
1892 element drawingGridVerticalOrigin { w_CT_TwipsMeasure }?,
1893 element doNotShadeFormData { w_CT_OnOff }?,
1894 element noPunctuationKerning { w_CT_OnOff }?,
1895 element characterSpacingControl { w_CT_CharacterSpacing }?,
1896 element printTwoOnOne { w_CT_OnOff }?,
1897 element strictFirstAndLastChars { w_CT_OnOff }?,
1898 element noLineBreaksAfter { w_CT_Kinsoku }?,
1899 element noLineBreaksBefore { w_CT_Kinsoku }?,
1900 element savePreviewPicture { w_CT_OnOff }?,
1901 element doNotValidateAgainstSchema { w_CT_OnOff }?,
1902 element saveInvalidXml { w_CT_OnOff }?,
1903 element ignoreMixedContent { w_CT_OnOff }?,
1904 element alwaysShowPlaceholderText { w_CT_OnOff }?,
1905 element doNotDemarcateInvalidXml { w_CT_OnOff }?,
1906 element saveXmlDataOnly { w_CT_OnOff }?,
1907 element useXSLTWhenSaving { w_CT_OnOff }?,
1908 element saveThroughXslt { w_CT_SaveThroughXslt }?,
1909 element showXMLTags { w_CT_OnOff }?,
1910 element alwaysMergeEmptyNamespace { w_CT_OnOff }?,
1911 element updateFields { w_CT_OnOff }?,
1912 element hdrShapeDefaults { w_CT_ShapeDefaults }?,
1913 element footnotePr { w_CT_FtnDocProps }?,
1914 element endnotePr { w_CT_EdnDocProps }?,
1915 element compat { w_CT_Compat }?,
1916 element docVars { w_CT_DocVars }?,
1917 element rsids { w_CT_DocRsids }?,
1918 m_mathPr?,
1919 element attachedSchema { w_CT_String }*,
1920 element themeFontLang { w_CT_Language }?,
1921 element clrSchemeMapping { w_CT_ColorSchemeMapping }?,
1922 element doNotIncludeSubdocsInStats { w_CT_OnOff }?,
1923 element doNotAutoCompressPictures { w_CT_OnOff }?,
1924 element forceUpgrade { w_CT_Empty }?,
1925 element captions { w_CT_Captions }?,

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1926   element readModeInkLockDown { w_CT_ReadingModeInkLockDown }?,
1927   element smartTagType { w_CT_SmartTagType }*,
1928   sl_schemaLibrary?,
1929   element shapeDefaults { w_CT_ShapeDefaults }?,
1930   element doNotEmbedSmartTags { w_CT_OnOff }?,
1931   element decimalSymbol { w_CT_String }?,
1932   element listSeparator { w_CT_String }?
1933 w_CT_StyleSort = attribute w:val { w_ST_StyleSort }
1934 w_CT_StylePaneFilter =
1935   attribute w:allStyles { s_ST_OnOff }?,
1936   attribute w:customStyles { s_ST_OnOff }?,
1937   attribute w:latentStyles { s_ST_OnOff }?,
1938   attribute w:stylesInUse { s_ST_OnOff }?,
1939   attribute w:headingStyles { s_ST_OnOff }?,
1940   attribute w:numberingStyles { s_ST_OnOff }?,
1941   attribute w:tableStyles { s_ST_OnOff }?,
1942   attribute w:directFormattingOnRuns { s_ST_OnOff }?,
1943   attribute w:directFormattingOnParagraphs { s_ST_OnOff }?,
1944   attribute w:directFormattingOnNumbering { s_ST_OnOff }?,
1945   attribute w:directFormattingOnTables { s_ST_OnOff }?,
1946   attribute w:clearFormatting { s_ST_OnOff }?,
1947   attribute w:top3HeadingStyles { s_ST_OnOff }?,
1948   attribute w:visibleStyles { s_ST_OnOff }?,
1949   attribute w:alternateStyleNames { s_ST_OnOff }?,
1950   attribute w:val { w_ST_ShortHexNumber }?
1951 w_ST_StyleSort =
1952   string "name"
1953   | string "priority"
1954   | string "default"
1955   | string "font"
1956   | string "basedOn"
1957   | string "type"
1958   | string "0000"
1959   | string "0001"
1960   | string "0002"
1961   | string "0003"
1962   | string "0004"
1963   | string "0005"
1964 w_CT_WebSettings =
1965   element frameset { w_CT_Frameset }?,
1966   element divs { w_CT_Divs }?,
1967   element encoding { w_CT_String }?,
1968   element optimizeForBrowser { w_CT_OptimizeForBrowser }?,
1969   element relyOnVML { w_CT_OnOff }?,
1970   element allowPNG { w_CT_OnOff }?,
1971   element doNotRelyOnCSS { w_CT_OnOff }?,
1972   element doNotSaveAsSingleFile { w_CT_OnOff }?,
1973   element doNotOrganizeInFolder { w_CT_OnOff }?,
1974   element doNotUseLongFileNames { w_CT_OnOff }?,
1975   element pixelsPerInch { w_CT_DecimalNumber }?,
1976   element targetScreenSz { w_CT_TargetScreenSz }?,
1977   element saveSmartTagsAsXml { w_CT_OnOff }?
1978 w_ST_FrameScrollbar = string "on" | string "off" | string "auto"

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1979 w_CT_FrameScrollbar = attribute w:val { w_ST_FrameScrollbar }
1980 w_CT_OptimizeForBrowser =
1981   w_CT_OnOff,
1982   attribute w:target { s_ST_String }?
1983 w_CT_Frame =
1984   element sz { w_CT_String }?,
1985   element name { w_CT_String }?,
1986   element title { w_CT_String }?,
1987   element longDesc { w_CT_Rel }?,
1988   element sourceFileName { w_CT_Rel }?,
1989   element marW { w_CT_PixelsMeasure }?,
1990   element marH { w_CT_PixelsMeasure }?,
1991   element scrollbar { w_CT_FrameScrollbar }?,
1992   element noResizeAllowed { w_CT_OnOff }?,
1993   element linkedToFile { w_CT_OnOff }?
1994 w_ST_FrameLayout = string "rows" | string "cols" | string "none"
1995 w_CT_FrameLayout = attribute w:val { w_ST_FrameLayout }
1996 w_CT_FramesetSplitbar =
1997   element w { w_CT_TwipsMeasure }?,
1998   element color { w_CT_Color }?,
1999   element noBorder { w_CT_OnOff }?,
2000   element flatBorders { w_CT_OnOff }?
2001 w_CT_Frameset =
2002   element sz { w_CT_String }?,
2003   element framesetSplitbar { w_CT_FramesetSplitbar }?,
2004   element frameLayout { w_CT_FrameLayout }?,
2005   element title { w_CT_String }?,
2006   (element frameset { w_CT_Frameset }*
2007    | element frame { w_CT_Frame }*)*
2008 w_CT_NumPicBullet =
2009   attribute w:numPicBulletId { w_ST_DecimalNumber },
2010   (element pict { w_CT_Picture }
2011    | element drawing { w_CT_Drawing })
2012 w_ST_LevelSuffix = string "tab" | string "space" | string "nothing"
2013 w_CT_LevelSuffix = attribute w:val { w_ST_LevelSuffix }
2014 w_CT_LevelText =
2015   attribute w:val { s_ST_String }?,
2016   attribute w:null { s_ST_OnOff }?
2017 w_CT_LvlLegacy =
2018   attribute w:legacy { s_ST_OnOff }?,
2019   attribute w:legacySpace { s_ST_TwipsMeasure }?,
2020   attribute w:legacyIndent { w_ST_SignedTwipsMeasure }?
2021 w_CT_Lvl =
2022   attribute w:ilvl { w_ST_DecimalNumber },
2023   attribute w:tplc { w_ST_LongHexNumber }?,
2024   attribute w:tentative { s_ST_OnOff }?,
2025   element start { w_CT_DecimalNumber }?,
2026   element numFmt { w_CT_NumFmt }?,
2027   element lvlRestart { w_CT_DecimalNumber }?,
2028   element pStyle { w_CT_String }?,
2029   element isLgl { w_CT_OnOff }?,
2030   element suff { w_CT_LevelSuffix }?,
2031   element lvlText { w_CT_LevelText }?,

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2032     element lvlPicBulletId { w_CT_DecimalNumber }?,
2033     element legacy { w_CT_LvlLegacy }?,
2034     element lvlJc { w_CT_Jc }?,
2035     element pPr { w_CT_PPrGeneral }?,
2036     element rPr { w_CT_RPr }?
2037 w_ST_MultiLevelType =
2038     string "singleLevel" | string "multilevel" | string "hybridMultilevel"
2039 w_CT_MultiLevelType = attribute w:val { w_ST_MultiLevelType }
2040 w_CT_AbstractNum =
2041     attribute w:abstractNumId { w_ST_DecimalNumber },
2042     element nsid { w_CT_LongHexNumber }?,
2043     element multiLevelType { w_CT_MultiLevelType }?,
2044     element tpl { w_CT_LongHexNumber }?,
2045     element name { w_CT_String }?,
2046     element styleLink { w_CT_String }?,
2047     element numStyleLink { w_CT_String }?,
2048     element lvl { w_CT_Lvl }*
2049 w_CT_NumLvl =
2050     attribute w:ilvl { w_ST_DecimalNumber },
2051     element startOverride { w_CT_DecimalNumber }?,
2052     element lvl { w_CT_Lvl }?
2053 w_CT_Num =
2054     attribute w:numId { w_ST_DecimalNumber },
2055     element abstractNumId { w_CT_DecimalNumber },
2056     element lvlOverride { w_CT_NumLvl }*
2057 w_CT_Numbering =
2058     element numPicBullet { w_CT_NumPicBullet }*,
2059     element abstractNum { w_CT_AbstractNum }*,
2060     element num { w_CT_Num }*,
2061     element numIdMacAtCleanup { w_CT_DecimalNumber }?
2062 w_ST_TblStyleOverrideType =
2063     string "wholeTable"
2064     | string "firstRow"
2065     | string "lastRow"
2066     | string "firstCol"
2067     | string "lastCol"
2068     | string "band1Vert"
2069     | string "band2Vert"
2070     | string "band1Horz"
2071     | string "band2Horz"
2072     | string "neCell"
2073     | string "nwCell"
2074     | string "seCell"
2075     | string "swCell"
2076 w_CT_TblStylePr =
2077     attribute w:type { w_ST_TblStyleOverrideType },
2078     element pPr { w_CT_PPrGeneral }?,
2079     element rPr { w_CT_RPr }?,
2080     element tblPr { w_CT_TblPrBase }?,
2081     element trPr { w_CT_TrPr }?,
2082     element tcPr { w_CT_TcPr }?
2083 w_ST_StyleType =
2084     string "paragraph"

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2085 | string "character"
2086 | string "table"
2087 | string "numbering"
2088 w_CT_Style =
2089   attribute w:type { w_ST_StyleType }?,
2090   attribute w:styleId { s_ST_String }?,
2091   attribute w:default { s_ST_OnOff }?,
2092   attribute w:customStyle { s_ST_OnOff }?,
2093   element name { w_CT_String }?,
2094   element aliases { w_CT_String }?,
2095   element basedOn { w_CT_String }?,
2096   element next { w_CT_String }?,
2097   element link { w_CT_String }?,
2098   element autoRedefine { w_CT_OnOff }?,
2099   element hidden { w_CT_OnOff }?,
2100   element uiPriority { w_CT_DecimalNumber }?,
2101   element semiHidden { w_CT_OnOff }?,
2102   element unhideWhenUsed { w_CT_OnOff }?,
2103   element qFormat { w_CT_OnOff }?,
2104   element locked { w_CT_OnOff }?,
2105   element personal { w_CT_OnOff }?,
2106   element personalCompose { w_CT_OnOff }?,
2107   element personalReply { w_CT_OnOff }?,
2108   element rsid { w_CT_LongHexNumber }?,
2109   element pPr { w_CT_PPrGeneral }?,
2110   element rPr { w_CT_RPr }?,
2111   element tblPr { w_CT_TblPrBase }?,
2112   element trPr { w_CT_TrPr }?,
2113   element tcPr { w_CT_TcPr }?,
2114   element tblStylePr { w_CT_TblStylePr }*
2115 w_CT_LsdException =
2116   attribute w:name { s_ST_String },
2117   attribute w:locked { s_ST_OnOff }?,
2118   attribute w:uiPriority { w_ST_DecimalNumber }?,
2119   attribute w:semiHidden { s_ST_OnOff }?,
2120   attribute w:unhideWhenUsed { s_ST_OnOff }?,
2121   attribute w:qFormat { s_ST_OnOff }?
2122 w_CT_LatentStyles =
2123   attribute w:defLockedState { s_ST_OnOff }?,
2124   attribute w:defUIPriority { w_ST_DecimalNumber }?,
2125   attribute w:defSemiHidden { s_ST_OnOff }?,
2126   attribute w:defUnhideWhenUsed { s_ST_OnOff }?,
2127   attribute w:defQFormat { s_ST_OnOff }?,
2128   attribute w:count { w_ST_DecimalNumber }?,
2129   element lsdException { w_CT_LsdException }*
2130 w_CT_Styles =
2131   element docDefaults { w_CT_DocDefaults }?,
2132   element latentStyles { w_CT_LatentStyles }?,
2133   element style { w_CT_Style }*
2134 w_CT_Panose = attribute w:val { s_ST_Panose }
2135 w_ST_FontFamily =
2136   string "decorative"
2137 | string "modern"

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2138 | string "roman"
2139 | string "script"
2140 | string "swiss"
2141 | string "auto"
2142 w_CT_FontFamily = attribute w:val { w_ST_FontFamily }
2143 w_ST_Pitch = string "fixed" | string "variable" | string "default"
2144 w_CT_Pitch = attribute w:val { w_ST_Pitch }
2145 w_CT_FontSig =
2146   attribute w:usb0 { w_ST_LongHexNumber },
2147   attribute w:usb1 { w_ST_LongHexNumber },
2148   attribute w:usb2 { w_ST_LongHexNumber },
2149   attribute w:usb3 { w_ST_LongHexNumber },
2150   attribute w:csb0 { w_ST_LongHexNumber },
2151   attribute w:csb1 { w_ST_LongHexNumber }
2152 w_CT_FontRel =
2153   w_CT_Rel,
2154   attribute w:fontKey { s_ST_Guid }?,
2155   attribute w:subsetting { s_ST_OnOff }?
2156 w_CT_Font =
2157   attribute w:name { s_ST_String },
2158   element altName { w_CT_String }?,
2159   element panose1 { w_CT_Panose }?,
2160   element charset { w_CT_Charset }?,
2161   element family { w_CT_FontFamily }?,
2162   element notTrueType { w_CT_OnOff }?,
2163   element pitch { w_CT_Pitch }?,
2164   element sig { w_CT_FontSig }?,
2165   element embedRegular { w_CT_FontRel }?,
2166   element embedBold { w_CT_FontRel }?,
2167   element embedItalic { w_CT_FontRel }?,
2168   element embedBoldItalic { w_CT_FontRel }?
2169 w_CT_FontsList = element font { w_CT_Font }*
2170 w_CT_DivBdr =
2171   element top { w_CT_Border }?,
2172   element left { w_CT_Border }?,
2173   element bottom { w_CT_Border }?,
2174   element right { w_CT_Border }?
2175 w_CT_Div =
2176   attribute w:id { w_ST_DecimalNumber },
2177   element blockQuote { w_CT_OnOff }?,
2178   element bodyDiv { w_CT_OnOff }?,
2179   element marLeft { w_CT_SignedTwipsMeasure },
2180   element marRight { w_CT_SignedTwipsMeasure },
2181   element marTop { w_CT_SignedTwipsMeasure },
2182   element marBottom { w_CT_SignedTwipsMeasure },
2183   element divBdr { w_CT_DivBdr }?,
2184   element divsChild { w_CT_Divs }*
2185 w_CT_Divs = element div { w_CT_Div }+
2186 w_CT_TxbxContent = w_EG_BlockLevelElts+
2187 w_txbxContent = element txbxContent { w_CT_TxbxContent }
2188 w_EG_MathContent = m_oMathPara | m_oMath
2189 w_EG_BlockLevelChunkElts = w_EG_ContentBlockContent*
2190 w_EG_BlockLevelElts =

```



```

2191 w_EG_BlockLevelChunkElts*
2192 | element altChunk { w_CT_AltChunk }*
2193 w_EG_RunLevelElts =
2194   element proofErr { w_CT_ProofErr }?
2195   | element permStart { w_CT_PermStart }?
2196   | element permEnd { w_CT_Perm }?
2197   | w_EG_RangeMarkupElements*
2198   | element ins { w_CT_RunTrackChange }?
2199   | element del { w_CT_RunTrackChange }?
2200   | element moveFrom { w_CT_RunTrackChange }
2201   | element moveTo { w_CT_RunTrackChange }
2202   | w_EG_MathContent*
2203 w_CT_Body =
2204   w_EG_BlockLevelElts*,
2205   element sectPr { w_CT_SectPr }?
2206 w_CT_ShapeDefaults = (w_any_vml_office*)+
2207 w_CT_Comments = element comment { w_CT_Comment }*
2208 w_comments = element comments { w_CT_Comments }
2209 w_CT_Footnotes = element footnote { w_CT_FtnEdn }*
2210 w_footnotes = element footnotes { w_CT_Footnotes }
2211 w_CT_Endnotes = element endnote { w_CT_FtnEdn }*
2212 w_endnotes = element endnotes { w_CT_Endnotes }
2213 w_hdr = element hdr { w_CT_HdrFtr }
2214 w_ftr = element ftr { w_CT_HdrFtr }
2215 w_CT_SmartTagType =
2216   attribute w:namespaceuri { s_ST_String }?,
2217   attribute w:name { s_ST_String }?,
2218   attribute w:url { s_ST_String }?
2219 w_ST_ThemeColor =
2220   string "dark1"
2221   | string "light1"
2222   | string "dark2"
2223   | string "light2"
2224   | string "accent1"
2225   | string "accent2"
2226   | string "accent3"
2227   | string "accent4"
2228   | string "accent5"
2229   | string "accent6"
2230   | string "hyperlink"
2231   | string "followedHyperlink"
2232   | string "none"
2233   | string "background1"
2234   | string "text1"
2235   | string "background2"
2236   | string "text2"
2237 w_ST_DocPartBehavior = string "content" | string "p" | string "pg"
2238 w_CT_DocPartBehavior = attribute w:val { w_ST_DocPartBehavior }
2239 w_CT_DocPartBehaviors = element behavior { w_CT_DocPartBehavior }+
2240 w_ST_DocPartType =
2241   string "none"
2242   | string "normal"
2243   | string "autoExp"

```



```

2244 | string "toolbar"
2245 | string "speller"
2246 | string "formFld"
2247 | string "bbPlcHdr"
2248 w_CT_DocPartType = attribute w:val { w_ST_DocPartType }
2249 w_CT_DocPartTypes =
2250   attribute w:all { s_ST_OnOff }?,
2251   (element type { w_CT_DocPartType }+)
2252 w_ST_DocPartGallery =
2253   string "placeholder"
2254   | string "any"
2255   | string "default"
2256   | string "docParts"
2257   | string "coverPg"
2258   | string "eq"
2259   | string "ftrs"
2260   | string "hdrs"
2261   | string "pgNum"
2262   | string "tbls"
2263   | string "watermarks"
2264   | string "autoTxt"
2265   | string "txtBox"
2266   | string "pgNumT"
2267   | string "pgNumB"
2268   | string "pgNumMargins"
2269   | string "tblOfContents"
2270   | string "bib"
2271   | string "custQuickParts"
2272   | string "custCoverPg"
2273   | string "custEq"
2274   | string "custFtrs"
2275   | string "custHdrs"
2276   | string "custPgNum"
2277   | string "custTbls"
2278   | string "custWatermarks"
2279   | string "custAutoTxt"
2280   | string "custTxtBox"
2281   | string "custPgNumT"
2282   | string "custPgNumB"
2283   | string "custPgNumMargins"
2284   | string "custTblOfContents"
2285   | string "custBib"
2286   | string "custom1"
2287   | string "custom2"
2288   | string "custom3"
2289   | string "custom4"
2290   | string "custom5"
2291 w_CT_DocPartGallery = attribute w:val { w_ST_DocPartGallery }
2292 w_CT_DocPartCategory =
2293   element name { w_CT_String },
2294   element gallery { w_CT_DocPartGallery }
2295 w_CT_DocPartName =
2296   attribute w:val { s_ST_String },

```



```

2297     attribute w:decorated { s_ST_OnOff }?
2298 w_CT_DocPartPr =
2299     element name { w_CT_DocPartName }&
2300     element style { w_CT_String }?&
2301     element category { w_CT_DocPartCategory }?&
2302     element types { w_CT_DocPartTypes }?&
2303     element behaviors { w_CT_DocPartBehaviors }?&
2304     element description { w_CT_String }?&
2305     element guid { w_CT_Guid }?
2306 w_CT_DocPart =
2307     element docPartPr { w_CT_DocPartPr }?,
2308     element docPartBody { w_CT_Body }?
2309 w_CT_DocParts = element docPart { w_CT_DocPart }+
2310 w_settings = element settings { w_CT_Settings }
2311 w_webSettings = element webSettings { w_CT_WebSettings }
2312 w_fonts = element fonts { w_CT_FontsList }
2313 w_numbering = element numbering { w_CT_Numbering }
2314 w_styles = element styles { w_CT_Styles }
2315 w_ST_CaptionPos =
2316     string "above" | string "below" | string "left" | string "right"
2317 w_CT_Caption =
2318     attribute w:name { s_ST_String },
2319     attribute w:pos { w_ST_CaptionPos }?,
2320     attribute w:chapNum { s_ST_OnOff }?,
2321     attribute w:heading { w_ST_DecimalNumber }?,
2322     attribute w:noLabel { s_ST_OnOff }?,
2323     attribute w:numFmt { w_ST_NumberFormat }?,
2324     attribute w:sep { w_ST_ChapterSep }?
2325 w_CT_AutoCaption =
2326     attribute w:name { s_ST_String },
2327     attribute w:caption { s_ST_String }
2328 w_CT_AutoCaptions = element autoCaption { w_CT_AutoCaption }+
2329 w_CT_Captions =
2330     element caption { w_CT_Caption }+,
2331     element autoCaptions { w_CT_AutoCaptions }?
2332 w_CT_DocumentBase = element background { w_CT_Background }?
2333 w_CT_Document =
2334     w_CT_DocumentBase,
2335     element body { w_CT_Body }?,
2336     attribute w:conformance { s_ST_ConformanceClass }?
2337 w_CT_GlossaryDocument =
2338     w_CT_DocumentBase,
2339     element docParts { w_CT_DocParts }?
2340 w_document = element document { w_CT_Document }
2341 w_glossaryDocument = element glossaryDocument { w_CT_GlossaryDocument }
2342 w_any_vml_office =
2343     o_shapedefaults
2344     | o_shapelayout
2345     | o_signatureline
2346     | o_ink
2347     | o_diagram
2348     | o_skew
2349     | o_extrusion

```



```

2350 | o_callout
2351 | o_lock
2352 | o_OLEObject
2353 | o_complex
2354 | o_left
2355 | o_top
2356 | o_right
2357 | o_bottom
2358 | o_column
2359 | o_clippath
2360 | o_fill
2361 w_any_vml_vml =
2362   v_shape
2363   | v_shapetype
2364   | v_group
2365   | v_background
2366   | v_fill
2367   | v_formulas
2368   | v_handles
2369   | v_imagedata
2370   | v_path
2371   | v_textbox
2372   | v_shadow
2373   | v_stroke
2374   | v_textpath
2375   | v_arc
2376   | v_curve
2377   | v_image
2378   | v_line
2379   | v_oval
2380   | v_polyline
2381   | v_rect
2382   | v_roundrect

```

## B.2.1 Part Schemas

### B.2.1.1 Comments Part

This schema is available in the file WordprocessingML\_Comments.rnc.

```

1  include "wml.rnc"
2  include "shared-relationshipReference.rnc"
3  include "dml-wordprocessingDrawing.rnc"
4  include "dml-main.rnc"
5  include "dml-diagram.rnc"
6  include "shared-commonSimpleTypes.rnc"
7  include "dml-lockedCanvas.rnc"
8  include "any.rnc"
9  include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 include "vml-presentationDrawing.rnc"
13 include "xml.rnc"

```



```

14 include "shared-customXmlSchemaProperties.rnc"
15 include "vml-officeDrawing.rnc"
16 include "vml-main.rnc"
17 include "vml-spreadsheetDrawing.rnc"
18 include "vml-wordprocessingDrawing.rnc"
19 include "shared-math.rnc"
20 start = w_comments

```

### B.2.1.2 Document Settings Part

This schema is available in the file WordprocessingML\_Document\_Settings.rnc.

```

1 include "wml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-wordprocessingDrawing.rnc"
4 include "dml-main.rnc"
5 include "dml-diagram.rnc"
6 include "shared-commonSimpleTypes.rnc"
7 include "dml-lockedCanvas.rnc"
8 include "any.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 include "vml-presentationDrawing.rnc"
13 include "xml.rnc"
14 include "shared-customXmlSchemaProperties.rnc"
15 include "vml-officeDrawing.rnc"
16 include "vml-main.rnc"
17 include "vml-spreadsheetDrawing.rnc"
18 include "vml-wordprocessingDrawing.rnc"
19 include "shared-math.rnc"
20 start = w_settings

```

### B.2.1.3 Endnotes Part

This schema is available in the file WordprocessingML\_Endnotes.rnc.

```

1 include "wml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-wordprocessingDrawing.rnc"
4 include "dml-main.rnc"
5 include "dml-diagram.rnc"
6 include "shared-commonSimpleTypes.rnc"
7 include "dml-lockedCanvas.rnc"
8 include "any.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 include "vml-presentationDrawing.rnc"
13 include "xml.rnc"
14 include "shared-customXmlSchemaProperties.rnc"
15 include "vml-officeDrawing.rnc"
16 include "vml-main.rnc"
17 include "vml-spreadsheetDrawing.rnc"

```



```

18 include "vml-wordprocessingDrawing.rnc"
19 include "shared-math.rnc"
20 start = w_endnotes

```

#### B.2.1.4 Font Table Part

This schema is available in the file WordprocessingML\_Font\_Table.rnc.

```

1 include "wml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-wordprocessingDrawing.rnc"
4 include "dml-main.rnc"
5 include "dml-diagram.rnc"
6 include "shared-commonSimpleTypes.rnc"
7 include "dml-lockedCanvas.rnc"
8 include "any.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 include "vml-presentationDrawing.rnc"
13 include "xml.rnc"
14 include "shared-customXmlSchemaProperties.rnc"
15 include "vml-officeDrawing.rnc"
16 include "vml-main.rnc"
17 include "vml-spreadsheetDrawing.rnc"
18 include "vml-wordprocessingDrawing.rnc"
19 include "shared-math.rnc"
20 start = w_fonts

```

#### B.2.1.5 Footer Part

This schema is available in the file WordprocessingML\_Footer.rnc.

```

1 include "wml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-wordprocessingDrawing.rnc"
4 include "dml-main.rnc"
5 include "dml-diagram.rnc"
6 include "shared-commonSimpleTypes.rnc"
7 include "dml-lockedCanvas.rnc"
8 include "any.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 include "vml-presentationDrawing.rnc"
13 include "xml.rnc"
14 include "shared-customXmlSchemaProperties.rnc"
15 include "vml-officeDrawing.rnc"
16 include "vml-main.rnc"
17 include "vml-spreadsheetDrawing.rnc"
18 include "vml-wordprocessingDrawing.rnc"
19 include "shared-math.rnc"
20 start = w_ftr

```



### B.2.1.6 Footnotes Part

This schema is available in the file WordprocessingML\_Footnotes.rnc.

```

1 include "wml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-wordprocessingDrawing.rnc"
4 include "dml-main.rnc"
5 include "dml-diagram.rnc"
6 include "shared-commonSimpleTypes.rnc"
7 include "dml-lockedCanvas.rnc"
8 include "any.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 include "vml-presentationDrawing.rnc"
13 include "xml.rnc"
14 include "shared-customXmlSchemaProperties.rnc"
15 include "vml-officeDrawing.rnc"
16 include "vml-main.rnc"
17 include "vml-spreadsheetDrawing.rnc"
18 include "vml-wordprocessingDrawing.rnc"
19 include "shared-math.rnc"
20 start = w_footnotes

```

### B.2.1.7 Glossary Document Part

This schema is available in the file WordprocessingML\_Glossary\_Document.rnc.

```

1 include "wml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-wordprocessingDrawing.rnc"
4 include "dml-main.rnc"
5 include "dml-diagram.rnc"
6 include "shared-commonSimpleTypes.rnc"
7 include "dml-lockedCanvas.rnc"
8 include "any.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 include "vml-presentationDrawing.rnc"
13 include "xml.rnc"
14 include "shared-customXmlSchemaProperties.rnc"
15 include "vml-officeDrawing.rnc"
16 include "vml-main.rnc"
17 include "vml-spreadsheetDrawing.rnc"
18 include "vml-wordprocessingDrawing.rnc"
19 include "shared-math.rnc"
20 start = w_glossaryDocument

```

### B.2.1.8 Header Part

This schema is available in the file WordprocessingML\_Header.rnc.



```

1 include "wml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-wordprocessingDrawing.rnc"
4 include "dml-main.rnc"
5 include "dml-diagram.rnc"
6 include "shared-commonSimpleTypes.rnc"
7 include "dml-lockedCanvas.rnc"
8 include "any.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 include "vml-presentationDrawing.rnc"
13 include "xml.rnc"
14 include "shared-customXmlSchemaProperties.rnc"
15 include "vml-officeDrawing.rnc"
16 include "vml-main.rnc"
17 include "vml-spreadsheetDrawing.rnc"
18 include "vml-wordprocessingDrawing.rnc"
19 include "shared-math.rnc"
20 start = w_hdr

```

### B.2.1.9 Mail Merge Recipient Data Part

This schema is available in the file WordprocessingML\_Mail\_Merge\_Recipient\_Data.rnc.

```

1 include "wml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-wordprocessingDrawing.rnc"
4 include "dml-main.rnc"
5 include "dml-diagram.rnc"
6 include "shared-commonSimpleTypes.rnc"
7 include "dml-lockedCanvas.rnc"
8 include "any.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 include "vml-presentationDrawing.rnc"
13 include "xml.rnc"
14 include "shared-customXmlSchemaProperties.rnc"
15 include "vml-officeDrawing.rnc"
16 include "vml-main.rnc"
17 include "vml-spreadsheetDrawing.rnc"
18 include "vml-wordprocessingDrawing.rnc"
19 include "shared-math.rnc"
20 start = w_recipients

```

### B.2.1.10 Main Document Part

This schema is available in the file WordprocessingML\_Main\_Document.rnc.

```

1 include "wml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-wordprocessingDrawing.rnc"
4 include "dml-main.rnc"

```



```

5 include "dml-diagram.rnc"
6 include "shared-commonSimpleTypes.rnc"
7 include "dml-lockedCanvas.rnc"
8 include "any.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 include "vml-presentationDrawing.rnc"
13 include "xml.rnc"
14 include "shared-customXmlSchemaProperties.rnc"
15 include "vml-officeDrawing.rnc"
16 include "vml-main.rnc"
17 include "vml-spreadsheetDrawing.rnc"
18 include "vml-wordprocessingDrawing.rnc"
19 include "shared-math.rnc"
20 start = w_document

```

### B.2.1.11 Numbering Definitions Part

This schema is available in the file WordprocessingML\_Numbering\_Definitions.rnc.

```

1 include "wml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-wordprocessingDrawing.rnc"
4 include "dml-main.rnc"
5 include "dml-diagram.rnc"
6 include "shared-commonSimpleTypes.rnc"
7 include "dml-lockedCanvas.rnc"
8 include "any.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 include "vml-presentationDrawing.rnc"
13 include "xml.rnc"
14 include "shared-customXmlSchemaProperties.rnc"
15 include "vml-officeDrawing.rnc"
16 include "vml-main.rnc"
17 include "vml-spreadsheetDrawing.rnc"
18 include "vml-wordprocessingDrawing.rnc"
19 include "shared-math.rnc"
20 start = w_numbering

```

### B.2.1.12 Style Definitions Part

This schema is available in the file WordprocessingML\_Style\_Definitions.rnc.

```

1 include "wml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-wordprocessingDrawing.rnc"
4 include "dml-main.rnc"
5 include "dml-diagram.rnc"
6 include "shared-commonSimpleTypes.rnc"
7 include "dml-lockedCanvas.rnc"
8 include "any.rnc"

```



```

9  include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 include "vml-presentationDrawing.rnc"
13 include "xml.rnc"
14 include "shared-customXmlSchemaProperties.rnc"
15 include "vml-officeDrawing.rnc"
16 include "vml-main.rnc"
17 include "vml-spreadsheetDrawing.rnc"
18 include "vml-wordprocessingDrawing.rnc"
19 include "shared-math.rnc"
20 start = w_styles

```

### B.2.1.13 Web Settings Part

This schema is available in the file WordprocessingML\_Web\_Settings.rnc.

```

1  include "wml.rnc"
2  include "shared-relationshipReference.rnc"
3  include "dml-wordprocessingDrawing.rnc"
4  include "dml-main.rnc"
5  include "dml-diagram.rnc"
6  include "shared-commonSimpleTypes.rnc"
7  include "dml-lockedCanvas.rnc"
8  include "any.rnc"
9  include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 include "vml-presentationDrawing.rnc"
13 include "xml.rnc"
14 include "shared-customXmlSchemaProperties.rnc"
15 include "vml-officeDrawing.rnc"
16 include "vml-main.rnc"
17 include "vml-spreadsheetDrawing.rnc"
18 include "vml-wordprocessingDrawing.rnc"
19 include "shared-math.rnc"
20 start = w_webSettings

```

## B.3 SpreadsheetML

This schema is available in the file sml.rnc.

```

1  namespace o = "urn:schemas-microsoft-com:office:office"
2  namespace r =
3    "http://schemas.openxmlformats.org/officeDocument/2006/relationships"
4  namespace s =
5    "http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
6  default namespace sml =
7    "http://schemas.openxmlformats.org/spreadsheetml/2006/main"
8  namespace v = "urn:schemas-microsoft-com:vml"
9  namespace w10 = "urn:schemas-microsoft-com:office:word"
10 namespace x = "urn:schemas-microsoft-com:office:excel"
11 namespace xdr =

```



```

12 "http://schemas.openxmlformats.org/drawingml/2006/spreadsheetDrawing"
13
14 sml_CT_AutoFilter =
15     attribute ref { sml_ST_Ref }?,
16     element filterColumn { sml_CT_FilterColumn }*,
17     element sortState { sml_CT_SortState }?,
18     element extLst { sml_CT_ExtensionList }?
19 sml_CT_FilterColumn =
20     attribute colId { xsd:unsignedInt },
21
22     ## default value: false
23     attribute hiddenButton { xsd:boolean }?,
24
25     ## default value: true
26     attribute showButton { xsd:boolean }?,
27     (element filters { sml_CT_Filters }?
28         | element top10 { sml_CT_Top10 }?
29         | element customFilters { sml_CT_CustomFilters }?
30         | element dynamicFilter { sml_CT_DynamicFilter }?
31         | element colorFilter { sml_CT_ColorFilter }?
32         | element iconFilter { sml_CT_IconFilter }?
33         | element extLst { sml_CT_ExtensionList }?)?
34 sml_CT_Filters =
35
36     ## default value: false
37     attribute blank { xsd:boolean }?,
38
39     ## default value: none
40     attribute calendarType { s_ST_CalendarType }?,
41     element filter { sml_CT_Filter }*,
42     element dateGroupItem { sml_CT_DateGroupItem }*
43 sml_CT_Filter = attribute val { s_ST_Xstring }?
44 sml_CT_CustomFilters =
45
46     ## default value: false
47     attribute and { xsd:boolean }?,
48     element customFilter { sml_CT_CustomFilter }+
49 sml_CT_CustomFilter =
50
51     ## default value: equal
52     attribute operator { sml_ST_FilterOperator }?,
53     attribute val { s_ST_Xstring }?
54 sml_CT_Top10 =
55
56     ## default value: true
57     attribute top { xsd:boolean }?,
58
59     ## default value: false
60     attribute percent { xsd:boolean }?,
61     attribute val { xsd:double },
62     attribute filterVal { xsd:double }?
63 sml_CT_ColorFilter =
64     attribute dxId { sml_ST_DxfId }?,

```



```

65
66     ## default value: true
67     attribute cellColor { xsd:boolean }?
68 sml_CT_IconFilter =
69     attribute iconSet { sml_ST_IconSetType },
70     attribute iconId { xsd:unsignedInt }?
71 sml_ST_FilterOperator =
72     string "equal"
73     | string "lessThan"
74     | string "lessThanOrEqual"
75     | string "notEqual"
76     | string "greaterThanOrEqual"
77     | string "greaterThan"
78 sml_CT_DynamicFilter =
79     attribute type { sml_ST_DynamicFilterType },
80     attribute val { xsd:double }?,
81     attribute valIso { xsd:dateTime }?,
82     attribute maxVal { xsd:double }?,
83     attribute maxValIso { xsd:dateTime }?
84 sml_ST_DynamicFilterType =
85     string "null"
86     | string "aboveAverage"
87     | string "belowAverage"
88     | string "tomorrow"
89     | string "today"
90     | string "yesterday"
91     | string "nextWeek"
92     | string "thisWeek"
93     | string "lastWeek"
94     | string "nextMonth"
95     | string "thisMonth"
96     | string "lastMonth"
97     | string "nextQuarter"
98     | string "thisQuarter"
99     | string "lastQuarter"
100    | string "nextYear"
101    | string "thisYear"
102    | string "lastYear"
103    | string "yearToDate"
104    | string "Q1"
105    | string "Q2"
106    | string "Q3"
107    | string "Q4"
108    | string "M1"
109    | string "M2"
110    | string "M3"
111    | string "M4"
112    | string "M5"
113    | string "M6"
114    | string "M7"
115    | string "M8"
116    | string "M9"
117    | string "M10"

```



```

118 | string "M11"
119 | string "M12"
120 sml_ST_IconSetType =
121     string "3Arrows"
122     | string "3ArrowsGray"
123     | string "3Flags"
124     | string "3TrafficLights1"
125     | string "3TrafficLights2"
126     | string "3Signs"
127     | string "3Symbols"
128     | string "3Symbols2"
129     | string "4Arrows"
130     | string "4ArrowsGray"
131     | string "4RedToBlack"
132     | string "4Rating"
133     | string "4TrafficLights"
134     | string "5Arrows"
135     | string "5ArrowsGray"
136     | string "5Rating"
137     | string "5Quarters"
138 sml_CT_SortState =
139
140     ## default value: false
141     attribute columnSort { xsd:boolean }?,
142
143     ## default value: false
144     attribute caseSensitive { xsd:boolean }?,
145
146     ## default value: none
147     attribute sortMethod { sml_ST_SortMethod }?,
148     attribute ref { sml_ST_Ref },
149     element sortCondition { sml_CT_SortCondition }*,
150     element extLst { sml_CT_ExtensionList }?
151 sml_CT_SortCondition =
152
153     ## default value: false
154     attribute descending { xsd:boolean }?,
155
156     ## default value: value
157     attribute sortBy { sml_ST_SortBy }?,
158     attribute ref { sml_ST_Ref },
159     attribute customList { s_ST_Xstring }?,
160     attribute dxId { sml_ST_DxfId }?,
161
162     ## default value: 3Arrows
163     attribute iconSet { sml_ST_IconSetType }?,
164     attribute iconId { xsd:unsignedInt }?
165 sml_ST_SortBy =
166     string "value"
167     | string "cellColor"
168     | string "fontColor"
169     | string "icon"
170 sml_ST_SortMethod = string "stroke" | string "pinYin" | string "none"

```



```

171 sml_CT_DateGroupItem =
172     attribute year { xsd:unsignedShort },
173     attribute month { xsd:unsignedShort }?,
174     attribute day { xsd:unsignedShort }?,
175     attribute hour { xsd:unsignedShort }?,
176     attribute minute { xsd:unsignedShort }?,
177     attribute second { xsd:unsignedShort }?,
178     attribute dateTimeGrouping { sml_ST_DateTimeGrouping }
179 sml_ST_DateTimeGrouping =
180     string "year"
181     | string "month"
182     | string "day"
183     | string "hour"
184     | string "minute"
185     | string "second"
186 sml_ST_CellRef = xsd:string
187 sml_ST_Ref = xsd:string
188 sml_ST_RefA = xsd:string
189 sml_ST_Sqref = list { sml_ST_Ref* }
190 sml_ST_Formula = s_ST_Xstring
191 sml_ST_UnsignedIntHex = xsd:hexBinary { length = "4" }
192 sml_ST_UnsignedShortHex = xsd:hexBinary { length = "2" }
193 sml_CT_XStringElement = attribute v { s_ST_Xstring }
194 sml_CT_Extension =
195     attribute uri { xsd:token }?,
196     sml_CT_Extension_any
197 sml_CT_Extension_any =
198     element * - (o:* | v:* | w10:* | x:*) {
199         anyAttribute*,
200         mixed { anyElement* }
201     }
202 sml_CT_ObjectAnchor =
203
204     ## default value: false
205     attribute moveWithCells { xsd:boolean }?,
206
207     ## default value: false
208     attribute sizeWithCells { xsd:boolean }?,
209     xdr_from,
210     xdr_to
211 sml_EG_ExtensionList = element ext { sml_CT_Extension }*
212 sml_CT_ExtensionList = sml_EG_ExtensionList?
213 sml_calcChain = element calcChain { sml_CT_CalcChain }
214 sml_CT_CalcChain =
215     element c { sml_CT_CalcCell }+,
216     element extList { sml_CT_ExtensionList }?
217 sml_CT_CalcCell =
218     attribute ( r | ref ) { sml_ST_CellRef },
219
220     ## default value: 0
221     attribute i { xsd:int }?,
222
223     ## default value: false

```



```

224 attribute s { xsd:boolean }?,
225
226 ## default value: false
227 attribute l { xsd:boolean }?,
228
229 ## default value: false
230 attribute t { xsd:boolean }?,
231
232 ## default value: false
233 attribute a { xsd:boolean }?
234 sml_comments = element comments { sml_CT_Comments }
235 sml_CT_Comments =
236   element authors { sml_CT_Authors },
237   element commentList { sml_CT_CommentList },
238   element extList { sml_CT_ExtensionList }?
239 sml_CT_Authors = element author { s_ST_Xstring }*
240 sml_CT_CommentList = element comment { sml_CT_Comment }*
241 sml_CT_Comment =
242   attribute ref { sml_ST_Ref },
243   attribute authorId { xsd:unsignedInt },
244   attribute guid { s_ST_Guid }?,
245   attribute shapeId { xsd:unsignedInt }?,
246   element text { sml_CT_Rst },
247   element commentPr { sml_CT_CommentPr }?
248 sml_CT_CommentPr =
249
250 ## default value: true
251 attribute locked { xsd:boolean }?,
252
253 ## default value: true
254 attribute defaultSize { xsd:boolean }?,
255
256 ## default value: true
257 attribute print { xsd:boolean }?,
258
259 ## default value: false
260 attribute disabled { xsd:boolean }?,
261
262 ## default value: true
263 attribute autoFill { xsd:boolean }?,
264
265 ## default value: true
266 attribute autoLine { xsd:boolean }?,
267 attribute altText { s_ST_Xstring }?,
268
269 ## default value: left
270 attribute textHAlign { sml_ST_TextHAlign }?,
271
272 ## default value: top
273 attribute textVAlign { sml_ST_TextVAlign }?,
274
275 ## default value: true
276 attribute lockText { xsd:boolean }?,

```



```

277
278   ## default value: false
279   attribute justLastX { xsd:boolean }?,
280
281   ## default value: false
282   attribute autoScale { xsd:boolean }?,
283   element anchor { sml_CT_ObjectAnchor }
284 sml_ST_TextHAlign =
285   string "left"
286   | string "center"
287   | string "right"
288   | string "justify"
289   | string "distributed"
290 sml_ST_TextVAlign =
291   string "top"
292   | string "center"
293   | string "bottom"
294   | string "justify"
295   | string "distributed"
296 sml_MapInfo = element MapInfo { sml_CT_MapInfo }
297 sml_CT_MapInfo =
298   attribute SelectionNamespaces { xsd:string },
299   element Schema { sml_CT_Schema }+,
300   element Map { sml_CT_Map }+
301 sml_CT_Schema =
302   mixed {
303     attribute ID { xsd:string },
304     attribute SchemaRef { xsd:string }?,
305     attribute Namespace { xsd:string }?,
306     attribute SchemaLanguage { xsd:token }?,
307     sml_CT_Schema_any
308   }
309 sml_CT_Schema_any =
310   element * - (o:* | v:* | w10:* | x:*) {
311     anyAttribute*,
312     mixed { anyElement* }
313   }
314 sml_CT_Map =
315   attribute ID { xsd:unsignedInt },
316   attribute Name { xsd:string },
317   attribute RootElement { xsd:string },
318   attribute SchemaID { xsd:string },
319   attribute ShowImportExportValidationErrors { xsd:boolean },
320   attribute AutoFit { xsd:boolean },
321   attribute Append { xsd:boolean },
322   attribute PreserveSortAFLayout { xsd:boolean },
323   attribute PreserveFormat { xsd:boolean },
324   element DataBinding { sml_CT_DataBinding }?
325 sml_CT_DataBinding =
326   attribute DataBindingName { xsd:string }?,
327   attribute FileBinding { xsd:boolean }?,
328   attribute ConnectionID { xsd:unsignedInt }?,
329   attribute FileBindingName { xsd:string }?,

```



```

330     attribute DataBindingLoadMode { xsd:unsignedInt },
331     sml_CT_DataBinding_any
332 sml_CT_DataBinding_any =
333     element * - (o:* | v:* | w10:* | x:*) {
334         anyAttribute*,
335         mixed { anyElement* }
336     }
337 sml_connections = element connections { sml_CT_Connections }
338 sml_CT_Connections = element connection { sml_CT_Connection }+
339 sml_CT_Connection =
340     attribute id { xsd:unsignedInt },
341     attribute sourceFile { s_ST_Xstring }?,
342     attribute odcFile { s_ST_Xstring }?,
343
344     ## default value: false
345     attribute keepAlive { xsd:boolean }?,
346
347     ## default value: 0
348     attribute interval { xsd:unsignedInt }?,
349     attribute name { s_ST_Xstring }?,
350     attribute description { s_ST_Xstring }?,
351     attribute type { xsd:unsignedInt }?,
352
353     ## default value: 1
354     attribute reconnectionMethod { xsd:unsignedInt }?,
355     attribute refreshedVersion { xsd:unsignedByte },
356
357     ## default value: 0
358     attribute minRefreshableVersion { xsd:unsignedByte }?,
359
360     ## default value: false
361     attribute savePassword { xsd:boolean }?,
362
363     ## default value: false
364     attribute new { xsd:boolean }?,
365
366     ## default value: false
367     attribute deleted { xsd:boolean }?,
368
369     ## default value: false
370     attribute onlyUseConnectionFile { xsd:boolean }?,
371
372     ## default value: false
373     attribute background { xsd:boolean }?,
374
375     ## default value: false
376     attribute refreshOnLoad { xsd:boolean }?,
377
378     ## default value: false
379     attribute saveData { xsd:boolean }?,
380
381     ## default value: integrated
382     attribute credentials { sml_ST_CredMethod }?,

```



```

383     attribute singleSignOnId { s_ST_Xstring }?,
384     element dbPr { sml_CT_DbPr }?,
385     element olapPr { sml_CT_OlapPr }?,
386     element webPr { sml_CT_WebPr }?,
387     element textPr { sml_CT_TextPr }?,
388     element parameters { sml_CT_Parameters }?,
389     element extLst { sml_CT_ExtensionList }?
390 sml_ST_CredMethod =
391     string "integrated"
392     | string "none"
393     | string "stored"
394     | string "prompt"
395 sml_CT_DbPr =
396     attribute connection { s_ST_Xstring },
397     attribute command { s_ST_Xstring }?,
398     attribute serverCommand { s_ST_Xstring }?,
399
400     ## default value: 2
401     attribute commandType { xsd:unsignedInt }?
402 sml_CT_OlapPr =
403
404     ## default value: false
405     attribute local { xsd:boolean }?,
406     attribute localConnection { s_ST_Xstring }?,
407
408     ## default value: true
409     attribute localRefresh { xsd:boolean }?,
410
411     ## default value: false
412     attribute sendLocale { xsd:boolean }?,
413     attribute rowDrillCount { xsd:unsignedInt }?,
414
415     ## default value: true
416     attribute serverFill { xsd:boolean }?,
417
418     ## default value: true
419     attribute serverNumberFormat { xsd:boolean }?,
420
421     ## default value: true
422     attribute serverFont { xsd:boolean }?,
423
424     ## default value: true
425     attribute serverFontColor { xsd:boolean }?
426 sml_CT_WebPr =
427
428     ## default value: false
429     attribute xml { xsd:boolean }?,
430
431     ## default value: false
432     attribute sourceData { xsd:boolean }?,
433
434     ## default value: false
435     attribute parsePre { xsd:boolean }?,

```



```

436
437   ## default value: false
438   attribute consecutive { xsd:boolean }?,
439
440   ## default value: false
441   attribute firstRow { xsd:boolean }?,
442
443   ## default value: false
444   attribute xl97 { xsd:boolean }?,
445
446   ## default value: false
447   attribute textDates { xsd:boolean }?,
448
449   ## default value: false
450   attribute xl2000 { xsd:boolean }?,
451   attribute url { s_ST_Xstring }?,
452   attribute post { s_ST_Xstring }?,
453
454   ## default value: false
455   attribute htmlTables { xsd:boolean }?,
456
457   ## default value: none
458   attribute htmlFormat { sml_ST_HtmlFmt }?,
459   attribute editPage { s_ST_Xstring }?,
460   element tables { sml_CT_Tables }?
461 sml_ST_HtmlFmt = string "none" | string "rtf" | string "all"
462 sml_CT_Parameters =
463   attribute count { xsd:unsignedInt }?,
464   element parameter { sml_CT_Parameter }+
465 sml_CT_Parameter =
466   attribute name { s_ST_Xstring }?,
467
468   ## default value: 0
469   attribute sqlType { xsd:int }?,
470
471   ## default value: prompt
472   attribute parameterType { sml_ST_ParameterType }?,
473
474   ## default value: false
475   attribute refreshOnChange { xsd:boolean }?,
476   attribute prompt { s_ST_Xstring }?,
477   attribute boolean { xsd:boolean }?,
478   attribute double { xsd:double }?,
479   attribute integer { xsd:int }?,
480   attribute string { s_ST_Xstring }?,
481   attribute cell { s_ST_Xstring }?
482 sml_ST_ParameterType = string "prompt" | string "value" | string "cell"
483 sml_CT_Tables =
484   attribute count { xsd:unsignedInt }?,
485   (element m { sml_CT_TableMissing }
486    | element s { sml_CT_XStringElement }
487    | element x { sml_CT_Index })+
488 sml_CT_TableMissing = empty

```



```

489 sml_CT_TextPr =
490
491     ## default value: true
492     attribute prompt { xsd:boolean }?,
493
494     ## default value: win
495     attribute fileType { sml_ST_FileType }?,
496
497     ## default value: 1252
498     attribute codePage { xsd:unsignedInt }?,
499     attribute characterSet { xsd:string }?,
500
501     ## default value: 1
502     attribute firstRow { xsd:unsignedInt }?,
503     attribute sourceFile { s_ST_Xstring }?,
504
505     ## default value: true
506     attribute delimited { xsd:boolean }?,
507
508     ## default value: .
509     attribute decimal { s_ST_Xstring }?,
510
511     ## default value: ,
512     attribute thousands { s_ST_Xstring }?,
513
514     ## default value: true
515     attribute tab { xsd:boolean }?,
516
517     ## default value: false
518     attribute space { xsd:boolean }?,
519
520     ## default value: false
521     attribute comma { xsd:boolean }?,
522
523     ## default value: false
524     attribute semicolon { xsd:boolean }?,
525
526     ## default value: false
527     attribute consecutive { xsd:boolean }?,
528
529     ## default value: doubleQuote
530     attribute qualifier { sml_ST_Qualifier }?,
531     attribute delimiter { s_ST_Xstring }?,
532     element textFields { sml_CT_TextFields }?
533 sml_ST_FileType =
534     string "mac"
535     | string "win"
536     | string "dos"
537     | string "lin"
538     | string "other"
539 sml_ST_Qualifier =
540     string "doubleQuote" | string "singleQuote" | string "none"
541 sml_CT_TextFields =

```



```

542
543   ## default value: 1
544   attribute count { xsd:unsignedInt }?,
545   element textField { sml_CT_TextField }+
546 sml_CT_TextField =
547
548   ## default value: general
549   attribute type { sml_ST_ExternalConnectionType }?,
550
551   ## default value: 0
552   attribute position { xsd:unsignedInt }?
553 sml_ST_ExternalConnectionType =
554   string "general"
555   | string "text"
556   | string "MDY"
557   | string "DMY"
558   | string "YMD"
559   | string "MYD"
560   | string "DYM"
561   | string "YDM"
562   | string "skip"
563   | string "EMD"
564 sml_pivotCacheDefinition =
565   element pivotCacheDefinition { sml_CT_PivotCacheDefinition }
566 sml_pivotCacheRecords =
567   element pivotCacheRecords { sml_CT_PivotCacheRecords }
568 sml_pivotTableDefinition =
569   element pivotTableDefinition { sml_CT_pivotTableDefinition }
570 sml_CT_PivotCacheDefinition =
571   r_id?,
572
573   ## default value: false
574   attribute invalid { xsd:boolean }?,
575
576   ## default value: true
577   attribute saveData { xsd:boolean }?,
578
579   ## default value: false
580   attribute refreshOnLoad { xsd:boolean }?,
581
582   ## default value: false
583   attribute optimizeMemory { xsd:boolean }?,
584
585   ## default value: true
586   attribute enableRefresh { xsd:boolean }?,
587   attribute refreshedBy { s_ST_Xstring }?,
588   attribute refreshedDate { xsd:double }?,
589   attribute refreshedDateIso { xsd:dateTime }?,
590
591   ## default value: false
592   attribute backgroundQuery { xsd:boolean }?,
593   attribute missingItemsLimit { xsd:unsignedInt }?,
594

```



```

595 ## default value: 0
596 attribute createdVersion { xsd:unsignedByte }?,
597
598 ## default value: 0
599 attribute refreshedVersion { xsd:unsignedByte }?,
600
601 ## default value: 0
602 attribute minRefreshableVersion { xsd:unsignedByte }?,
603 attribute recordCount { xsd:unsignedInt }?,
604
605 ## default value: false
606 attribute upgradeOnRefresh { xsd:boolean }?,
607
608 ## default value: false
609 attribute tupleCache { xsd:boolean }?,
610
611 ## default value: false
612 attribute supportSubquery { xsd:boolean }?,
613
614 ## default value: false
615 attribute supportAdvancedDrill { xsd:boolean }?,
616 element cacheSource { sml_CT_CacheSource },
617 element cacheFields { sml_CT_CacheFields },
618 element cacheHierarchies { sml_CT_CacheHierarchies }?,
619 element kpis { sml_CT_PCDKPIs }?,
620 element tupleCache { sml_CT_TupleCache }?,
621 element calculatedItems { sml_CT_CalculatedItems }?,
622 element calculatedMembers { sml_CT_CalculatedMembers }?,
623 element dimensions { sml_CT_Dimensions }?,
624 element measureGroups { sml_CT_MeasureGroups }?,
625 element maps { sml_CT_MeasureDimensionMaps }?,
626 element extLst { sml_CT_ExtensionList }?
627 sml_CT_CacheFields =
628   attribute count { xsd:unsignedInt }?,
629   element cacheField { sml_CT_CacheField }*
630 sml_CT_CacheField =
631   attribute name { s_ST_Xstring },
632   attribute caption { s_ST_Xstring }?,
633   attribute propertyName { s_ST_Xstring }?,
634
635 ## default value: false
636 attribute serverField { xsd:boolean }?,
637
638 ## default value: true
639 attribute uniqueList { xsd:boolean }?,
640 attribute numFmtId { sml_ST_NumFmtId }?,
641 attribute formula { s_ST_Xstring }?,
642
643 ## default value: 0
644 attribute sqlType { xsd:int }?,
645
646 ## default value: 0
647 attribute hierarchy { xsd:int }?,

```



```

648
649   ## default value: 0
650   attribute level { xsd:unsignedInt }?,
651
652   ## default value: true
653   attribute databaseField { xsd:boolean }?,
654   attribute mappingCount { xsd:unsignedInt }?,
655
656   ## default value: false
657   attribute memberPropertyField { xsd:boolean }?,
658   element sharedItems { sml_CT_SharedItems }?,
659   element fieldGroup { sml_CT_FieldGroup }?,
660   element mpMap { sml_CT_X }*,
661   element extLst { sml_CT_ExtensionList }?
662 sml_CT_CacheSource =
663   attribute type { sml_ST_SourceType },
664
665   ## default value: 0
666   attribute connectionId { xsd:unsignedInt }?,
667   (element worksheetSource { sml_CT_WorksheetSource }
668    | element consolidation { sml_CT_Consolidation }
669    | element extLst { sml_CT_ExtensionList }?)?
670 sml_ST_SourceType =
671   string "worksheet"
672   | string "external"
673   | string "consolidation"
674   | string "scenario"
675 sml_CT_WorksheetSource =
676   attribute ref { sml_ST_Ref }?,
677   attribute name { s_ST_Xstring }?,
678   attribute sheet { s_ST_Xstring }?,
679   r_id?
680 sml_CT_Consolidation =
681
682   ## default value: true
683   attribute autoPage { xsd:boolean }?,
684   element pages { sml_CT_Pages }?,
685   element rangeSets { sml_CT_RangeSets }
686 sml_CT_Pages =
687   attribute count { xsd:unsignedInt }?,
688   element page { sml_CT_PCDSCPage }+
689 sml_CT_PCDSCPage =
690   attribute count { xsd:unsignedInt }?,
691   element pageItem { sml_CT_PageItem }*
692 sml_CT_PageItem = attribute name { s_ST_Xstring }
693 sml_CT_RangeSets =
694   attribute count { xsd:unsignedInt }?,
695   element rangeSet { sml_CT_RangeSet }+
696 sml_CT_RangeSet =
697   attribute i1 { xsd:unsignedInt }?,
698   attribute i2 { xsd:unsignedInt }?,
699   attribute i3 { xsd:unsignedInt }?,
700   attribute i4 { xsd:unsignedInt }?,

```



```

701   attribute ref { sml_ST_Ref }?,
702   attribute name { s_ST_Xstring }?,
703   attribute sheet { s_ST_Xstring }?,
704   r_id?
705 sml_CT_SharedItems =
706
707   ## default value: true
708   attribute containsSemiMixedTypes { xsd:boolean }?,
709
710   ## default value: true
711   attribute containsNonDate { xsd:boolean }?,
712
713   ## default value: false
714   attribute containsDate { xsd:boolean }?,
715
716   ## default value: true
717   attribute containsString { xsd:boolean }?,
718
719   ## default value: false
720   attribute containsBlank { xsd:boolean }?,
721
722   ## default value: false
723   attribute containsMixedTypes { xsd:boolean }?,
724
725   ## default value: false
726   attribute containsNumber { xsd:boolean }?,
727
728   ## default value: false
729   attribute containsInteger { xsd:boolean }?,
730   attribute minValue { xsd:double }?,
731   attribute maxValue { xsd:double }?,
732   attribute minDate { xsd:dateTime }?,
733   attribute maxDate { xsd:dateTime }?,
734   attribute count { xsd:unsignedInt }?,
735
736   ## default value: false
737   attribute longText { xsd:boolean }?,
738   (element m { sml_CT_Missing }
739   | element n { sml_CT_Number }
740   | element b { sml_CT_Boolean }
741   | element e { sml_CT_Error }
742   | element s { sml_CT_String }
743   | element d { sml_CT_DateTime })*
744 sml_CT_Missing =
745   attribute u { xsd:boolean }?,
746   attribute f { xsd:boolean }?,
747   attribute c { s_ST_Xstring }?,
748   attribute cp { xsd:unsignedInt }?,
749   attribute in { xsd:unsignedInt }?,
750   attribute bc { sml_ST_UnsignedIntHex }?,
751   attribute fc { sml_ST_UnsignedIntHex }?,
752
753   ## default value: false

```



```

754 attribute i { xsd:boolean }?,
755
756 ## default value: false
757 attribute un { xsd:boolean }?,
758
759 ## default value: false
760 attribute st { xsd:boolean }?,
761
762 ## default value: false
763 attribute b { xsd:boolean }?,
764 element tpls { sml_CT_Tuples }*,
765 element x { sml_CT_X }*
766 sml_CT_Number =
767 attribute v { xsd:double },
768 attribute u { xsd:boolean }?,
769 attribute f { xsd:boolean }?,
770 attribute c { s_ST_Xstring }?,
771 attribute cp { xsd:unsignedInt }?,
772 attribute in { xsd:unsignedInt }?,
773 attribute bc { sml_ST_UnsignedIntHex }?,
774 attribute fc { sml_ST_UnsignedIntHex }?,
775
776 ## default value: false
777 attribute i { xsd:boolean }?,
778
779 ## default value: false
780 attribute un { xsd:boolean }?,
781
782 ## default value: false
783 attribute st { xsd:boolean }?,
784
785 ## default value: false
786 attribute b { xsd:boolean }?,
787 element tpls { sml_CT_Tuples }*,
788 element x { sml_CT_X }*
789 sml_CT_Boolean =
790 attribute v { xsd:boolean },
791 attribute u { xsd:boolean }?,
792 attribute f { xsd:boolean }?,
793 attribute c { s_ST_Xstring }?,
794 attribute cp { xsd:unsignedInt }?,
795 element x { sml_CT_X }*
796 sml_CT_Error =
797 attribute v { s_ST_Xstring },
798 attribute u { xsd:boolean }?,
799 attribute f { xsd:boolean }?,
800 attribute c { s_ST_Xstring }?,
801 attribute cp { xsd:unsignedInt }?,
802 attribute in { xsd:unsignedInt }?,
803 attribute bc { sml_ST_UnsignedIntHex }?,
804 attribute fc { sml_ST_UnsignedIntHex }?,
805
806 ## default value: false

```



```

807     attribute i { xsd:boolean }?,
808
809     ## default value: false
810     attribute un { xsd:boolean }?,
811
812     ## default value: false
813     attribute st { xsd:boolean }?,
814
815     ## default value: false
816     attribute b { xsd:boolean }?,
817     element tpls { sml_CT_Tuples }?,
818     element x { sml_CT_X }*
819 sml_CT_String =
820     attribute v { s_ST_Xstring },
821     attribute u { xsd:boolean }?,
822     attribute f { xsd:boolean }?,
823     attribute c { s_ST_Xstring }?,
824     attribute cp { xsd:unsignedInt }?,
825     attribute in { xsd:unsignedInt }?,
826     attribute bc { sml_ST_UnsignedIntHex }?,
827     attribute fc { sml_ST_UnsignedIntHex }?,
828
829     ## default value: false
830     attribute i { xsd:boolean }?,
831
832     ## default value: false
833     attribute un { xsd:boolean }?,
834
835     ## default value: false
836     attribute st { xsd:boolean }?,
837
838     ## default value: false
839     attribute b { xsd:boolean }?,
840     element tpls { sml_CT_Tuples }*,
841     element x { sml_CT_X }*
842 sml_CT_DateTime =
843     attribute v { xsd:dateTime },
844     attribute u { xsd:boolean }?,
845     attribute f { xsd:boolean }?,
846     attribute c { s_ST_Xstring }?,
847     attribute cp { xsd:unsignedInt }?,
848     element x { sml_CT_X }*
849 sml_CT_FieldGroup =
850     attribute par { xsd:unsignedInt }?,
851     attribute base { xsd:unsignedInt }?,
852     element rangePr { sml_CT_RangePr }?,
853     element discretePr { sml_CT_DiscretePr }?,
854     element groupItems { sml_CT_GroupItems }?
855 sml_CT_RangePr =
856
857     ## default value: true
858     attribute autoStart { xsd:boolean }?,
859

```



```

860  ## default value: true
861  attribute autoEnd { xsd:boolean }?,
862
863  ## default value: range
864  attribute groupBy { sml_ST_GroupBy }?,
865  attribute startNum { xsd:double }?,
866  attribute endNum { xsd:double }?,
867  attribute startDate { xsd:dateTime }?,
868  attribute endDate { xsd:dateTime }?,
869
870  ## default value: 1
871  attribute groupInterval { xsd:double }?
872 sml_ST_GroupBy =
873     string "range"
874     | string "seconds"
875     | string "minutes"
876     | string "hours"
877     | string "days"
878     | string "months"
879     | string "quarters"
880     | string "years"
881 sml_CT_DiscretePr =
882     attribute count { xsd:unsignedInt }?,
883     element x { sml_CT_Index }+
884 sml_CT_GroupItems =
885     attribute count { xsd:unsignedInt }?,
886     (element m { sml_CT_Missing }
887     | element n { sml_CT_Number }
888     | element b { sml_CT_Boolean }
889     | element e { sml_CT_Error }
890     | element s { sml_CT_String }
891     | element d { sml_CT_DateTime })+
892 sml_CT_PivotCacheRecords =
893     attribute count { xsd:unsignedInt }?,
894     element r { sml_CT_Record }*,
895     element extLst { sml_CT_ExtensionList }?
896 sml_CT_Record =
897     (element m { sml_CT_Missing }
898     | element n { sml_CT_Number }
899     | element b { sml_CT_Boolean }
900     | element e { sml_CT_Error }
901     | element s { sml_CT_String }
902     | element d { sml_CT_DateTime }
903     | element x { sml_CT_Index })+
904 sml_CT_PCDKPIs =
905     attribute count { xsd:unsignedInt }?,
906     element kpi { sml_CT_PCDKPI }*
907 sml_CT_PCDKPI =
908     attribute uniqueName { s_ST_Xstring },
909     attribute caption { s_ST_Xstring }?,
910     attribute displayFolder { s_ST_Xstring }?,
911     attribute measureGroup { s_ST_Xstring }?,
912     attribute parent { s_ST_Xstring }?,

```



```

913     attribute value { s_ST_Xstring },
914     attribute goal { s_ST_Xstring }?,
915     attribute status { s_ST_Xstring }?,
916     attribute trend { s_ST_Xstring }?,
917     attribute weight { s_ST_Xstring }?,
918     attribute time { s_ST_Xstring }?
919 sml_CT_CacheHierarchies =
920     attribute count { xsd:unsignedInt }?,
921     element cacheHierarchy { sml_CT_CacheHierarchy }*
922 sml_CT_CacheHierarchy =
923     attribute uniqueName { s_ST_Xstring },
924     attribute caption { s_ST_Xstring }?,
925
926     ## default value: false
927     attribute measure { xsd:boolean }?,
928
929     ## default value: false
930     attribute set { xsd:boolean }?,
931     attribute parentSet { xsd:unsignedInt }?,
932
933     ## default value: 0
934     attribute iconSet { xsd:int }?,
935
936     ## default value: false
937     attribute attribute { xsd:boolean }?,
938
939     ## default value: false
940     attribute time { xsd:boolean }?,
941
942     ## default value: false
943     attribute keyAttribute { xsd:boolean }?,
944     attribute defaultMemberUniqueName { s_ST_Xstring }?,
945     attribute allUniqueName { s_ST_Xstring }?,
946     attribute allCaption { s_ST_Xstring }?,
947     attribute dimensionUniqueName { s_ST_Xstring }?,
948     attribute displayFolder { s_ST_Xstring }?,
949     attribute measureGroup { s_ST_Xstring }?,
950
951     ## default value: false
952     attribute measures { xsd:boolean }?,
953     attribute count { xsd:unsignedInt },
954
955     ## default value: false
956     attribute oneField { xsd:boolean }?,
957     attribute memberValueDatatype { xsd:unsignedShort }?,
958     attribute unbalanced { xsd:boolean }?,
959     attribute unbalancedGroup { xsd:boolean }?,
960
961     ## default value: false
962     attribute hidden { xsd:boolean }?,
963     element fieldsUsage { sml_CT_FieldsUsage }?,
964     element groupLevels { sml_CT_GroupLevels }?,
965     element extLst { sml_CT_ExtensionList }?

```



```

966 sml_CT_FieldsUsage =
967     attribute count { xsd:unsignedInt }?,
968     element fieldUsage { sml_CT_FieldUsage }*
969 sml_CT_FieldUsage = attribute x { xsd:int }
970 sml_CT_GroupLevels =
971     attribute count { xsd:unsignedInt }?,
972     element groupLevel { sml_CT_GroupLevel }+
973 sml_CT_GroupLevel =
974     attribute uniqueName { s_ST_Xstring },
975     attribute caption { s_ST_Xstring },
976
977     ## default value: false
978     attribute user { xsd:boolean }?,
979
980     ## default value: false
981     attribute customRollUp { xsd:boolean }?,
982     element groups { sml_CT_Groups }?,
983     element extLst { sml_CT_ExtensionList }?
984 sml_CT_Groups =
985     attribute count { xsd:unsignedInt }?,
986     element group { sml_CT_LevelGroup }+
987 sml_CT_LevelGroup =
988     attribute name { s_ST_Xstring },
989     attribute uniqueName { s_ST_Xstring },
990     attribute caption { s_ST_Xstring },
991     attribute uniqueParent { s_ST_Xstring }?,
992     attribute id { xsd:int }?,
993     element groupMembers { sml_CT_GroupMembers }
994 sml_CT_GroupMembers =
995     attribute count { xsd:unsignedInt }?,
996     element groupMember { sml_CT_GroupMember }+
997 sml_CT_GroupMember =
998     attribute uniqueName { s_ST_Xstring },
999
1000     ## default value: false
1001     attribute group { xsd:boolean }?
1002 sml_CT_TupleCache =
1003     element entries { sml_CT_PCDSDTCEntries }?,
1004     element sets { sml_CT_Sets }?,
1005     element queryCache { sml_CT_QueryCache }?,
1006     element serverFormats { sml_CT_ServerFormats }?,
1007     element extLst { sml_CT_ExtensionList }?
1008 sml_CT_ServerFormat =
1009     attribute culture { s_ST_Xstring }?,
1010     attribute format { s_ST_Xstring }?
1011 sml_CT_ServerFormats =
1012     attribute count { xsd:unsignedInt }?,
1013     element serverFormat { sml_CT_ServerFormat }*
1014 sml_CT_PCDSDTCEntries =
1015     attribute count { xsd:unsignedInt }?,
1016     (element m { sml_CT_Missing }
1017      | element n { sml_CT_Number }
1018      | element e { sml_CT_Error }

```



```

1019 | element s { sml_CT_String })+
1020 sml_CT_Tuples =
1021   attribute c { xsd:unsignedInt }?,
1022   element tpl { sml_CT_Tuple }+
1023 sml_CT_Tuple =
1024   attribute fld { xsd:unsignedInt }?,
1025   attribute hier { xsd:unsignedInt }?,
1026   attribute item { xsd:unsignedInt }
1027 sml_CT_Sets =
1028   attribute count { xsd:unsignedInt }?,
1029   element set { sml_CT_Set }+
1030 sml_CT_Set =
1031   attribute count { xsd:unsignedInt }?,
1032   attribute maxRank { xsd:int },
1033   attribute setDefinition { s_ST_Xstring },
1034
1035   ## default value: none
1036   attribute sortType { sml_ST_SortType }?,
1037
1038   ## default value: false
1039   attribute queryFailed { xsd:boolean }?,
1040   element tpls { sml_CT_Tuples }*,
1041   element sortByTuple { sml_CT_Tuples }?
1042 sml_ST_SortType =
1043   string "none"
1044   | string "ascending"
1045   | string "descending"
1046   | string "ascendingAlpha"
1047   | string "descendingAlpha"
1048   | string "ascendingNatural"
1049   | string "descendingNatural"
1050 sml_CT_QueryCache =
1051   attribute count { xsd:unsignedInt }?,
1052   element query { sml_CT_Query }+
1053 sml_CT_Query =
1054   attribute mdx { s_ST_Xstring },
1055   element tpls { sml_CT_Tuples }?
1056 sml_CT_CalculatedItems =
1057   attribute count { xsd:unsignedInt }?,
1058   element calculatedItem { sml_CT_CalculatedItem }+
1059 sml_CT_CalculatedItem =
1060   attribute field { xsd:unsignedInt }?,
1061   attribute formula { s_ST_Xstring }?,
1062   element pivotArea { sml_CT_PivotArea },
1063   element extLst { sml_CT_ExtensionList }?
1064 sml_CT_CalculatedMembers =
1065   attribute count { xsd:unsignedInt }?,
1066   element calculatedMember { sml_CT_CalculatedMember }+
1067 sml_CT_CalculatedMember =
1068   attribute name { s_ST_Xstring },
1069   attribute mdx { s_ST_Xstring },
1070   attribute memberName { s_ST_Xstring }?,
1071   attribute hierarchy { s_ST_Xstring }?,

```



```

1072 attribute parent { s_ST_Xstring }?,
1073
1074 ## default value: 0
1075 attribute solveOrder { xsd:int }?,
1076
1077 ## default value: false
1078 attribute set { xsd:boolean }?,
1079 element extLst { sml_CT_ExtensionList }?
1080 sml_CT_pivotTableDefinition =
1081 attribute name { s_ST_Xstring },
1082 attribute cacheId { xsd:unsignedInt },
1083
1084 ## default value: false
1085 attribute dataOnRows { xsd:boolean }?,
1086 attribute dataPosition { xsd:unsignedInt }?,
1087 sml_AG_AutoFormat,
1088 attribute dataCaption { s_ST_Xstring },
1089 attribute grandTotalCaption { s_ST_Xstring }?,
1090 attribute errorCaption { s_ST_Xstring }?,
1091
1092 ## default value: false
1093 attribute showError { xsd:boolean }?,
1094 attribute missingCaption { s_ST_Xstring }?,
1095
1096 ## default value: true
1097 attribute showMissing { xsd:boolean }?,
1098 attribute pageStyle { s_ST_Xstring }?,
1099 attribute pivotTableStyle { s_ST_Xstring }?,
1100 attribute vacatedStyle { s_ST_Xstring }?,
1101 attribute tag { s_ST_Xstring }?,
1102
1103 ## default value: 0
1104 attribute updatedVersion { xsd:unsignedByte }?,
1105
1106 ## default value: 0
1107 attribute minRefreshableVersion { xsd:unsignedByte }?,
1108
1109 ## default value: false
1110 attribute asteriskTotals { xsd:boolean }?,
1111
1112 ## default value: true
1113 attribute showItems { xsd:boolean }?,
1114
1115 ## default value: false
1116 attribute editData { xsd:boolean }?,
1117
1118 ## default value: false
1119 attribute disableFieldList { xsd:boolean }?,
1120
1121 ## default value: true
1122 attribute showCalcMbrs { xsd:boolean }?,
1123
1124 ## default value: true

```



```
1125 attribute visualTotals { xsd:boolean }?,
1126
1127 ## default value: true
1128 attribute showMultipleLabel { xsd:boolean }?,
1129
1130 ## default value: true
1131 attribute showDataDropDown { xsd:boolean }?,
1132
1133 ## default value: true
1134 attribute showDrill { xsd:boolean }?,
1135
1136 ## default value: false
1137 attribute printDrill { xsd:boolean }?,
1138
1139 ## default value: true
1140 attribute showMemberPropertyTips { xsd:boolean }?,
1141
1142 ## default value: true
1143 attribute showDataTips { xsd:boolean }?,
1144
1145 ## default value: true
1146 attribute enableWizard { xsd:boolean }?,
1147
1148 ## default value: true
1149 attribute enableDrill { xsd:boolean }?,
1150
1151 ## default value: true
1152 attribute enableFieldProperties { xsd:boolean }?,
1153
1154 ## default value: true
1155 attribute preserveFormatting { xsd:boolean }?,
1156
1157 ## default value: false
1158 attribute useAutoFormatting { xsd:boolean }?,
1159
1160 ## default value: 0
1161 attribute pageWrap { xsd:unsignedInt }?,
1162
1163 ## default value: false
1164 attribute pageOverThenDown { xsd:boolean }?,
1165
1166 ## default value: false
1167 attribute subtotalHiddenItems { xsd:boolean }?,
1168
1169 ## default value: true
1170 attribute rowGrandTotals { xsd:boolean }?,
1171
1172 ## default value: true
1173 attribute colGrandTotals { xsd:boolean }?,
1174
1175 ## default value: false
1176 attribute fieldPrintTitles { xsd:boolean }?,
1177
```



```

1178 ## default value: false
1179 attribute itemPrintTitles { xsd:boolean }?,
1180
1181 ## default value: false
1182 attribute mergeItem { xsd:boolean }?,
1183
1184 ## default value: true
1185 attribute showDropZones { xsd:boolean }?,
1186
1187 ## default value: 0
1188 attribute createdVersion { xsd:unsignedByte }?,
1189
1190 ## default value: 1
1191 attribute indent { xsd:unsignedInt }?,
1192
1193 ## default value: false
1194 attribute showEmptyRow { xsd:boolean }?,
1195
1196 ## default value: false
1197 attribute showEmptyCol { xsd:boolean }?,
1198
1199 ## default value: true
1200 attribute showHeaders { xsd:boolean }?,
1201
1202 ## default value: true
1203 attribute compact { xsd:boolean }?,
1204
1205 ## default value: false
1206 attribute outline { xsd:boolean }?,
1207
1208 ## default value: false
1209 attribute outlineData { xsd:boolean }?,
1210
1211 ## default value: true
1212 attribute compactData { xsd:boolean }?,
1213
1214 ## default value: false
1215 attribute published { xsd:boolean }?,
1216
1217 ## default value: false
1218 attribute gridDropZones { xsd:boolean }?,
1219
1220 ## default value: true
1221 attribute immersive { xsd:boolean }?,
1222
1223 ## default value: true
1224 attribute multipleFieldFilters { xsd:boolean }?,
1225
1226 ## default value: 0
1227 attribute chartFormat { xsd:unsignedInt }?,
1228 attribute rowHeaderCaption { s_ST_Xstring }?,
1229 attribute colHeaderCaption { s_ST_Xstring }?,
1230

```



```

1231  ## default value: false
1232  attribute fieldListSortAscending { xsd:boolean }?,
1233
1234  ## default value: false
1235  attribute mdxSubqueries { xsd:boolean }?,
1236
1237  ## default value: true
1238  attribute customListSort { xsd:boolean }?,
1239  element location { sml_CT_Location },
1240  element pivotFields { sml_CT_PivotFields }?,
1241  element rowFields { sml_CT_RowFields }?,
1242  element rowItems { sml_CT_rowItems }?,
1243  element colFields { sml_CT_ColFields }?,
1244  element colItems { sml_CT_colItems }?,
1245  element pageFields { sml_CT_PageFields }?,
1246  element dataFields { sml_CT_DataFields }?,
1247  element formats { sml_CT_Formats }?,
1248  element conditionalFormats { sml_CT_ConditionalFormats }?,
1249  element chartFormats { sml_CT_ChartFormats }?,
1250  element pivotHierarchies { sml_CT_PivotHierarchies }?,
1251  element pivotTableStyleInfo { sml_CT_PivotTableStyle }?,
1252  element filters { sml_CT_PivotFilters }?,
1253  element rowHierarchiesUsage { sml_CT_RowHierarchiesUsage }?,
1254  element colHierarchiesUsage { sml_CT_ColHierarchiesUsage }?,
1255  element extLst { sml_CT_ExtensionList }?
1256  sml_CT_Location =
1257    attribute ref { sml_ST_Ref },
1258    attribute firstHeaderRow { xsd:unsignedInt },
1259    attribute firstDataRow { xsd:unsignedInt },
1260    attribute firstDataCol { xsd:unsignedInt },
1261
1262  ## default value: 0
1263  attribute rowPageCount { xsd:unsignedInt }?,
1264
1265  ## default value: 0
1266  attribute colPageCount { xsd:unsignedInt }?
1267  sml_CT_PivotFields =
1268    attribute count { xsd:unsignedInt }?,
1269    element pivotField { sml_CT_PivotField }+
1270  sml_CT_PivotField =
1271    attribute name { s_ST_Xstring }?,
1272    attribute axis { sml_ST_Axis }?,
1273
1274  ## default value: false
1275  attribute dataField { xsd:boolean }?,
1276  attribute subtotalCaption { s_ST_Xstring }?,
1277
1278  ## default value: true
1279  attribute showDropDowns { xsd:boolean }?,
1280
1281  ## default value: false
1282  attribute hiddenLevel { xsd:boolean }?,
1283  attribute uniqueMemberProperty { s_ST_Xstring }?,

```



```

1284
1285 ## default value: true
1286 attribute compact { xsd:boolean }?,
1287
1288 ## default value: false
1289 attribute allDrilled { xsd:boolean }?,
1290 attribute numFmtId { sml_ST_NumFmtId }?,
1291
1292 ## default value: true
1293 attribute outline { xsd:boolean }?,
1294
1295 ## default value: true
1296 attribute subtotalTop { xsd:boolean }?,
1297
1298 ## default value: true
1299 attribute dragToRow { xsd:boolean }?,
1300
1301 ## default value: true
1302 attribute dragToCol { xsd:boolean }?,
1303
1304 ## default value: false
1305 attribute multipleItemSelectionAllowed { xsd:boolean }?,
1306
1307 ## default value: true
1308 attribute dragToPage { xsd:boolean }?,
1309
1310 ## default value: true
1311 attribute dragToData { xsd:boolean }?,
1312
1313 ## default value: true
1314 attribute dragOff { xsd:boolean }?,
1315
1316 ## default value: true
1317 attribute showAll { xsd:boolean }?,
1318
1319 ## default value: false
1320 attribute insertBlankRow { xsd:boolean }?,
1321
1322 ## default value: false
1323 attribute serverField { xsd:boolean }?,
1324
1325 ## default value: false
1326 attribute insertPageBreak { xsd:boolean }?,
1327
1328 ## default value: false
1329 attribute autoShow { xsd:boolean }?,
1330
1331 ## default value: true
1332 attribute topAutoShow { xsd:boolean }?,
1333
1334 ## default value: false
1335 attribute hideNewItems { xsd:boolean }?,
1336

```



```
1337 ## default value: false
1338 attribute measureFilter { xsd:boolean }?,
1339
1340 ## default value: false
1341 attribute includeNewItemInFilter { xsd:boolean }?,
1342
1343 ## default value: 10
1344 attribute itemPageCount { xsd:unsignedInt }?,
1345
1346 ## default value: manual
1347 attribute sortType { sml_ST_FieldSortType }?,
1348 attribute dataSourceSort { xsd:boolean }?,
1349
1350 ## default value: false
1351 attribute nonAutoSortDefault { xsd:boolean }?,
1352 attribute rankBy { xsd:unsignedInt }?,
1353
1354 ## default value: true
1355 attribute defaultSubtotal { xsd:boolean }?,
1356
1357 ## default value: false
1358 attribute sumSubtotal { xsd:boolean }?,
1359
1360 ## default value: false
1361 attribute countASubtotal { xsd:boolean }?,
1362
1363 ## default value: false
1364 attribute avgSubtotal { xsd:boolean }?,
1365
1366 ## default value: false
1367 attribute maxSubtotal { xsd:boolean }?,
1368
1369 ## default value: false
1370 attribute minSubtotal { xsd:boolean }?,
1371
1372 ## default value: false
1373 attribute productSubtotal { xsd:boolean }?,
1374
1375 ## default value: false
1376 attribute countSubtotal { xsd:boolean }?,
1377
1378 ## default value: false
1379 attribute stdDevSubtotal { xsd:boolean }?,
1380
1381 ## default value: false
1382 attribute stdDevPSubtotal { xsd:boolean }?,
1383
1384 ## default value: false
1385 attribute varSubtotal { xsd:boolean }?,
1386
1387 ## default value: false
1388 attribute varPSubtotal { xsd:boolean }?,
1389
```



```

1390  ## default value: false
1391  attribute showPropCell { xsd:boolean }?,
1392
1393  ## default value: false
1394  attribute showPropTip { xsd:boolean }?,
1395
1396  ## default value: false
1397  attribute showPropAsCaption { xsd:boolean }?,
1398
1399  ## default value: false
1400  attribute defaultAttributeDrillState { xsd:boolean }?,
1401  element items { sml_CT_Items }?,
1402  element autoSortScope { sml_CT_AutoSortScope }?,
1403  element extLst { sml_CT_ExtensionList }?
1404  sml_CT_AutoSortScope = element pivotArea { sml_CT_PivotArea }
1405  sml_CT_Items =
1406    attribute count { xsd:unsignedInt }?,
1407    element item { sml_CT_Item }+
1408  sml_CT_Item =
1409    attribute n { s_ST_Xstring }?,
1410
1411  ## default value: data
1412  attribute t { sml_ST_ItemType }?,
1413
1414  ## default value: false
1415  attribute h { xsd:boolean }?,
1416
1417  ## default value: false
1418  attribute s { xsd:boolean }?,
1419
1420  ## default value: true
1421  attribute sd { xsd:boolean }?,
1422
1423  ## default value: false
1424  attribute f { xsd:boolean }?,
1425
1426  ## default value: false
1427  attribute m { xsd:boolean }?,
1428
1429  ## default value: false
1430  attribute c { xsd:boolean }?,
1431  attribute x { xsd:unsignedInt }?,
1432
1433  ## default value: false
1434  attribute d { xsd:boolean }?,
1435
1436  ## default value: true
1437  attribute e { xsd:boolean }?
1438  sml_CT_PageFields =
1439    attribute count { xsd:unsignedInt }?,
1440    element pageField { sml_CT_PageField }+
1441  sml_CT_PageField =
1442    attribute fld { xsd:int },

```



```

1443     attribute item { xsd:unsignedInt }?,
1444     attribute hier { xsd:int }?,
1445     attribute name { s_ST_Xstring }?,
1446     attribute cap { s_ST_Xstring }?,
1447     element extLst { sml_CT_ExtensionList }?
1448 sml_CT_DataFields =
1449     attribute count { xsd:unsignedInt }?,
1450     element dataField { sml_CT_DataField }+
1451 sml_CT_DataField =
1452     attribute name { s_ST_Xstring }?,
1453     attribute fld { xsd:unsignedInt },
1454
1455     ## default value: sum
1456     attribute subtotal { sml_ST_DataConsolidateFunction }?,
1457
1458     ## default value: normal
1459     attribute showDataAs { sml_ST_ShowDataAs }?,
1460
1461     ## default value: -1
1462     attribute baseField { xsd:int }?,
1463
1464     ## default value: 1048832
1465     attribute baseItem { xsd:unsignedInt }?,
1466     attribute numFmtId { sml_ST_NumFmtId }?,
1467     element extLst { sml_CT_ExtensionList }?
1468 sml_CT_rowItems =
1469     attribute count { xsd:unsignedInt }?,
1470     element i { sml_CT_I }+
1471 sml_CT_colItems =
1472     attribute count { xsd:unsignedInt }?,
1473     element i { sml_CT_I }+
1474 sml_CT_I =
1475
1476     ## default value: data
1477     attribute t { sml_ST_ItemType }?,
1478
1479     ## default value: 0
1480     attribute r { xsd:unsignedInt }?,
1481
1482     ## default value: 0
1483     attribute i { xsd:unsignedInt }?,
1484     element x { sml_CT_X }*
1485 sml_CT_X =
1486
1487     ## default value: 0
1488     attribute v { xsd:int }?
1489 sml_CT_RowFields =
1490
1491     ## default value: 0
1492     attribute count { xsd:unsignedInt }?,
1493     element field { sml_CT_Field }+
1494 sml_CT_ColFields =
1495

```



```

1496  ## default value: 0
1497  attribute count { xsd:unsignedInt }?,
1498  element field { sml_CT_Field }+
1499  sml_CT_Field = attribute x { xsd:int }
1500  sml_CT_Formats =
1501
1502  ## default value: 0
1503  attribute count { xsd:unsignedInt }?,
1504  element format { sml_CT_Format }+
1505  sml_CT_Format =
1506
1507  ## default value: formatting
1508  attribute action { sml_ST_FormatAction }?,
1509  attribute dxId { sml_ST_DxId }?,
1510  element pivotArea { sml_CT_PivotArea },
1511  element extLst { sml_CT_ExtensionList }?
1512  sml_CT_ConditionalFormats =
1513
1514  ## default value: 0
1515  attribute count { xsd:unsignedInt }?,
1516  element conditionalFormat { sml_CT_ConditionalFormat }+
1517  sml_CT_ConditionalFormat =
1518
1519  ## default value: selection
1520  attribute scope { sml_ST_Scope }?,
1521
1522  ## default value: none
1523  attribute type { sml_ST_Type }?,
1524  attribute priority { xsd:unsignedInt },
1525  element pivotAreas { sml_CT_PivotAreas },
1526  element extLst { sml_CT_ExtensionList }?
1527  sml_CT_PivotAreas =
1528  attribute count { xsd:unsignedInt }?,
1529  element pivotArea { sml_CT_PivotArea }*
1530  sml_ST_Scope = string "selection" | string "data" | string "field"
1531  sml_ST_Type =
1532  string "none" | string "all" | string "row" | string "column"
1533  sml_CT_ChartFormats =
1534
1535  ## default value: 0
1536  attribute count { xsd:unsignedInt }?,
1537  element chartFormat { sml_CT_ChartFormat }+
1538  sml_CT_ChartFormat =
1539  attribute chart { xsd:unsignedInt },
1540  attribute format { xsd:unsignedInt },
1541
1542  ## default value: false
1543  attribute series { xsd:boolean }?,
1544  element pivotArea { sml_CT_PivotArea }
1545  sml_CT_PivotHierarchies =
1546  attribute count { xsd:unsignedInt }?,
1547  element pivotHierarchy { sml_CT_PivotHierarchy }+
1548  sml_CT_PivotHierarchy =

```



```

1549
1550   ## default value: false
1551   attribute outline { xsd:boolean }?,
1552
1553   ## default value: false
1554   attribute multipleItemSelectionAllowed { xsd:boolean }?,
1555
1556   ## default value: false
1557   attribute subtotalTop { xsd:boolean }?,
1558
1559   ## default value: true
1560   attribute showInFieldList { xsd:boolean }?,
1561
1562   ## default value: true
1563   attribute dragToRow { xsd:boolean }?,
1564
1565   ## default value: true
1566   attribute dragToCol { xsd:boolean }?,
1567
1568   ## default value: true
1569   attribute dragToPage { xsd:boolean }?,
1570
1571   ## default value: false
1572   attribute dragToData { xsd:boolean }?,
1573
1574   ## default value: true
1575   attribute dragOff { xsd:boolean }?,
1576
1577   ## default value: false
1578   attribute includeNewItemInFilter { xsd:boolean }?,
1579   attribute caption { s_ST_Xstring }?,
1580   element mps { sml_CT_MemberProperties }?,
1581   element members { sml_CT_Members }*,
1582   element extLst { sml_CT_ExtensionList }?
1583   sml_CT_RowHierarchiesUsage =
1584     attribute count { xsd:unsignedInt }?,
1585     element rowHierarchyUsage { sml_CT_HierarchyUsage }+
1586   sml_CT_ColHierarchiesUsage =
1587     attribute count { xsd:unsignedInt }?,
1588     element colHierarchyUsage { sml_CT_HierarchyUsage }+
1589   sml_CT_HierarchyUsage = attribute hierarchyUsage { xsd:int }
1590   sml_CT_MemberProperties =
1591     attribute count { xsd:unsignedInt }?,
1592     element mp { sml_CT_MemberProperty }+
1593   sml_CT_MemberProperty =
1594     attribute name { s_ST_Xstring }?,
1595
1596   ## default value: false
1597   attribute showCell { xsd:boolean }?,
1598
1599   ## default value: false
1600   attribute showTip { xsd:boolean }?,
1601

```



```

1602  ## default value: false
1603  attribute showAsCaption { xsd:boolean }?,
1604  attribute nameLen { xsd:unsignedInt }?,
1605  attribute pPos { xsd:unsignedInt }?,
1606  attribute pLen { xsd:unsignedInt }?,
1607  attribute level { xsd:unsignedInt }?,
1608  attribute field { xsd:unsignedInt }
1609  sml_CT_Members =
1610    attribute count { xsd:unsignedInt }?,
1611    attribute level { xsd:unsignedInt }?,
1612    element member { sml_CT_Member }+
1613  sml_CT_Member = attribute name { s_ST_Xstring }
1614  sml_CT_Dimensions =
1615    attribute count { xsd:unsignedInt }?,
1616    element dimension { sml_CT_PivotDimension }*
1617  sml_CT_PivotDimension =
1618
1619    ## default value: false
1620    attribute measure { xsd:boolean }?,
1621    attribute name { s_ST_Xstring },
1622    attribute uniqueName { s_ST_Xstring },
1623    attribute caption { s_ST_Xstring }
1624  sml_CT_MeasureGroups =
1625    attribute count { xsd:unsignedInt }?,
1626    element measureGroup { sml_CT_MeasureGroup }*
1627  sml_CT_MeasureDimensionMaps =
1628    attribute count { xsd:unsignedInt }?,
1629    element map { sml_CT_MeasureDimensionMap }*
1630  sml_CT_MeasureGroup =
1631    attribute name { s_ST_Xstring },
1632    attribute caption { s_ST_Xstring }
1633  sml_CT_MeasureDimensionMap =
1634    attribute measureGroup { xsd:unsignedInt }?,
1635    attribute dimension { xsd:unsignedInt }?
1636  sml_CT_PivotTableStyle =
1637    attribute name { xsd:string }?,
1638    attribute showRowHeaders { xsd:boolean }?,
1639    attribute showColHeaders { xsd:boolean }?,
1640    attribute showRowStripes { xsd:boolean }?,
1641    attribute showColStripes { xsd:boolean }?,
1642    attribute showLastColumn { xsd:boolean }?
1643  sml_CT_PivotFilters =
1644
1645    ## default value: 0
1646    attribute count { xsd:unsignedInt }?,
1647    element filter { sml_CT_PivotFilter }*
1648  sml_CT_PivotFilter =
1649    attribute fld { xsd:unsignedInt },
1650    attribute mpFld { xsd:unsignedInt }?,
1651    attribute type { sml_ST_PivotFilterType },
1652
1653    ## default value: 0
1654    attribute evalOrder { xsd:int }?,

```



```

1655     attribute id { xsd:unsignedInt },
1656     attribute iMeasureHier { xsd:unsignedInt }?,
1657     attribute iMeasureFld { xsd:unsignedInt }?,
1658     attribute name { s_ST_Xstring }?,
1659     attribute description { s_ST_Xstring }?,
1660     attribute stringValue1 { s_ST_Xstring }?,
1661     attribute stringValue2 { s_ST_Xstring }?,
1662     element autoFilter { sml_CT_AutoFilter },
1663     element extLst { sml_CT_ExtensionList }?
1664 sml_ST_ShowDataAs =
1665     string "normal"
1666     | string "difference"
1667     | string "percent"
1668     | string "percentDiff"
1669     | string "runTotal"
1670     | string "percentOfRow"
1671     | string "percentOfCol"
1672     | string "percentOfTotal"
1673     | string "index"
1674 sml_ST_ItemType =
1675     string "data"
1676     | string "default"
1677     | string "sum"
1678     | string "countA"
1679     | string "avg"
1680     | string "max"
1681     | string "min"
1682     | string "product"
1683     | string "count"
1684     | string "stdDev"
1685     | string "stdDevP"
1686     | string "var"
1687     | string "varP"
1688     | string "grand"
1689     | string "blank"
1690 sml_ST_FormatAction =
1691     string "blank"
1692     | string "formatting"
1693     | string "drill"
1694     | string "formula"
1695 sml_ST_FieldSortType =
1696     string "manual" | string "ascending" | string "descending"
1697 sml_ST_PivotFilterType =
1698     string "unknown"
1699     | string "count"
1700     | string "percent"
1701     | string "sum"
1702     | string "captionEqual"
1703     | string "captionNotEqual"
1704     | string "captionBeginsWith"
1705     | string "captionNotBeginsWith"
1706     | string "captionEndsWith"
1707     | string "captionNotEndsWith"

```



```

1708 | string "captionContains"
1709 | string "captionNotContains"
1710 | string "captionGreaterThan"
1711 | string "captionGreaterThanOrEqual"
1712 | string "captionLessThan"
1713 | string "captionLessThanOrEqual"
1714 | string "captionBetween"
1715 | string "captionNotBetween"
1716 | string "valueEqual"
1717 | string "valueNotEqual"
1718 | string "valueGreaterThan"
1719 | string "valueGreaterThanOrEqual"
1720 | string "valueLessThan"
1721 | string "valueLessThanOrEqual"
1722 | string "valueBetween"
1723 | string "valueNotBetween"
1724 | string "dateEqual"
1725 | string "dateNotEqual"
1726 | string "dateOlderThan"
1727 | string "dateOlderThanOrEqual"
1728 | string "dateNewerThan"
1729 | string "dateNewerThanOrEqual"
1730 | string "dateBetween"
1731 | string "dateNotBetween"
1732 | string "tomorrow"
1733 | string "today"
1734 | string "yesterday"
1735 | string "nextWeek"
1736 | string "thisWeek"
1737 | string "lastWeek"
1738 | string "nextMonth"
1739 | string "thisMonth"
1740 | string "lastMonth"
1741 | string "nextQuarter"
1742 | string "thisQuarter"
1743 | string "lastQuarter"
1744 | string "nextYear"
1745 | string "thisYear"
1746 | string "lastYear"
1747 | string "yearToDate"
1748 | string "Q1"
1749 | string "Q2"
1750 | string "Q3"
1751 | string "Q4"
1752 | string "M1"
1753 | string "M2"
1754 | string "M3"
1755 | string "M4"
1756 | string "M5"
1757 | string "M6"
1758 | string "M7"
1759 | string "M8"
1760 | string "M9"

```



```

1761 | string "M10"
1762 | string "M11"
1763 | string "M12"
1764 sml_CT_PivotArea =
1765     attribute field { xsd:int }?,
1766
1767     ## default value: normal
1768     attribute type { sml_ST_PivotAreaType }?,
1769
1770     ## default value: true
1771     attribute dataOnly { xsd:boolean }?,
1772
1773     ## default value: false
1774     attribute labelOnly { xsd:boolean }?,
1775
1776     ## default value: false
1777     attribute grandRow { xsd:boolean }?,
1778
1779     ## default value: false
1780     attribute grandCol { xsd:boolean }?,
1781
1782     ## default value: false
1783     attribute cacheIndex { xsd:boolean }?,
1784
1785     ## default value: true
1786     attribute outline { xsd:boolean }?,
1787     attribute offset { sml_ST_Ref }?,
1788
1789     ## default value: false
1790     attribute collapsedLevelsAreSubtotals { xsd:boolean }?,
1791     attribute axis { sml_ST_Axis }?,
1792     attribute fieldPosition { xsd:unsignedInt }?,
1793     element references { sml_CT_PivotAreaReferences }?,
1794     element extLst { sml_CT_ExtensionList }?
1795 sml_ST_PivotAreaType =
1796     string "none"
1797     | string "normal"
1798     | string "data"
1799     | string "all"
1800     | string "origin"
1801     | string "button"
1802     | string "topEnd"
1803     | string "topRight"
1804 sml_CT_PivotAreaReferences =
1805     attribute count { xsd:unsignedInt }?,
1806     element reference { sml_CT_PivotAreaReference }+
1807 sml_CT_PivotAreaReference =
1808     attribute field { xsd:unsignedInt }?,
1809     attribute count { xsd:unsignedInt }?,
1810
1811     ## default value: true
1812     attribute selected { xsd:boolean }?,
1813

```



```

1814 ## default value: false
1815 attribute byPosition { xsd:boolean }?,
1816
1817 ## default value: false
1818 attribute relative { xsd:boolean }?,
1819
1820 ## default value: false
1821 attribute defaultSubtotal { xsd:boolean }?,
1822
1823 ## default value: false
1824 attribute sumSubtotal { xsd:boolean }?,
1825
1826 ## default value: false
1827 attribute countASubtotal { xsd:boolean }?,
1828
1829 ## default value: false
1830 attribute avgSubtotal { xsd:boolean }?,
1831
1832 ## default value: false
1833 attribute maxSubtotal { xsd:boolean }?,
1834
1835 ## default value: false
1836 attribute minSubtotal { xsd:boolean }?,
1837
1838 ## default value: false
1839 attribute productSubtotal { xsd:boolean }?,
1840
1841 ## default value: false
1842 attribute countSubtotal { xsd:boolean }?,
1843
1844 ## default value: false
1845 attribute stdDevSubtotal { xsd:boolean }?,
1846
1847 ## default value: false
1848 attribute stdDevPSubtotal { xsd:boolean }?,
1849
1850 ## default value: false
1851 attribute varSubtotal { xsd:boolean }?,
1852
1853 ## default value: false
1854 attribute varPSubtotal { xsd:boolean }?,
1855 element x { sml_CT_Index }*,
1856 element extLst { sml_CT_ExtensionList }?
1857 sml_CT_Index = attribute v { xsd:unsignedInt }
1858 sml_ST_Axis =
1859     string "axisRow"
1860     | string "axisCol"
1861     | string "axisPage"
1862     | string "axisValues"
1863 sml_queryTable = element queryTable { sml_CT_QueryTable }
1864 sml_CT_QueryTable =
1865     attribute name { s_ST_Xstring },
1866

```



```

1867 ## default value: true
1868 attribute headers { xsd:boolean }?,
1869
1870 ## default value: false
1871 attribute rowNumbers { xsd:boolean }?,
1872
1873 ## default value: false
1874 attribute disableRefresh { xsd:boolean }?,
1875
1876 ## default value: true
1877 attribute backgroundRefresh { xsd:boolean }?,
1878
1879 ## default value: false
1880 attribute firstBackgroundRefresh { xsd:boolean }?,
1881
1882 ## default value: false
1883 attribute refreshOnLoad { xsd:boolean }?,
1884
1885 ## default value: insertDelete
1886 attribute growShrinkType { sml_ST_GrowShrinkType }?,
1887
1888 ## default value: false
1889 attribute fillFormulas { xsd:boolean }?,
1890
1891 ## default value: false
1892 attribute removeDataOnSave { xsd:boolean }?,
1893
1894 ## default value: false
1895 attribute disableEdit { xsd:boolean }?,
1896
1897 ## default value: true
1898 attribute preserveFormatting { xsd:boolean }?,
1899
1900 ## default value: true
1901 attribute adjustColumnWidth { xsd:boolean }?,
1902
1903 ## default value: false
1904 attribute intermediate { xsd:boolean }?,
1905 attribute connectionId { xsd:unsignedInt },
1906 sml_AG_AutoFormat,
1907 element queryTableRefresh { sml_CT_QueryTableRefresh }?,
1908 element extLst { sml_CT_ExtensionList }?
1909 sml_CT_QueryTableRefresh =
1910
1911 ## default value: true
1912 attribute preserveSortFilterLayout { xsd:boolean }?,
1913
1914 ## default value: false
1915 attribute fieldIdWrapped { xsd:boolean }?,
1916
1917 ## default value: true
1918 attribute headersInLastRefresh { xsd:boolean }?,
1919

```



```

1920 ## default value: 0
1921 attribute minimumVersion { xsd:unsignedByte }?,
1922
1923 ## default value: 1
1924 attribute nextId { xsd:unsignedInt }?,
1925
1926 ## default value: 0
1927 attribute unboundColumnsLeft { xsd:unsignedInt }?,
1928
1929 ## default value: 0
1930 attribute unboundColumnsRight { xsd:unsignedInt }?,
1931 element queryTableFields { sml_CT_QueryTableFields },
1932 element queryTableDeletedFields { sml_CT_QueryTableDeletedFields }?,
1933 element sortState { sml_CT_SortState }?,
1934 element extLst { sml_CT_ExtensionList }?
1935 sml_CT_QueryTableDeletedFields =
1936   attribute count { xsd:unsignedInt }?,
1937   element deletedField { sml_CT_DeletedField }+
1938 sml_CT_DeletedField = attribute name { s_ST_Xstring }
1939 sml_CT_QueryTableFields =
1940
1941 ## default value: 0
1942 attribute count { xsd:unsignedInt }?,
1943 element queryTableField { sml_CT_QueryTableField }*
1944 sml_CT_QueryTableField =
1945   attribute id { xsd:unsignedInt },
1946   attribute name { s_ST_Xstring }?,
1947
1948 ## default value: true
1949 attribute dataBound { xsd:boolean }?,
1950
1951 ## default value: false
1952 attribute rowNumbers { xsd:boolean }?,
1953
1954 ## default value: false
1955 attribute fillFormulas { xsd:boolean }?,
1956
1957 ## default value: false
1958 attribute clipped { xsd:boolean }?,
1959
1960 ## default value: 0
1961 attribute tableColumnId { xsd:unsignedInt }?,
1962 element extLst { sml_CT_ExtensionList }?
1963 sml_ST_GrowShrinkType =
1964   string "insertDelete" | string "insertClear" | string "overwriteClear"
1965 sml_sst = element sst { sml_CT_Sst }
1966 sml_CT_Sst =
1967   attribute count { xsd:unsignedInt }?,
1968   attribute uniqueCount { xsd:unsignedInt }?,
1969   element si { sml_CT_Rst }*,
1970   element extLst { sml_CT_ExtensionList }?
1971 sml_ST_PhoneticType =
1972   string "halfwidthKatakana"

```



```

1973 | string "fullwidthKatakana"
1974 | string "Hiragana"
1975 | string "noConversion"
1976 sml_ST_PhoneticAlignment =
1977     string "noControl"
1978     | string "left"
1979     | string "center"
1980     | string "distributed"
1981 sml_CT_PhoneticRun =
1982     attribute sb { xsd:unsignedInt },
1983     attribute eb { xsd:unsignedInt },
1984     element t { s_ST_Xstring }
1985 sml_CT_RElt =
1986     element rPr { sml_CT_RPrElt }?,
1987     element t { s_ST_Xstring }
1988 sml_CT_RPrElt =
1989     (element rFont { sml_CT_FontName }?
1990     | element charset { sml_CT_IntProperty }?
1991     | element family { sml_CT_IntProperty }?
1992     | element b { sml_CT_BooleanProperty }?
1993     | element i { sml_CT_BooleanProperty }?
1994     | element strike { sml_CT_BooleanProperty }?
1995     | element outline { sml_CT_BooleanProperty }?
1996     | element shadow { sml_CT_BooleanProperty }?
1997     | element condense { sml_CT_BooleanProperty }?
1998     | element extend { sml_CT_BooleanProperty }?
1999     | element color { sml_CT_Color }?
2000     | element sz { sml_CT_FontSize }?
2001     | element u { sml_CT_UnderlineProperty }?
2002     | element vertAlign { sml_CT_VerticalAlignFontProperty }?
2003     | element scheme { sml_CT_FontScheme }?)+
2004 sml_CT_Rst =
2005     element t { s_ST_Xstring }?,
2006     element r { sml_CT_RElt }*,
2007     element rPh { sml_CT_PhoneticRun }*,
2008     element phoneticPr { sml_CT_PhoneticPr }?
2009 sml_CT_PhoneticPr =
2010     attribute fontId { sml_ST_FontId },
2011
2012     ## default value: fullwidthKatakana
2013     attribute type { sml_ST_PhoneticType }?,
2014
2015     ## default value: left
2016     attribute alignment { sml_ST_PhoneticAlignment }?
2017 sml_headers = element headers { sml_CT_RevisionHeaders }
2018 sml_revisions = element revisions { sml_CT_Revisions }
2019 sml_CT_RevisionHeaders =
2020     attribute guid { s_ST_Guid },
2021     attribute lastGuid { s_ST_Guid }?,
2022
2023     ## default value: true
2024     attribute shared { xsd:boolean }?,
2025

```



```

2026 ## default value: false
2027 attribute diskRevisions { xsd:boolean }?,
2028
2029 ## default value: true
2030 attribute history { xsd:boolean }?,
2031
2032 ## default value: true
2033 attribute trackRevisions { xsd:boolean }?,
2034
2035 ## default value: false
2036 attribute exclusive { xsd:boolean }?,
2037
2038 ## default value: 0
2039 attribute revisionId { xsd:unsignedInt }?,
2040
2041 ## default value: 1
2042 attribute version { xsd:int }?,
2043
2044 ## default value: true
2045 attribute keepChangeHistory { xsd:boolean }?,
2046
2047 ## default value: false
2048 attribute protected { xsd:boolean }?,
2049
2050 ## default value: 30
2051 attribute preserveHistory { xsd:unsignedInt }?,
2052 element header { sml_CT_RevisionHeader }+
2053 sml_CT_Revisions =
2054 (element rrc { sml_CT_RevisionRowColumn }*
2055 | element rm { sml_CT_RevisionMove }*
2056 | element rcv { sml_CT_RevisionCustomView }*
2057 | element rsnm { sml_CT_RevisionSheetRename }*
2058 | element ris { sml_CT_RevisionInsertSheet }*
2059 | element rcc { sml_CT_RevisionCellChange }*
2060 | element rfmt { sml_CT_RevisionFormatting }*
2061 | element raf { sml_CT_RevisionAutoFormatting }*
2062 | element rdn { sml_CT_RevisionDefinedName }*
2063 | element rcmt { sml_CT_RevisionComment }*
2064 | element rqt { sml_CT_RevisionQueryTableField }*
2065 | element rcft { sml_CT_RevisionConflict }*)+
2066 sml_AG_RevData =
2067 attribute rId { xsd:unsignedInt },
2068
2069 ## default value: false
2070 attribute ua { xsd:boolean }?,
2071
2072 ## default value: false
2073 attribute ra { xsd:boolean }?
2074 sml_CT_RevisionHeader =
2075 attribute guid { s_ST_Guid },
2076 attribute dateTime { xsd:dateTime },
2077 attribute maxSheetId { xsd:unsignedInt },
2078 attribute userName { s_ST_Xstring },

```



```

2079     r_id,
2080     attribute minRId { xsd:unsignedInt }?,
2081     attribute maxRId { xsd:unsignedInt }?,
2082     element sheetIdMap { sml_CT_SheetIdMap },
2083     element reviewedList { sml_CT_ReviewedRevisions }?,
2084     element extLst { sml_CT_ExtensionList }?
2085 sml_CT_SheetIdMap =
2086     attribute count { xsd:unsignedInt }?,
2087     element sheetId { sml_CT_SheetId }+
2088 sml_CT_SheetId = attribute val { xsd:unsignedInt }
2089 sml_CT_ReviewedRevisions =
2090     attribute count { xsd:unsignedInt }?,
2091     element reviewed { sml_CT_Reviewed }+
2092 sml_CT_Reviewed = attribute rId { xsd:unsignedInt }
2093 sml_CT_UndoInfo =
2094     attribute index { xsd:unsignedInt },
2095     attribute exp { sml_ST_FormulaExpression },
2096
2097     ## default value: false
2098     attribute ref3D { xsd:boolean }?,
2099
2100     ## default value: false
2101     attribute array { xsd:boolean }?,
2102
2103     ## default value: false
2104     attribute v { xsd:boolean }?,
2105
2106     ## default value: false
2107     attribute nf { xsd:boolean }?,
2108
2109     ## default value: false
2110     attribute cs { xsd:boolean }?,
2111     attribute dr { sml_ST_RefA },
2112     attribute dn { sml_ST_Xstring }?,
2113     attribute r { sml_ST_CellRef }?,
2114     attribute sId { xsd:unsignedInt }?
2115 sml_CT_RevisionRowColumn =
2116     sml_AG_RevData,
2117     attribute sId { xsd:unsignedInt },
2118
2119     ## default value: false
2120     attribute eol { xsd:boolean }?,
2121     attribute ref { sml_ST_Ref },
2122     attribute action { sml_ST_rwColActionType },
2123
2124     ## default value: false
2125     attribute edge { xsd:boolean }?,
2126     (element undo { sml_CT_UndoInfo }*
2127      | element rcc { sml_CT_RevisionCellChange }*
2128      | element rfmt { sml_CT_RevisionFormatting }*)*
2129 sml_CT_RevisionMove =
2130     sml_AG_RevData,
2131     attribute sheetId { xsd:unsignedInt },

```



```

2132 attribute source { sml_ST_Ref },
2133 attribute destination { sml_ST_Ref },
2134
2135 ## default value: 0
2136 attribute sourceSheetId { xsd:unsignedInt }?,
2137 (element undo { sml_CT_UndoInfo }*
2138   | element rcc { sml_CT_RevisionCellChange }*
2139   | element rfmt { sml_CT_RevisionFormatting }*)*
2140 sml_CT_RevisionCustomView =
2141   attribute guid { s_ST_Guid },
2142   attribute action { sml_ST_RevisionAction }
2143 sml_CT_RevisionSheetRename =
2144   sml_AG_RevData,
2145   attribute sheetId { xsd:unsignedInt },
2146   attribute oldName { s_ST_Xstring },
2147   attribute newName { s_ST_Xstring },
2148   element extLst { sml_CT_ExtensionList }?
2149 sml_CT_RevisionInsertSheet =
2150   sml_AG_RevData,
2151   attribute sheetId { xsd:unsignedInt },
2152   attribute name { s_ST_Xstring },
2153   attribute sheetPosition { xsd:unsignedInt }
2154 sml_CT_RevisionCellChange =
2155   sml_AG_RevData,
2156   attribute sId { xsd:unsignedInt },
2157
2158 ## default value: false
2159 attribute odxf { xsd:boolean }?,
2160
2161 ## default value: false
2162 attribute xFDxf { xsd:boolean }?,
2163
2164 ## default value: false
2165 attribute s { xsd:boolean }?,
2166
2167 ## default value: false
2168 attribute dxf { xsd:boolean }?,
2169 attribute numFmtId { sml_ST_NumFmtId }?,
2170
2171 ## default value: false
2172 attribute quotePrefix { xsd:boolean }?,
2173
2174 ## default value: false
2175 attribute oldQuotePrefix { xsd:boolean }?,
2176
2177 ## default value: false
2178 attribute ph { xsd:boolean }?,
2179
2180 ## default value: false
2181 attribute oldPh { xsd:boolean }?,
2182
2183 ## default value: false
2184 attribute endOfListFormulaUpdate { xsd:boolean }?,

```



```

2185     element oc { sml_CT_Cell }?,
2186     element nc { sml_CT_Cell },
2187     element odf { sml_CT_Dxf }?,
2188     element ndxf { sml_CT_Dxf }?,
2189     element extLst { sml_CT_ExtensionList }?
2190 sml_CT_RevisionFormatting =
2191     attribute sheetId { xsd:unsignedInt },
2192
2193     ## default value: false
2194     attribute xfDxf { xsd:boolean }?,
2195
2196     ## default value: false
2197     attribute s { xsd:boolean }?,
2198     attribute sqref { sml_ST_Sqref },
2199     attribute start { xsd:unsignedInt }?,
2200     attribute length { xsd:unsignedInt }?,
2201     element dxf { sml_CT_Dxf }?,
2202     element extLst { sml_CT_ExtensionList }?
2203 sml_CT_RevisionAutoFormatting =
2204     attribute sheetId { xsd:unsignedInt },
2205     sml_AG_AutoFormat,
2206     attribute ref { sml_ST_Ref }
2207 sml_CT_RevisionComment =
2208     attribute sheetId { xsd:unsignedInt },
2209     attribute cell { sml_ST_CellRef },
2210     attribute guid { s_ST_Guid },
2211
2212     ## default value: add
2213     attribute action { sml_ST_RevisionAction }?,
2214
2215     ## default value: false
2216     attribute alwaysShow { xsd:boolean }?,
2217
2218     ## default value: false
2219     attribute old { xsd:boolean }?,
2220
2221     ## default value: false
2222     attribute hiddenRow { xsd:boolean }?,
2223
2224     ## default value: false
2225     attribute hiddenColumn { xsd:boolean }?,
2226     attribute author { s_ST_Xstring },
2227
2228     ## default value: 0
2229     attribute oldLength { xsd:unsignedInt }?,
2230
2231     ## default value: 0
2232     attribute newLength { xsd:unsignedInt }?
2233 sml_CT_RevisionDefinedName =
2234     sml_AG_RevData,
2235     attribute localSheetId { xsd:unsignedInt }?,
2236
2237     ## default value: false

```



```

2238 attribute customView { xsd:boolean }?,
2239 attribute name { s_ST_Xstring },
2240
2241 ## default value: false
2242 attribute function { xsd:boolean }?,
2243
2244 ## default value: false
2245 attribute oldFunction { xsd:boolean }?,
2246 attribute functionGroupId { xsd:unsignedByte }?,
2247 attribute oldFunctionGroupId { xsd:unsignedByte }?,
2248 attribute shortcutKey { xsd:unsignedByte }?,
2249 attribute oldShortcutKey { xsd:unsignedByte }?,
2250
2251 ## default value: false
2252 attribute hidden { xsd:boolean }?,
2253
2254 ## default value: false
2255 attribute oldHidden { xsd:boolean }?,
2256 attribute customMenu { s_ST_Xstring }?,
2257 attribute oldCustomMenu { s_ST_Xstring }?,
2258 attribute description { s_ST_Xstring }?,
2259 attribute oldDescription { s_ST_Xstring }?,
2260 attribute help { s_ST_Xstring }?,
2261 attribute oldHelp { s_ST_Xstring }?,
2262 attribute statusBar { s_ST_Xstring }?,
2263 attribute oldStatusBar { s_ST_Xstring }?,
2264 attribute comment { s_ST_Xstring }?,
2265 attribute oldComment { s_ST_Xstring }?,
2266 element formula { sml_ST_Formula }?,
2267 element oldFormula { sml_ST_Formula }?,
2268 element extLst { sml_CT_ExtensionList }?
2269 sml_CT_RevisionConflict =
2270     sml_AG_RevData,
2271     attribute sheetId { xsd:unsignedInt }?
2272 sml_CT_RevisionQueryTableField =
2273     attribute sheetId { xsd:unsignedInt },
2274     attribute ref { sml_ST_Ref },
2275     attribute fieldId { xsd:unsignedInt }
2276 sml_ST_rwColActionType =
2277     string "insertRow"
2278     | string "deleteRow"
2279     | string "insertCol"
2280     | string "deleteCol"
2281 sml_ST_RevisionAction = string "add" | string "delete"
2282 sml_ST_FormulaExpression =
2283     string "ref"
2284     | string "refError"
2285     | string "area"
2286     | string "areaError"
2287     | string "computedArea"
2288 sml_users = element users { sml_CT_Users }
2289 sml_CT_Users =
2290     attribute count { xsd:unsignedInt }?,

```



```

2291     element userInfo { sml_CT_SharedUser }*
2292 sml_CT_SharedUser =
2293     attribute guid { s_ST_Guid },
2294     attribute name { s_ST_Xstring },
2295     attribute id { xsd:int },
2296     attribute dateTime { xsd:dateTime },
2297     element extLst { sml_CT_ExtensionList }?
2298 sml_worksheet = element worksheet { sml_CT_Worksheet }
2299 sml_chartsheet = element chartsheet { sml_CT_Chartsheet }
2300 sml_dialogsheet = element dialogsheet { sml_CT_Dialogsheet }
2301 sml_CT_Macrosheet =
2302     element sheetPr { sml_CT_SheetPr }?,
2303     element dimension { sml_CT_SheetDimension }?,
2304     element sheetViews { sml_CT_SheetViews }?,
2305     element sheetFormatPr { sml_CT_SheetFormatPr }?,
2306     element cols { sml_CT_Cols }*,
2307     element sheetData { sml_CT_SheetData },
2308     element sheetProtection { sml_CT_SheetProtection }?,
2309     element autoFilter { sml_CT_AutoFilter }?,
2310     element sortState { sml_CT_SortState }?,
2311     element dataConsolidate { sml_CT_DataConsolidate }?,
2312     element customSheetViews { sml_CT_CustomSheetViews }?,
2313     element phoneticPr { sml_CT_PhoneticPr }?,
2314     element conditionalFormatting { sml_CT_ConditionalFormatting }*,
2315     element printOptions { sml_CT_PrintOptions }?,
2316     element pageMargins { sml_CT_PageMargins }?,
2317     element pageSetup { sml_CT_PageSetup }?,
2318     element headerFooter { sml_CT_HeaderFooter }?,
2319     element rowBreaks { sml_CT_PageBreak }?,
2320     element colBreaks { sml_CT_PageBreak }?,
2321     element customProperties { sml_CT_CustomProperties }?,
2322     element drawing { sml_CT_Drawing }?,
2323     element legacyDrawing { sml_CT_LegacyDrawing }?,
2324     element legacyDrawingHF { sml_CT_LegacyDrawing }?,
2325     element drawingHF { sml_CT_DrawingHF }?,
2326     element picture { sml_CT_SheetBackgroundPicture }?,
2327     element oleObjects { sml_CT_OleObjects }?,
2328     element extLst { sml_CT_ExtensionList }?
2329 sml_CT_Dialogsheet =
2330     element sheetPr { sml_CT_SheetPr }?,
2331     element sheetViews { sml_CT_SheetViews }?,
2332     element sheetFormatPr { sml_CT_SheetFormatPr }?,
2333     element sheetProtection { sml_CT_SheetProtection }?,
2334     element customSheetViews { sml_CT_CustomSheetViews }?,
2335     element printOptions { sml_CT_PrintOptions }?,
2336     element pageMargins { sml_CT_PageMargins }?,
2337     element pageSetup { sml_CT_PageSetup }?,
2338     element headerFooter { sml_CT_HeaderFooter }?,
2339     element drawing { sml_CT_Drawing }?,
2340     element legacyDrawing { sml_CT_LegacyDrawing }?,
2341     element legacyDrawingHF { sml_CT_LegacyDrawing }?,
2342     element drawingHF { sml_CT_DrawingHF }?,
2343     element oleObjects { sml_CT_OleObjects }?,

```



```

2344     element controls { sml_CT_Controls }?,
2345     element extLst { sml_CT_ExtensionList }?
2346 sml_CT_Worksheet =
2347     element sheetPr { sml_CT_SheetPr }?,
2348     element dimension { sml_CT_SheetDimension }?,
2349     element sheetViews { sml_CT_SheetViews }?,
2350     element sheetFormatPr { sml_CT_SheetFormatPr }?,
2351     element cols { sml_CT_Cols }*,
2352     element sheetData { sml_CT_SheetData },
2353     element sheetCalcPr { sml_CT_SheetCalcPr }?,
2354     element sheetProtection { sml_CT_SheetProtection }?,
2355     element protectedRanges { sml_CT_ProtectedRanges }?,
2356     element scenarios { sml_CT_Scenarios }?,
2357     element autoFilter { sml_CT_AutoFilter }?,
2358     element sortState { sml_CT_SortState }?,
2359     element dataConsolidate { sml_CT_DataConsolidate }?,
2360     element customSheetViews { sml_CT_CustomSheetViews }?,
2361     element mergeCells { sml_CT_MergeCells }?,
2362     element phoneticPr { sml_CT_PhoneticPr }?,
2363     element conditionalFormatting { sml_CT_ConditionalFormatting }*,
2364     element dataValidations { sml_CT_DataValidations }?,
2365     element hyperlinks { sml_CT_Hyperlinks }?,
2366     element printOptions { sml_CT_PrintOptions }?,
2367     element pageMargins { sml_CT_PageMargins }?,
2368     element pageSetup { sml_CT_PageSetup }?,
2369     element headerFooter { sml_CT_HeaderFooter }?,
2370     element rowBreaks { sml_CT_PageBreak }?,
2371     element colBreaks { sml_CT_PageBreak }?,
2372     element customProperties { sml_CT_CustomProperties }?,
2373     element cellWatches { sml_CT_CellWatches }?,
2374     element ignoredErrors { sml_CT_IgnoredErrors }?,
2375     element smartTags { sml_CT_SmartTags }?,
2376     element drawing { sml_CT_Drawing }?,
2377     element legacyDrawing { sml_CT_LegacyDrawing }?,
2378     element legacyDrawingHF { sml_CT_LegacyDrawing }?,
2379     element drawingHF { sml_CT_DrawingHF }?,
2380     element picture { sml_CT_SheetBackgroundPicture }?,
2381     element oleObjects { sml_CT_OleObjects }?,
2382     element controls { sml_CT_Controls }?,
2383     element webPublishItems { sml_CT_WebPublishItems }?,
2384     element tableParts { sml_CT_TableParts }?,
2385     element extLst { sml_CT_ExtensionList }?
2386 sml_CT_SheetData = element row { sml_CT_Row }*
2387 sml_CT_SheetCalcPr =
2388
2389     ## default value: false
2390     attribute fullCalcOnLoad { xsd:boolean }?
2391 sml_CT_SheetFormatPr =
2392
2393     ## default value: 8
2394     attribute baseColWidth { xsd:unsignedInt }?,
2395     attribute defaultColWidth { xsd:double }?,
2396     attribute defaultRowHeight { xsd:double },

```



```

2397
2398   ## default value: false
2399   attribute customHeight { xsd:boolean }?,
2400
2401   ## default value: false
2402   attribute zeroHeight { xsd:boolean }?,
2403
2404   ## default value: false
2405   attribute thickTop { xsd:boolean }?,
2406
2407   ## default value: false
2408   attribute thickBottom { xsd:boolean }?,
2409
2410   ## default value: 0
2411   attribute outlineLevelRow { xsd:unsignedByte }?,
2412
2413   ## default value: 0
2414   attribute outlineLevelCol { xsd:unsignedByte }?
2415 sml_CT_Cols = element col { sml_CT_Col }+
2416 sml_CT_Col =
2417   attribute min { xsd:unsignedInt },
2418   attribute max { xsd:unsignedInt },
2419   attribute width { xsd:double }?,
2420
2421   ## default value: 0
2422   attribute style { xsd:unsignedInt }?,
2423
2424   ## default value: false
2425   attribute hidden { xsd:boolean }?,
2426
2427   ## default value: false
2428   attribute bestFit { xsd:boolean }?,
2429
2430   ## default value: false
2431   attribute customWidth { xsd:boolean }?,
2432
2433   ## default value: false
2434   attribute phonetic { xsd:boolean }?,
2435
2436   ## default value: 0
2437   attribute outlineLevel { xsd:unsignedByte }?,
2438
2439   ## default value: false
2440   attribute collapsed { xsd:boolean }?
2441 sml_ST_CellSpan = xsd:string
2442 sml_ST_CellSpans = list { sml_ST_CellSpan* }
2443 sml_CT_Row =
2444   attribute r { xsd:unsignedInt }?,
2445   attribute spans { sml_ST_CellSpans }?,
2446
2447   ## default value: 0
2448   attribute s { xsd:unsignedInt }?,
2449

```



```

2450 ## default value: false
2451 attribute customFormat { xsd:boolean }?,
2452 attribute ht { xsd:double }?,
2453
2454 ## default value: false
2455 attribute hidden { xsd:boolean }?,
2456
2457 ## default value: false
2458 attribute customHeight { xsd:boolean }?,
2459
2460 ## default value: 0
2461 attribute outlineLevel { xsd:unsignedByte }?,
2462
2463 ## default value: false
2464 attribute collapsed { xsd:boolean }?,
2465
2466 ## default value: false
2467 attribute thickTop { xsd:boolean }?,
2468
2469 ## default value: false
2470 attribute thickBot { xsd:boolean }?,
2471
2472 ## default value: false
2473 attribute ph { xsd:boolean }?,
2474 element c { sml_CT_Cell }*,
2475 element extLst { sml_CT_ExtensionList }?
2476 sml_CT_Cell =
2477     attribute r { sml_ST_CellRef }?,
2478
2479 ## default value: 0
2480 attribute s { xsd:unsignedInt }?,
2481
2482 ## default value: n
2483 attribute t { sml_ST_CellType }?,
2484
2485 ## default value: 0
2486 attribute cm { xsd:unsignedInt }?,
2487
2488 ## default value: 0
2489 attribute vm { xsd:unsignedInt }?,
2490
2491 ## default value: false
2492 attribute ph { xsd:boolean }?,
2493 element f { sml_CT_CellFormula }?,
2494 element v { s_ST_Xstring }?,
2495 element is { sml_CT_Rst }?,
2496 element extLst { sml_CT_ExtensionList }?
2497 sml_ST_CellType =
2498     string "b"
2499     | string "n"
2500     | string "e"
2501     | string "s"
2502     | string "str"

```



```

2503 | string "inlineStr"
2504 sml_ST_CellFormulaType =
2505     string "normal"
2506     | string "array"
2507     | string "dataTable"
2508     | string "shared"
2509 sml_CT_SheetPr =
2510
2511     ## default value: false
2512     attribute syncHorizontal { xsd:boolean }?,
2513
2514     ## default value: false
2515     attribute syncVertical { xsd:boolean }?,
2516     attribute syncRef { sml_ST_Ref }?,
2517
2518     ## default value: false
2519     attribute transitionEvaluation { xsd:boolean }?,
2520
2521     ## default value: false
2522     attribute transitionEntry { xsd:boolean }?,
2523
2524     ## default value: true
2525     attribute published { xsd:boolean }?,
2526     attribute codeName { xsd:string }?,
2527
2528     ## default value: false
2529     attribute filterMode { xsd:boolean }?,
2530
2531     ## default value: true
2532     attribute enableFormatConditionsCalculation { xsd:boolean }?,
2533     element tabColor { sml_CT_Color }?,
2534     element outlinePr { sml_CT_OutlinePr }?,
2535     element pageSetUpPr { sml_CT_PageSetUpPr }?
2536 sml_CT_SheetDimension = attribute ref { sml_ST_Ref }
2537 sml_CT_SheetViews =
2538     element sheetView { sml_CT_SheetView }+,
2539     element extLst { sml_CT_ExtensionList }?
2540 sml_CT_SheetView =
2541
2542     ## default value: false
2543     attribute windowProtection { xsd:boolean }?,
2544
2545     ## default value: false
2546     attribute showFormulas { xsd:boolean }?,
2547
2548     ## default value: true
2549     attribute showGridLines { xsd:boolean }?,
2550
2551     ## default value: true
2552     attribute showRowColHeaders { xsd:boolean }?,
2553
2554     ## default value: true
2555     attribute showZeros { xsd:boolean }?,

```



```

2556
2557   ## default value: false
2558   attribute rightToLeft { xsd:boolean }?,
2559
2560   ## default value: false
2561   attribute tabSelected { xsd:boolean }?,
2562
2563   ## default value: true
2564   attribute showRuler { xsd:boolean }?,
2565
2566   ## default value: true
2567   attribute showOutlineSymbols { xsd:boolean }?,
2568
2569   ## default value: true
2570   attribute defaultGridColor { xsd:boolean }?,
2571
2572   ## default value: true
2573   attribute showWhiteSpace { xsd:boolean }?,
2574
2575   ## default value: normal
2576   attribute view { sml_ST_SheetViewType }?,
2577   attribute topLeftCell { sml_ST_CellRef }?,
2578
2579   ## default value: 64
2580   attribute colorId { xsd:unsignedInt }?,
2581
2582   ## default value: 100
2583   attribute zoomScale { xsd:unsignedInt }?,
2584
2585   ## default value: 0
2586   attribute zoomScaleNormal { xsd:unsignedInt }?,
2587
2588   ## default value: 0
2589   attribute zoomScaleSheetLayoutView { xsd:unsignedInt }?,
2590
2591   ## default value: 0
2592   attribute zoomScalePageLayoutView { xsd:unsignedInt }?,
2593   attribute workbookViewId { xsd:unsignedInt },
2594   element pane { sml_CT_Pane }?,
2595   element selection { sml_CT_Selection }*,
2596   element pivotSelection { sml_CT_PivotSelection }*,
2597   element extLst { sml_CT_ExtensionList }?
2598 sml_CT_Pane =
2599
2600   ## default value: 0
2601   attribute xSplit { xsd:double }?,
2602
2603   ## default value: 0
2604   attribute ySplit { xsd:double }?,
2605   attribute topLeftCell { sml_ST_CellRef }?,
2606
2607   ## default value: topLeft
2608   attribute activePane { sml_ST_Pane }?,

```



```

2609
2610     ## default value: split
2611     attribute state { sml_ST_PaneState }?
2612 sml_CT_PivotSelection =
2613
2614     ## default value: topLeft
2615     attribute pane { sml_ST_Pane }?,
2616
2617     ## default value: false
2618     attribute showHeader { xsd:boolean }?,
2619
2620     ## default value: false
2621     attribute label { xsd:boolean }?,
2622
2623     ## default value: false
2624     attribute data { xsd:boolean }?,
2625
2626     ## default value: false
2627     attribute extendable { xsd:boolean }?,
2628
2629     ## default value: 0
2630     attribute count { xsd:unsignedInt }?,
2631     attribute axis { sml_ST_Axis }?,
2632
2633     ## default value: 0
2634     attribute dimension { xsd:unsignedInt }?,
2635
2636     ## default value: 0
2637     attribute start { xsd:unsignedInt }?,
2638
2639     ## default value: 0
2640     attribute min { xsd:unsignedInt }?,
2641
2642     ## default value: 0
2643     attribute max { xsd:unsignedInt }?,
2644
2645     ## default value: 0
2646     attribute activeRow { xsd:unsignedInt }?,
2647
2648     ## default value: 0
2649     attribute activeCol { xsd:unsignedInt }?,
2650
2651     ## default value: 0
2652     attribute previousRow { xsd:unsignedInt }?,
2653
2654     ## default value: 0
2655     attribute previousCol { xsd:unsignedInt }?,
2656
2657     ## default value: 0
2658     attribute click { xsd:unsignedInt }?,
2659     r_id?,
2660     element pivotArea { sml_CT_PivotArea }
2661 sml_CT_Selection =

```



```

2662
2663   ## default value: topLeft
2664   attribute pane { sml_ST_Pane }?,
2665   attribute activeCell { sml_ST_CellRef }?,
2666
2667   ## default value: 0
2668   attribute activeCellId { xsd:unsignedInt }?,
2669
2670   ## default value: A1
2671   attribute sqref { sml_ST_Sqref }?
2672 sml_ST_Pane =
2673     string "bottomRight"
2674     | string "topRight"
2675     | string "bottomLeft"
2676     | string "topLeft"
2677 sml_CT_PageBreak =
2678
2679   ## default value: 0
2680   attribute count { xsd:unsignedInt }?,
2681
2682   ## default value: 0
2683   attribute manualBreakCount { xsd:unsignedInt }?,
2684   element brk { sml_CT_Break }*
2685 sml_CT_Break =
2686
2687   ## default value: 0
2688   attribute id { xsd:unsignedInt }?,
2689
2690   ## default value: 0
2691   attribute min { xsd:unsignedInt }?,
2692
2693   ## default value: 0
2694   attribute max { xsd:unsignedInt }?,
2695
2696   ## default value: false
2697   attribute man { xsd:boolean }?,
2698
2699   ## default value: false
2700   attribute pt { xsd:boolean }?
2701 sml_ST_SheetViewType =
2702   string "normal" | string "pageBreakPreview" | string "pageLayout"
2703 sml_CT_OutlinePr =
2704
2705   ## default value: false
2706   attribute applyStyles { xsd:boolean }?,
2707
2708   ## default value: true
2709   attribute summaryBelow { xsd:boolean }?,
2710
2711   ## default value: true
2712   attribute summaryRight { xsd:boolean }?,
2713
2714   ## default value: true

```



```

2715     attribute showOutlineSymbols { xsd:boolean }?
2716 sml_CT_PageSetUpPr =
2717
2718     ## default value: true
2719     attribute autoPageBreaks { xsd:boolean }?,
2720
2721     ## default value: false
2722     attribute fitToPage { xsd:boolean }?
2723 sml_CT_DataConsolidate =
2724
2725     ## default value: sum
2726     attribute function { sml_ST_DataConsolidateFunction }?,
2727
2728     ## default value: false
2729     attribute startLabels { xsd:boolean }?,
2730
2731     ## default value: false
2732     attribute leftLabels { xsd:boolean }?,
2733
2734     ## default value: false
2735     attribute topLabels { xsd:boolean }?,
2736
2737     ## default value: false
2738     attribute link { xsd:boolean }?,
2739     element dataRefs { sml_CT_DataRefs }?
2740 sml_ST_DataConsolidateFunction =
2741     string "average"
2742     | string "count"
2743     | string "countNums"
2744     | string "max"
2745     | string "min"
2746     | string "product"
2747     | string "stdDev"
2748     | string "stdDevp"
2749     | string "sum"
2750     | string "var"
2751     | string "varp"
2752 sml_CT_DataRefs =
2753     attribute count { xsd:unsignedInt }?,
2754     element dataRef { sml_CT_DataRef }*
2755 sml_CT_DataRef =
2756     attribute ref { sml_ST_Ref }?,
2757     attribute name { s_ST_Xstring }?,
2758     attribute sheet { s_ST_Xstring }?,
2759     r_id?
2760 sml_CT_MergeCells =
2761     attribute count { xsd:unsignedInt }?,
2762     element mergeCell { sml_CT_MergeCell }+
2763 sml_CT_MergeCell = attribute ref { sml_ST_Ref }
2764 sml_CT_SmartTags = element cellSmartTags { sml_CT_CellSmartTags }+
2765 sml_CT_CellSmartTags =
2766     attribute r { sml_ST_CellRef },
2767     element cellSmartTag { sml_CT_CellSmartTag }+

```



```

2768 sml_CT_CellSmartTag =
2769     attribute type { xsd:unsignedInt },
2770
2771     ## default value: false
2772     attribute deleted { xsd:boolean }?,
2773
2774     ## default value: false
2775     attribute xmlBased { xsd:boolean }?,
2776     element cellSmartTagPr { sml_CT_CellSmartTagPr }*
2777 sml_CT_CellSmartTagPr =
2778     attribute key { s_ST_Xstring },
2779     attribute val { s_ST_Xstring }
2780 sml_CT_Drawing = r_id
2781 sml_CT_LegacyDrawing = r_id
2782 sml_CT_DrawingHF =
2783     r_id,
2784     attribute lho { xsd:unsignedInt }?,
2785     attribute lhe { xsd:unsignedInt }?,
2786     attribute lhf { xsd:unsignedInt }?,
2787     attribute cho { xsd:unsignedInt }?,
2788     attribute che { xsd:unsignedInt }?,
2789     attribute chf { xsd:unsignedInt }?,
2790     attribute rho { xsd:unsignedInt }?,
2791     attribute rhe { xsd:unsignedInt }?,
2792     attribute rhf { xsd:unsignedInt }?,
2793     attribute lfo { xsd:unsignedInt }?,
2794     attribute lfe { xsd:unsignedInt }?,
2795     attribute lff { xsd:unsignedInt }?,
2796     attribute cfo { xsd:unsignedInt }?,
2797     attribute cfe { xsd:unsignedInt }?,
2798     attribute cff { xsd:unsignedInt }?,
2799     attribute rfo { xsd:unsignedInt }?,
2800     attribute rfe { xsd:unsignedInt }?,
2801     attribute rff { xsd:unsignedInt }?
2802 sml_CT_CustomSheetViews =
2803     element customSheetView { sml_CT_CustomSheetView }+
2804 sml_CT_CustomSheetView =
2805     attribute guid { s_ST_Guid },
2806
2807     ## default value: 100
2808     attribute scale { xsd:unsignedInt }?,
2809
2810     ## default value: 64
2811     attribute colorId { xsd:unsignedInt }?,
2812
2813     ## default value: false
2814     attribute showPageBreaks { xsd:boolean }?,
2815
2816     ## default value: false
2817     attribute showFormulas { xsd:boolean }?,
2818
2819     ## default value: true
2820     attribute showGridLines { xsd:boolean }?,

```



```

2821
2822   ## default value: true
2823   attribute showRowCol { xsd:boolean }?,
2824
2825   ## default value: true
2826   attribute outlineSymbols { xsd:boolean }?,
2827
2828   ## default value: true
2829   attribute zeroValues { xsd:boolean }?,
2830
2831   ## default value: false
2832   attribute fitToPage { xsd:boolean }?,
2833
2834   ## default value: false
2835   attribute printArea { xsd:boolean }?,
2836
2837   ## default value: false
2838   attribute filter { xsd:boolean }?,
2839
2840   ## default value: false
2841   attribute showAutoFilter { xsd:boolean }?,
2842
2843   ## default value: false
2844   attribute hiddenRows { xsd:boolean }?,
2845
2846   ## default value: false
2847   attribute hiddenColumns { xsd:boolean }?,
2848
2849   ## default value: visible
2850   attribute state { sml_ST_SheetState }?,
2851
2852   ## default value: false
2853   attribute filterUnique { xsd:boolean }?,
2854
2855   ## default value: normal
2856   attribute view { sml_ST_SheetViewType }?,
2857
2858   ## default value: true
2859   attribute showRuler { xsd:boolean }?,
2860   attribute topLeftCell { sml_ST_CellRef }?,
2861   element pane { sml_CT_Pane }?,
2862   element selection { sml_CT_Selection }?,
2863   element rowBreaks { sml_CT_PageBreak }?,
2864   element colBreaks { sml_CT_PageBreak }?,
2865   element pageMargins { sml_CT_PageMargins }?,
2866   element printOptions { sml_CT_PrintOptions }?,
2867   element pageSetup { sml_CT_PageSetup }?,
2868   element headerFooter { sml_CT_HeaderFooter }?,
2869   element autoFilter { sml_CT_AutoFilter }?,
2870   element extLst { sml_CT_ExtensionList }?
2871   sml_CT_DataValidations =
2872
2873   ## default value: false

```



```

2874 attribute disablePrompts { xsd:boolean }?,
2875 attribute xWindow { xsd:unsignedInt }?,
2876 attribute yWindow { xsd:unsignedInt }?,
2877 attribute count { xsd:unsignedInt }?,
2878 element dataValidation { sml_CT_DataValidation }+
2879 sml_CT_DataValidation =
2880
2881 ## default value: none
2882 attribute type { sml_ST_DataValidationType }?,
2883
2884 ## default value: stop
2885 attribute errorStyle { sml_ST_DataValidationErrorStyle }?,
2886
2887 ## default value: noControl
2888 attribute imeMode { sml_ST_DataValidationImeMode }?,
2889
2890 ## default value: between
2891 attribute operator { sml_ST_DataValidationOperator }?,
2892
2893 ## default value: false
2894 attribute allowBlank { xsd:boolean }?,
2895
2896 ## default value: false
2897 attribute showDropDown { xsd:boolean }?,
2898
2899 ## default value: false
2900 attribute showInputMessage { xsd:boolean }?,
2901
2902 ## default value: false
2903 attribute showErrorMessage { xsd:boolean }?,
2904 attribute errorTitle { s_ST_Xstring }?,
2905 attribute error { s_ST_Xstring }?,
2906 attribute promptTitle { s_ST_Xstring }?,
2907 attribute prompt { s_ST_Xstring }?,
2908 attribute sqref { sml_ST_Sqref },
2909 element formula1 { sml_ST_Formula }?,
2910 element formula2 { sml_ST_Formula }?
2911 sml_ST_DataValidationType =
2912     string "none"
2913     | string "whole"
2914     | string "decimal"
2915     | string "list"
2916     | string "date"
2917     | string "time"
2918     | string "textLength"
2919     | string "custom"
2920 sml_ST_DataValidationOperator =
2921     string "between"
2922     | string "notBetween"
2923     | string "equal"
2924     | string "notEqual"
2925     | string "lessThan"
2926     | string "lessThanOrEqual"

```



```

2927 | string "greaterThan"
2928 | string "greaterThanOrEqual"
2929 sml_ST_DataValidationErrorStyle =
2930     string "stop" | string "warning" | string "information"
2931 sml_ST_DataValidationImeMode =
2932     string "noControl"
2933     | string "off"
2934     | string "on"
2935     | string "disabled"
2936     | string "hiragana"
2937     | string "fullKatakana"
2938     | string "halfKatakana"
2939     | string "fullAlpha"
2940     | string "halfAlpha"
2941     | string "fullHangul"
2942     | string "halfHangul"
2943 sml_ST_CfType =
2944     string "expression"
2945     | string "cellIs"
2946     | string "colorScale"
2947     | string "dataBar"
2948     | string "iconSet"
2949     | string "top10"
2950     | string "uniqueValues"
2951     | string "duplicateValues"
2952     | string "containsText"
2953     | string "notContainsText"
2954     | string "beginsWith"
2955     | string "endsWith"
2956     | string "containsBlanks"
2957     | string "notContainsBlanks"
2958     | string "containsErrors"
2959     | string "notContainsErrors"
2960     | string "timePeriod"
2961     | string "aboveAverage"
2962 sml_ST_TimePeriod =
2963     string "today"
2964     | string "yesterday"
2965     | string "tomorrow"
2966     | string "last7Days"
2967     | string "thisMonth"
2968     | string "lastMonth"
2969     | string "nextMonth"
2970     | string "thisWeek"
2971     | string "lastWeek"
2972     | string "nextWeek"
2973 sml_ST_ConditionalFormattingOperator =
2974     string "lessThan"
2975     | string "lessThanOrEqual"
2976     | string "equal"
2977     | string "notEqual"
2978     | string "greaterThanOrEqual"
2979     | string "greaterThan"

```



```

2980 | string "between"
2981 | string "notBetween"
2982 | string "containsText"
2983 | string "notContains"
2984 | string "beginsWith"
2985 | string "endsWith"
2986 sml_ST_CfvoType =
2987     string "num"
2988     | string "percent"
2989     | string "max"
2990     | string "min"
2991     | string "formula"
2992     | string "percentile"
2993 sml_CT_ConditionalFormatting =
2994
2995     ## default value: false
2996     attribute pivot { xsd:boolean }?,
2997     attribute sqref { sml_ST_Sqref }?,
2998     element cfRule { sml_CT_CfRule }+,
2999     element extLst { sml_CT_ExtensionList }?
3000 sml_CT_CfRule =
3001     attribute type { sml_ST_CfType }?,
3002     attribute dxId { sml_ST_DxfId }?,
3003     attribute priority { xsd:int },
3004
3005     ## default value: false
3006     attribute stopIfTrue { xsd:boolean }?,
3007
3008     ## default value: true
3009     attribute aboveAverage { xsd:boolean }?,
3010
3011     ## default value: false
3012     attribute percent { xsd:boolean }?,
3013
3014     ## default value: false
3015     attribute bottom { xsd:boolean }?,
3016     attribute operator { sml_ST_ConditionalFormattingOperator }?,
3017     attribute text { xsd:string }?,
3018     attribute timePeriod { sml_ST_TimePeriod }?,
3019     attribute rank { xsd:unsignedInt }?,
3020     attribute stdDev { xsd:int }?,
3021
3022     ## default value: false
3023     attribute equalAverage { xsd:boolean }?,
3024     element formula { sml_ST_Formula }*,
3025     element colorScale { sml_CT_ColorScale }?,
3026     element dataBar { sml_CT_DataBar }?,
3027     element iconSet { sml_CT_IconSet }?,
3028     element extLst { sml_CT_ExtensionList }?
3029 sml_CT_Hyperlinks = element hyperlink { sml_CT_Hyperlink }+
3030 sml_CT_Hyperlink =
3031     attribute ref { sml_ST_Ref },
3032     r_id?,

```



```

3033     attribute location { s_ST_Xstring }?,
3034     attribute tooltip { s_ST_Xstring }?,
3035     attribute display { s_ST_Xstring }?
3036 sml_CT_CellFormula =
3037     sml_ST_Formula,
3038
3039     ## default value: normal
3040     attribute t { sml_ST_CellFormulaType }?,
3041
3042     ## default value: false
3043     attribute aca { xsd:boolean }?,
3044     attribute ref { sml_ST_Ref }?,
3045
3046     ## default value: false
3047     attribute dt2D { xsd:boolean }?,
3048
3049     ## default value: false
3050     attribute dtr { xsd:boolean }?,
3051
3052     ## default value: false
3053     attribute del1 { xsd:boolean }?,
3054
3055     ## default value: false
3056     attribute del2 { xsd:boolean }?,
3057     attribute r1 { sml_ST_CellRef }?,
3058     attribute r2 { sml_ST_CellRef }?,
3059
3060     ## default value: false
3061     attribute ca { xsd:boolean }?,
3062     attribute si { xsd:unsignedInt }?,
3063
3064     ## default value: false
3065     attribute bx { xsd:boolean }?
3066 sml_CT_ColorScale =
3067     element cfvo { sml_CT_Cfvo }+,
3068     element color { sml_CT_Color }+
3069 sml_CT_DataBar =
3070
3071     ## default value: 10
3072     attribute minLength { xsd:unsignedInt }?,
3073
3074     ## default value: 90
3075     attribute maxLength { xsd:unsignedInt }?,
3076
3077     ## default value: true
3078     attribute showValue { xsd:boolean }?,
3079     element cfvo { sml_CT_Cfvo }+,
3080     element color { sml_CT_Color }
3081 sml_CT_IconSet =
3082
3083     ## default value: 3TrafficLights1
3084     attribute iconSet { sml_ST_IconSetType }?,
3085

```



```

3086 ## default value: true
3087 attribute showValue { xsd:boolean }?,
3088
3089 ## default value: true
3090 attribute percent { xsd:boolean }?,
3091
3092 ## default value: false
3093 attribute reverse { xsd:boolean }?,
3094 element cfvo { sml_CT_Cfvo }+
3095 sml_CT_Cfvo =
3096   attribute type { sml_ST_CfvoType },
3097   attribute val { s_ST_Xstring }?,
3098
3099 ## default value: true
3100 attribute gte { xsd:boolean }?,
3101 element extLst { sml_CT_ExtensionList }?
3102 sml_CT_PageMargins =
3103   attribute left { xsd:double },
3104   attribute right { xsd:double },
3105   attribute top { xsd:double },
3106   attribute bottom { xsd:double },
3107   attribute header { xsd:double },
3108   attribute footer { xsd:double }
3109 sml_CT_PrintOptions =
3110
3111 ## default value: false
3112 attribute horizontalCentered { xsd:boolean }?,
3113
3114 ## default value: false
3115 attribute verticalCentered { xsd:boolean }?,
3116
3117 ## default value: false
3118 attribute headings { xsd:boolean }?,
3119
3120 ## default value: false
3121 attribute gridLines { xsd:boolean }?,
3122
3123 ## default value: true
3124 attribute gridLinesSet { xsd:boolean }?
3125 sml_CT_PageSetup =
3126
3127 ## default value: 1
3128 attribute paperSize { xsd:unsignedInt }?,
3129 attribute paperHeight { s_ST_PositiveUniversalMeasure }?,
3130 attribute paperWidth { s_ST_PositiveUniversalMeasure }?,
3131
3132 ## default value: 100
3133 attribute scale { xsd:unsignedInt }?,
3134
3135 ## default value: 1
3136 attribute firstPageNumber { xsd:unsignedInt }?,
3137
3138 ## default value: 1

```



```

3139     attribute fitToWidth { xsd:unsignedInt }?,
3140
3141     ## default value: 1
3142     attribute fitToHeight { xsd:unsignedInt }?,
3143
3144     ## default value: downThenOver
3145     attribute pageOrder { sml_ST_PageOrder }?,
3146
3147     ## default value: default
3148     attribute orientation { sml_ST_Orientation }?,
3149
3150     ## default value: true
3151     attribute usePrinterDefaults { xsd:boolean }?,
3152
3153     ## default value: false
3154     attribute blackAndWhite { xsd:boolean }?,
3155
3156     ## default value: false
3157     attribute draft { xsd:boolean }?,
3158
3159     ## default value: none
3160     attribute cellComments { sml_ST_CellComments }?,
3161
3162     ## default value: false
3163     attribute useFirstPageNumber { xsd:boolean }?,
3164
3165     ## default value: displayed
3166     attribute errors { sml_ST_PrintError }?,
3167
3168     ## default value: 600
3169     attribute horizontalDpi { xsd:unsignedInt }?,
3170
3171     ## default value: 600
3172     attribute verticalDpi { xsd:unsignedInt }?,
3173
3174     ## default value: 1
3175     attribute copies { xsd:unsignedInt }?,
3176     r_id?
3177     sml_ST_PageOrder = string "downThenOver" | string "overThenDown"
3178     sml_ST_Orientation =
3179         string "default" | string "portrait" | string "landscape"
3180     sml_ST_CellComments =
3181         string "none" | string "asDisplayed" | string "atEnd"
3182     sml_CT_HeaderFooter =
3183
3184     ## default value: false
3185     attribute differentOddEven { xsd:boolean }?,
3186
3187     ## default value: false
3188     attribute differentFirst { xsd:boolean }?,
3189
3190     ## default value: true
3191     attribute scaleWithDoc { xsd:boolean }?,

```



```

3192
3193     ## default value: true
3194     attribute alignWithMargins { xsd:boolean }?,
3195     element oddHeader { s_ST_Xstring }?,
3196     element oddFooter { s_ST_Xstring }?,
3197     element evenHeader { s_ST_Xstring }?,
3198     element evenFooter { s_ST_Xstring }?,
3199     element firstHeader { s_ST_Xstring }?,
3200     element firstFooter { s_ST_Xstring }?
3201 sml_ST_PrintError =
3202     string "displayed" | string "blank" | string "dash" | string "NA"
3203 sml_CT_Scenarios =
3204     attribute current { xsd:unsignedInt }?,
3205     attribute show { xsd:unsignedInt }?,
3206     attribute sqref { sml_ST_Sqref }?,
3207     element scenario { sml_CT_Scenario }+
3208 sml_CT_SheetProtection =
3209     attribute password { sml_ST_UnsignedShortHex }?,
3210     attribute algorithmName { s_ST_Xstring }?,
3211     attribute hashValue { xsd:base64Binary }?,
3212     attribute saltValue { xsd:base64Binary }?,
3213     attribute spinCount { xsd:unsignedInt }?,
3214
3215     ## default value: false
3216     attribute sheet { xsd:boolean }?,
3217
3218     ## default value: false
3219     attribute objects { xsd:boolean }?,
3220
3221     ## default value: false
3222     attribute scenarios { xsd:boolean }?,
3223
3224     ## default value: true
3225     attribute formatCells { xsd:boolean }?,
3226
3227     ## default value: true
3228     attribute formatColumns { xsd:boolean }?,
3229
3230     ## default value: true
3231     attribute formatRows { xsd:boolean }?,
3232
3233     ## default value: true
3234     attribute insertColumns { xsd:boolean }?,
3235
3236     ## default value: true
3237     attribute insertRows { xsd:boolean }?,
3238
3239     ## default value: true
3240     attribute insertHyperlinks { xsd:boolean }?,
3241
3242     ## default value: true
3243     attribute deleteColumns { xsd:boolean }?,
3244

```



```

3245  ## default value: true
3246  attribute deleteRows { xsd:boolean }?,
3247
3248  ## default value: false
3249  attribute selectLockedCells { xsd:boolean }?,
3250
3251  ## default value: true
3252  attribute sort { xsd:boolean }?,
3253
3254  ## default value: true
3255  attribute autoFilter { xsd:boolean }?,
3256
3257  ## default value: true
3258  attribute pivotTables { xsd:boolean }?,
3259
3260  ## default value: false
3261  attribute selectUnlockedCells { xsd:boolean }?
3262  sml_CT_ProtectedRanges =
3263    element protectedRange { sml_CT_ProtectedRange }+
3264  sml_CT_ProtectedRange =
3265    attribute password { sml_ST_UnsignedShortHex }?,
3266    attribute sqref { sml_ST_Sqref },
3267    attribute name { s_ST_Xstring },
3268    attribute securityDescriptor { xsd:string }?,
3269    attribute algorithmName { s_ST_Xstring }?,
3270    attribute hashValue { xsd:base64Binary }?,
3271    attribute saltValue { xsd:base64Binary }?,
3272    attribute spinCount { xsd:unsignedInt }?,
3273    element securityDescriptor { xsd:string }*
3274  sml_CT_Scenario =
3275    attribute name { s_ST_Xstring },
3276
3277  ## default value: false
3278  attribute locked { xsd:boolean }?,
3279
3280  ## default value: false
3281  attribute hidden { xsd:boolean }?,
3282  attribute count { xsd:unsignedInt }?,
3283  attribute user { s_ST_Xstring }?,
3284  attribute comment { s_ST_Xstring }?,
3285  element inputCells { sml_CT_InputCells }+
3286  sml_CT_InputCells =
3287    attribute r { sml_ST_CellRef },
3288
3289  ## default value: false
3290  attribute deleted { xsd:boolean }?,
3291
3292  ## default value: false
3293  attribute undone { xsd:boolean }?,
3294  attribute val { s_ST_Xstring },
3295  attribute numFmtId { sml_ST_NumFmtId }?
3296  sml_CT_CellWatches = element cellWatch { sml_CT_CellWatch }+
3297  sml_CT_CellWatch = attribute r { sml_ST_CellRef }

```



```

3298 sml_CT_Chartsheet =
3299     element sheetPr { sml_CT_ChartsheetPr }?,
3300     element sheetViews { sml_CT_ChartsheetViews },
3301     element sheetProtection { sml_CT_ChartsheetProtection }?,
3302     element customSheetViews { sml_CT_CustomChartsheetViews }?,
3303     element pageMargins { sml_CT_PageMargins }?,
3304     element pageSetup { sml_CT-CsPageSetup }?,
3305     element headerFooter { sml_CT_HeaderFooter }?,
3306     element drawing { sml_CT_Drawing },
3307     element legacyDrawing { sml_CT_LegacyDrawing }?,
3308     element legacyDrawingHF { sml_CT_LegacyDrawing }?,
3309     element drawingHF { sml_CT_DrawingHF }?,
3310     element picture { sml_CT_SheetBackgroundPicture }?,
3311     element webPublishItems { sml_CT_WebPublishItems }?,
3312     element extLst { sml_CT_ExtensionList }?
3313 sml_CT_ChartsheetPr =
3314
3315     ## default value: true
3316     attribute published { xsd:boolean }?,
3317     attribute codeName { xsd:string }?,
3318     element tabColor { sml_CT_Color }?
3319 sml_CT_ChartsheetViews =
3320     element sheetView { sml_CT_ChartsheetView }+,
3321     element extLst { sml_CT_ExtensionList }?
3322 sml_CT_ChartsheetView =
3323
3324     ## default value: false
3325     attribute tabSelected { xsd:boolean }?,
3326
3327     ## default value: 100
3328     attribute zoomScale { xsd:unsignedInt }?,
3329     attribute workbookViewId { xsd:unsignedInt },
3330
3331     ## default value: false
3332     attribute zoomToFit { xsd:boolean }?,
3333     element extLst { sml_CT_ExtensionList }?
3334 sml_CT_ChartsheetProtection =
3335     attribute password { sml_ST_UnsignedShortHex }?,
3336     attribute algorithmName { s_ST_Xstring }?,
3337     attribute hashValue { xsd:base64Binary }?,
3338     attribute saltValue { xsd:base64Binary }?,
3339     attribute spinCount { xsd:unsignedInt }?,
3340
3341     ## default value: false
3342     attribute content { xsd:boolean }?,
3343
3344     ## default value: false
3345     attribute objects { xsd:boolean }?
3346 sml_CT-CsPageSetup =
3347
3348     ## default value: 1
3349     attribute paperSize { xsd:unsignedInt }?,
3350     attribute paperHeight { s_ST_PositiveUniversalMeasure }?,

```



```

3351 attribute paperWidth { s_ST_PositiveUniversalMeasure }?,
3352
3353 ## default value: 1
3354 attribute firstPageNumber { xsd:unsignedInt }?,
3355
3356 ## default value: default
3357 attribute orientation { sml_ST_Orientation }?,
3358
3359 ## default value: true
3360 attribute usePrinterDefaults { xsd:boolean }?,
3361
3362 ## default value: false
3363 attribute blackAndWhite { xsd:boolean }?,
3364
3365 ## default value: false
3366 attribute draft { xsd:boolean }?,
3367
3368 ## default value: false
3369 attribute useFirstPageNumber { xsd:boolean }?,
3370
3371 ## default value: 600
3372 attribute horizontalDpi { xsd:unsignedInt }?,
3373
3374 ## default value: 600
3375 attribute verticalDpi { xsd:unsignedInt }?,
3376
3377 ## default value: 1
3378 attribute copies { xsd:unsignedInt }?,
3379 r_id?
3380 sml_CT_CustomChartsheetViews =
3381   element customSheetView { sml_CT_CustomChartsheetView }*
3382 sml_CT_CustomChartsheetView =
3383   attribute guid { s_ST_Guid },
3384
3385 ## default value: 100
3386 attribute scale { xsd:unsignedInt }?,
3387
3388 ## default value: visible
3389 attribute state { sml_ST_SheetState }?,
3390
3391 ## default value: false
3392 attribute zoomToFit { xsd:boolean }?,
3393 element pageMargins { sml_CT_PageMargins }?,
3394 element pageSetup { sml_CT-CsPageSetup }?,
3395 element headerFooter { sml_CT_HeaderFooter }?
3396 sml_CT_CustomProperties = element customPr { sml_CT_CustomProperty }+
3397 sml_CT_CustomProperty =
3398   attribute name { s_ST_Xstring },
3399   r_id
3400 sml_CT_OleObjects = element oleObject { sml_CT_OleObject }+
3401 sml_CT_OleObject =
3402   attribute progId { xsd:string }?,
3403

```



```

3404 ## default value: DVASPECT_CONTENT
3405 attribute dvAspect { sml_ST_DvAspect }?,
3406 attribute link { s_ST_Xstring }?,
3407 attribute oleUpdate { sml_ST_OleUpdate }?,
3408
3409 ## default value: false
3410 attribute autoLoad { xsd:boolean }?,
3411 attribute shapeId { xsd:unsignedInt },
3412 r_id?,
3413 element objectPr { sml_CT_ObjectPr }?
3414 sml_CT_ObjectPr =
3415
3416 ## default value: true
3417 attribute locked { xsd:boolean }?,
3418
3419 ## default value: true
3420 attribute defaultSize { xsd:boolean }?,
3421
3422 ## default value: true
3423 attribute print { xsd:boolean }?,
3424
3425 ## default value: false
3426 attribute disabled { xsd:boolean }?,
3427
3428 ## default value: false
3429 attribute uiObject { xsd:boolean }?,
3430
3431 ## default value: true
3432 attribute autoFill { xsd:boolean }?,
3433
3434 ## default value: true
3435 attribute autoLine { xsd:boolean }?,
3436
3437 ## default value: true
3438 attribute autoPict { xsd:boolean }?,
3439 attribute macro { sml_ST_Formula }?,
3440 attribute altText { s_ST_Xstring }?,
3441
3442 ## default value: false
3443 attribute dde { xsd:boolean }?,
3444 r_id?,
3445 element anchor { sml_CT_ObjectAnchor }
3446 sml_ST_DvAspect = string "DVASPECT_CONTENT" | string "DVASPECT_ICON"
3447 sml_ST_OleUpdate = string "OLEUPDATE_ALWAYS" | string "OLEUPDATE_ONCALL"
3448 sml_CT_WebPublishItems =
3449   attribute count { xsd:unsignedInt }?,
3450   element webPublishItem { sml_CT_WebPublishItem }+
3451 sml_CT_WebPublishItem =
3452   attribute id { xsd:unsignedInt },
3453   attribute divId { s_ST_Xstring },
3454   attribute sourceType { sml_ST_WebSourceType },
3455   attribute sourceRef { sml_ST_Ref }?,
3456   attribute sourceObject { s_ST_Xstring }?,

```



```

3457     attribute destinationFile { s_ST_Xstring },
3458     attribute title { s_ST_Xstring }?,
3459
3460     ## default value: false
3461     attribute autoRepublish { xsd:boolean }?
3462 sml_CT_Controls = element control { sml_CT_Control }+
3463 sml_CT_Control =
3464     attribute shapeId { xsd:unsignedInt },
3465     r_id,
3466     attribute name { xsd:string }?,
3467     element controlPr { sml_CT_ControlPr }?
3468 sml_CT_ControlPr =
3469
3470     ## default value: true
3471     attribute locked { xsd:boolean }?,
3472
3473     ## default value: true
3474     attribute defaultSize { xsd:boolean }?,
3475
3476     ## default value: true
3477     attribute print { xsd:boolean }?,
3478
3479     ## default value: false
3480     attribute disabled { xsd:boolean }?,
3481
3482     ## default value: false
3483     attribute recalcAlways { xsd:boolean }?,
3484
3485     ## default value: false
3486     attribute uiObject { xsd:boolean }?,
3487
3488     ## default value: true
3489     attribute autoFill { xsd:boolean }?,
3490
3491     ## default value: true
3492     attribute autoLine { xsd:boolean }?,
3493
3494     ## default value: true
3495     attribute autoPict { xsd:boolean }?,
3496     attribute macro { sml_ST_Formula }?,
3497     attribute altText { s_ST_Xstring }?,
3498     attribute linkedCell { sml_ST_Formula }?,
3499     attribute listFillRange { sml_ST_Formula }?,
3500
3501     ## default value: pict
3502     attribute cf { s_ST_Xstring }?,
3503     r_id?,
3504     element anchor { sml_CT_ObjectAnchor }
3505 sml_ST_WebSourceType =
3506     string "sheet"
3507     | string "printArea"
3508     | string "autoFilter"
3509     | string "range"

```



```

3510 | string "chart"
3511 | string "pivotTable"
3512 | string "query"
3513 | string "label"
3514 sml_CT_IgnoredErrors =
3515     element ignoredError { sml_CT_IgnoredError }+,
3516     element extLst { sml_CT_ExtensionList }?
3517 sml_CT_IgnoredError =
3518     attribute sqref { sml_ST_Sqref },
3519
3520     ## default value: false
3521     attribute evalError { xsd:boolean }?,
3522
3523     ## default value: false
3524     attribute twoDigitTextYear { xsd:boolean }?,
3525
3526     ## default value: false
3527     attribute numberStoredAsText { xsd:boolean }?,
3528
3529     ## default value: false
3530     attribute formula { xsd:boolean }?,
3531
3532     ## default value: false
3533     attribute formulaRange { xsd:boolean }?,
3534
3535     ## default value: false
3536     attribute unlockedFormula { xsd:boolean }?,
3537
3538     ## default value: false
3539     attribute emptyCellReference { xsd:boolean }?,
3540
3541     ## default value: false
3542     attribute listDataValidation { xsd:boolean }?,
3543
3544     ## default value: false
3545     attribute calculatedColumn { xsd:boolean }?
3546 sml_ST_PaneState =
3547     string "split" | string "frozen" | string "frozenSplit"
3548 sml_CT_TableParts =
3549     attribute count { xsd:unsignedInt }?,
3550     element tablePart { sml_CT_TablePart }*
3551 sml_CT_TablePart = r_id
3552 sml_metadata = element metadata { sml_CT_Metadata }
3553 sml_CT_Metadata =
3554     element metadataTypes { sml_CT_MetadataTypes }?,
3555     element metadataStrings { sml_CT_MetadataStrings }?,
3556     element mdxMetadata { sml_CT_MdxMetadata }?,
3557     element futureMetadata { sml_CT_FutureMetadata }*,
3558     element cellMetadata { sml_CT_MetadataBlocks }?,
3559     element valueMetadata { sml_CT_MetadataBlocks }?,
3560     element extLst { sml_CT_ExtensionList }?
3561 sml_CT_MetadataTypes =
3562

```



```

3563   ## default value: 0
3564   attribute count { xsd:unsignedInt }?,
3565   element metadataType { sml_CT_MetadataType }+
3566 sml_CT_MetadataType =
3567   attribute name { s_ST_Xstring },
3568   attribute minSupportedVersion { xsd:unsignedInt },
3569
3570   ## default value: false
3571   attribute ghostRow { xsd:boolean }?,
3572
3573   ## default value: false
3574   attribute ghostCol { xsd:boolean }?,
3575
3576   ## default value: false
3577   attribute edit { xsd:boolean }?,
3578
3579   ## default value: false
3580   attribute delete { xsd:boolean }?,
3581
3582   ## default value: false
3583   attribute copy { xsd:boolean }?,
3584
3585   ## default value: false
3586   attribute pasteAll { xsd:boolean }?,
3587
3588   ## default value: false
3589   attribute pasteFormulas { xsd:boolean }?,
3590
3591   ## default value: false
3592   attribute pasteValues { xsd:boolean }?,
3593
3594   ## default value: false
3595   attribute pasteFormats { xsd:boolean }?,
3596
3597   ## default value: false
3598   attribute pasteComments { xsd:boolean }?,
3599
3600   ## default value: false
3601   attribute pasteDataValidation { xsd:boolean }?,
3602
3603   ## default value: false
3604   attribute pasteBorders { xsd:boolean }?,
3605
3606   ## default value: false
3607   attribute pasteColWidths { xsd:boolean }?,
3608
3609   ## default value: false
3610   attribute pasteNumberFormats { xsd:boolean }?,
3611
3612   ## default value: false
3613   attribute merge { xsd:boolean }?,
3614
3615   ## default value: false

```



```

3616 attribute splitFirst { xsd:boolean }?,
3617
3618 ## default value: false
3619 attribute splitAll { xsd:boolean }?,
3620
3621 ## default value: false
3622 attribute rowColShift { xsd:boolean }?,
3623
3624 ## default value: false
3625 attribute clearAll { xsd:boolean }?,
3626
3627 ## default value: false
3628 attribute clearFormats { xsd:boolean }?,
3629
3630 ## default value: false
3631 attribute clearContents { xsd:boolean }?,
3632
3633 ## default value: false
3634 attribute clearComments { xsd:boolean }?,
3635
3636 ## default value: false
3637 attribute assign { xsd:boolean }?,
3638
3639 ## default value: false
3640 attribute coerce { xsd:boolean }?,
3641
3642 ## default value: false
3643 attribute adjust { xsd:boolean }?,
3644
3645 ## default value: false
3646 attribute cellMeta { xsd:boolean }?
3647 sml_CT_MetadataBlocks =
3648
3649 ## default value: 0
3650 attribute count { xsd:unsignedInt }?,
3651 element bk { sml_CT_MetadataBlock }+
3652 sml_CT_MetadataBlock = element rc { sml_CT_MetadataRecord }+
3653 sml_CT_MetadataRecord =
3654   attribute t { xsd:unsignedInt },
3655   attribute v { xsd:unsignedInt }
3656 sml_CT_FutureMetadata =
3657   attribute name { s_ST_Xstring },
3658
3659 ## default value: 0
3660 attribute count { xsd:unsignedInt }?,
3661 element bk { sml_CT_FutureMetadataBlock }*,
3662 element extLst { sml_CT_ExtensionList }?
3663 sml_CT_FutureMetadataBlock = element extLst { sml_CT_ExtensionList }?
3664 sml_CT_MdxMetadata =
3665
3666 ## default value: 0
3667 attribute count { xsd:unsignedInt }?,
3668 element mdx { sml_CT_Mdx }+

```



```

3669 sml_CT_Mdx =
3670     attribute n { xsd:unsignedInt },
3671     attribute f { sml_ST_MdxFunctionType },
3672     (element t { sml_CT_MdxTuple }
3673       | element ms { sml_CT_MdxSet }
3674       | element p { sml_CT_MdxMemeberProp }
3675       | element k { sml_CT_MdxKPI })
3676 sml_ST_MdxFunctionType =
3677     string "m"
3678     | string "v"
3679     | string "s"
3680     | string "c"
3681     | string "r"
3682     | string "p"
3683     | string "k"
3684 sml_CT_MdxTuple =
3685
3686     ## default value: 0
3687     attribute c { xsd:unsignedInt }?,
3688     attribute ct { s_ST_Xstring }?,
3689     attribute si { xsd:unsignedInt }?,
3690     attribute fi { xsd:unsignedInt }?,
3691     attribute bc { sml_ST_UnsignedIntHex }?,
3692     attribute fc { sml_ST_UnsignedIntHex }?,
3693
3694     ## default value: false
3695     attribute i { xsd:boolean }?,
3696
3697     ## default value: false
3698     attribute u { xsd:boolean }?,
3699
3700     ## default value: false
3701     attribute st { xsd:boolean }?,
3702
3703     ## default value: false
3704     attribute b { xsd:boolean }?,
3705     element n { sml_CT_MetadataStringIndex }*
3706 sml_CT_MdxSet =
3707     attribute ns { xsd:unsignedInt },
3708
3709     ## default value: 0
3710     attribute c { xsd:unsignedInt }?,
3711
3712     ## default value: u
3713     attribute o { sml_ST_MdxSetOrder }?,
3714     element n { sml_CT_MetadataStringIndex }*
3715 sml_ST_MdxSetOrder =
3716     string "u"
3717     | string "a"
3718     | string "d"
3719     | string "aa"
3720     | string "ad"
3721     | string "na"

```



```

3722 | string "nd"
3723 sml_CT_MdxMemeberProp =
3724     attribute n { xsd:unsignedInt },
3725     attribute np { xsd:unsignedInt }
3726 sml_CT_MdxKPI =
3727     attribute n { xsd:unsignedInt },
3728     attribute np { xsd:unsignedInt },
3729     attribute p { sml_ST_MdxKPIProperty }
3730 sml_ST_MdxKPIProperty =
3731     string "v"
3732     | string "g"
3733     | string "s"
3734     | string "t"
3735     | string "w"
3736     | string "m"
3737 sml_CT_MetadadataStringIndex =
3738     attribute x { xsd:unsignedInt },
3739
3740     ## default value: false
3741     attribute s { xsd:boolean }?
3742 sml_CT_MetadadataStrings =
3743
3744     ## default value: 0
3745     attribute count { xsd:unsignedInt }?,
3746     element s { sml_CT_XStringElement }+
3747 sml_singleXmlCells = element singleXmlCells { sml_CT_SingleXmlCells }
3748 sml_CT_SingleXmlCells = element singleXmlCell { sml_CT_SingleXmlCell }+
3749 sml_CT_SingleXmlCell =
3750     attribute id { xsd:unsignedInt },
3751     attribute r { sml_ST_CellRef },
3752     attribute connectionId { xsd:unsignedInt },
3753     element xmlCellPr { sml_CT_XmlCellPr },
3754     element extLst { sml_CT_ExtensionList }?
3755 sml_CT_XmlCellPr =
3756     attribute id { xsd:unsignedInt },
3757     attribute uniqueName { s_ST_Xstring }?,
3758     element xmlPr { sml_CT_XmlPr },
3759     element extLst { sml_CT_ExtensionList }?
3760 sml_CT_XmlPr =
3761     attribute mapId { xsd:unsignedInt },
3762     attribute xpath { s_ST_Xstring },
3763     attribute xmlDataType { sml_ST_XmlDataType },
3764     element extLst { sml_CT_ExtensionList }?
3765 sml_styleSheet = element styleSheet { sml_CT_Stylesheet }
3766 sml_CT_Stylesheet =
3767     element numFmts { sml_CT_NumFmts }?,
3768     element fonts { sml_CT_Fonts }?,
3769     element fills { sml_CT_Fills }?,
3770     element borders { sml_CT_Borders }?,
3771     element cellStyleXfs { sml_CT_CellStyleXfs }?,
3772     element cellXfs { sml_CT_CellXfs }?,
3773     element cellStyles { sml_CT_CellStyles }?,
3774     element dxfs { sml_CT_Dxfs }?,

```



```

3775     element tableStyles { sml_CT_TableStyles }?,
3776     element colors { sml_CT_Colors }?,
3777     element extLst { sml_CT_ExtensionList }?
3778 sml_CT_CellAlignment =
3779     attribute horizontal { sml_ST_HorizontalAlignment }?,
3780     attribute vertical { sml_ST_VerticalAlignment }?,
3781     attribute textRotation { xsd:unsignedInt }?,
3782     attribute wrapText { xsd:boolean }?,
3783     attribute indent { xsd:unsignedInt }?,
3784     attribute relativeIndent { xsd:int }?,
3785     attribute justifyLastLine { xsd:boolean }?,
3786     attribute shrinkToFit { xsd:boolean }?,
3787     attribute readingOrder { xsd:unsignedInt }?
3788 sml_ST_BorderStyle =
3789     string "none"
3790     | string "thin"
3791     | string "medium"
3792     | string "dashed"
3793     | string "dotted"
3794     | string "thick"
3795     | string "double"
3796     | string "hair"
3797     | string "mediumDashed"
3798     | string "dashDot"
3799     | string "mediumDashDot"
3800     | string "dashDotDot"
3801     | string "mediumDashDotDot"
3802     | string "slantDashDot"
3803 sml_CT_Borders =
3804     attribute count { xsd:unsignedInt }?,
3805     element border { sml_CT_Border }*
3806 sml_CT_Border =
3807     attribute diagonalUp { xsd:boolean }?,
3808     attribute diagonalDown { xsd:boolean }?,
3809
3810     ## default value: true
3811     attribute outline { xsd:boolean }?,
3812     element start { sml_CT_BorderPr }?,
3813     element end { sml_CT_BorderPr }?,
3814     element left { sml_CT_BorderPr }?,
3815     element right { sml_CT_BorderPr }?,
3816     element top { sml_CT_BorderPr }?,
3817     element bottom { sml_CT_BorderPr }?,
3818     element diagonal { sml_CT_BorderPr }?,
3819     element vertical { sml_CT_BorderPr }?,
3820     element horizontal { sml_CT_BorderPr }?
3821 sml_CT_BorderPr =
3822
3823     ## default value: none
3824     attribute style { sml_ST_BorderStyle }?,
3825     element color { sml_CT_Color }?
3826 sml_CT_CellProtection =
3827     attribute locked { xsd:boolean }?,

```



```

3828     attribute hidden { xsd:boolean }?
3829 sml_CT_Fonts =
3830     attribute count { xsd:unsignedInt }?,
3831     element font { sml_CT_Font }*
3832 sml_CT_Fills =
3833     attribute count { xsd:unsignedInt }?,
3834     element fill { sml_CT_Fill }*
3835 sml_CT_Fill =
3836     element patternFill { sml_CT_PatternFill }?
3837     | element gradientFill { sml_CT_GradientFill }?
3838 sml_CT_PatternFill =
3839     attribute patternType { sml_ST_PatternType }?,
3840     element fgColor { sml_CT_Color }?,
3841     element bgColor { sml_CT_Color }?
3842 sml_CT_Color =
3843     attribute auto { xsd:boolean }?,
3844     attribute indexed { xsd:unsignedInt }?,
3845     attribute rgb { sml_ST_UnsignedIntHex }?,
3846     attribute theme { xsd:unsignedInt }?,
3847
3848     ## default value: 0.0
3849     attribute tint { xsd:double }?
3850 sml_ST_PatternType =
3851     string "none"
3852     | string "solid"
3853     | string "mediumGray"
3854     | string "darkGray"
3855     | string "lightGray"
3856     | string "darkHorizontal"
3857     | string "darkVertical"
3858     | string "darkDown"
3859     | string "darkUp"
3860     | string "darkGrid"
3861     | string "darkTrellis"
3862     | string "lightHorizontal"
3863     | string "lightVertical"
3864     | string "lightDown"
3865     | string "lightUp"
3866     | string "lightGrid"
3867     | string "lightTrellis"
3868     | string "gray125"
3869     | string "gray0625"
3870 sml_CT_GradientFill =
3871
3872     ## default value: linear
3873     attribute type { sml_ST_GradientType }?,
3874
3875     ## default value: 0
3876     attribute degree { xsd:double }?,
3877
3878     ## default value: 0
3879     attribute left { xsd:double }?,
3880

```



```

3881  ## default value: 0
3882  attribute right { xsd:double }?,
3883
3884  ## default value: 0
3885  attribute top { xsd:double }?,
3886
3887  ## default value: 0
3888  attribute bottom { xsd:double }?,
3889  element stop { sml_CT_GradientStop }*
3890 sml_CT_GradientStop =
3891   attribute position { xsd:double },
3892   element color { sml_CT_Color }
3893 sml_ST_GradientType = string "linear" | string "path"
3894 sml_ST_HorizontalAlignment =
3895   string "general"
3896   | string "left"
3897   | string "center"
3898   | string "right"
3899   | string "fill"
3900   | string "justify"
3901   | string "centerContinuous"
3902   | string "distributed"
3903 sml_ST_VerticalAlignment =
3904   string "top"
3905   | string "center"
3906   | string "bottom"
3907   | string "justify"
3908   | string "distributed"
3909 sml_CT_NumFmts =
3910   attribute count { xsd:unsignedInt }?,
3911   element numFmt { sml_CT_NumFmt }*
3912 sml_CT_NumFmt =
3913   attribute numFmtId { sml_ST_NumFmtId },
3914   attribute formatCode { s_ST_Xstring }
3915 sml_CT_CellStyleXfs =
3916   attribute count { xsd:unsignedInt }?,
3917   element xf { sml_CT_Xf }+
3918 sml_CT_CellXfs =
3919   attribute count { xsd:unsignedInt }?,
3920   element xf { sml_CT_Xf }+
3921 sml_CT_Xf =
3922   attribute numFmtId { sml_ST_NumFmtId }?,
3923   attribute fontId { sml_ST_FontId }?,
3924   attribute fillId { sml_ST_FillId }?,
3925   attribute borderId { sml_ST_BorderId }?,
3926   attribute xfId { sml_ST_CellStyleXfId }?,
3927
3928  ## default value: false
3929  attribute quotePrefix { xsd:boolean }?,
3930
3931  ## default value: false
3932  attribute pivotButton { xsd:boolean }?,
3933  attribute applyNumberFormat { xsd:boolean }?,

```



```

3934     attribute applyFont { xsd:boolean }?,
3935     attribute applyFill { xsd:boolean }?,
3936     attribute applyBorder { xsd:boolean }?,
3937     attribute applyAlignment { xsd:boolean }?,
3938     attribute applyProtection { xsd:boolean }?,
3939     element alignment { sml_CT_CellAlignment }?,
3940     element protection { sml_CT_CellProtection }?,
3941     element extLst { sml_CT_ExtensionList }?
3942 sml_CT_CellStyles =
3943     attribute count { xsd:unsignedInt }?,
3944     element cellStyle { sml_CT_CellStyle }+
3945 sml_CT_CellStyle =
3946     attribute name { s_ST_Xstring }?,
3947     attribute xfId { sml_ST_CellStyleXfId },
3948     attribute builtinId { xsd:unsignedInt }?,
3949     attribute iLevel { xsd:unsignedInt }?,
3950     attribute hidden { xsd:boolean }?,
3951     attribute customBuiltin { xsd:boolean }?,
3952     element extLst { sml_CT_ExtensionList }?
3953 sml_CT_Dxfs =
3954     attribute count { xsd:unsignedInt }?,
3955     element dxf { sml_CT_Dxf }*
3956 sml_CT_Dxf =
3957     element font { sml_CT_Font }?,
3958     element numFmt { sml_CT_NumFmt }?,
3959     element fill { sml_CT_Fill }?,
3960     element alignment { sml_CT_CellAlignment }?,
3961     element border { sml_CT_Border }?,
3962     element protection { sml_CT_CellProtection }?,
3963     element extLst { sml_CT_ExtensionList }?
3964 sml_ST_NumFmtId = xsd:unsignedInt
3965 sml_ST_FontId = xsd:unsignedInt
3966 sml_ST_FillId = xsd:unsignedInt
3967 sml_ST_BorderId = xsd:unsignedInt
3968 sml_ST_CellStyleXfId = xsd:unsignedInt
3969 sml_ST_DxfId = xsd:unsignedInt
3970 sml_CT_Colors =
3971     element indexedColors { sml_CT_IndexedColors }?,
3972     element mruColors { sml_CT_MRUColors }?
3973 sml_CT_IndexedColors = element rgbColor { sml_CT_RgbColor }+
3974 sml_CT_MRUColors = element color { sml_CT_Color }+
3975 sml_CT_RgbColor = attribute rgb { sml_ST_UnsignedIntHex }?
3976 sml_CT_TableStyles =
3977     attribute count { xsd:unsignedInt }?,
3978     attribute defaultTableStyle { xsd:string }?,
3979     attribute defaultPivotStyle { xsd:string }?,
3980     element tableStyle { sml_CT_TableStyle }*
3981 sml_CT_TableStyle =
3982     attribute name { xsd:string },
3983
3984     ## default value: true
3985     attribute pivot { xsd:boolean }?,
3986

```



```

3987   ## default value: true
3988   attribute table { xsd:boolean }?,
3989   attribute count { xsd:unsignedInt }?,
3990   element tableStyleElement { sml_CT_TableStyleElement }*
3991 sml_CT_TableStyleElement =
3992   attribute type { sml_ST_TableStyleType },
3993
3994   ## default value: 1
3995   attribute size { xsd:unsignedInt }?,
3996   attribute dxId { sml_ST_DxfId }?
3997 sml_ST_TableStyleType =
3998   string "wholeTable"
3999   | string "headerRow"
4000   | string "totalRow"
4001   | string "firstColumn"
4002   | string "lastColumn"
4003   | string "firstRowStripe"
4004   | string "secondRowStripe"
4005   | string "firstColumnStripe"
4006   | string "secondColumnStripe"
4007   | string "firstHeaderCell"
4008   | string "lastHeaderCell"
4009   | string "firstTotalCell"
4010   | string "lastTotalCell"
4011   | string "firstSubtotalColumn"
4012   | string "secondSubtotalColumn"
4013   | string "thirdSubtotalColumn"
4014   | string "firstSubtotalRow"
4015   | string "secondSubtotalRow"
4016   | string "thirdSubtotalRow"
4017   | string "blankRow"
4018   | string "firstColumnSubheading"
4019   | string "secondColumnSubheading"
4020   | string "thirdColumnSubheading"
4021   | string "firstRowSubheading"
4022   | string "secondRowSubheading"
4023   | string "thirdRowSubheading"
4024   | string "pageFieldLabels"
4025   | string "pageFieldValues"
4026 sml_CT_BooleanProperty =
4027
4028   ## default value: true
4029   attribute val { xsd:boolean }?
4030 sml_CT_FontSize = attribute val { xsd:double }
4031 sml_CT_IntProperty = attribute val { xsd:int }
4032 sml_CT_FontName = attribute val { s_ST_Xstring }
4033 sml_CT_VerticalAlignFontProperty =
4034   attribute val { s_ST_VerticalAlignRun }
4035 sml_CT_FontScheme = attribute val { sml_ST_FontScheme }
4036 sml_ST_FontScheme = string "none" | string "major" | string "minor"
4037 sml_CT_UnderlineProperty =
4038
4039   ## default value: single

```



```

4040     attribute val { sml_ST_UnderlineValues }?
4041 sml_ST_UnderlineValues =
4042     string "single"
4043     | string "double"
4044     | string "singleAccounting"
4045     | string "doubleAccounting"
4046     | string "none"
4047 sml_CT_Font =
4048     (element name { sml_CT_FontName }?
4049     | element charset { sml_CT_IntProperty }?
4050     | element family { sml_CT_FontFamily}?
4051     | element b { sml_CT_BooleanProperty }?
4052     | element i { sml_CT_BooleanProperty }?
4053     | element strike { sml_CT_BooleanProperty }?
4054     | element outline { sml_CT_BooleanProperty }?
4055     | element shadow { sml_CT_BooleanProperty }?
4056     | element condense { sml_CT_BooleanProperty }?
4057     | element extend { sml_CT_BooleanProperty }?
4058     | element color { sml_CT_Color }?
4059     | element sz { sml_CT_FontSize }?
4060     | element u { sml_CT_UnderlineProperty }?
4061     | element vertAlign { sml_CT_VerticalAlignFontProperty }?
4062     | element scheme { sml_CT_FontScheme }?)+
4063 sml_CT_FontFamily = attribute val { sml_ST_FontFamily }
4064 sml_ST_FontFamily = xsd:integer { minInclusive = "0" maxInclusive = "14" }
4065 sml_AG_AutoFormat =
4066     attribute autoFormatId { xsd:unsignedInt }?,
4067     attribute applyNumberFormats { xsd:boolean }?,
4068     attribute applyBorderFormats { xsd:boolean }?,
4069     attribute applyFontFormats { xsd:boolean }?,
4070     attribute applyPatternFormats { xsd:boolean }?,
4071     attribute applyAlignmentFormats { xsd:boolean }?,
4072     attribute applyWidthHeightFormats { xsd:boolean }?
4073 sml_externallink = element externalLink { sml_CT_ExternalLink }
4074 sml_CT_ExternalLink =
4075     (element externalBook { sml_CT_ExternalBook }?
4076     | element ddeLink { sml_CT_DdeLink }?
4077     | element oleLink { sml_CT_OleLink }?),
4078     element extLst { sml_CT_ExtensionList }?
4079 sml_CT_ExternalBook =
4080     r_id,
4081     element sheetNames { sml_CT_ExternalSheetNames }?,
4082     element definedNames { sml_CT_ExternalDefinedNames }?,
4083     element sheetDataSet { sml_CT_ExternalSheetDataSet }?
4084 sml_CT_ExternalSheetNames =
4085     element sheetName { sml_CT_ExternalSheetName }+
4086 sml_CT_ExternalSheetName = attribute val { s_ST_Xstring }?
4087 sml_CT_ExternalDefinedNames =
4088     element definedName { sml_CT_ExternalDefinedName }*
4089 sml_CT_ExternalDefinedName =
4090     attribute name { s_ST_Xstring },
4091     attribute refersTo { s_ST_Xstring }?,
4092     attribute sheetId { xsd:unsignedInt }?

```



```

4093 sml_CT_ExternalSheetDataSet =
4094     element sheetData { sml_CT_ExternalSheetData }+
4095 sml_CT_ExternalSheetData =
4096     attribute sheetId { xsd:unsignedInt },
4097
4098     ## default value: false
4099     attribute refreshError { xsd:boolean }?,
4100     element row { sml_CT_ExternalRow }*
4101 sml_CT_ExternalRow =
4102     attribute r { xsd:unsignedInt },
4103     element cell { sml_CT_ExternalCell }*
4104 sml_CT_ExternalCell =
4105     attribute r { sml_ST_CellRef }?,
4106
4107     ## default value: n
4108     attribute t { sml_ST_CellType }?,
4109
4110     ## default value: 0
4111     attribute vm { xsd:unsignedInt }?,
4112     element v { s_ST_Xstring }?
4113 sml_CT_DdeLink =
4114     attribute ddeService { s_ST_Xstring },
4115     attribute ddeTopic { s_ST_Xstring },
4116     element ddeItems { sml_CT_DdeItems }?
4117 sml_CT_DdeItems = element ddeItem { sml_CT_DdeItem }*
4118 sml_CT_DdeItem =
4119
4120     ## default value: 0
4121     attribute name { s_ST_Xstring }?,
4122
4123     ## default value: false
4124     attribute ole { xsd:boolean }?,
4125
4126     ## default value: false
4127     attribute advise { xsd:boolean }?,
4128
4129     ## default value: false
4130     attribute preferPic { xsd:boolean }?,
4131     element values { sml_CT_DdeValues }?
4132 sml_CT_DdeValues =
4133
4134     ## default value: 1
4135     attribute rows { xsd:unsignedInt }?,
4136
4137     ## default value: 1
4138     attribute cols { xsd:unsignedInt }?,
4139     element value { sml_CT_DdeValue }+
4140 sml_CT_DdeValue =
4141
4142     ## default value: n
4143     attribute t { sml_ST_DdeValueType }?,
4144     element val { s_ST_Xstring }
4145 sml_ST_DdeValueType =

```



```

4146     string "nil" | string "b" | string "n" | string "e" | string "str"
4147 sml_CT_OleLink =
4148     r_id,
4149     attribute progId { s_ST_Xstring },
4150     element oleItems { sml_CT_OleItems }?
4151 sml_CT_OleItems = element oleItem { sml_CT_OleItem }*
4152 sml_CT_OleItem =
4153     attribute name { s_ST_Xstring },
4154
4155     ## default value: false
4156     attribute icon { xsd:boolean }?,
4157
4158     ## default value: false
4159     attribute advise { xsd:boolean }?,
4160
4161     ## default value: false
4162     attribute preferPic { xsd:boolean }?
4163 sml_table = element table { sml_CT_Table }
4164 sml_CT_Table =
4165     attribute id { xsd:unsignedInt },
4166     attribute name { s_ST_Xstring }?,
4167     attribute displayName { s_ST_Xstring },
4168     attribute comment { s_ST_Xstring }?,
4169     attribute ref { sml_ST_Ref },
4170
4171     ## default value: worksheet
4172     attribute tableType { sml_ST_TableType }?,
4173
4174     ## default value: 1
4175     attribute headerRowCount { xsd:unsignedInt }?,
4176
4177     ## default value: false
4178     attribute insertRow { xsd:boolean }?,
4179
4180     ## default value: false
4181     attribute insertRowShift { xsd:boolean }?,
4182
4183     ## default value: 0
4184     attribute totalsRowCount { xsd:unsignedInt }?,
4185
4186     ## default value: true
4187     attribute totalsRowShown { xsd:boolean }?,
4188
4189     ## default value: false
4190     attribute published { xsd:boolean }?,
4191     attribute headerRowDxfId { sml_ST_DxfId }?,
4192     attribute dataDxfId { sml_ST_DxfId }?,
4193     attribute totalsRowDxfId { sml_ST_DxfId }?,
4194     attribute headerRowBorderDxfId { sml_ST_DxfId }?,
4195     attribute tableBorderDxfId { sml_ST_DxfId }?,
4196     attribute totalsRowBorderDxfId { sml_ST_DxfId }?,
4197     attribute headerRowCellStyle { s_ST_Xstring }?,
4198     attribute dataCellStyle { s_ST_Xstring }?,

```



```

4199     attribute totalsRowCellStyle { s_ST_Xstring }?,
4200     attribute connectionId { xsd:unsignedInt }?,
4201     element autoFilter { sml_CT_AutoFilter }?,
4202     element sortState { sml_CT_SortState }?,
4203     element tableColumns { sml_CT_TableColumns },
4204     element tableStyleInfo { sml_CT_TableStyleInfo }?,
4205     element extLst { sml_CT_ExtensionList }?
4206 sml_ST_TableType =
4207     string "worksheet" | string "xml" | string "queryTable"
4208 sml_CT_TableStyleInfo =
4209     attribute name { s_ST_Xstring }?,
4210     attribute showFirstColumn { xsd:boolean }?,
4211     attribute showLastColumn { xsd:boolean }?,
4212     attribute showRowStripes { xsd:boolean }?,
4213     attribute showColumnStripes { xsd:boolean }?
4214 sml_CT_TableColumns =
4215     attribute count { xsd:unsignedInt }?,
4216     element tableColumn { sml_CT_TableColumn }+
4217 sml_CT_TableColumn =
4218     attribute id { xsd:unsignedInt },
4219     attribute uniqueName { s_ST_Xstring }?,
4220     attribute name { s_ST_Xstring },
4221
4222     ## default value: none
4223     attribute totalsRowFunction { sml_ST_TotalsRowFunction }?,
4224     attribute totalsRowLabel { s_ST_Xstring }?,
4225     attribute queryTableFieldId { xsd:unsignedInt }?,
4226     attribute headerRowDxfId { sml_ST_DxfId }?,
4227     attribute dataDxfId { sml_ST_DxfId }?,
4228     attribute totalsRowDxfId { sml_ST_DxfId }?,
4229     attribute headerRowCellStyle { s_ST_Xstring }?,
4230     attribute dataCellStyle { s_ST_Xstring }?,
4231     attribute totalsRowCellStyle { s_ST_Xstring }?,
4232     element calculatedColumnFormula { sml_CT_TableFormula }?,
4233     element totalsRowFormula { sml_CT_TableFormula }?,
4234     element xmlColumnPr { sml_CT_XmlColumnPr }?,
4235     element extLst { sml_CT_ExtensionList }?
4236 sml_CT_TableFormula =
4237     sml_ST_Formula,
4238
4239     ## default value: false
4240     attribute array { xsd:boolean }?
4241 sml_ST_TotalsRowFunction =
4242     string "none"
4243     | string "sum"
4244     | string "min"
4245     | string "max"
4246     | string "average"
4247     | string "count"
4248     | string "countNums"
4249     | string "stdDev"
4250     | string "var"
4251     | string "custom"

```



```

4252 sml_CT_XmlColumnPr =
4253     attribute mapId { xsd:unsignedInt },
4254     attribute xpath { s_ST_Xstring },
4255
4256     ## default value: false
4257     attribute denormalized { xsd:boolean }?,
4258     attribute xmlDataType { sml_ST_XmlDataType },
4259     element extLst { sml_CT_ExtensionList }?
4260 sml_ST_XmlDataType = xsd:string
4261 sml_volTypes = element volTypes { sml_CT_VolTypes }
4262 sml_CT_VolTypes =
4263     element volType { sml_CT_VolType }+,
4264     element extLst { sml_CT_ExtensionList }?
4265 sml_CT_VolType =
4266     attribute type { sml_ST_VolDepType },
4267     element main { sml_CT_VolMain }+
4268 sml_CT_VolMain =
4269     attribute first { s_ST_Xstring },
4270     element tp { sml_CT_VolTopic }+
4271 sml_CT_VolTopic =
4272
4273     ## default value: n
4274     attribute t { sml_ST_VolValueType }?,
4275     element v { s_ST_Xstring },
4276     element stp { s_ST_Xstring }*,
4277     element tr { sml_CT_VolTopicRef }+
4278 sml_CT_VolTopicRef =
4279     attribute r { sml_ST_CellRef },
4280     attribute s { xsd:unsignedInt }
4281 sml_ST_VolDepType = string "realTimeData" | string "olapFunctions"
4282 sml_ST_VolValueType = string "b" | string "n" | string "e" | string "s"
4283 sml_workbook = element workbook { sml_CT_Workbook }
4284 sml_CT_Workbook =
4285     attribute conformance { s_ST_ConformanceClass }?,
4286     element fileVersion { sml_CT_FileVersion }?,
4287     element fileSharing { sml_CT_FileSharing }?,
4288     element workbookPr { sml_CT_WorkbookPr }?,
4289     element workbookProtection { sml_CT_WorkbookProtection }?,
4290     element bookViews { sml_CT_BookViews }?,
4291     element sheets { sml_CT_Sheets },
4292     element functionGroups { sml_CT_FunctionGroups }?,
4293     element externalReferences { sml_CT_ExternalReferences }?,
4294     element definedNames { sml_CT_DefinedNames }?,
4295     element calcPr { sml_CT_CalcPr }?,
4296     element oleSize { sml_CT_OleSize }?,
4297     element customWorkbookViews { sml_CT_CustomWorkbookViews }?,
4298     element pivotCaches { sml_CT_PivotCaches }?,
4299     element smartTagPr { sml_CT_SmartTagPr }?,
4300     element smartTagTypes { sml_CT_SmartTagTypes }?,
4301     element webPublishing { sml_CT_WebPublishing }?,
4302     element fileRecoveryPr { sml_CT_FileRecoveryPr }*,
4303     element webPublishObjects { sml_CT_WebPublishObjects }?,
4304     element extLst { sml_CT_ExtensionList }?

```



```

4305 sml_CT_FileVersion =
4306     attribute appName { xsd:string }?,
4307     attribute lastEdited { xsd:string }?,
4308     attribute lowestEdited { xsd:string }?,
4309     attribute rupBuild { xsd:string }?,
4310     attribute codeName { s_ST_Guid }?
4311 sml_CT_BookViews = element workbookView { sml_CT_BookView }+
4312 sml_CT_BookView =
4313
4314     ## default value: visible
4315     attribute visibility { sml_ST_Visibility }?,
4316
4317     ## default value: false
4318     attribute minimized { xsd:boolean }?,
4319
4320     ## default value: true
4321     attribute showHorizontalScroll { xsd:boolean }?,
4322
4323     ## default value: true
4324     attribute showVerticalScroll { xsd:boolean }?,
4325
4326     ## default value: true
4327     attribute showSheetTabs { xsd:boolean }?,
4328     attribute xWindow { xsd:int }?,
4329     attribute yWindow { xsd:int }?,
4330     attribute windowWidth { xsd:unsignedInt }?,
4331     attribute windowHeight { xsd:unsignedInt }?,
4332
4333     ## default value: 600
4334     attribute tabRatio { xsd:unsignedInt }?,
4335
4336     ## default value: 0
4337     attribute firstSheet { xsd:unsignedInt }?,
4338
4339     ## default value: 0
4340     attribute activeTab { xsd:unsignedInt }?,
4341
4342     ## default value: true
4343     attribute autoFilterDateGrouping { xsd:boolean }?,
4344     element extLst { sml_CT_ExtensionList }?
4345 sml_ST_Visibility =
4346     string "visible" | string "hidden" | string "veryHidden"
4347 sml_CT_CustomWorkbookViews =
4348     element customWorkbookView { sml_CT_CustomWorkbookView }+
4349 sml_CT_CustomWorkbookView =
4350     attribute name { s_ST_Xstring },
4351     attribute guid { s_ST_Guid },
4352
4353     ## default value: false
4354     attribute autoUpdate { xsd:boolean }?,
4355     attribute mergeInterval { xsd:unsignedInt }?,
4356
4357     ## default value: false

```



```

4358 attribute changesSavedWin { xsd:boolean }?,
4359
4360 ## default value: false
4361 attribute onlySync { xsd:boolean }?,
4362
4363 ## default value: false
4364 attribute personalView { xsd:boolean }?,
4365
4366 ## default value: true
4367 attribute includePrintSettings { xsd:boolean }?,
4368
4369 ## default value: true
4370 attribute includeHiddenRowCol { xsd:boolean }?,
4371
4372 ## default value: false
4373 attribute maximized { xsd:boolean }?,
4374
4375 ## default value: false
4376 attribute minimized { xsd:boolean }?,
4377
4378 ## default value: true
4379 attribute showHorizontalScroll { xsd:boolean }?,
4380
4381 ## default value: true
4382 attribute showVerticalScroll { xsd:boolean }?,
4383
4384 ## default value: true
4385 attribute showSheetTabs { xsd:boolean }?,
4386
4387 ## default value: 0
4388 attribute xWindow { xsd:int }?,
4389
4390 ## default value: 0
4391 attribute yWindow { xsd:int }?,
4392 attribute windowWidth { xsd:unsignedInt },
4393 attribute windowHeight { xsd:unsignedInt },
4394
4395 ## default value: 600
4396 attribute tabRatio { xsd:unsignedInt }?,
4397 attribute activeSheetId { xsd:unsignedInt },
4398
4399 ## default value: true
4400 attribute showFormulaBar { xsd:boolean }?,
4401
4402 ## default value: true
4403 attribute showStatusbar { xsd:boolean }?,
4404
4405 ## default value: commIndicator
4406 attribute showComments { sml_ST_Comments }?,
4407
4408 ## default value: all
4409 attribute showObjects { sml_ST_Objects }?,
4410 element extLst { sml_CT_ExtensionList }?

```



```

4411 sml_ST_Comments =
4412     string "commNone"
4413     | string "commIndicator"
4414     | string "commIndAndComment"
4415 sml_ST_Objects = string "all" | string "placeholders" | string "none"
4416 sml_CT_Sheets = element sheet { sml_CT_Sheet }+
4417 sml_CT_Sheet =
4418     attribute name { s_ST_Xstring },
4419     attribute sheetId { xsd:unsignedInt },
4420
4421     ## default value: visible
4422     attribute state { sml_ST_SheetState }?,
4423     r_id
4424 sml_ST_SheetState =
4425     string "visible" | string "hidden" | string "veryHidden"
4426 sml_CT_WorkbookPr =
4427
4428     ## default value: false
4429     attribute date1904 { xsd:boolean }?,
4430
4431     ## default value: all
4432     attribute showObjects { sml_ST_Objects }?,
4433
4434     ## default value: true
4435     attribute showBorderUnselectedTables { xsd:boolean }?,
4436
4437     ## default value: false
4438     attribute filterPrivacy { xsd:boolean }?,
4439
4440     ## default value: false
4441     attribute promptedSolutions { xsd:boolean }?,
4442
4443     ## default value: true
4444     attribute showInkAnnotation { xsd:boolean }?,
4445
4446     ## default value: false
4447     attribute backupFile { xsd:boolean }?,
4448
4449     ## default value: true
4450     attribute saveExternalLinkValues { xsd:boolean }?,
4451
4452     ## default value: userSet
4453     attribute updateLinks { sml_ST_UpdateLinks }?,
4454     attribute codeName { xsd:string }?,
4455
4456     ## default value: false
4457     attribute hidePivotFieldList { xsd:boolean }?,
4458
4459     ## default value: false
4460     attribute showPivotChartFilter { xsd:boolean }?,
4461
4462     ## default value: false
4463     attribute allowRefreshQuery { xsd:boolean }?,

```



```

4464
4465     ## default value: false
4466     attribute publishItems { xsd:boolean }?,
4467
4468     ## default value: false
4469     attribute checkCompatibility { xsd:boolean }?,
4470
4471     ## default value: true
4472     attribute autoCompressPictures { xsd:boolean }?,
4473
4474     ## default value: false
4475     attribute refreshAllConnections { xsd:boolean }?,
4476     attribute defaultThemeVersion { xsd:unsignedInt }?
4477 sml_ST_UpdateLinks = string "userSet" | string "never" | string "always"
4478 sml_CT_SmartTagPr =
4479
4480     ## default value: false
4481     attribute embed { xsd:boolean }?,
4482
4483     ## default value: all
4484     attribute show { sml_ST_SmartTagShow }?
4485 sml_ST_SmartTagShow =
4486     string "all" | string "none" | string "noIndicator"
4487 sml_CT_SmartTagTypes = element smartTagType { sml_CT_SmartTagType }*
4488 sml_CT_SmartTagType =
4489     attribute namespaceUri { s_ST_Xstring }?,
4490     attribute name { s_ST_Xstring }?,
4491     attribute url { s_ST_Xstring }?
4492 sml_CT_FileRecoveryPr =
4493
4494     ## default value: true
4495     attribute autoRecover { xsd:boolean }?,
4496
4497     ## default value: false
4498     attribute crashSave { xsd:boolean }?,
4499
4500     ## default value: false
4501     attribute dataExtractLoad { xsd:boolean }?,
4502
4503     ## default value: false
4504     attribute repairLoad { xsd:boolean }?
4505 sml_CT_CalcPr =
4506     attribute calcId { xsd:unsignedInt }?,
4507
4508     ## default value: auto
4509     attribute calcMode { sml_ST_CalcMode }?,
4510
4511     ## default value: false
4512     attribute fullCalcOnLoad { xsd:boolean }?,
4513
4514     ## default value: A1
4515     attribute refMode { sml_ST_RefMode }?,
4516

```



```

4517 ## default value: false
4518 attribute iterate { xsd:boolean }?,
4519
4520 ## default value: 100
4521 attribute iterateCount { xsd:unsignedInt }?,
4522
4523 ## default value: 0.001
4524 attribute iterateDelta { xsd:double }?,
4525
4526 ## default value: true
4527 attribute fullPrecision { xsd:boolean }?,
4528
4529 ## default value: true
4530 attribute calcCompleted { xsd:boolean }?,
4531
4532 ## default value: true
4533 attribute calcOnSave { xsd:boolean }?,
4534
4535 ## default value: true
4536 attribute concurrentCalc { xsd:boolean }?,
4537 attribute concurrentManualCount { xsd:unsignedInt }?,
4538 attribute forceFullCalc { xsd:boolean }?
4539 sml_ST_CalcMode = string "manual" | string "auto" | string "autoNoTable"
4540 sml_ST_RefMode = string "A1" | string "R1C1"
4541 sml_CT_DefinedNames = element definedName { sml_CT_DefinedName }*
4542 sml_CT_DefinedName =
4543     sml_ST_Formula,
4544     attribute name { s_ST_Xstring },
4545     attribute comment { s_ST_Xstring }?,
4546     attribute customMenu { s_ST_Xstring }?,
4547     attribute description { s_ST_Xstring }?,
4548     attribute help { s_ST_Xstring }?,
4549     attribute statusBar { s_ST_Xstring }?,
4550     attribute localSheetId { xsd:unsignedInt }?,
4551
4552 ## default value: false
4553 attribute hidden { xsd:boolean }?,
4554
4555 ## default value: false
4556 attribute function { xsd:boolean }?,
4557
4558 ## default value: false
4559 attribute vbProcedure { xsd:boolean }?,
4560
4561 ## default value: false
4562 attribute xlm { xsd:boolean }?,
4563 attribute functionGroupId { xsd:unsignedInt }?,
4564 attribute shortcutKey { s_ST_Xstring }?,
4565
4566 ## default value: false
4567 attribute publishToServer { xsd:boolean }?,
4568
4569 ## default value: false

```



```

4570     attribute workbookParameter { xsd:boolean }?
4571 sml_CT_ExternalReferences =
4572     element externalReference { sml_CT_ExternalReference }+
4573 sml_CT_ExternalReference = r_id
4574 sml_CT_SheetBackgroundPicture = r_id
4575 sml_CT_PivotCaches = element pivotCache { sml_CT_PivotCache }+
4576 sml_CT_PivotCache =
4577     attribute cacheId { xsd:unsignedInt },
4578     r_id
4579 sml_CT_FileSharing =
4580
4581     ## default value: false
4582     attribute readOnlyRecommended { xsd:boolean }?,
4583     attribute userName { s_ST_Xstring }?,
4584     attribute reservationPassword { sml_ST_UnsignedShortHex }?,
4585     attribute algorithmName { s_ST_Xstring }?,
4586     attribute hashValue { xsd:base64Binary }?,
4587     attribute saltValue { xsd:base64Binary }?,
4588     attribute spinCount { xsd:unsignedInt }?
4589 sml_CT_OleSize = attribute ref { sml_ST_Ref }
4590 sml_CT_WorkbookProtection =
4591     attribute workbookPassword { sml_ST_UnsignedShortHex }?,
4592     attribute workbookPasswordCharacterSet { xsd:string }?,
4593     attribute revisionsPassword { sml_ST_UnsignedShortHex }?,
4594     attribute revisionsPasswordCharacterSet { xsd:string }?,
4595
4596     ## default value: false
4597     attribute lockStructure { xsd:boolean }?,
4598
4599     ## default value: false
4600     attribute lockWindows { xsd:boolean }?,
4601
4602     ## default value: false
4603     attribute lockRevision { xsd:boolean }?,
4604     attribute revisionsAlgorithmName { s_ST_Xstring }?,
4605     attribute revisionsHashValue { xsd:base64Binary }?,
4606     attribute revisionsSaltValue { xsd:base64Binary }?,
4607     attribute revisionsSpinCount { xsd:unsignedInt }?,
4608     attribute workbookAlgorithmName { s_ST_Xstring }?,
4609     attribute workbookHashValue { xsd:base64Binary }?,
4610     attribute workbookSaltValue { xsd:base64Binary }?,
4611     attribute workbookSpinCount { xsd:unsignedInt }?
4612 sml_CT_WebPublishing =
4613
4614     ## default value: true
4615     attribute css { xsd:boolean }?,
4616
4617     ## default value: true
4618     attribute thicket { xsd:boolean }?,
4619
4620     ## default value: true
4621     attribute longFileNames { xsd:boolean }?,
4622

```



```

4623  ## default value: false
4624  attribute vml { xsd:boolean }?,
4625
4626  ## default value: false
4627  attribute allowPng { xsd:boolean }?,
4628
4629  ## default value: 800x600
4630  attribute targetScreenSize { sml_ST_TargetScreenSize }?,
4631
4632  ## default value: 96
4633  attribute dpi { xsd:unsignedInt }?,
4634  attribute codePage { xsd:unsignedInt }?,
4635  attribute characterSet { xsd:string }?
4636  sml_ST_TargetScreenSize =
4637    string "544x376"
4638    | string "640x480"
4639    | string "720x512"
4640    | string "800x600"
4641    | string "1024x768"
4642    | string "1152x882"
4643    | string "1152x900"
4644    | string "1280x1024"
4645    | string "1600x1200"
4646    | string "1800x1440"
4647    | string "1920x1200"
4648  sml_CT_FunctionGroups =
4649
4650  ## default value: 16
4651  attribute builtInGroupCount { xsd:unsignedInt }?,
4652  element functionGroup { sml_CT_FunctionGroup }*
4653  sml_CT_FunctionGroup = attribute name { s_ST_Xstring }?
4654  sml_CT_WebPublishObjects =
4655    attribute count { xsd:unsignedInt }?,
4656    element webPublishObject { sml_CT_WebPublishObject }+
4657  sml_CT_WebPublishObject =
4658    attribute id { xsd:unsignedInt },
4659    attribute divId { s_ST_Xstring },
4660    attribute sourceObject { s_ST_Xstring }?,
4661    attribute destinationFile { s_ST_Xstring },
4662    attribute title { s_ST_Xstring }?,
4663
4664  ## default value: false
4665  attribute autoRepublish { xsd:boolean }?

```

## B.3.1 Part Schemas

### B.3.1.1 Calculation Chain Part

This schema is available in the file SpreadsheetML\_Calculation\_Chain.rnc.

```

1  include "sml.rnc"
2  include "shared-relationshipReference.rnc"
3  include "any.rnc"

```



```

4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_calcChain

```

### B.3.1.2 Chartsheet Part

This schema is available in the file SpreadsheetML\_Chartsheet.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_chartsheet

```

### B.3.1.3 Comments Part

This schema is available in the file SpreadsheetML\_Comments.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_comments

```

### B.3.1.4 Connections Part

This schema is available in the file SpreadsheetML\_Connections.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"

```



```

7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_connections

```

### B.3.1.5 Custom XML Mappings Part

This schema is available in the file SpreadsheetML\_Custom\_XML\_Mappings.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_MapInfo

```

### B.3.1.6 Dialogsheet Part

This schema is available in the file SpreadsheetML\_Dialogsheet.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_dialogsheet

```

### B.3.1.7 Drawing Part

This schema is available in the file SpreadsheetML\_Drawing.rnc.

```

1 include "dml-spreadsheetDrawing.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-main.rnc"
4 include "dml-diagram.rnc"
5 include "shared-commonSimpleTypes.rnc"
6 include "dml-lockedCanvas.rnc"
7 include "any.rnc"
8 include "dml-chart.rnc"
9 include "dml-chartDrawing.rnc"

```



```

10 include "dml-picture.rnc"
11 start = xdr_wsDr

```

### B.3.1.8 External Workbook References Part

This schema is available in the file SpreadsheetML\_External\_Workbook\_References.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_externalLink

```

### B.3.1.9 Metadata Part

This schema is available in the file SpreadsheetML\_Metadata.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_metadata

```

### B.3.1.10 Pivot Table Part

This schema is available in the file SpreadsheetML\_Pivot\_Table.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_pivotTableDefinition

```



### B.3.1.11 Pivot Table Cache Definition Part

This schema is available in the file SpreadsheetML\_Pivot\_Table\_Cache\_Definition.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_pivotCacheDefinition

```

### B.3.1.12 Pivot Table Cache Records Part

This schema is available in the file SpreadsheetML\_Pivot\_Table\_Cache\_Records.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_pivotCacheRecords

```

### B.3.1.13 Query Table Part

This schema is available in the file SpreadsheetML\_Query\_Table.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_queryTable

```

### B.3.1.14 Shared String Table Part

This schema is available in the file SpreadsheetML\_Shared\_String\_Table.rnc.



```

15 include "sml.rnc"
16 include "shared-relationshipReference.rnc"
17 include "any.rnc"
18 include "shared-commonSimpleTypes.rnc"
19 include "dml-spreadsheetDrawing.rnc"
20 include "dml-main.rnc"
21 include "dml-diagram.rnc"
22 include "dml-lockedCanvas.rnc"
23 include "dml-chart.rnc"
24 include "dml-chartDrawing.rnc"
25 include "dml-picture.rnc"
26 include "dml-compatibility.rnc"
27 start = sml_sst

```

### B.3.1.15 Shared Workbook Revision Headers Part

This schema is available in the file SpreadsheetML\_Shared\_Workbook\_Revision\_Headers.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_headers

```

### B.3.1.16 Shared Workbook Revision Log Part

This schema is available in the file SpreadsheetML\_Shared\_Workbook\_Revision\_Log.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_revisions

```

### B.3.1.17 Shared Workbook User Data Part

This schema is available in the file SpreadsheetML\_Shared\_Workbook\_User\_Data.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"

```



```

3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_users

```

### B.3.1.18 Single Cell Table Definitions Part

This schema is available in the file SpreadsheetML\_Single\_Cell\_Table\_Definitions.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_singleXmlCells

```

### B.3.1.19 Styles Part

This schema is available in the file SpreadsheetML\_Styles.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_styleSheet

```

### B.3.1.20 Table Definitions Part

This schema is available in the file SpreadsheetML\_Table\_Definitions.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"

```



```

6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_table

```

### B.3.1.21 Volatile Dependencies Part

This schema is available in the file SpreadsheetML\_Volatile\_Dependencies.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_volTypes

```

### B.3.1.22 Workbook Part

This schema is available in the file SpreadsheetML\_Workbook.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"
9 include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_workbook

```

### B.3.1.23 Worksheet Part

This schema is available in the file SpreadsheetML\_Worksheet.rnc.

```

1 include "sml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "any.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-spreadsheetDrawing.rnc"
6 include "dml-main.rnc"
7 include "dml-diagram.rnc"
8 include "dml-lockedCanvas.rnc"

```



```

9  include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 start = sml_worksheet

```

## B.4 PresentationML

This schema is available in the file pml.rnc.

```

1  default namespace =
2    "http://schemas.openxmlformats.org/presentationml/2006/main"
3  namespace a = "http://schemas.openxmlformats.org/drawingml/2006/main"
4  namespace o = "urn:schemas-microsoft-com:office:office"
5  namespace p =
6    "http://schemas.openxmlformats.org/presentationml/2006/main"
7  namespace r =
8    "http://schemas.openxmlformats.org/officeDocument/2006/relationships"
9  namespace s =
10   "http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
11  namespace v = "urn:schemas-microsoft-com:vml"
12  namespace w10 = "urn:schemas-microsoft-com:office:word"
13  namespace x = "urn:schemas-microsoft-com:office:excel"
14
15  p_ST_TransitionSideDirectionType = "l" | "u" | "r" | "d"
16  p_ST_TransitionCornerDirectionType = "lu" | "ru" | "ld" | "rd"
17  p_ST_TransitionInOutDirectionType = "out" | "in"
18  p_CT_SideDirectionTransition =
19
20   ## default value: l
21   attribute dir { p_ST_TransitionSideDirectionType }?
22  p_CT_CornerDirectionTransition =
23
24   ## default value: lu
25   attribute dir { p_ST_TransitionCornerDirectionType }?
26  p_ST_TransitionEightDirectionType =
27   p_ST_TransitionSideDirectionType | p_ST_TransitionCornerDirectionType
28  p_CT_EightDirectionTransition =
29
30   ## default value: l
31   attribute dir { p_ST_TransitionEightDirectionType }?
32  p_CT_OrientationTransition =
33
34   ## default value: horz
35   attribute dir { p_ST_Direction }?
36  p_CT_InOutTransition =
37
38   ## default value: out
39   attribute dir { p_ST_TransitionInOutDirectionType }?
40  p_CT_OptionalBlackTransition =
41
42   ## default value: false
43   attribute thruBlk { xsd:boolean }?
44  p_CT_SplitTransition =

```



```

45
46   ## default value: horz
47   attribute orient { p_ST_Direction }?,
48
49   ## default value: out
50   attribute dir { p_ST_TransitionInOutDirectionType }?
51 p_CT_WheelTransition =
52
53   ## default value: 4
54   attribute spokes { xsd:unsignedInt }?
55 p_CT_TransitionStartSoundAction =
56
57   ## default value: false
58   attribute loop { xsd:boolean }?,
59   element snd { a_CT_EmbeddedWAVAudioFile }
60 p_CT_TransitionSoundAction =
61   element stSnd { p_CT_TransitionStartSoundAction }
62   | element endSnd { p_CT_Empty }
63 p_ST_TransitionSpeed = "slow" | "med" | "fast"
64 p_CT_SlideTransition =
65
66   ## default value: fast
67   attribute spd { p_ST_TransitionSpeed }?,
68
69   ## default value: true
70   attribute advClick { xsd:boolean }?,
71   attribute advTm { xsd:unsignedInt }?,
72   (element blinds { p_CT_OrientationTransition }
73   | element checker { p_CT_OrientationTransition }
74   | element circle { p_CT_Empty }
75   | element dissolve { p_CT_Empty }
76   | element comb { p_CT_OrientationTransition }
77   | element cover { p_CT_EightDirectionTransition }
78   | element cut { p_CT_OptionalBlackTransition }
79   | element diamond { p_CT_Empty }
80   | element fade { p_CT_OptionalBlackTransition }
81   | element newsflash { p_CT_Empty }
82   | element plus { p_CT_Empty }
83   | element pull { p_CT_EightDirectionTransition }
84   | element push { p_CT_SideDirectionTransition }
85   | element random { p_CT_Empty }
86   | element randomBar { p_CT_OrientationTransition }
87   | element split { p_CT_SplitTransition }
88   | element strips { p_CT_CornerDirectionTransition }
89   | element wedge { p_CT_Empty }
90   | element wheel { p_CT_WheelTransition }
91   | element wipe { p_CT_SideDirectionTransition }
92   | element zoom { p_CT_InOutTransition })?,
93   element sndAc { p_CT_TransitionSoundAction }?,
94   element extLst { p_CT_ExtensionListModify }?
95 p_ST_TLTimeIndefinite = "indefinite"
96 p_ST_TLTime = xsd:unsignedInt | p_ST_TLTimeIndefinite
97 p_ST_TLTimeNodeID = xsd:unsignedInt

```



```

98  p_CT_TLIterateIntervalTime = attribute val { p_ST_TLTime }
99  p_CT_TLIterateIntervalPercentage =
100    attribute val { a_ST_PositivePercentage }
101  p_ST_IterateType = "el" | "wd" | "lt"
102  p_CT_TLIterateData =
103
104    ## default value: el
105    attribute type { p_ST_IterateType }?,
106
107    ## default value: false
108    attribute backwards { xsd:boolean }?,
109    (element tmAbs { p_CT_TLIterateIntervalTime }
110     | element tmPct { p_CT_TLIterateIntervalPercentage })
111  p_CT_TLSubShapeId = attribute spid { a_ST_ShapeID }
112  p_CT_TLTextTargetElement =
113    (element charRg { p_CT_IndexRange }
114     | element pRg { p_CT_IndexRange })?
115  p_ST_TLChartSubelementType =
116    "gridLegend" | "series" | "category" | "ptInSeries" | "ptInCategory"
117  p_CT_TLOleChartTargetElement =
118    attribute type { p_ST_TLChartSubelementType },
119
120    ## default value: 0
121    attribute lvl { xsd:unsignedInt }?
122  p_CT_TLShapeTargetElement =
123    attribute spid { a_ST_DrawingElementId },
124    (element bg { p_CT_Empty }
125     | element subSp { p_CT_TLSubShapeId }
126     | element oleChartEl { p_CT_TLOleChartTargetElement }
127     | element txEl { p_CT_TLTextTargetElement }
128     | element graphicEl { a_CT_AnimationElementChoice })?
129  p_CT_TLTimeTargetElement =
130    element sldTgt { p_CT_Empty }
131    | element sndTgt { a_CT_EmbeddedWAVAudioFile }
132    | element spTgt { p_CT_TLShapeTargetElement }
133    | element inkTgt { p_CT_TLSubShapeId }
134  p_CT_TLTriggerTimeNodeID = attribute val { p_ST_TLTimeNodeID }
135  p_ST_TLTriggerRuntimeNode = "first" | "last" | "all"
136  p_CT_TLTriggerRuntimeNode = attribute val { p_ST_TLTriggerRuntimeNode }
137  p_ST_TLTriggerEvent =
138    "onBegin"
139    | "onEnd"
140    | "begin"
141    | "end"
142    | "onClick"
143    | "onDb1Click"
144    | "onMouseOver"
145    | "onMouseOut"
146    | "onNext"
147    | "onPrev"
148    | "onStopAudio"
149  p_CT_TLTimeCondition =
150    attribute evt { p_ST_TLTriggerEvent }?,

```



```

151 attribute delay { p_ST_TLTime }?,
152 (element tgtEl { p_CT_TLTimeTargetElement }
153   | element tn { p_CT_TLTriggerTimeNodeID }
154   | element rtn { p_CT_TLTriggerRuntimeNode })?
155 p_CT_TLTimeConditionList = element cond { p_CT_TLTimeCondition }+
156 p_CT_TimeNodeList =
157   (element par { p_CT_TLTimeNodeParallel }
158     | element seq { p_CT_TLTimeNodeSequence }
159     | element excl { p_CT_TLTimeNodeExclusive }
160     | element anim { p_CT_TLAnimateBehavior }
161     | element animClr { p_CT_TLAnimateColorBehavior }
162     | element animEffect { p_CT_TLAnimateEffectBehavior }
163     | element animMotion { p_CT_TLAnimateMotionBehavior }
164     | element animRot { p_CT_TLAnimateRotationBehavior }
165     | element animScale { p_CT_TLAnimateScaleBehavior }
166     | element cmd { p_CT_TLCommandBehavior }
167     | element set { p_CT_TLSetBehavior }
168     | element audio { p_CT_TLMediaNodeAudio }
169     | element video { p_CT_TLMediaNodeVideo })+
170 p_ST_TLTimeNodePresetClassType =
171   "entr" | "exit" | "emph" | "path" | "verb" | "mediacall"
172 p_ST_TLTimeNodeRestartType = "always" | "whenNotActive" | "never"
173 p_ST_TLTimeNodeFillType = "remove" | "freeze" | "hold" | "transition"
174 p_ST_TLTimeNodeSyncType = "canSlip" | "locked"
175 p_ST_TLTimeNodeMasterRelation = "sameClick" | "lastClick" | "nextClick"
176 p_ST_TLTimeNodeType =
177   "clickEffect"
178   | "withEffect"
179   | "afterEffect"
180   | "mainSeq"
181   | "interactiveSeq"
182   | "clickPar"
183   | "withGroup"
184   | "afterGroup"
185   | "tmRoot"
186 p_CT_TLCommonTimeNodeData =
187   attribute id { p_ST_TLTimeNodeID }?,
188   attribute presetID { xsd:int }?,
189   attribute presetClass { p_ST_TLTimeNodePresetClassType }?,
190   attribute presetSubtype { xsd:int }?,
191   attribute dur { p_ST_TLTime }?,
192
193   ## default value: 1000
194   attribute repeatCount { p_ST_TLTime }?,
195   attribute repeatDur { p_ST_TLTime }?,
196
197   ## default value: 100%
198   attribute spd { a_ST_Percentage }?,
199
200   ## default value: 0%
201   attribute accel { a_ST_PositiveFixedPercentage }?,
202
203   ## default value: 0%

```



```

204 attribute decel { a_ST_PositiveFixedPercentage }?,
205
206 ## default value: false
207 attribute autoRev { xsd:boolean }?,
208 attribute restart { p_ST_TLTimeNodeRestartType }?,
209 attribute fill { p_ST_TLTimeNodeFillType }?,
210 attribute syncBehavior { p_ST_TLTimeNodeSyncType }?,
211 attribute tmFilter { xsd:string }?,
212 attribute evtFilter { xsd:string }?,
213 attribute display { xsd:boolean }?,
214 attribute masterRel { p_ST_TLTimeNodeMasterRelation }?,
215 attribute bldLvl { xsd:int }?,
216 attribute grpId { xsd:unsignedInt }?,
217 attribute afterEffect { xsd:boolean }?,
218 attribute nodeType { p_ST_TLTimeNodeType }?,
219 attribute nodePh { xsd:boolean }?,
220 element stCondLst { p_CT_TLTimeConditionList }?,
221 element endCondLst { p_CT_TLTimeConditionList }?,
222 element endSync { p_CT_TLTimeCondition }?,
223 element iterate { p_CT_TLIterateData }?,
224 element childTnLst { p_CT_TimeNodeList }?,
225 element subTnLst { p_CT_TimeNodeList }?
226 p_CT_TLTimeNodeParallel = element cTn { p_CT_TLCommonTimeNodeData }
227 p_ST_TLNextActionType = "none" | "seek"
228 p_ST_TLPreviousActionType = "none" | "skipTimed"
229 p_CT_TLTimeNodeSequence =
230     attribute concurrent { xsd:boolean }?,
231     attribute prevAc { p_ST_TLPreviousActionType }?,
232     attribute nextAc { p_ST_TLNextActionType }?,
233     element cTn { p_CT_TLCommonTimeNodeData },
234     element prevCondLst { p_CT_TLTimeConditionList }?,
235     element nextCondLst { p_CT_TLTimeConditionList }?
236 p_CT_TLTimeNodeExclusive = element cTn { p_CT_TLCommonTimeNodeData }
237 p_CT_TLBehaviorAttributeNameList = element attrName { xsd:string }+
238 p_ST_TLBehaviorAdditiveType = "base" | "sum" | "repl" | "mult" | "none"
239 p_ST_TLBehaviorAccumulateType = "none" | "always"
240 p_ST_TLBehaviorTransformType = "pt" | "img"
241 p_ST_TLBehaviorOverrideType = "normal" | "childStyle"
242 p_CT_TLCommonBehaviorData =
243     attribute additive { p_ST_TLBehaviorAdditiveType }?,
244     attribute accumulate { p_ST_TLBehaviorAccumulateType }?,
245     attribute xfrmType { p_ST_TLBehaviorTransformType }?,
246     attribute from { xsd:string }?,
247     attribute to { xsd:string }?,
248     attribute by { xsd:string }?,
249     attribute rctx { xsd:string }?,
250     attribute override { p_ST_TLBehaviorOverrideType }?,
251     element cTn { p_CT_TLCommonTimeNodeData },
252     element tgtEl { p_CT_TLTimeTargetElement },
253     element attrNameLst { p_CT_TLBehaviorAttributeNameList }?
254 p_CT_TLAnimVariantBooleanVal = attribute val { xsd:boolean }
255 p_CT_TLAnimVariantIntegerVal = attribute val { xsd:int }
256 p_CT_TLAnimVariantFloatVal = attribute val { xsd:float }

```



```

257 p_CT_TLAnimVariantStringVal = attribute val { xsd:string }
258 p_CT_TLAnimVariant =
259     element boolVal { p_CT_TLAnimVariantBooleanVal }
260     | element intVal { p_CT_TLAnimVariantIntegerVal }
261     | element fltVal { p_CT_TLAnimVariantFloatVal }
262     | element strVal { p_CT_TLAnimVariantStringVal }
263     | element clrVal { a_CT_Color }
264 p_ST_TLTimeAnimateValueTime =
265     a_ST_PositiveFixedPercentage | p_ST_TLTimeIndefinite
266 p_CT_TLTimeAnimateValue =
267
268     ## default value: indefinite
269     attribute tm { p_ST_TLTimeAnimateValueTime }?,
270     attribute fmla { xsd:string }?,
271     element val { p_CT_TLAnimVariant }?
272 p_CT_TLTimeAnimateValueList = element tav { p_CT_TLTimeAnimateValue }*
273 p_ST_TLAnimateBehaviorCalcMode = "discrete" | "lin" | "fmla"
274 p_ST_TLAnimateBehaviorValueType = "str" | "num" | "clr"
275 p_CT_TLAnimateBehavior =
276     attribute by { xsd:string }?,
277     attribute from { xsd:string }?,
278     attribute to { xsd:string }?,
279     attribute calcmode { p_ST_TLAnimateBehaviorCalcMode }?,
280     attribute valueType { p_ST_TLAnimateBehaviorValueType }?,
281     element cBhvr { p_CT_TLCommonBehaviorData },
282     element tavLst { p_CT_TLTimeAnimateValueList }?
283 p_CT_TLByRgbColorTransform =
284     attribute r { a_ST_FixedPercentage },
285     attribute g { a_ST_FixedPercentage },
286     attribute b { a_ST_FixedPercentage }
287 p_CT_TLByHslColorTransform =
288     attribute h { a_ST_Angle },
289     attribute s { a_ST_FixedPercentage },
290     attribute l { a_ST_FixedPercentage }
291 p_CT_TLByAnimateColorTransform =
292     element rgb { p_CT_TLByRgbColorTransform }
293     | element hsl { p_CT_TLByHslColorTransform }
294 p_ST_TLAnimateColorSpace = "rgb" | "hsl"
295 p_ST_TLAnimateColorDirection = "cw" | "ccw"
296 p_CT_TLAnimateColorBehavior =
297     attribute clrSpc { p_ST_TLAnimateColorSpace }?,
298     attribute dir { p_ST_TLAnimateColorDirection }?,
299     element cBhvr { p_CT_TLCommonBehaviorData },
300     element by { p_CT_TLByAnimateColorTransform }?,
301     element from { a_CT_Color }?,
302     element to { a_CT_Color }?
303 p_ST_TLAnimateEffectTransition = "in" | "out" | "none"
304 p_CT_TLAnimateEffectBehavior =
305     attribute transition { p_ST_TLAnimateEffectTransition }?,
306     attribute filter { xsd:string }?,
307     attribute prLst { xsd:string }?,
308     element cBhvr { p_CT_TLCommonBehaviorData },
309     element progress { p_CT_TLAnimVariant }?

```



```

310 p_ST_TLAnimateMotionBehaviorOrigin = "parent" | "layout"
311 p_ST_TLAnimateMotionPathEditMode = "relative" | "fixed"
312 p_CT_TLPoint =
313     attribute x { a_ST_Percentage },
314     attribute y { a_ST_Percentage }
315 p_CT_TLAnimateMotionBehavior =
316     attribute origin { p_ST_TLAnimateMotionBehaviorOrigin }?,
317     attribute path { xsd:string }?,
318     attribute pathEditMode { p_ST_TLAnimateMotionPathEditMode }?,
319     attribute rAng { a_ST_Angle }?,
320     attribute ptsTypes { xsd:string }?,
321     element cBhvr { p_CT_TLCommonBehaviorData },
322     element by { p_CT_TLPoint }?,
323     element from { p_CT_TLPoint }?,
324     element to { p_CT_TLPoint }?,
325     element rCtr { p_CT_TLPoint }?
326 p_CT_TLAnimateRotationBehavior =
327     attribute by { a_ST_Angle }?,
328     attribute from { a_ST_Angle }?,
329     attribute to { a_ST_Angle }?,
330     element cBhvr { p_CT_TLCommonBehaviorData }
331 p_CT_TLAnimateScaleBehavior =
332     attribute zoomContents { xsd:boolean }?,
333     element cBhvr { p_CT_TLCommonBehaviorData },
334     element by { p_CT_TLPoint }?,
335     element from { p_CT_TLPoint }?,
336     element to { p_CT_TLPoint }?
337 p_ST_TLCommandType = "evt" | "call" | "verb"
338 p_CT_TLCommandBehavior =
339     attribute type { p_ST_TLCommandType }?,
340     attribute cmd { xsd:string }?,
341     element cBhvr { p_CT_TLCommonBehaviorData }
342 p_CT_TLSetBehavior =
343     element cBhvr { p_CT_TLCommonBehaviorData },
344     element to { p_CT_TLAnimVariant }?
345 p_CT_TLCommonMediaNodeData =
346
347     ## default value: 50%
348     attribute vol { a_ST_PositiveFixedPercentage }?,
349
350     ## default value: false
351     attribute mute { xsd:boolean }?,
352
353     ## default value: 1
354     attribute numSld { xsd:unsignedInt }?,
355
356     ## default value: true
357     attribute showWhenStopped { xsd:boolean }?,
358     element cTn { p_CT_TLCommonTimeNodeData },
359     element tgtEl { p_CT_TLTimeTargetElement }
360 p_CT_TLMediaNodeAudio =
361
362     ## default value: false

```



```

363     attribute isNarration { xsd:boolean }?,
364     element cMediaNode { p_CT_TLCommonMediaNodeData }
365 p_CT_TLMediaNodeVideo =
366
367     ## default value: false
368     attribute fullScrn { xsd:boolean }?,
369     element cMediaNode { p_CT_TLCommonMediaNodeData }
370 p_AG_TLBuild =
371     attribute spid { a_ST_DrawingElementId },
372     attribute grpId { xsd:unsignedInt },
373
374     ## default value: false
375     attribute uiExpand { xsd:boolean }?
376 p_CT_TLTemplate =
377
378     ## default value: 0
379     attribute lvl { xsd:unsignedInt }?,
380     element tnLst { p_CT_TimeNodeList }
381 p_CT_TLTemplateList = element tpl { p_CT_TLTemplate }*
382 p_ST_TLParaBuildType = "allAtOnce" | "p" | "cust" | "whole"
383 p_CT_TLBuildParagraph =
384     p_AG_TLBuild,
385
386     ## default value: whole
387     attribute build { p_ST_TLParaBuildType },
388
389     ## default value: 1
390     attribute bldLvl { xsd:unsignedInt }?,
391
392     ## default value: false
393     attribute animBg { xsd:boolean }?,
394
395     ## default value: true
396     attribute autoUpdateAnimBg { xsd:boolean }?,
397
398     ## default value: false
399     attribute rev { xsd:boolean }?,
400
401     ## default value: indefinite
402     attribute advAuto { p_ST_TLTime }?,
403     element tplLst { p_CT_TLTemplateList }?
404 p_ST_TLDiagramBuildType =
405     "whole"
406     | "depthByNode"
407     | "depthByBranch"
408     | "breadthByNode"
409     | "breadthByLvl"
410     | "cw"
411     | "cwIn"
412     | "cwOut"
413     | "ccw"
414     | "ccwIn"
415     | "ccwOut"

```



```

416 | "inByRing"
417 | "outByRing"
418 | "up"
419 | "down"
420 | "allAtOnce"
421 | "cust"
422 p_CT_TLBuildDiagram =
423   p_AG_TLBuild,
424
425   ## default value: whole
426   attribute bld { p_ST_TLDiagramBuildType }?
427 p_ST_TLOleChartBuildType =
428   "allAtOnce" | "series" | "category" | "seriesEl" | "categoryEl"
429 p_CT_TLOleBuildChart =
430   p_AG_TLBuild,
431
432   ## default value: allAtOnce
433   attribute bld { p_ST_TLOleChartBuildType }?,
434
435   ## default value: true
436   attribute animBg { xsd:boolean }?
437 p_CT_TLGraphicalObjectBuild =
438   p_AG_TLBuild,
439   (element bldAsOne { p_CT_Empty }
440   | element bldSub { a_CT_AnimationGraphicalObjectBuildProperties })
441 p_CT_BuildList =
442   (element bldP { p_CT_TLBuildParagraph }
443   | element bldDgm { p_CT_TLBuildDiagram }
444   | element bldOleChart { p_CT_TLOleBuildChart }
445   | element bldGraphic { p_CT_TLGraphicalObjectBuild })+
446 p_CT_SlideTiming =
447   element tnLst { p_CT_TimeNodeList }?,
448   element bldLst { p_CT_BuildList }?,
449   element extLst { p_CT_ExtensionListModify }?
450 p_CT_Empty = empty
451 p_ST_Name = xsd:string
452 p_ST_Direction = "horz" | "vert"
453 p_ST_Index = xsd:unsignedInt
454 p_CT_IndexRange =
455   attribute st { p_ST_Index },
456   attribute end { p_ST_Index }
457 p_CT_SlideRelationshipListEntry = r_id
458 p_CT_SlideRelationshipList =
459   element sld { p_CT_SlideRelationshipListEntry }*
460 p_CT_CustomShowId = attribute id { xsd:unsignedInt }
461 p_EG_SlideListChoice =
462   element sldAll { p_CT_Empty }
463   | element sldRg { p_CT_IndexRange }
464   | element custShow { p_CT_CustomShowId }
465 p_CT_CustomerData = r_id
466 p_CT_TagsData = r_id
467 p_CT_CustomerDataList =
468   (element custData { p_CT_CustomerData }*,

```



```

469     element tags { p_CT_TagsData }?))?
470 p_CT_Extension =
471     attribute uri { xsd:token },
472     p_CT_Extension_any*
473 p_CT_Extension_any =
474     element * - (o:* | v:* | w10:* | x:*) {
475         anyAttribute*,
476         mixed { anyElement* }
477     }
478 p_EG_ExtensionList = element ext { p_CT_Extension }*
479 p_CT_ExtensionList = p_EG_ExtensionList?
480 p_CT_ExtensionListModify =
481
482     ## default value: false
483     attribute mod { xsd:boolean }?,
484     p_EG_ExtensionList?
485 p_CT_CommentAuthor =
486     attribute id { xsd:unsignedInt },
487     attribute name { p_ST_Name },
488     attribute initials { p_ST_Name },
489     attribute lastIdx { xsd:unsignedInt },
490     attribute clrIdx { xsd:unsignedInt },
491     element extLst { p_CT_ExtensionList }?
492 p_CT_CommentAuthorList = element cmAuthor { p_CT_CommentAuthor }*
493 p_cmAuthorLst = element cmAuthorLst { p_CT_CommentAuthorList }
494 p_CT_Comment =
495     attribute authorId { xsd:unsignedInt },
496     attribute dt { xsd:dateTime }?,
497     attribute idx { p_ST_Index },
498     element pos { a_CT_Point2D },
499     element text { xsd:string },
500     element extLst { p_CT_ExtensionListModify }?
501 p_CT_CommentList = element cm { p_CT_Comment }*
502 p_cmLst = element cmLst { p_CT_CommentList }
503 p_AG_Ole =
504     attribute name { xsd:string }?,
505
506     ## default value: false
507     attribute showAsIcon { xsd:boolean }?,
508     r_id?,
509     attribute imgW { a_ST_PositiveCoordinate32 }?,
510     attribute imgH { a_ST_PositiveCoordinate32 }?
511 p_ST_OleObjectFollowColorScheme = "none" | "full" | "textAndBackground"
512 p_CT_OleObjectEmbed =
513
514     ## default value: none
515     attribute followColorScheme { p_ST_OleObjectFollowColorScheme }?,
516     element extLst { p_CT_ExtensionList }?
517 p_CT_OleObjectLink =
518
519     ## default value: false
520     attribute updateAutomatic { xsd:boolean }?,
521     element extLst { p_CT_ExtensionList }?

```



```

522 p_CT_OleObject =
523     p_AG_Ole,
524     attribute progId { xsd:string }?,
525     (element embed { p_CT_OleObjectEmbed }
526      | element link { p_CT_OleObjectLink }
527     ),
528     (attribute spid { a_ST_ShapeID } | element pic { p_CT_Picture })
529 p_oleObj = element oleObj { p_CT_OleObject }
530 p_CT_Control =
531     p_AG_Ole,
532     element extLst { p_CT_ExtensionList }?,
533     (attribute spid { a_ST_ShapeID } | element pic { p_CT_Picture })
534 p_CT_ControlList = element control { p_CT_Control }*
535 p_ST_SlideId =
536     xsd:unsignedInt { minInclusive = "256" maxExclusive = "2147483648" }
537 p_CT_SlideIdListEntry =
538     attribute id { p_ST_SlideId },
539     r_id,
540     element extLst { p_CT_ExtensionList }?
541 p_CT_SlideIdList = element sldId { p_CT_SlideIdListEntry }*
542 p_ST_SlideMasterId = xsd:unsignedInt { minInclusive = "2147483648" }
543 p_CT_SlideMasterIdListEntry =
544     attribute id { p_ST_SlideMasterId }?,
545     r_id,
546     element extLst { p_CT_ExtensionList }?
547 p_CT_SlideMasterIdList =
548     element sldMasterId { p_CT_SlideMasterIdListEntry }*
549 p_CT_NotesMasterIdListEntry =
550     r_id,
551     element extLst { p_CT_ExtensionList }?
552 p_CT_NotesMasterIdList =
553     element notesMasterId { p_CT_NotesMasterIdListEntry }?
554 p_CT_HandoutMasterIdListEntry =
555     r_id,
556     element extLst { p_CT_ExtensionList }?
557 p_CT_HandoutMasterIdList =
558     element handoutMasterId { p_CT_HandoutMasterIdListEntry }?
559 p_CT_EmbeddedFontDataId = r_id
560 p_CT_EmbeddedFontListEntry =
561     element font { a_CT_TextFont },
562     element regular { p_CT_EmbeddedFontDataId }?,
563     element bold { p_CT_EmbeddedFontDataId }?,
564     element italic { p_CT_EmbeddedFontDataId }?,
565     element boldItalic { p_CT_EmbeddedFontDataId }?
566 p_CT_EmbeddedFontList =
567     element embeddedFont { p_CT_EmbeddedFontListEntry }*
568 p_CT_SmartTags = r_id
569 p_CT_CustomShow =
570     attribute name { p_ST_Name },
571     attribute id { xsd:unsignedInt },
572     element sldLst { p_CT_SlideRelationshipList },
573     element extLst { p_CT_ExtensionList }?
574 p_CT_CustomShowList = element custShow { p_CT_CustomShow }*

```



```

575 p_ST_PhotoAlbumLayout =
576     "fitToSlide"
577     | "1pic"
578     | "2pic"
579     | "4pic"
580     | "1picTitle"
581     | "2picTitle"
582     | "4picTitle"
583 p_ST_PhotoAlbumFrameShape =
584     "frameStyle1"
585     | "frameStyle2"
586     | "frameStyle3"
587     | "frameStyle4"
588     | "frameStyle5"
589     | "frameStyle6"
590     | "frameStyle7"
591 p_CT_PhotoAlbum =
592
593     ## default value: false
594     attribute bw { xsd:boolean }?,
595
596     ## default value: false
597     attribute showCaptions { xsd:boolean }?,
598
599     ## default value: fitToSlide
600     attribute layout { p_ST_PhotoAlbumLayout }?,
601
602     ## default value: frameStyle1
603     attribute frame { p_ST_PhotoAlbumFrameShape }?,
604     element extLst { p_CT_ExtensionList }?
605 p_ST_SlideSizeCoordinate =
606     xsd:int {
607         minInclusive = "914400"
608         maxInclusive = "51206400"
609     }
610 p_ST_SlideSizeType =
611     "screen4x3"
612     | "letter"
613     | "A4"
614     | "35mm"
615     | "overhead"
616     | "banner"
617     | "custom"
618     | "ledger"
619     | "A3"
620     | "B4ISO"
621     | "B5ISO"
622     | "B4JIS"
623     | "B5JIS"
624     | "hagakiCard"
625     | "screen16x9"
626     | "screen16x10"
627 p_CT_SlideSize =

```



```

628     attribute cx { p_ST_SlideSizeCoordinate },
629     attribute cy { p_ST_SlideSizeCoordinate },
630
631     ## default value: custom
632     attribute type { p_ST_SlideSizeType }?
633 p_CT_Kinsoku =
634     attribute lang { xsd:string }?,
635     attribute invalStChars { xsd:string },
636     attribute invalEndChars { xsd:string }
637 p_ST_BookmarkIdSeed =
638     xsd:unsignedInt { minInclusive = "1" maxExclusive = "2147483648" }
639 p_CT_ModifyVerifier =
640     attribute algorithmName { xsd:string }?,
641     attribute hashValue { xsd:base64Binary }?,
642     attribute saltValue { xsd:base64Binary }?,
643     attribute spinValue { xsd:unsignedInt }?,
644     attribute cryptProviderType { s_ST_CryptProv }?,
645     attribute cryptAlgorithmClass { s_ST_AlgClass }?,
646     attribute cryptAlgorithmType { s_ST_AlgType }?,
647     attribute cryptAlgorithmSid { xsd:unsignedInt }?,
648     attribute spinCount { xsd:unsignedInt }?,
649     attribute saltData { xsd:base64Binary }?,
650     attribute hashData { xsd:base64Binary }?,
651     attribute cryptProvider { xsd:string }?,
652     attribute algIdExt { xsd:unsignedInt }?,
653     attribute algIdExtSource { xsd:string }?,
654     attribute cryptProviderTypeExt { xsd:unsignedInt }?,
655     attribute cryptProviderTypeExtSource { xsd:string }?
656 p_CT_Presentation =
657
658     ## default value: 50%
659     attribute serverZoom { a_ST_Percentage }?,
660
661     ## default value: 1
662     attribute firstSlideNum { xsd:int }?,
663
664     ## default value: true
665     attribute showSpecialPlsOnTitleSld { xsd:boolean }?,
666
667     ## default value: false
668     attribute rtl { xsd:boolean }?,
669
670     ## default value: false
671     attribute removePersonalInfoOnSave { xsd:boolean }?,
672
673     ## default value: false
674     attribute compatMode { xsd:boolean }?,
675
676     ## default value: true
677     attribute strictFirstAndLastChars { xsd:boolean }?,
678
679     ## default value: false
680     attribute embedTrueTypeFonts { xsd:boolean }?,

```



```

681
682  ## default value: false
683  attribute saveSubsetFonts { xsd:boolean }?,
684
685  ## default value: true
686  attribute autoCompressPictures { xsd:boolean }?,
687
688  ## default value: 1
689  attribute bookmarkIdSeed { p_ST_BookmarkIdSeed }?,
690  attribute conformance { s_ST_ConformanceClass }?,
691  element sldMasterIdLst { p_CT_SlideMasterIdList }?,
692  element notesMasterIdLst { p_CT_NotesMasterIdList }?,
693  element handoutMasterIdLst { p_CT_HandoutMasterIdList }?,
694  element sldIdLst { p_CT_SlideIdList }?,
695  element sldSz { p_CT_SlideSize }?,
696  element notesSz { a_CT_PositiveSize2D },
697  element smartTags { p_CT_SmartTags }?,
698  element embeddedFontLst { p_CT_EmbeddedFontList }?,
699  element custShowLst { p_CT_CustomShowList }?,
700  element photoAlbum { p_CT_PhotoAlbum }?,
701  element custDataLst { p_CT_CustomerDataList }?,
702  element kinsoku { p_CT_Kinsoku }?,
703  element defaultTextStyle { a_CT_TextListStyle }?,
704  element modifyVerifier { p_CT_ModifyVerifier }?,
705  element extLst { p_CT_ExtensionList }?
706 p_presentation = element presentation { p_CT_Presentation }
707 p_CT_HtmlPublishProperties =
708
709  ## default value: true
710  attribute showSpeakerNotes { xsd:boolean }?,
711  attribute target { xsd:string }?,
712  attribute title { xsd:string }?,
713  r_id,
714  p_EG_SlideListChoice,
715  element extLst { p_CT_ExtensionList }?
716 p_ST_WebColorType =
717  "none"
718  | "browser"
719  | "presentationText"
720  | "presentationAccent"
721  | "whiteTextOnBlack"
722  | "blackTextOnWhite"
723 p_ST_WebScreenSize =
724  "544x376"
725  | "640x480"
726  | "720x512"
727  | "800x600"
728  | "1024x768"
729  | "1152x882"
730  | "1152x900"
731  | "1280x1024"
732  | "1600x1200"
733  | "1800x1400"

```



```

734 | "1920x1200"
735 p_ST_WebEncoding = xsd:string
736 p_CT_WebProperties =
737
738 ## default value: false
739 attribute showAnimation { xsd:boolean }?,
740
741 ## default value: true
742 attribute resizeGraphics { xsd:boolean }?,
743
744 ## default value: false
745 attribute allowPng { xsd:boolean }?,
746
747 ## default value: false
748 attribute relyOnVml { xsd:boolean }?,
749
750 ## default value: true
751 attribute organizeInFolders { xsd:boolean }?,
752
753 ## default value: true
754 attribute useLongFileNames { xsd:boolean }?,
755
756 ## default value: 800x600
757 attribute imgSz { p_ST_WebScreenSize }?,
758 attribute encoding { p_ST_WebEncoding }?,
759
760 ## default value: whiteTextOnBlack
761 attribute clr { p_ST_WebColorType }?,
762 element extLst { p_CT_ExtensionList }?
763 p_ST_PrintWhat =
764 "slides"
765 | "handouts1"
766 | "handouts2"
767 | "handouts3"
768 | "handouts4"
769 | "handouts6"
770 | "handouts9"
771 | "notes"
772 | "outline"
773 p_ST_PrintColorMode = "bw" | "gray" | "clr"
774 p_CT_PrintProperties =
775
776 ## default value: slides
777 attribute prnWhat { p_ST_PrintWhat }?,
778
779 ## default value: clr
780 attribute clrMode { p_ST_PrintColorMode }?,
781
782 ## default value: false
783 attribute hiddenSlides { xsd:boolean }?,
784
785 ## default value: false
786 attribute scaleToFitPaper { xsd:boolean }?,

```



```

787
788     ## default value: false
789     attribute framesSlides { xsd:boolean }?,
790     element extLst { p_CT_ExtensionList }?
791 p_CT_ShowInfoBrowse =
792
793     ## default value: true
794     attribute showScrollbar { xsd:boolean }?
795 p_CT_ShowInfoKiosk =
796
797     ## default value: 300000
798     attribute restart { xsd:unsignedInt }?
799 p_EG_ShowType =
800     element present { p_CT_Empty }
801     | element browse { p_CT_ShowInfoBrowse }
802     | element kiosk { p_CT_ShowInfoKiosk }
803 p_CT_ShowProperties =
804
805     ## default value: false
806     attribute loop { xsd:boolean }?,
807
808     ## default value: false
809     attribute showNarration { xsd:boolean }?,
810
811     ## default value: true
812     attribute showAnimation { xsd:boolean }?,
813
814     ## default value: true
815     attribute useTimings { xsd:boolean }?,
816     (p_EG_ShowType?,
817     p_EG_SlideListChoice?,
818     element penClr { a_CT_Color }?,
819     element extLst { p_CT_ExtensionList }?)?
820 p_CT_PresentationProperties =
821     element htmlPubPr { p_CT_HtmlPublishProperties }?,
822     element webPr { p_CT_WebProperties }?,
823     element prnPr { p_CT_PrintProperties }?,
824     element showPr { p_CT_ShowProperties }?,
825     element clrMru { a_CT_ColorMRU }?,
826     element extLst { p_CT_ExtensionList }?
827 p_presentationPr =
828     element presentationPr { p_CT_PresentationProperties }
829 p_CT_HeaderFooter =
830
831     ## default value: true
832     attribute sldNum { xsd:boolean }?,
833
834     ## default value: true
835     attribute hdr { xsd:boolean }?,
836
837     ## default value: true
838     attribute ftr { xsd:boolean }?,
839

```



```

840   ## default value: true
841   attribute dt { xsd:boolean }?,
842   element extLst { p_CT_ExtensionListModify }?
843 p_ST_PlaceholderType =
844   "title"
845   | "body"
846   | "ctrTitle"
847   | "subTitle"
848   | "dt"
849   | "sldNum"
850   | "ftr"
851   | "hdr"
852   | "obj"
853   | "chart"
854   | "tbl"
855   | "clipArt"
856   | "dgm"
857   | "media"
858   | "sldImg"
859   | "pic"
860 p_ST_PlaceholderSize = "full" | "half" | "quarter"
861 p_CT_Placeholder =
862
863   ## default value: obj
864   attribute type { p_ST_PlaceholderType }?,
865
866   ## default value: horz
867   attribute orient { p_ST_Direction }?,
868
869   ## default value: full
870   attribute sz { p_ST_PlaceholderSize }?,
871
872   ## default value: 0
873   attribute idx { xsd:unsignedInt }?,
874
875   ## default value: false
876   attribute hasCustomPrompt { xsd:boolean }?,
877   element extLst { p_CT_ExtensionListModify }?
878 p_CT_ApplicationNonVisualDrawingProps =
879
880   ## default value: false
881   attribute isPhoto { xsd:boolean }?,
882
883   ## default value: false
884   attribute userDrawn { xsd:boolean }?,
885   element ph { p_CT_Placeholder }?,
886   a_EG_Media?,
887   element custDataLst { p_CT_CustomerDataList }?,
888   element extLst { p_CT_ExtensionList }?
889 p_CT_ShapeNonVisual =
890   element cNvPr { a_CT_NonVisualDrawingProps },
891   element cNvSpPr { a_CT_NonVisualDrawingShapeProps },
892   element nvPr { p_CT_ApplicationNonVisualDrawingProps }

```



```

893 p_CT_Shape =
894
895     ## default value: false
896     attribute useBgFill { xsd:boolean }?,
897     element nvSpPr { p_CT_ShapeNonVisual },
898     element spPr { a_CT_ShapeProperties },
899     element style { a_CT_ShapeStyle }?,
900     element txBody { a_CT_TextBody }?,
901     element extLst { p_CT_ExtensionListModify }?
902 p_CT_ConnectorNonVisual =
903     element cNvPr { a_CT_NonVisualDrawingProps },
904     element cNvCxnSpPr { a_CT_NonVisualConnectorProperties },
905     element nvPr { p_CT_ApplicationNonVisualDrawingProps }
906 p_CT_Connector =
907     element nvCxnSpPr { p_CT_ConnectorNonVisual },
908     element spPr { a_CT_ShapeProperties },
909     element style { a_CT_ShapeStyle }?,
910     element extLst { p_CT_ExtensionListModify }?
911 p_CT_PictureNonVisual =
912     element cNvPr { a_CT_NonVisualDrawingProps },
913     element cNvPicPr { a_CT_NonVisualPictureProperties },
914     element nvPr { p_CT_ApplicationNonVisualDrawingProps }
915 p_CT_Picture =
916     element nvPicPr { p_CT_PictureNonVisual },
917     element blipFill { a_CT_BlipFillProperties },
918     element spPr { a_CT_ShapeProperties },
919     element style { a_CT_ShapeStyle }?,
920     element extLst { p_CT_ExtensionListModify }?
921 p_CT_GraphicalObjectFrameNonVisual =
922     element cNvPr { a_CT_NonVisualDrawingProps },
923     element cNvGraphicFramePr { a_CT_NonVisualGraphicFrameProperties },
924     element nvPr { p_CT_ApplicationNonVisualDrawingProps }
925 p_CT_GraphicalObjectFrame =
926     attribute bwMode { a_ST_BlackWhiteMode }?,
927     element nvGraphicFramePr { p_CT_GraphicalObjectFrameNonVisual },
928     element xfrm { a_CT_Transform2D },
929     a_graphic,
930     element extLst { p_CT_ExtensionListModify }?
931 p_CT_GroupShapeNonVisual =
932     element cNvPr { a_CT_NonVisualDrawingProps },
933     element cNvGrpSpPr { a_CT_NonVisualGroupDrawingShapeProps },
934     element nvPr { p_CT_ApplicationNonVisualDrawingProps }
935 p_CT_GroupShape =
936     element nvGrpSpPr { p_CT_GroupShapeNonVisual },
937     element grpSpPr { a_CT_GroupShapeProperties },
938     (element sp { p_CT_Shape }
939     | element grpSp { p_CT_GroupShape }
940     | element graphicFrame { p_CT_GraphicalObjectFrame }
941     | element cxnSp { p_CT_Connector }
942     | element pic { p_CT_Picture }
943     | element contentPart { p_CT_Rel })*,
944     element extLst { p_CT_ExtensionListModify }?
945 p_CT_Rel = r_id

```



```

946 p_EG_TopLevelSlide = element clrMap { a_CT_ColorMapping }
947 p_EG_ChildSlide = element clrMapOvr { a_CT_ColorMappingOverride }?
948 p_AG_ChildSlide =
949
950     ## default value: true
951     attribute showMasterSp { xsd:boolean }?,
952
953     ## default value: true
954     attribute showMasterPhAnim { xsd:boolean }?
955 p_CT_BackgroundProperties =
956
957     ## default value: false
958     attribute shadeToTitle { xsd:boolean }?,
959     a_EG_FillProperties,
960     a_EG_EffectProperties?,
961     element extLst { p_CT_ExtensionList }?
962 p_EG_Background =
963     element bgPr { p_CT_BackgroundProperties }
964     | element bgRef { a_CT_StyleMatrixReference }
965 p_CT_Background =
966
967     ## default value: white
968     attribute bwMode { a_ST_BlackWhiteMode }?,
969     p_EG_Background
970 p_CT_CommonSlideData =
971     attribute name { xsd:string }?,
972     element bg { p_CT_Background }?,
973     element spTree { p_CT_GroupShape },
974     element custDataLst { p_CT_CustomerDataList }?,
975     element controls { p_CT_ControlList }?,
976     element extLst { p_CT_ExtensionList }?
977 p_CT_Slide =
978     p_AG_ChildSlide,
979
980     ## default value: true
981     attribute show { xsd:boolean }?,
982     element cSld { p_CT_CommonSlideData },
983     p_EG_ChildSlide?,
984     element transition { p_CT_SlideTransition }?,
985     element timing { p_CT_SlideTiming }?,
986     element extLst { p_CT_ExtensionListModify }?
987 p_sld = element sld { p_CT_Slide }
988 p_ST_SlideLayoutType =
989     "title"
990     | "tx"
991     | "twoColTx"
992     | "tbl"
993     | "txAndChart"
994     | "chartAndTx"
995     | "dgm"
996     | "chart"
997     | "txAndClipArt"
998     | "clipArtAndTx"

```



```

999 | "titleOnly"
1000 | "blank"
1001 | "txAndObj"
1002 | "objAndTx"
1003 | "objOnly"
1004 | "obj"
1005 | "txAndMedia"
1006 | "mediaAndTx"
1007 | "objOverTx"
1008 | "txOverObj"
1009 | "txAndTwoObj"
1010 | "twoObjAndTx"
1011 | "twoObjOverTx"
1012 | "fourObj"
1013 | "vertTx"
1014 | "clipArtAndVertTx"
1015 | "vertTitleAndTx"
1016 | "vertTitleAndTxOverChart"
1017 | "twoObj"
1018 | "objAndTwoObj"
1019 | "twoObjAndObj"
1020 | "cust"
1021 | "secHead"
1022 | "twoTxTwoObj"
1023 | "objTx"
1024 | "picTx"
1025 p_CT_SlideLayout =
1026   p_AG_ChildSlide,
1027   attribute matchingName { xsd:string }?,
1028
1029   ## default value: cust
1030   attribute type { p_ST_SlideLayoutType }?,
1031
1032   ## default value: false
1033   attribute preserve { xsd:boolean }?,
1034
1035   ## default value: false
1036   attribute userDrawn { xsd:boolean }?,
1037   element cSld { p_CT_CommonSlideData },
1038   p_EG_ChildSlide?,
1039   element transition { p_CT_SlideTransition }?,
1040   element timing { p_CT_SlideTiming }?,
1041   element hf { p_CT_HeaderFooter }?,
1042   element extLst { p_CT_ExtensionListModify }?
1043 p_sldLayout = element sldLayout { p_CT_SlideLayout }
1044 p_CT_SlideMasterTextStyles =
1045   element titleStyle { a_CT_TextListStyle }?,
1046   element bodyStyle { a_CT_TextListStyle }?,
1047   element otherStyle { a_CT_TextListStyle }?,
1048   element extLst { p_CT_ExtensionList }?
1049 p_ST_SlideLayoutId = xsd:unsignedInt { minInclusive = "2147483648" }
1050 p_CT_SlideLayoutIdListEntry =
1051   attribute id { p_ST_SlideLayoutId }?,

```



```

1052     r_id,
1053     element extLst { p_CT_ExtensionList }?
1054 p_CT_SlideLayoutIdList =
1055     element sldLayoutId { p_CT_SlideLayoutIdListEntry }*
1056 p_CT_SlideMaster =
1057
1058     ## default value: false
1059     attribute preserve { xsd:boolean }?,
1060     element cSld { p_CT_CommonSlideData },
1061     p_EG_TopLevelSlide,
1062     element sldLayoutIdLst { p_CT_SlideLayoutIdList }?,
1063     element transition { p_CT_SlideTransition }?,
1064     element timing { p_CT_SlideTiming }?,
1065     element hf { p_CT_HeaderFooter }?,
1066     element txStyles { p_CT_SlideMasterTextStyles }?,
1067     element extLst { p_CT_ExtensionListModify }?
1068 p_sldMaster = element sldMaster { p_CT_SlideMaster }
1069 p_CT_HandoutMaster =
1070     element cSld { p_CT_CommonSlideData },
1071     p_EG_TopLevelSlide,
1072     element hf { p_CT_HeaderFooter }?,
1073     element extLst { p_CT_ExtensionListModify }?
1074 p_handoutMaster = element handoutMaster { p_CT_HandoutMaster }
1075 p_CT_NotesMaster =
1076     element cSld { p_CT_CommonSlideData },
1077     p_EG_TopLevelSlide,
1078     element hf { p_CT_HeaderFooter }?,
1079     element notesStyle { a_CT_TextListStyle }?,
1080     element extLst { p_CT_ExtensionListModify }?
1081 p_notesMaster = element notesMaster { p_CT_NotesMaster }
1082 p_CT_NotesSlide =
1083     p_AG_ChildSlide,
1084     element cSld { p_CT_CommonSlideData },
1085     p_EG_ChildSlide?,
1086     element extLst { p_CT_ExtensionListModify }?
1087 p_notes = element notes { p_CT_NotesSlide }
1088 p_CT_SlideSyncProperties =
1089     attribute serverSldId { xsd:string },
1090     attribute serverSldModifiedTime { xsd:dateTime },
1091     attribute clientInsertedTime { xsd:dateTime },
1092     element extLst { p_CT_ExtensionList }?
1093 p_sldSyncPr = element sldSyncPr { p_CT_SlideSyncProperties }
1094 p_CT_StringTag =
1095     attribute name { xsd:string },
1096     attribute val { xsd:string }
1097 p_CT_TagList = element tag { p_CT_StringTag }*
1098 p_tagLst = element tagLst { p_CT_TagList }
1099 p_ST_SplitterBarState = "minimized" | "restored" | "maximized"
1100 p_ST_ViewType =
1101     "sldView"
1102     | "sldMasterView"
1103     | "notesView"
1104     | "handoutView"

```



```

1105 | "notesMasterView"
1106 | "outlineView"
1107 | "sldSorterView"
1108 | "sldThumbnailView"
1109 p_CT_NormalViewPortion =
1110     attribute sz { a_ST_PositiveFixedPercentage },
1111
1112     ## default value: true
1113     attribute autoAdjust { xsd:boolean }?
1114 p_CT_NormalViewProperties =
1115
1116     ## default value: true
1117     attribute showOutlineIcons { xsd:boolean }?,
1118
1119     ## default value: false
1120     attribute snapVertSplitter { xsd:boolean }?,
1121
1122     ## default value: restored
1123     attribute vertBarState { p_ST_SplitterBarState }?,
1124
1125     ## default value: restored
1126     attribute horzBarState { p_ST_SplitterBarState }?,
1127
1128     ## default value: false
1129     attribute preferSingleView { xsd:boolean }?,
1130     element restoredLeft { p_CT_NormalViewPortion },
1131     element restoredTop { p_CT_NormalViewPortion },
1132     element extLst { p_CT_ExtensionList }?
1133 p_CT_CommonViewProperties =
1134
1135     ## default value: false
1136     attribute varScale { xsd:boolean }?,
1137     element scale { a_CT_Scale2D },
1138     element origin { a_CT_Point2D }
1139 p_CT_NotesTextViewProperties =
1140     element cViewPr { p_CT_CommonViewProperties },
1141     element extLst { p_CT_ExtensionList }?
1142 p_CT_OutlineViewSlideEntry =
1143     r_id,
1144
1145     ## default value: false
1146     attribute collapse { xsd:boolean }?
1147 p_CT_OutlineViewSlideList = element sld { p_CT_OutlineViewSlideEntry }*
1148 p_CT_OutlineViewProperties =
1149     element cViewPr { p_CT_CommonViewProperties },
1150     element sldLst { p_CT_OutlineViewSlideList }?,
1151     element extLst { p_CT_ExtensionList }?
1152 p_CT_SlideSorterViewProperties =
1153
1154     ## default value: true
1155     attribute showFormatting { xsd:boolean }?,
1156     element cViewPr { p_CT_CommonViewProperties },
1157     element extLst { p_CT_ExtensionList }?

```



```

1158 p_CT_Guide =
1159
1160   ## default value: vert
1161   attribute orient { p_ST_Direction }?,
1162
1163   ## default value: 0
1164   attribute pos { a_ST_Coordinate32 }?
1165 p_CT_GuideList = element guide { p_CT_Guide }*
1166 p_CT_CommonSlideViewProperties =
1167
1168   ## default value: true
1169   attribute snapToGrid { xsd:boolean }?,
1170
1171   ## default value: false
1172   attribute snapToObjects { xsd:boolean }?,
1173
1174   ## default value: false
1175   attribute showGuides { xsd:boolean }?,
1176   element cViewPr { p_CT_CommonViewProperties },
1177   element guideLst { p_CT_GuideList }?
1178 p_CT_SlideViewProperties =
1179   element cSldViewPr { p_CT_CommonSlideViewProperties },
1180   element extLst { p_CT_ExtensionList }?
1181 p_CT_NotesViewProperties =
1182   element cSldViewPr { p_CT_CommonSlideViewProperties },
1183   element extLst { p_CT_ExtensionList }?
1184 p_CT_ViewProperties =
1185
1186   ## default value: sldView
1187   attribute lastView { p_ST_ViewType }?,
1188
1189   ## default value: true
1190   attribute showComments { xsd:boolean }?,
1191   (element normalViewPr { p_CT_NormalViewProperties }?,
1192    element slideViewPr { p_CT_SlideViewProperties }?,
1193    element outlineViewPr { p_CT_OutlineViewProperties }?,
1194    element notesTextViewPr { p_CT_NotesTextViewProperties }?,
1195    element sorterViewPr { p_CT_SlideSorterViewProperties }?,
1196    element notesViewPr { p_CT_NotesViewProperties }?,
1197    element gridSpacing { a_CT_PositiveSize2D }?,
1198    element extLst { p_CT_ExtensionList }?)?
1199 p_viewPr = element viewPr { p_CT_ViewProperties }

```

## B.4.1 Part Schemas

### B.4.1.1 Comment Authors Part

This schema is available in the file PresentationML\_Comment\_Authors.rnc.

```

1 include "pml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-main.rnc"
4 include "dml-diagram.rnc"

```



```

5 include "shared-commonSimpleTypes.rnc"
6 include "dml-lockedCanvas.rnc"
7 include "any.rnc"
8 include "dml-chart.rnc"
9 include "dml-chartDrawing.rnc"
10 include "dml-picture.rnc"
11 start = p_cmAuthorLst

```

#### B.4.1.2 Comments Part

This schema is available in the file PresentationML\_Comments.rnc.

```

1 include "pml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-main.rnc"
4 include "dml-diagram.rnc"
5 include "shared-commonSimpleTypes.rnc"
6 include "dml-lockedCanvas.rnc"
7 include "any.rnc"
8 include "dml-chart.rnc"
9 include "dml-chartDrawing.rnc"
10 include "dml-picture.rnc"
11 start = p_cmLst

```

#### B.4.1.3 Handout Master Part

This schema is available in the file PresentationML\_Handout\_Master.rnc.

```

1 include "pml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-main.rnc"
4 include "dml-diagram.rnc"
5 include "shared-commonSimpleTypes.rnc"
6 include "dml-lockedCanvas.rnc"
7 include "any.rnc"
8 include "dml-chart.rnc"
9 include "dml-chartDrawing.rnc"
10 include "dml-picture.rnc"
11 start = p_handoutMaster

```

#### B.4.1.4 Notes Master Part

This schema is available in the file PresentationML\_Notes\_Master.rnc.

```

1 include "pml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-main.rnc"
4 include "dml-diagram.rnc"
5 include "shared-commonSimpleTypes.rnc"
6 include "dml-lockedCanvas.rnc"
7 include "any.rnc"
8 include "dml-chart.rnc"
9 include "dml-chartDrawing.rnc"
10 include "dml-picture.rnc"

```



```
11 start = p_notesMaster
```

#### B.4.1.5 Notes Slide Part

This schema is available in the file PresentationML\_Notes\_Slide.rnc.

```
1 include "pml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-main.rnc"
4 include "dml-diagram.rnc"
5 include "shared-commonSimpleTypes.rnc"
6 include "dml-lockedCanvas.rnc"
7 include "any.rnc"
8 include "dml-chart.rnc"
9 include "dml-chartDrawing.rnc"
10 include "dml-picture.rnc"
11 start = p_notes
```

#### B.4.1.6 Presentation Part

This schema is available in the file PresentationML\_Presentation.rnc.

```
1 include "pml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-main.rnc"
4 include "dml-diagram.rnc"
5 include "shared-commonSimpleTypes.rnc"
6 include "dml-lockedCanvas.rnc"
7 include "any.rnc"
8 include "dml-chart.rnc"
9 include "dml-chartDrawing.rnc"
10 include "dml-picture.rnc"
11 start = p_presentation
```

#### B.4.1.7 Presentation Properties Part

This schema is available in the file PresentationML\_Presentation\_Properties.rnc.

```
1 include "pml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-main.rnc"
4 include "dml-diagram.rnc"
5 include "shared-commonSimpleTypes.rnc"
6 include "dml-lockedCanvas.rnc"
7 include "any.rnc"
8 include "dml-chart.rnc"
9 include "dml-chartDrawing.rnc"
10 include "dml-picture.rnc"
11 start = p_presentationPr
```

#### B.4.1.8 Slide Part

This schema is available in the file PresentationML\_Slide.rnc.



```

1 include "pml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-main.rnc"
4 include "dml-diagram.rnc"
5 include "shared-commonSimpleTypes.rnc"
6 include "dml-lockedCanvas.rnc"
7 include "any.rnc"
8 include "dml-chart.rnc"
9 include "dml-chartDrawing.rnc"
10 include "dml-picture.rnc"
11 start = p_sld

```

#### B.4.1.9 Slide Layout Part

This schema is available in the file PresentationML\_Slide\_Layout.rnc.

```

1 include "pml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-main.rnc"
4 include "dml-diagram.rnc"
5 include "shared-commonSimpleTypes.rnc"
6 include "dml-lockedCanvas.rnc"
7 include "any.rnc"
8 include "dml-chart.rnc"
9 include "dml-chartDrawing.rnc"
10 include "dml-picture.rnc"
11 start = p_sldLayout

```

#### B.4.1.10 Slide Master Part

This schema is available in the file PresentationML\_Slide\_Master.rnc.

```

1 include "pml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-main.rnc"
4 include "dml-diagram.rnc"
5 include "shared-commonSimpleTypes.rnc"
6 include "dml-lockedCanvas.rnc"
7 include "any.rnc"
8 include "dml-chart.rnc"
9 include "dml-chartDrawing.rnc"
10 include "dml-picture.rnc"
11 start = p_sldMaster

```

#### B.4.1.11 Slide Synchronization Data Part

This schema is available in the file PresentationML\_Slide\_Synchronization\_Data.rnc.

```

1 include "pml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-main.rnc"
4 include "dml-diagram.rnc"
5 include "shared-commonSimpleTypes.rnc"
6 include "dml-lockedCanvas.rnc"

```



```

7 include "any.rnc"
8 include "dml-chart.rnc"
9 include "dml-chartDrawing.rnc"
10 include "dml-picture.rnc"
11 start = p_sldSyncPr

```

#### B.4.1.12 User Defined Tags Part

This schema is available in the file PresentationML\_User-Defined\_Tags.rnc.

```

1 include "pml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-main.rnc"
4 include "dml-diagram.rnc"
5 include "shared-commonSimpleTypes.rnc"
6 include "dml-lockedCanvas.rnc"
7 include "any.rnc"
8 include "dml-chart.rnc"
9 include "dml-chartDrawing.rnc"
10 include "dml-picture.rnc"
11 start = p_tagLst

```

#### B.4.1.13 View Properties Part

This schema is available in the file PresentationML\_View\_Properties.rnc.

```

1 include "pml.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-main.rnc"
4 include "dml-diagram.rnc"
5 include "shared-commonSimpleTypes.rnc"
6 include "dml-lockedCanvas.rnc"
7 include "any.rnc"
8 include "dml-chart.rnc"
9 include "dml-chartDrawing.rnc"
10 include "dml-picture.rnc"
11 start = p_viewPr

```

## B.5 DrawingML - Framework

### B.5.1 DrawingML - Main

This schema is available in the file dml-main.rnc.

```

1 default namespace =
2   "http://schemas.openxmlformats.org/drawingml/2006/main"
3 namespace a = "http://schemas.openxmlformats.org/drawingml/2006/main"
4 namespace o = "urn:schemas-microsoft-com:office:office"
5 namespace r =
6   "http://schemas.openxmlformats.org/officeDocument/2006/relationships"
7 namespace s =
8   "http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
9 namespace v = "urn:schemas-microsoft-com:vm1"
10 namespace w10 = "urn:schemas-microsoft-com:office:word"

```



```

11 namespace x = "urn:schemas-microsoft-com:office:excel"
12
13 a_CT_AudioFile =
14     r_link,
15     attribute contentType { xsd:string }?,
16     element extLst { a_CT_OfficeArtExtensionList }?
17 a_CT_VideoFile =
18     r_link,
19     attribute contentType { xsd:string }?,
20     element extLst { a_CT_OfficeArtExtensionList }?
21 a_CT_QuickTimeFile =
22     r_link,
23     element extLst { a_CT_OfficeArtExtensionList }?
24 a_CT_AudioCDTime =
25     attribute track { xsd:unsignedByte },
26
27     ## default value: 0
28     attribute time { xsd:unsignedInt }?
29 a_CT_AudioCD =
30     element st { a_CT_AudioCDTime },
31     element end { a_CT_AudioCDTime },
32     element extLst { a_CT_OfficeArtExtensionList }?
33 a_EG_Media =
34     element audioCd { a_CT_AudioCD }
35     | element wavAudioFile { a_CT_EmbeddedWAVAudioFile }
36     | element audioFile { a_CT_AudioFile }
37     | element videoFile { a_CT_VideoFile }
38     | element quickTimeFile { a_CT_QuickTimeFile }
39 a_videoFile = element videoFile { a_CT_VideoFile }
40 a_ST_StyleMatrixColumnIndex = xsd:unsignedInt
41 a_ST_FontCollectionIndex = "major" | "minor" | "none"
42 a_ST_ColorSchemeIndex =
43     "dk1"
44     | "lt1"
45     | "dk2"
46     | "lt2"
47     | "accent1"
48     | "accent2"
49     | "accent3"
50     | "accent4"
51     | "accent5"
52     | "accent6"
53     | "hlink"
54     | "folHlink"
55 a_CT_ColorScheme =
56     attribute name { xsd:string },
57     element dk1 { a_CT_Color },
58     element lt1 { a_CT_Color },
59     element dk2 { a_CT_Color },
60     element lt2 { a_CT_Color },
61     element accent1 { a_CT_Color },
62     element accent2 { a_CT_Color },
63     element accent3 { a_CT_Color },

```



```

64     element accent4 { a_CT_Color },
65     element accent5 { a_CT_Color },
66     element accent6 { a_CT_Color },
67     element hlink { a_CT_Color },
68     element folHlink { a_CT_Color },
69     element extLst { a_CT_OfficeArtExtensionList }?
70 a_CT_CustomColor =
71     attribute name { xsd:string }?,
72     a_EG_ColorChoice
73 a_CT_SupplementalFont =
74     attribute script { xsd:string },
75     attribute typeface { a_ST_TextTypeface }
76 a_CT_CustomColorList = element custClr { a_CT_CustomColor }*
77 a_CT_FontCollection =
78     element latin { a_CT_TextFont },
79     element ea { a_CT_TextFont },
80     element cs { a_CT_TextFont },
81     element font { a_CT_SupplementalFont }*,
82     element extLst { a_CT_OfficeArtExtensionList }?
83 a_CT_EffectStyleItem =
84     a_EG_EffectProperties,
85     element scene3d { a_CT_Scene3D }?,
86     element sp3d { a_CT_Shape3D }?
87 a_CT_FontScheme =
88     attribute name { xsd:string },
89     element majorFont { a_CT_FontCollection },
90     element minorFont { a_CT_FontCollection },
91     element extLst { a_CT_OfficeArtExtensionList }?
92 a_CT_FillStyleList = a_EG_FillProperties+
93 a_CT_LineStyleList = element ln { a_CT_LineProperties }+
94 a_CT_EffectStyleList = element effectStyle { a_CT_EffectStyleItem }+
95 a_CT_BackgroundFillStyleList = a_EG_FillProperties+
96 a_CT_StyleMatrix =
97     attribute name { xsd:string }?,
98     element fillStyleLst { a_CT_FillStyleList },
99     element lnStyleLst { a_CT_LineStyleList },
100    element effectStyleLst { a_CT_EffectStyleList },
101    element bgFillStyleLst { a_CT_BackgroundFillStyleList }
102 a_CT_BaseStyles =
103     element clrScheme { a_CT_ColorScheme },
104     element fontScheme { a_CT_FontScheme },
105     element fmtScheme { a_CT_StyleMatrix },
106     element extLst { a_CT_OfficeArtExtensionList }?
107 a_CT_OfficeArtExtension =
108     attribute uri { xsd:token },
109     a_CT_OfficeArtExtension_any*
110 a_CT_OfficeArtExtension_any =
111     element * - (o:* | v:* | w10:* | x:*) {
112         anyAttribute*,
113         mixed { anyElement* }
114     }
115 a_ST_Coordinate = a_ST_CoordinateUnqualified | s_ST_UniversalMeasure
116 a_ST_CoordinateUnqualified =

```



```

117     xsd:long {
118         minInclusive = "-27273042329600"
119         maxInclusive = "27273042316900"
120     }
121 a_ST_Coordinate32 = a_ST_Coordinate32Unqualified | s_ST_UniversalMeasure
122 a_ST_Coordinate32Unqualified = xsd:int
123 a_ST_PositiveCoordinate =
124     xsd:long { minInclusive = "0" maxInclusive = "27273042316900" }
125 a_ST_PositiveCoordinate32 = xsd:int { minInclusive = "0" }
126 a_ST_Angle = xsd:int
127 a_CT_Angle = attribute val { a_ST_Angle }
128 a_ST_FixedAngle =
129     xsd:int { minExclusive = "-5400000" maxExclusive = "5400000" }
130 a_ST_PositiveFixedAngle =
131     xsd:int { minInclusive = "0" maxExclusive = "21600000" }
132 a_CT_PositiveFixedAngle = attribute val { a_ST_PositiveFixedAngle }
133 a_ST_Percentage = a_ST_PercentageDecimal | s_ST_Percentage
134 a_ST_PercentageDecimal = xsd:int
135 a_CT_Percentage = attribute val { a_ST_Percentage }
136 a_ST_PositivePercentage =
137     a_ST_PositivePercentageDecimal | s_ST_PositivePercentage
138 a_ST_PositivePercentageDecimal = xsd:int { minInclusive = "0" }
139 a_CT_PositivePercentage = attribute val { a_ST_PositivePercentage }
140 a_ST_FixedPercentage =
141     a_ST_FixedPercentageDecimal | s_ST_FixedPercentage
142 a_ST_FixedPercentageDecimal =
143     xsd:int { minInclusive = "-100000" maxInclusive = "100000" }
144 a_CT_FixedPercentage = attribute val { a_ST_FixedPercentage }
145 a_ST_PositiveFixedPercentage =
146     a_ST_PositiveFixedPercentageDecimal | s_ST_PositiveFixedPercentage
147 a_ST_PositiveFixedPercentageDecimal =
148     xsd:int { minInclusive = "0" maxInclusive = "100000" }
149 a_CT_PositiveFixedPercentage =
150     attribute val { a_ST_PositiveFixedPercentage }
151 a_CT_Ratio =
152     attribute n { xsd:long },
153     attribute d { xsd:long }
154 a_CT_Point2D =
155     attribute x { a_ST_Coordinate },
156     attribute y { a_ST_Coordinate }
157 a_CT_PositiveSize2D =
158     attribute cx { a_ST_PositiveCoordinate },
159     attribute cy { a_ST_PositiveCoordinate }
160 a_CT_ComplementTransform = empty
161 a_CT_InverseTransform = empty
162 a_CT_GrayscaleTransform = empty
163 a_CT_GammaTransform = empty
164 a_CT_InverseGammaTransform = empty
165 a_EG_ColorTransform =
166     element tint { a_CT_PositiveFixedPercentage }
167     | element shade { a_CT_PositiveFixedPercentage }
168     | element comp { a_CT_ComplementTransform }
169     | element inv { a_CT_InverseTransform }

```



```

170 | element gray { a_CT_GrayscaleTransform }
171 | element alpha { a_CT_PositiveFixedPercentage }
172 | element alphaOff { a_CT_FixedPercentage }
173 | element alphaMod { a_CT_PositivePercentage }
174 | element hue { a_CT_PositiveFixedAngle }
175 | element hueOff { a_CT_Angle }
176 | element hueMod { a_CT_PositivePercentage }
177 | element sat { a_CT_Percentage }
178 | element satOff { a_CT_Percentage }
179 | element satMod { a_CT_Percentage }
180 | element lum { a_CT_Percentage }
181 | element lumOff { a_CT_Percentage }
182 | element lumMod { a_CT_Percentage }
183 | element red { a_CT_Percentage }
184 | element redOff { a_CT_Percentage }
185 | element redMod { a_CT_Percentage }
186 | element green { a_CT_Percentage }
187 | element greenOff { a_CT_Percentage }
188 | element greenMod { a_CT_Percentage }
189 | element blue { a_CT_Percentage }
190 | element blueOff { a_CT_Percentage }
191 | element blueMod { a_CT_Percentage }
192 | element gamma { a_CT_GammaTransform }
193 | element invGamma { a_CT_InverseGammaTransform }
194 a_CT_ScRgbColor =
195   attribute r { a_ST_Percentage },
196   attribute g { a_ST_Percentage },
197   attribute b { a_ST_Percentage },
198   a_EG_ColorTransform*
199 a_CT_SRgbColor =
200   attribute val { s_ST_HexColorRGB },
201   a_EG_ColorTransform*
202 a_CT_HslColor =
203   attribute hue { a_ST_PositiveFixedAngle },
204   attribute sat { a_ST_Percentage },
205   attribute lum { a_ST_Percentage },
206   a_EG_ColorTransform*
207 a_ST_SystemColorVal =
208   "scrollBar"
209   | "background"
210   | "activeCaption"
211   | "inactiveCaption"
212   | "menu"
213   | "window"
214   | "windowFrame"
215   | "menuText"
216   | "windowText"
217   | "captionText"
218   | "activeBorder"
219   | "inactiveBorder"
220   | "appWorkspace"
221   | "highlight"
222   | "highlightText"

```



```

223 | "btnFace"
224 | "btnShadow"
225 | "grayText"
226 | "btnText"
227 | "inactiveCaptionText"
228 | "btnHighlight"
229 | "3dDkShadow"
230 | "3dLight"
231 | "infoText"
232 | "infoBk"
233 | "hotLight"
234 | "gradientActiveCaption"
235 | "gradientInactiveCaption"
236 | "menuHighlight"
237 | "menuBar"
238 a_CT_SystemColor =
239   attribute val { a_ST_SystemColorVal },
240   attribute lastClr { s_ST_HexColorRGB }?,
241   a_EG_ColorTransform*
242 a_ST_SchemeColorVal =
243   "bg1"
244   | "tx1"
245   | "bg2"
246   | "tx2"
247   | "accent1"
248   | "accent2"
249   | "accent3"
250   | "accent4"
251   | "accent5"
252   | "accent6"
253   | "hlink"
254   | "foHlink"
255   | "phClr"
256   | "dk1"
257   | "lt1"
258   | "dk2"
259   | "lt2"
260 a_CT_SchemeColor =
261   attribute val { a_ST_SchemeColorVal },
262   a_EG_ColorTransform*
263 a_ST_PresetColorVal =
264   "aliceBlue"
265   | "antiqueWhite"
266   | "aqua"
267   | "aquamarine"
268   | "azure"
269   | "beige"
270   | "bisque"
271   | "black"
272   | "blanchedAlmond"
273   | "blue"
274   | "blueViolet"
275   | "brown"

```



276	"burlyWood"
277	"cadetBlue"
278	"chartreuse"
279	"chocolate"
280	"coral"
281	"cornflowerBlue"
282	"cornsilk"
283	"crimson"
284	"cyan"
285	"darkBlue"
286	"darkCyan"
287	"darkGoldenrod"
288	"darkGray"
289	"darkGrey"
290	"darkGreen"
291	"darkKhaki"
292	"darkMagenta"
293	"darkOliveGreen"
294	"darkOrange"
295	"darkOrchid"
296	"darkRed"
297	"darkSalmon"
298	"darkSeaGreen"
299	"darkSlateBlue"
300	"darkSlateGray"
301	"darkSlateGrey"
302	"darkTurquoise"
303	"darkViolet"
304	"dkBlue"
305	"dkCyan"
306	"dkGoldenrod"
307	"dkGray"
308	"dkGrey"
309	"dkGreen"
310	"dkKhaki"
311	"dkMagenta"
312	"dkOliveGreen"
313	"dkOrange"
314	"dkOrchid"
315	"dkRed"
316	"dkSalmon"
317	"dkSeaGreen"
318	"dkSlateBlue"
319	"dkSlateGray"
320	"dkSlateGrey"
321	"dkTurquoise"
322	"dkViolet"
323	"deepPink"
324	"deepSkyBlue"
325	"dimGray"
326	"dimGrey"
327	"dodgerBlue"
328	"firebrick"



```

329 | "floralWhite"
330 | "forestGreen"
331 | "fuchsia"
332 | "gainsboro"
333 | "ghostWhite"
334 | "gold"
335 | "goldenrod"
336 | "gray"
337 | "grey"
338 | "green"
339 | "greenYellow"
340 | "honeydew"
341 | "hotPink"
342 | "indianRed"
343 | "indigo"
344 | "ivory"
345 | "khaki"
346 | "lavender"
347 | "lavenderBlush"
348 | "lawnGreen"
349 | "lemonChiffon"
350 | "lightBlue"
351 | "lightCoral"
352 | "lightCyan"
353 | "lightGoldenrodYellow"
354 | "lightGray"
355 | "lightGrey"
356 | "lightGreen"
357 | "lightPink"
358 | "lightSalmon"
359 | "lightSeaGreen"
360 | "lightSkyBlue"
361 | "lightSlateGray"
362 | "lightSlateGrey"
363 | "lightSteelBlue"
364 | "lightYellow"
365 | "ltBlue"
366 | "ltCoral"
367 | "ltCyan"
368 | "ltGoldenrodYellow"
369 | "ltGray"
370 | "ltGrey"
371 | "ltGreen"
372 | "ltPink"
373 | "ltSalmon"
374 | "ltSeaGreen"
375 | "ltSkyBlue"
376 | "ltSlateGray"
377 | "ltSlateGrey"
378 | "ltSteelBlue"
379 | "ltYellow"
380 | "lime"
381 | "limeGreen"

```



382	"linen"
383	"magenta"
384	"maroon"
385	"medAquamarine"
386	"medBlue"
387	"medOrchid"
388	"medPurple"
389	"medSeaGreen"
390	"medSlateBlue"
391	"medSpringGreen"
392	"medTurquoise"
393	"medVioletRed"
394	"mediumAquamarine"
395	"mediumBlue"
396	"mediumOrchid"
397	"mediumPurple"
398	"mediumSeaGreen"
399	"mediumSlateBlue"
400	"mediumSpringGreen"
401	"mediumTurquoise"
402	"mediumVioletRed"
403	"midnightBlue"
404	"mintCream"
405	"mistyRose"
406	"moccasin"
407	"navajoWhite"
408	"navy"
409	"oldLace"
410	"olive"
411	"oliveDrab"
412	"orange"
413	"orangeRed"
414	"orchid"
415	"paleGoldenrod"
416	"paleGreen"
417	"paleTurquoise"
418	"paleVioletRed"
419	"papayaWhip"
420	"peachPuff"
421	"peru"
422	"pink"
423	"plum"
424	"powderBlue"
425	"purple"
426	"red"
427	"rosyBrown"
428	"royalBlue"
429	"saddleBrown"
430	"salmon"
431	"sandyBrown"
432	"seaGreen"
433	"seaShell"
434	"sienna"



```

435 | "silver"
436 | "skyBlue"
437 | "slateBlue"
438 | "slateGray"
439 | "slateGrey"
440 | "snow"
441 | "springGreen"
442 | "steelBlue"
443 | "tan"
444 | "teal"
445 | "thistle"
446 | "tomato"
447 | "turquoise"
448 | "violet"
449 | "wheat"
450 | "white"
451 | "whiteSmoke"
452 | "yellow"
453 | "yellowGreen"
454 a_CT_PresetColor =
455     attribute val { a_ST_PresetColorVal },
456     a_EG_ColorTransform*
457 a_EG_OfficeArtExtensionList = element ext { a_CT_OfficeArtExtension }*
458 a_CT_OfficeArtExtensionList = a_EG_OfficeArtExtensionList
459 a_CT_Scale2D =
460     element sx { a_CT_Ratio },
461     element sy { a_CT_Ratio }
462 a_CT_Transform2D =
463
464     ## default value: 0
465     attribute rot { a_ST_Angle }?,
466
467     ## default value: false
468     attribute flipH { xsd:boolean }?,
469
470     ## default value: false
471     attribute flipV { xsd:boolean }?,
472     element off { a_CT_Point2D }?,
473     element ext { a_CT_PositiveSize2D }?
474 a_CT_GroupTransform2D =
475
476     ## default value: 0
477     attribute rot { a_ST_Angle }?,
478
479     ## default value: false
480     attribute flipH { xsd:boolean }?,
481
482     ## default value: false
483     attribute flipV { xsd:boolean }?,
484     element off { a_CT_Point2D }?,
485     element ext { a_CT_PositiveSize2D }?,
486     element chOff { a_CT_Point2D }?,
487     element chExt { a_CT_PositiveSize2D }?

```



```

488 a_CT_Point3D =
489     attribute x { a_ST_Coordinate },
490     attribute y { a_ST_Coordinate },
491     attribute z { a_ST_Coordinate }
492 a_CT_Vector3D =
493     attribute dx { a_ST_Coordinate },
494     attribute dy { a_ST_Coordinate },
495     attribute dz { a_ST_Coordinate }
496 a_CT_SphereCoords =
497     attribute lat { a_ST_PositiveFixedAngle },
498     attribute lon { a_ST_PositiveFixedAngle },
499     attribute rev { a_ST_PositiveFixedAngle }
500 a_CT_RelativeRect =
501
502     ## default value: 0%
503     attribute l { a_ST_Percentage }?,
504
505     ## default value: 0%
506     attribute t { a_ST_Percentage }?,
507
508     ## default value: 0%
509     attribute r { a_ST_Percentage }?,
510
511     ## default value: 0%
512     attribute b { a_ST_Percentage }?
513 a_ST_RectAlignment =
514     "tl" | "t" | "tr" | "l" | "ctr" | "r" | "bl" | "b" | "br"
515 a_EG_ColorChoice =
516     element scrGbClr { a_CT_ScRgbColor }
517     | element srGbClr { a_CT_SRgbColor }
518     | element hslClr { a_CT_HslColor }
519     | element sysClr { a_CT_SystemColor }
520     | element schemeClr { a_CT_SchemeColor }
521     | element prstClr { a_CT_PresetColor }
522 a_CT_Color = a_EG_ColorChoice
523 a_CT_ColorMRU = a_EG_ColorChoice*
524 a_ST_BlackWhiteMode =
525     "clr"
526     | "auto"
527     | "gray"
528     | "ltGray"
529     | "invGray"
530     | "grayWhite"
531     | "blackGray"
532     | "blackWhite"
533     | "black"
534     | "white"
535     | "hidden"
536 a_AG_Blob = r_embed?, r_link?
537 a_CT_EmbeddedWAVAudioFile =
538     r_embed,
539     attribute name { xsd:string }?
540 a_CT_Hyperlink =

```



```

541 r_id?,
542 attribute invalidUrl { xsd:string }?,
543 attribute action { xsd:string }?,
544 attribute tgtFrame { xsd:string }?,
545 attribute tooltip { xsd:string }?,
546
547 ## default value: true
548 attribute history { xsd:boolean }?,
549
550 ## default value: false
551 attribute highlightClick { xsd:boolean }?,
552
553 ## default value: false
554 attribute endSnd { xsd:boolean }?,
555 element snd { a_CT_EmbeddedWAVAudioFile }?,
556 element extLst { a_CT_OfficeArtExtensionList }?
557 a_ST_DrawingElementId = xsd:unsignedInt
558 a_AG_Locking =
559
560 ## default value: false
561 attribute noGrp { xsd:boolean }?,
562
563 ## default value: false
564 attribute noSelect { xsd:boolean }?,
565
566 ## default value: false
567 attribute noRot { xsd:boolean }?,
568
569 ## default value: false
570 attribute noChangeAspect { xsd:boolean }?,
571
572 ## default value: false
573 attribute noMove { xsd:boolean }?,
574
575 ## default value: false
576 attribute noResize { xsd:boolean }?,
577
578 ## default value: false
579 attribute noEditPoints { xsd:boolean }?,
580
581 ## default value: false
582 attribute noAdjustHandles { xsd:boolean }?,
583
584 ## default value: false
585 attribute noChangeArrowheads { xsd:boolean }?,
586
587 ## default value: false
588 attribute noChangeShapeType { xsd:boolean }?
589 a_CT_ConnectorLocking =
590 a_AG_Locking,
591 element extLst { a_CT_OfficeArtExtensionList }?
592 a_CT_ShapeLocking =
593 a_AG_Locking,

```



```

594
595     ## default value: false
596     attribute noTextEdit { xsd:boolean }?,
597     element extLst { a_CT_OfficeArtExtensionList }?
598 a_CT_PictureLocking =
599     a_AG_Locking,
600
601     ## default value: false
602     attribute noCrop { xsd:boolean }?,
603     element extLst { a_CT_OfficeArtExtensionList }?
604 a_CT_GroupLocking =
605
606     ## default value: false
607     attribute noGrp { xsd:boolean }?,
608
609     ## default value: false
610     attribute noUngrp { xsd:boolean }?,
611
612     ## default value: false
613     attribute noSelect { xsd:boolean }?,
614
615     ## default value: false
616     attribute noRot { xsd:boolean }?,
617
618     ## default value: false
619     attribute noChangeAspect { xsd:boolean }?,
620
621     ## default value: false
622     attribute noMove { xsd:boolean }?,
623
624     ## default value: false
625     attribute noResize { xsd:boolean }?,
626     element extLst { a_CT_OfficeArtExtensionList }?
627 a_CT_GraphicalObjectFrameLocking =
628
629     ## default value: false
630     attribute noGrp { xsd:boolean }?,
631
632     ## default value: false
633     attribute noDrilldown { xsd:boolean }?,
634
635     ## default value: false
636     attribute noSelect { xsd:boolean }?,
637
638     ## default value: false
639     attribute noChangeAspect { xsd:boolean }?,
640
641     ## default value: false
642     attribute noMove { xsd:boolean }?,
643
644     ## default value: false
645     attribute noResize { xsd:boolean }?,
646     element extLst { a_CT_OfficeArtExtensionList }?

```



```

647 a_CT_ContentPartLocking =
648     a_AG_Locking,
649     element extLst { a_CT_OfficeArtExtensionList }?
650 a_CT_NonVisualDrawingProps =
651     attribute id { a_ST_DrawingElementId },
652     attribute name { xsd:string },
653     attribute descr { xsd:string }?,
654
655     ## default value: false
656     attribute hidden { xsd:boolean }?,
657     attribute title { xsd:string }?,
658     element hlinkClick { a_CT_Hyperlink }?,
659     element hlinkHover { a_CT_Hyperlink }?,
660     element extLst { a_CT_OfficeArtExtensionList }?
661 a_CT_NonVisualDrawingShapeProps =
662
663     ## default value: false
664     attribute txBox { xsd:boolean }?,
665     element spLocks { a_CT_ShapeLocking }?,
666     element extLst { a_CT_OfficeArtExtensionList }?
667 a_CT_NonVisualConnectorProperties =
668     element cxnSpLocks { a_CT_ConnectorLocking }?,
669     element stCxn { a_CT_Connection }?,
670     element endCxn { a_CT_Connection }?,
671     element extLst { a_CT_OfficeArtExtensionList }?
672 a_CT_NonVisualPictureProperties =
673
674     ## default value: true
675     attribute preferRelativeResize { xsd:boolean }?,
676     element picLocks { a_CT_PictureLocking }?,
677     element extLst { a_CT_OfficeArtExtensionList }?
678 a_CT_NonVisualGroupDrawingShapeProps =
679     element grpSpLocks { a_CT_GroupLocking }?,
680     element extLst { a_CT_OfficeArtExtensionList }?
681 a_CT_NonVisualGraphicFrameProperties =
682     element graphicFrameLocks { a_CT_GraphicalObjectFrameLocking }?,
683     element extLst { a_CT_OfficeArtExtensionList }?
684 a_CT_NonVisualContentPartProperties =
685
686     ## default value: true
687     attribute isComment { xsd:boolean }?,
688     element cpLocks { a_CT_ContentPartLocking }?,
689     element extLst { a_CT_OfficeArtExtensionList }?
690 a_CT_GraphicalObjectData =
691     attribute uri { xsd:token },
692     a_CT_GraphicalObjectData_any*
693 a_CT_GraphicalObjectData_any =
694     element * - (o:* | v:* | w10:* | x:*) {
695         anyAttribute*,
696         mixed { anyElement* }
697     }
698 a_CT_GraphicalObject = element graphicData { a_CT_GraphicalObjectData }
699 a_graphic = element graphic { a_CT_GraphicalObject }

```



```

700 a_ST_ChartBuildStep =
701     "category"
702     | "ptInCategory"
703     | "series"
704     | "ptInSeries"
705     | "allPts"
706     | "gridLegend"
707 a_ST_DgmBuildStep = "sp" | "bg"
708 a_CT_AnimationDgmElement =
709
710     ## default value: {00000000-0000-0000-0000-000000000000}
711     attribute id { s_ST_Guid }?,
712
713     ## default value: sp
714     attribute bldStep { a_ST_DgmBuildStep }?
715 a_CT_AnimationChartElement =
716
717     ## default value: -1
718     attribute seriesIdx { xsd:int }?,
719
720     ## default value: -1
721     attribute categoryIdx { xsd:int }?,
722     attribute bldStep { a_ST_ChartBuildStep }
723 a_CT_AnimationElementChoice =
724     element dgm { a_CT_AnimationDgmElement }
725     | element chart { a_CT_AnimationChartElement }
726 a_ST_AnimationBuildType = "allAtOnce"
727 a_ST_AnimationDgmOnlyBuildType = "one" | "lvlOne" | "lvlAtOnce"
728 a_ST_AnimationDgmBuildType =
729     a_ST_AnimationBuildType | a_ST_AnimationDgmOnlyBuildType
730 a_CT_AnimationDgmBuildProperties =
731
732     ## default value: allAtOnce
733     attribute bld { a_ST_AnimationDgmBuildType }?,
734
735     ## default value: false
736     attribute rev { xsd:boolean }?
737 a_ST_AnimationChartOnlyBuildType =
738     "series" | "category" | "seriesEl" | "categoryEl"
739 a_ST_AnimationChartBuildType =
740     a_ST_AnimationBuildType | a_ST_AnimationChartOnlyBuildType
741 a_CT_AnimationChartBuildProperties =
742
743     ## default value: allAtOnce
744     attribute bld { a_ST_AnimationChartBuildType }?,
745
746     ## default value: true
747     attribute animBg { xsd:boolean }?
748 a_CT_AnimationGraphicalObjectBuildProperties =
749     element bldDgm { a_CT_AnimationDgmBuildProperties }
750     | element bldChart { a_CT_AnimationChartBuildProperties }
751 a_CT_BackgroundFormatting = a_EG_FillProperties?, a_EG_EffectProperties?
752 a_CT_WholeE2oFormatting =

```



```

753     element ln { a_CT_LineProperties }?,
754     a_EG_EffectProperties?
755 a_CT_GvmlUseShapeRectangle = empty
756 a_CT_GvmlTextShape =
757     element txBody { a_CT_TextBody },
758     (element useSpRect { a_CT_GvmlUseShapeRectangle }
759     | element xfrm { a_CT_Transform2D }?),
760     element extLst { a_CT_OfficeArtExtensionList }?
761 a_CT_GvmlShapeNonVisual =
762     element cNvPr { a_CT_NonVisualDrawingProps },
763     element cNvSpPr { a_CT_NonVisualDrawingShapeProps }
764 a_CT_GvmlShape =
765     element nvSpPr { a_CT_GvmlShapeNonVisual },
766     element spPr { a_CT_ShapeProperties },
767     element txSp { a_CT_GvmlTextShape }?,
768     element style { a_CT_ShapeStyle }?,
769     element extLst { a_CT_OfficeArtExtensionList }?
770 a_CT_GvmlConnectorNonVisual =
771     element cNvPr { a_CT_NonVisualDrawingProps },
772     element cNvCxnSpPr { a_CT_NonVisualConnectorProperties }
773 a_CT_GvmlConnector =
774     element nvCxnSpPr { a_CT_GvmlConnectorNonVisual },
775     element spPr { a_CT_ShapeProperties },
776     element style { a_CT_ShapeStyle }?,
777     element extLst { a_CT_OfficeArtExtensionList }?
778 a_CT_GvmlPictureNonVisual =
779     element cNvPr { a_CT_NonVisualDrawingProps },
780     element cNvPicPr { a_CT_NonVisualPictureProperties }
781 a_CT_GvmlPicture =
782     element nvPicPr { a_CT_GvmlPictureNonVisual },
783     element blipFill { a_CT_BlipFillProperties },
784     element spPr { a_CT_ShapeProperties },
785     element style { a_CT_ShapeStyle }?,
786     element extLst { a_CT_OfficeArtExtensionList }?
787 a_CT_GvmlGraphicFrameNonVisual =
788     element cNvPr { a_CT_NonVisualDrawingProps },
789     element cNvGraphicFramePr { a_CT_NonVisualGraphicFrameProperties }
790 a_CT_GvmlGraphicalObjectFrame =
791     element nvGraphicFramePr { a_CT_GvmlGraphicFrameNonVisual },
792     a_graphic,
793     element xfrm { a_CT_Transform2D },
794     element extLst { a_CT_OfficeArtExtensionList }?
795 a_CT_GvmlGroupShapeNonVisual =
796     element cNvPr { a_CT_NonVisualDrawingProps },
797     element cNvGrpSpPr { a_CT_NonVisualGroupDrawingShapeProps }
798 a_CT_GvmlGroupShape =
799     element nvGrpSpPr { a_CT_GvmlGroupShapeNonVisual },
800     element grpSpPr { a_CT_GroupShapeProperties },
801     (element txSp { a_CT_GvmlTextShape }
802     | element sp { a_CT_GvmlShape }
803     | element cxnSp { a_CT_GvmlConnector }
804     | element pic { a_CT_GvmlPicture }
805     | element graphicFrame { a_CT_GvmlGraphicalObjectFrame }

```



```

806 | element grpSp { a_CT_GvmlGroupShape })*,
807 element extLst { a_CT_OfficeArtExtensionList }?
808 a_ST_PresetCameraType =
809 "legacyObliqueTopLeft"
810 | "legacyObliqueTop"
811 | "legacyObliqueTopRight"
812 | "legacyObliqueLeft"
813 | "legacyObliqueFront"
814 | "legacyObliqueRight"
815 | "legacyObliqueBottomLeft"
816 | "legacyObliqueBottom"
817 | "legacyObliqueBottomRight"
818 | "legacyPerspectiveTopLeft"
819 | "legacyPerspectiveTop"
820 | "legacyPerspectiveTopRight"
821 | "legacyPerspectiveLeft"
822 | "legacyPerspectiveFront"
823 | "legacyPerspectiveRight"
824 | "legacyPerspectiveBottomLeft"
825 | "legacyPerspectiveBottom"
826 | "legacyPerspectiveBottomRight"
827 | "orthographicFront"
828 | "isometricTopUp"
829 | "isometricTopDown"
830 | "isometricBottomUp"
831 | "isometricBottomDown"
832 | "isometricLeftUp"
833 | "isometricLeftDown"
834 | "isometricRightUp"
835 | "isometricRightDown"
836 | "isometricOffAxis1Left"
837 | "isometricOffAxis1Right"
838 | "isometricOffAxis1Top"
839 | "isometricOffAxis2Left"
840 | "isometricOffAxis2Right"
841 | "isometricOffAxis2Top"
842 | "isometricOffAxis3Left"
843 | "isometricOffAxis3Right"
844 | "isometricOffAxis3Bottom"
845 | "isometricOffAxis4Left"
846 | "isometricOffAxis4Right"
847 | "isometricOffAxis4Bottom"
848 | "obliqueTopLeft"
849 | "obliqueTop"
850 | "obliqueTopRight"
851 | "obliqueLeft"
852 | "obliqueRight"
853 | "obliqueBottomLeft"
854 | "obliqueBottom"
855 | "obliqueBottomRight"
856 | "perspectiveFront"
857 | "perspectiveLeft"
858 | "perspectiveRight"

```



```

859 | "perspectiveAbove"
860 | "perspectiveBelow"
861 | "perspectiveAboveLeftFacing"
862 | "perspectiveAboveRightFacing"
863 | "perspectiveContrastingLeftFacing"
864 | "perspectiveContrastingRightFacing"
865 | "perspectiveHeroicLeftFacing"
866 | "perspectiveHeroicRightFacing"
867 | "perspectiveHeroicExtremeLeftFacing"
868 | "perspectiveHeroicExtremeRightFacing"
869 | "perspectiveRelaxed"
870 | "perspectiveRelaxedModerately"
871 a_ST_FOVAngle = xsd:int { minInclusive = "0" maxInclusive = "10800000" }
872 a_CT_Camera =
873   attribute prst { a_ST_PresetCameraType },
874   attribute fov { a_ST_FOVAngle }?,
875
876   ## default value: 100%
877   attribute zoom { a_ST_PositivePercentage }?,
878   element rot { a_CT_SphereCoords }?
879 a_ST_LightRigDirection =
880   "tl" | "t" | "tr" | "l" | "r" | "bl" | "b" | "br"
881 a_ST_LightRigType =
882   "legacyFlat1"
883   | "legacyFlat2"
884   | "legacyFlat3"
885   | "legacyFlat4"
886   | "legacyNormal1"
887   | "legacyNormal2"
888   | "legacyNormal3"
889   | "legacyNormal4"
890   | "legacyHarsh1"
891   | "legacyHarsh2"
892   | "legacyHarsh3"
893   | "legacyHarsh4"
894   | "threePt"
895   | "balanced"
896   | "soft"
897   | "harsh"
898   | "flood"
899   | "contrasting"
900   | "morning"
901   | "sunrise"
902   | "sunset"
903   | "chilly"
904   | "freezing"
905   | "flat"
906   | "twoPt"
907   | "glow"
908   | "brightRoom"
909 a_CT_LightRig =
910   attribute rig { a_ST_LightRigType },
911   attribute dir { a_ST_LightRigDirection },

```



```

912     element rot { a_CT_SphereCoords }?
913 a_CT_Scene3D =
914     element camera { a_CT_Camera },
915     element lightRig { a_CT_LightRig },
916     element backdrop { a_CT_Backdrop }?,
917     element extLst { a_CT_OfficeArtExtensionList }?
918 a_CT_Backdrop =
919     element anchor { a_CT_Point3D },
920     element norm { a_CT_Vector3D },
921     element up { a_CT_Vector3D },
922     element extLst { a_CT_OfficeArtExtensionList }?
923 a_ST_BevelPresetType =
924     "relaxedInset"
925     | "circle"
926     | "slope"
927     | "cross"
928     | "angle"
929     | "softRound"
930     | "convex"
931     | "coolSlant"
932     | "divot"
933     | "ribblet"
934     | "hardEdge"
935     | "artDeco"
936 a_CT_Bevel =
937
938     ## default value: 76200
939     attribute w { a_ST_PositiveCoordinate }?,
940
941     ## default value: 76200
942     attribute h { a_ST_PositiveCoordinate }?,
943
944     ## default value: circle
945     attribute prst { a_ST_BevelPresetType }?
946 a_ST_PresetMaterialType =
947     "legacyMatte"
948     | "legacyPlastic"
949     | "legacyMetal"
950     | "legacyWireframe"
951     | "matte"
952     | "plastic"
953     | "metal"
954     | "warmMatte"
955     | "translucentPowder"
956     | "powder"
957     | "dkEdge"
958     | "softEdge"
959     | "clear"
960     | "flat"
961     | "softmetal"
962 a_CT_Shape3D =
963
964     ## default value: 0

```



```

965     attribute z { a_ST_Coordinate }?,
966
967     ## default value: 0
968     attribute extrusionH { a_ST_PositiveCoordinate }?,
969
970     ## default value: 0
971     attribute contourW { a_ST_PositiveCoordinate }?,
972
973     ## default value: warmMatte
974     attribute prstMaterial { a_ST_PresetMaterialType }?,
975     element bevelT { a_CT_Bevel }?,
976     element bevelB { a_CT_Bevel }?,
977     element extrusionClr { a_CT_Color }?,
978     element contourClr { a_CT_Color }?,
979     element extLst { a_CT_OfficeArtExtensionList }?
980 a_CT_FlatText =
981
982     ## default value: 0
983     attribute z { a_ST_Coordinate }?
984 a_EG_Text3D =
985     element sp3d { a_CT_Shape3D }
986     | element flatTx { a_CT_FlatText }
987 a_CT_AlphaBiLevelEffect =
988     attribute thresh { a_ST_PositiveFixedPercentage }
989 a_CT_AlphaCeilingEffect = empty
990 a_CT_AlphaFloorEffect = empty
991 a_CT_AlphaInverseEffect = a_EG_ColorChoice?
992 a_CT_AlphaModulateFixedEffect =
993
994     ## default value: 100%
995     attribute amt { a_ST_PositivePercentage }?
996 a_CT_AlphaOutsetEffect =
997
998     ## default value: 0
999     attribute rad { a_ST_Coordinate }?
1000 a_CT_AlphaReplaceEffect = attribute a { a_ST_PositiveFixedPercentage }
1001 a_CT_BiLevelEffect = attribute thresh { a_ST_PositiveFixedPercentage }
1002 a_CT_BlurEffect =
1003
1004     ## default value: 0
1005     attribute rad { a_ST_PositiveCoordinate }?,
1006
1007     ## default value: true
1008     attribute grow { xsd:boolean }?
1009 a_CT_ColorChangeEffect =
1010
1011     ## default value: true
1012     attribute useA { xsd:boolean }?,
1013     element clrFrom { a_CT_Color },
1014     element clrTo { a_CT_Color }
1015 a_CT_ColorReplaceEffect = a_EG_ColorChoice
1016 a_CT_DuotoneEffect = a_EG_ColorChoice+
1017 a_CT_GlowEffect =

```



```

1018
1019     ## default value: 0
1020     attribute rad { a_ST_PositiveCoordinate }?,
1021     a_EG_ColorChoice
1022 a_CT_GrayscaleEffect = empty
1023 a_CT_HSLEffect =
1024
1025     ## default value: 0
1026     attribute hue { a_ST_PositiveFixedAngle }?,
1027
1028     ## default value: 0%
1029     attribute sat { a_ST_FixedPercentage }?,
1030
1031     ## default value: 0%
1032     attribute lum { a_ST_FixedPercentage }?
1033 a_CT_InnerShadowEffect =
1034
1035     ## default value: 0
1036     attribute blurRad { a_ST_PositiveCoordinate }?,
1037
1038     ## default value: 0
1039     attribute dist { a_ST_PositiveCoordinate }?,
1040
1041     ## default value: 0
1042     attribute dir { a_ST_PositiveFixedAngle }?,
1043     a_EG_ColorChoice
1044 a_CT_LuminanceEffect =
1045
1046     ## default value: 0%
1047     attribute bright { a_ST_FixedPercentage }?,
1048
1049     ## default value: 0%
1050     attribute contrast { a_ST_FixedPercentage }?
1051 a_CT_OuterShadowEffect =
1052
1053     ## default value: 0
1054     attribute blurRad { a_ST_PositiveCoordinate }?,
1055
1056     ## default value: 0
1057     attribute dist { a_ST_PositiveCoordinate }?,
1058
1059     ## default value: 0
1060     attribute dir { a_ST_PositiveFixedAngle }?,
1061
1062     ## default value: 100%
1063     attribute sx { a_ST_Percentage }?,
1064
1065     ## default value: 100%
1066     attribute sy { a_ST_Percentage }?,
1067
1068     ## default value: 0
1069     attribute kx { a_ST_FixedAngle }?,
1070

```



```

1071 ## default value: 0
1072 attribute ky { a_ST_FixedAngle }?,
1073
1074 ## default value: b
1075 attribute algn { a_ST_RectAlignment }?,
1076
1077 ## default value: true
1078 attribute rotWithShape { xsd:boolean }?,
1079 a_EG_ColorChoice
1080 a_ST_PresetShadowVal =
1081 "shdw1"
1082 | "shdw2"
1083 | "shdw3"
1084 | "shdw4"
1085 | "shdw5"
1086 | "shdw6"
1087 | "shdw7"
1088 | "shdw8"
1089 | "shdw9"
1090 | "shdw10"
1091 | "shdw11"
1092 | "shdw12"
1093 | "shdw13"
1094 | "shdw14"
1095 | "shdw15"
1096 | "shdw16"
1097 | "shdw17"
1098 | "shdw18"
1099 | "shdw19"
1100 | "shdw20"
1101 a_CT_PresetShadowEffect =
1102 attribute prst { a_ST_PresetShadowVal },
1103
1104 ## default value: 0
1105 attribute dist { a_ST_PositiveCoordinate }?,
1106
1107 ## default value: 0
1108 attribute dir { a_ST_PositiveFixedAngle }?,
1109 a_EG_ColorChoice
1110 a_CT_ReflectionEffect =
1111
1112 ## default value: 0
1113 attribute blurRad { a_ST_PositiveCoordinate }?,
1114
1115 ## default value: 100%
1116 attribute stA { a_ST_PositiveFixedPercentage }?,
1117
1118 ## default value: 0%
1119 attribute stPos { a_ST_PositiveFixedPercentage }?,
1120
1121 ## default value: 0%
1122 attribute endA { a_ST_PositiveFixedPercentage }?,
1123

```



```

1124 ## default value: 100%
1125 attribute endPos { a_ST_PositiveFixedPercentage }?,
1126
1127 ## default value: 0
1128 attribute dist { a_ST_PositiveCoordinate }?,
1129
1130 ## default value: 0
1131 attribute dir { a_ST_PositiveFixedAngle }?,
1132
1133 ## default value: 5400000
1134 attribute fadeDir { a_ST_PositiveFixedAngle }?,
1135
1136 ## default value: 100%
1137 attribute sx { a_ST_Percentage }?,
1138
1139 ## default value: 100%
1140 attribute sy { a_ST_Percentage }?,
1141
1142 ## default value: 0
1143 attribute kx { a_ST_FixedAngle }?,
1144
1145 ## default value: 0
1146 attribute ky { a_ST_FixedAngle }?,
1147
1148 ## default value: b
1149 attribute algn { a_ST_RectAlignment }?,
1150
1151 ## default value: true
1152 attribute rotWithShape { xsd:boolean }?
1153 a_CT_RelativeOffsetEffect =
1154
1155 ## default value: 0%
1156 attribute tx { a_ST_Percentage }?,
1157
1158 ## default value: 0%
1159 attribute ty { a_ST_Percentage }?
1160 a_CT_SoftEdgesEffect = attribute rad { a_ST_PositiveCoordinate }
1161 a_CT_TintEffect =
1162
1163 ## default value: 0
1164 attribute hue { a_ST_PositiveFixedAngle }?,
1165
1166 ## default value: 0%
1167 attribute amt { a_ST_FixedPercentage }?
1168 a_CT_TransformEffect =
1169
1170 ## default value: 100%
1171 attribute sx { a_ST_Percentage }?,
1172
1173 ## default value: 100%
1174 attribute sy { a_ST_Percentage }?,
1175
1176 ## default value: 0

```



```

1177 attribute kx { a_ST_FixedAngle }?,
1178
1179 ## default value: 0
1180 attribute ky { a_ST_FixedAngle }?,
1181
1182 ## default value: 0
1183 attribute tx { a_ST_Coordinate }?,
1184
1185 ## default value: 0
1186 attribute ty { a_ST_Coordinate }?
1187 a_CT_NoFillProperties = empty
1188 a_CT_SolidColorFillProperties = a_EG_ColorChoice?
1189 a_CT_LinearShadeProperties =
1190   attribute ang { a_ST_PositiveFixedAngle }?,
1191   attribute scaled { xsd:boolean }?
1192 a_ST_PathShadeType = "shape" | "circle" | "rect"
1193 a_CT_PathShadeProperties =
1194   attribute path { a_ST_PathShadeType }?,
1195   element fillToRect { a_CT_RelativeRect }?
1196 a_EG_ShadeProperties =
1197   element lin { a_CT_LinearShadeProperties }
1198   | element path { a_CT_PathShadeProperties }
1199 a_ST_TileFlipMode = "none" | "x" | "y" | "xy"
1200 a_CT_GradientStop =
1201   attribute pos { a_ST_PositiveFixedPercentage },
1202   a_EG_ColorChoice
1203 a_CT_GradientStopList = element gs { a_CT_GradientStop }+
1204 a_CT_GradientFillProperties =
1205   attribute flip { a_ST_TileFlipMode }?,
1206   attribute rotWithShape { xsd:boolean }?,
1207   element gsList { a_CT_GradientStopList }?,
1208   a_EG_ShadeProperties?,
1209   element tileRect { a_CT_RelativeRect }?
1210 a_CT_TileInfoProperties =
1211   attribute tx { a_ST_Coordinate }?,
1212   attribute ty { a_ST_Coordinate }?,
1213   attribute sx { a_ST_Percentage }?,
1214   attribute sy { a_ST_Percentage }?,
1215   attribute flip { a_ST_TileFlipMode }?,
1216   attribute algn { a_ST_RectAlignment }?
1217 a_CT_StretchInfoProperties = element fillRect { a_CT_RelativeRect }?
1218 a_EG_FillModeProperties =
1219   element tile { a_CT_TileInfoProperties }
1220   | element stretch { a_CT_StretchInfoProperties }
1221 a_ST_BlipCompression = "email" | "screen" | "print" | "hqprint" | "none"
1222 a_CT_Blip =
1223   a_AG_Blob,
1224
1225 ## default value: none
1226 attribute cstate { a_ST_BlipCompression }?,
1227 (element alphaBiLevel { a_CT_AlphaBiLevelEffect }
1228   | element alphaCeiling { a_CT_AlphaCeilingEffect }
1229   | element alphaFloor { a_CT_AlphaFloorEffect }

```



```

1230 | element alphaInv { a_CT_AlphaInverseEffect }
1231 | element alphaMod { a_CT_AlphaModulateEffect }
1232 | element alphaModFix { a_CT_AlphaModulateFixedEffect }
1233 | element alphaRepl { a_CT_AlphaReplaceEffect }
1234 | element biLevel { a_CT_BiLevelEffect }
1235 | element blur { a_CT_BlurEffect }
1236 | element clrChange { a_CT_ColorChangeEffect }
1237 | element clrRepl { a_CT_ColorReplaceEffect }
1238 | element duotone { a_CT_DuotoneEffect }
1239 | element fillOverlay { a_CT_FillOverlayEffect }
1240 | element grayscl { a_CT_GrayscaleEffect }
1241 | element hsl { a_CT_HSLEffect }
1242 | element lum { a_CT_LuminanceEffect }
1243 | element tint { a_CT_TintEffect })*,
1244 | element extLst { a_CT_OfficeArtExtensionList }?
1245 a_CT_BlipFillProperties =
1246 | attribute dpi { xsd:unsignedInt }?,
1247 | attribute rotWithShape { xsd:boolean }?,
1248 | element blip { a_CT_Blip }?,
1249 | element srcRect { a_CT_RelativeRect }?,
1250 | a_EG_FillModeProperties?
1251 a_ST_PresetPatternVal =
1252 | "pct5"
1253 | "pct10"
1254 | "pct20"
1255 | "pct25"
1256 | "pct30"
1257 | "pct40"
1258 | "pct50"
1259 | "pct60"
1260 | "pct70"
1261 | "pct75"
1262 | "pct80"
1263 | "pct90"
1264 | "horz"
1265 | "vert"
1266 | "ltHorz"
1267 | "ltVert"
1268 | "dkHorz"
1269 | "dkVert"
1270 | "narHorz"
1271 | "narVert"
1272 | "dashHorz"
1273 | "dashVert"
1274 | "cross"
1275 | "dnDiag"
1276 | "upDiag"
1277 | "ltDnDiag"
1278 | "ltUpDiag"
1279 | "dkDnDiag"
1280 | "dkUpDiag"
1281 | "wdDnDiag"
1282 | "wdUpDiag"

```



```

1283 | "dashDnDiag"
1284 | "dashUpDiag"
1285 | "diagCross"
1286 | "smCheck"
1287 | "lgCheck"
1288 | "smGrid"
1289 | "lgGrid"
1290 | "dotGrid"
1291 | "smConfetti"
1292 | "lgConfetti"
1293 | "horzBrick"
1294 | "diagBrick"
1295 | "solidDmnd"
1296 | "openDmnd"
1297 | "dotDmnd"
1298 | "plaid"
1299 | "sphere"
1300 | "weave"
1301 | "divot"
1302 | "shingle"
1303 | "wave"
1304 | "trellis"
1305 | "zigZag"
1306 a_CT_PatternFillProperties =
1307   attribute prst { a_ST_PresetPatternVal }?,
1308   element fgClr { a_CT_Color }?,
1309   element bgClr { a_CT_Color }?
1310 a_CT_GroupFillProperties = empty
1311 a_EG_FillProperties =
1312   element noFill { a_CT_NoFillProperties }
1313   | element solidFill { a_CT_SolidColorFillProperties }
1314   | element gradFill { a_CT_GradientFillProperties }
1315   | element blipFill { a_CT_BlipFillProperties }
1316   | element pattFill { a_CT_PatternFillProperties }
1317   | element grpFill { a_CT_GroupFillProperties }
1318 a_CT_FillProperties = a_EG_FillProperties
1319 a_CT_FillEffect = a_EG_FillProperties
1320 a_ST_BlendMode = "over" | "mult" | "screen" | "darken" | "lighten"
1321 a_CT_FillOverlayEffect =
1322   attribute blend { a_ST_BlendMode },
1323   a_EG_FillProperties
1324 a_CT_EffectReference = attribute ref { xsd:token }
1325 a_EG_Effect =
1326   element cont { a_CT_EffectContainer }
1327   | element effect { a_CT_EffectReference }
1328   | element alphaBiLevel { a_CT_AlphaBiLevelEffect }
1329   | element alphaCeiling { a_CT_AlphaCeilingEffect }
1330   | element alphaFloor { a_CT_AlphaFloorEffect }
1331   | element alphaInv { a_CT_AlphaInverseEffect }
1332   | element alphaMod { a_CT_AlphaModulateEffect }
1333   | element alphaModFix { a_CT_AlphaModulateFixedEffect }
1334   | element alphaOutset { a_CT_AlphaOutsetEffect }
1335   | element alphaRepl { a_CT_AlphaReplaceEffect }

```



```

1336 | element biLevel { a_CT_BiLevelEffect }
1337 | element blend { a_CT_BlendEffect }
1338 | element blur { a_CT_BlurEffect }
1339 | element clrChange { a_CT_ColorChangeEffect }
1340 | element clrRepl { a_CT_ColorReplaceEffect }
1341 | element duotone { a_CT_DuotoneEffect }
1342 | element fill { a_CT_FillEffect }
1343 | element fillOverlay { a_CT_FillOverlayEffect }
1344 | element glow { a_CT_GlowEffect }
1345 | element grayscl { a_CT_GrayscaleEffect }
1346 | element hsl { a_CT_HSLEffect }
1347 | element innerShdw { a_CT_InnerShadowEffect }
1348 | element lum { a_CT_LuminanceEffect }
1349 | element outerShdw { a_CT_OuterShadowEffect }
1350 | element prstShdw { a_CT_PresetShadowEffect }
1351 | element reflection { a_CT_ReflectionEffect }
1352 | element relOff { a_CT_RelativeOffsetEffect }
1353 | element softEdge { a_CT_SoftEdgesEffect }
1354 | element tint { a_CT_TintEffect }
1355 | element xfrm { a_CT_TransformEffect }
1356 a_ST_EffectContainerType = "sib" | "tree"
1357 a_CT_EffectContainer =
1358
1359   ## default value: sib
1360   attribute type { a_ST_EffectContainerType }?,
1361   attribute name { xsd:token }?,
1362   a_EG_Effect*
1363 a_CT_AlphaModulateEffect = element cont { a_CT_EffectContainer }
1364 a_CT_BlendEffect =
1365   attribute blend { a_ST_BlendMode },
1366   element cont { a_CT_EffectContainer }
1367 a_CT_EffectList =
1368   element blur { a_CT_BlurEffect }?,
1369   element fillOverlay { a_CT_FillOverlayEffect }?,
1370   element glow { a_CT_GlowEffect }?,
1371   element innerShdw { a_CT_InnerShadowEffect }?,
1372   element outerShdw { a_CT_OuterShadowEffect }?,
1373   element prstShdw { a_CT_PresetShadowEffect }?,
1374   element reflection { a_CT_ReflectionEffect }?,
1375   element softEdge { a_CT_SoftEdgesEffect }?
1376 a_EG_EffectProperties =
1377   element effectLst { a_CT_EffectList }
1378   | element effectDag { a_CT_EffectContainer }
1379 a_CT_EffectProperties = a_EG_EffectProperties
1380 a_blip = element blip { a_CT_Blip }
1381 a_ST_ShapeType =
1382   "line"
1383   | "lineInv"
1384   | "triangle"
1385   | "rtTriangle"
1386   | "rect"
1387   | "diamond"
1388   | "parallelogram"

```



```

1389 | "trapezoid"
1390 | "nonIsoscelesTrapezoid"
1391 | "pentagon"
1392 | "hexagon"
1393 | "heptagon"
1394 | "octagon"
1395 | "decagon"
1396 | "dodecagon"
1397 | "star4"
1398 | "star5"
1399 | "star6"
1400 | "star7"
1401 | "star8"
1402 | "star10"
1403 | "star12"
1404 | "star16"
1405 | "star24"
1406 | "star32"
1407 | "roundRect"
1408 | "round1Rect"
1409 | "round2SameRect"
1410 | "round2DiagRect"
1411 | "snipRoundRect"
1412 | "snip1Rect"
1413 | "snip2SameRect"
1414 | "snip2DiagRect"
1415 | "plaque"
1416 | "ellipse"
1417 | "teardrop"
1418 | "homePlate"
1419 | "chevron"
1420 | "pieWedge"
1421 | "pie"
1422 | "blockArc"
1423 | "donut"
1424 | "noSmoking"
1425 | "rightArrow"
1426 | "leftArrow"
1427 | "upArrow"
1428 | "downArrow"
1429 | "stripedRightArrow"
1430 | "notchedRightArrow"
1431 | "bentUpArrow"
1432 | "leftRightArrow"
1433 | "upDownArrow"
1434 | "leftUpArrow"
1435 | "leftRightUpArrow"
1436 | "quadArrow"
1437 | "leftArrowCallout"
1438 | "rightArrowCallout"
1439 | "upArrowCallout"
1440 | "downArrowCallout"
1441 | "leftRightArrowCallout"

```



1442	"upDownArrowCallout"
1443	"quadArrowCallout"
1444	"bentArrow"
1445	"uturnArrow"
1446	"circularArrow"
1447	"leftCircularArrow"
1448	"leftRightCircularArrow"
1449	"curvedRightArrow"
1450	"curvedLeftArrow"
1451	"curvedUpArrow"
1452	"curvedDownArrow"
1453	"swooshArrow"
1454	"cube"
1455	"can"
1456	"lightningBolt"
1457	"heart"
1458	"sun"
1459	"moon"
1460	"smileyFace"
1461	"irregularSeal1"
1462	"irregularSeal2"
1463	"foldedCorner"
1464	"bevel"
1465	"frame"
1466	"halfFrame"
1467	"corner"
1468	"diagStripe"
1469	"chord"
1470	"arc"
1471	"leftBracket"
1472	"rightBracket"
1473	"leftBrace"
1474	"rightBrace"
1475	"bracketPair"
1476	"bracePair"
1477	"straightConnector1"
1478	"bentConnector2"
1479	"bentConnector3"
1480	"bentConnector4"
1481	"bentConnector5"
1482	"curvedConnector2"
1483	"curvedConnector3"
1484	"curvedConnector4"
1485	"curvedConnector5"
1486	"callout1"
1487	"callout2"
1488	"callout3"
1489	"accentCallout1"
1490	"accentCallout2"
1491	"accentCallout3"
1492	"borderCallout1"
1493	"borderCallout2"
1494	"borderCallout3"



1495	"accentBorderCallout1"
1496	"accentBorderCallout2"
1497	"accentBorderCallout3"
1498	"wedgeRectCallout"
1499	"wedgeRoundRectCallout"
1500	"wedgeEllipseCallout"
1501	"cloudCallout"
1502	"cloud"
1503	"ribbon"
1504	"ribbon2"
1505	"ellipseRibbon"
1506	"ellipseRibbon2"
1507	"leftRightRibbon"
1508	"verticalScroll"
1509	"horizontalScroll"
1510	"wave"
1511	"doubleWave"
1512	"plus"
1513	"flowChartProcess"
1514	"flowChartDecision"
1515	"flowChartInputOutput"
1516	"flowChartPredefinedProcess"
1517	"flowChartInternalStorage"
1518	"flowChartDocument"
1519	"flowChartMultidocument"
1520	"flowChartTerminator"
1521	"flowChartPreparation"
1522	"flowChartManualInput"
1523	"flowChartManualOperation"
1524	"flowChartConnector"
1525	"flowChartPunchedCard"
1526	"flowChartPunchedTape"
1527	"flowChartSummingJunction"
1528	"flowChartOr"
1529	"flowChartCollate"
1530	"flowChartSort"
1531	"flowChartExtract"
1532	"flowChartMerge"
1533	"flowChartOfflineStorage"
1534	"flowChartOnlineStorage"
1535	"flowChartMagneticTape"
1536	"flowChartMagneticDisk"
1537	"flowChartMagneticDrum"
1538	"flowChartDisplay"
1539	"flowChartDelay"
1540	"flowChartAlternateProcess"
1541	"flowChartOffpageConnector"
1542	"actionButtonBlank"
1543	"actionButtonHome"
1544	"actionButtonHelp"
1545	"actionButtonInformation"
1546	"actionButtonForwardNext"
1547	"actionButtonBackPrevious"



```

1548 | "actionButtonEnd"
1549 | "actionButtonBeginning"
1550 | "actionButtonReturn"
1551 | "actionButtonDocument"
1552 | "actionButtonSound"
1553 | "actionButtonMovie"
1554 | "gear6"
1555 | "gear9"
1556 | "funnel"
1557 | "mathPlus"
1558 | "mathMinus"
1559 | "mathMultiply"
1560 | "mathDivide"
1561 | "mathEqual"
1562 | "mathNotEqual"
1563 | "cornerTabs"
1564 | "squareTabs"
1565 | "plaqueTabs"
1566 | "chartX"
1567 | "chartStar"
1568 | "chartPlus"
1569 a_ST_TextShapeType =
1570   "textNoShape"
1571   | "textPlain"
1572   | "textStop"
1573   | "textTriangle"
1574   | "textTriangleInverted"
1575   | "textChevron"
1576   | "textChevronInverted"
1577   | "textRingInside"
1578   | "textRingOutside"
1579   | "textArchUp"
1580   | "textArchDown"
1581   | "textCircle"
1582   | "textButton"
1583   | "textArchUpPour"
1584   | "textArchDownPour"
1585   | "textCirclePour"
1586   | "textButtonPour"
1587   | "textCurveUp"
1588   | "textCurveDown"
1589   | "textCanUp"
1590   | "textCanDown"
1591   | "textWave1"
1592   | "textWave2"
1593   | "textDoubleWave1"
1594   | "textWave4"
1595   | "textInflate"
1596   | "textDeflate"
1597   | "textInflateBottom"
1598   | "textDeflateBottom"
1599   | "textInflateTop"
1600   | "textDeflateTop"

```



```

1601 | "textDeflateInflate"
1602 | "textDeflateInflateDeflate"
1603 | "textFadeRight"
1604 | "textFadeLeft"
1605 | "textFadeUp"
1606 | "textFadeDown"
1607 | "textSlantUp"
1608 | "textSlantDown"
1609 | "textCascadeUp"
1610 | "textCascadeDown"
1611 a_ST_GeomGuideName = xsd:token
1612 a_ST_GeomGuideFormula = xsd:string
1613 a_CT_GeomGuide =
1614     attribute name { a_ST_GeomGuideName },
1615     attribute fmla { a_ST_GeomGuideFormula }
1616 a_CT_GeomGuideList = element gd { a_CT_GeomGuide }*
1617 a_ST_AdjCoordinate = a_ST_Coordinate | a_ST_GeomGuideName
1618 a_ST_AdjAngle = a_ST_Angle | a_ST_GeomGuideName
1619 a_CT_AdjPoint2D =
1620     attribute x { a_ST_AdjCoordinate },
1621     attribute y { a_ST_AdjCoordinate }
1622 a_CT_GeomRect =
1623     attribute l { a_ST_AdjCoordinate },
1624     attribute t { a_ST_AdjCoordinate },
1625     attribute r { a_ST_AdjCoordinate },
1626     attribute b { a_ST_AdjCoordinate }
1627 a_CT_XYAdjustHandle =
1628     attribute gdRefX { a_ST_GeomGuideName }?,
1629     attribute minX { a_ST_AdjCoordinate }?,
1630     attribute maxX { a_ST_AdjCoordinate }?,
1631     attribute gdRefY { a_ST_GeomGuideName }?,
1632     attribute minY { a_ST_AdjCoordinate }?,
1633     attribute maxY { a_ST_AdjCoordinate }?,
1634     element pos { a_CT_AdjPoint2D }
1635 a_CT_PolarAdjustHandle =
1636     attribute gdRefR { a_ST_GeomGuideName }?,
1637     attribute minR { a_ST_AdjCoordinate }?,
1638     attribute maxR { a_ST_AdjCoordinate }?,
1639     attribute gdRefAng { a_ST_GeomGuideName }?,
1640     attribute minAng { a_ST_AdjAngle }?,
1641     attribute maxAng { a_ST_AdjAngle }?,
1642     element pos { a_CT_AdjPoint2D }
1643 a_CT_ConnectionSite =
1644     attribute ang { a_ST_AdjAngle },
1645     element pos { a_CT_AdjPoint2D }
1646 a_CT_AdjustHandleList =
1647     (element ahXY { a_CT_XYAdjustHandle }
1648     | element ahPolar { a_CT_PolarAdjustHandle })*
1649 a_CT_ConnectionSiteList = element cxn { a_CT_ConnectionSite }*
1650 a_CT_Connection =
1651     attribute id { a_ST_DrawingElementId },
1652     attribute idx { xsd:unsignedInt }
1653 a_CT_Path2DMoveTo = element pt { a_CT_AdjPoint2D }

```



```

1654 a_CT_Path2DLineTo = element pt { a_CT_AdjPoint2D }
1655 a_CT_Path2DArcTo =
1656   attribute wR { a_ST_AdjCoordinate },
1657   attribute hR { a_ST_AdjCoordinate },
1658   attribute stAng { a_ST_AdjAngle },
1659   attribute swAng { a_ST_AdjAngle }
1660 a_CT_Path2DQuadBezierTo = element pt { a_CT_AdjPoint2D }+
1661 a_CT_Path2DCubicBezierTo = element pt { a_CT_AdjPoint2D }+
1662 a_CT_Path2DClose = empty
1663 a_ST_PathFillMode =
1664   "none" | "norm" | "lighten" | "lightenLess" | "darken" | "darkenLess"
1665 a_CT_Path2D =
1666
1667   ## default value: 0
1668   attribute w { a_ST_PositiveCoordinate }?,
1669
1670   ## default value: 0
1671   attribute h { a_ST_PositiveCoordinate }?,
1672
1673   ## default value: norm
1674   attribute fill { a_ST_PathFillMode }?,
1675
1676   ## default value: true
1677   attribute stroke { xsd:boolean }?,
1678
1679   ## default value: true
1680   attribute extrusionOk { xsd:boolean }?,
1681   (element close { a_CT_Path2DClose }
1682    | element moveTo { a_CT_Path2DMoveTo }
1683    | element lnTo { a_CT_Path2DLineTo }
1684    | element arcTo { a_CT_Path2DArcTo }
1685    | element quadBezTo { a_CT_Path2DQuadBezierTo }
1686    | element cubicBezTo { a_CT_Path2DCubicBezierTo })*
1687 a_CT_Path2DList = element path { a_CT_Path2D }*
1688 a_CT_PresetGeometry2D =
1689   attribute prst { a_ST_ShapeType },
1690   element avLst { a_CT_GeomGuideList }?
1691 a_CT_PresetTextShape =
1692   attribute prst { a_ST_TextShapeType },
1693   element avLst { a_CT_GeomGuideList }?
1694 a_CT_CustomGeometry2D =
1695   element avLst { a_CT_GeomGuideList }?,
1696   element gdLst { a_CT_GeomGuideList }?,
1697   element ahLst { a_CT_AdjustHandleList }?,
1698   element cxnLst { a_CT_ConnectionSiteList }?,
1699   element rect { a_CT_GeomRect }?,
1700   element pathLst { a_CT_Path2DList }
1701 a_EG_Geometry =
1702   element custGeom { a_CT_CustomGeometry2D }
1703   | element prstGeom { a_CT_PresetGeometry2D }
1704 a_EG_TextGeometry =
1705   element custGeom { a_CT_CustomGeometry2D }
1706   | element prstTxWarp { a_CT_PresetTextShape }

```



```

1707 a_ST_LineEndType =
1708     "none" | "triangle" | "stealth" | "diamond" | "oval" | "arrow"
1709 a_ST_LineEndWidth = "sm" | "med" | "lg"
1710 a_ST_LineEndLength = "sm" | "med" | "lg"
1711 a_CT_LineEndProperties =
1712     attribute type { a_ST_LineEndType }?,
1713     attribute w { a_ST_LineEndWidth }?,
1714     attribute len { a_ST_LineEndLength }?
1715 a_EG_LineFillProperties =
1716     element noFill { a_CT_NoFillProperties }
1717     | element solidFill { a_CT_SolidColorFillProperties }
1718     | element gradFill { a_CT_GradientFillProperties }
1719     | element pattFill { a_CT_PatternFillProperties }
1720 a_CT_LineJoinBevel = empty
1721 a_CT_LineJoinRound = empty
1722 a_CT_LineJoinMiterProperties =
1723     attribute lim { a_ST_PositivePercentage }?
1724 a_EG_LineJoinProperties =
1725     element round { a_CT_LineJoinRound }
1726     | element bevel { a_CT_LineJoinBevel }
1727     | element miter { a_CT_LineJoinMiterProperties }
1728 a_ST_PresetLineDashVal =
1729     "solid"
1730     | "dot"
1731     | "dash"
1732     | "lgDash"
1733     | "dashDot"
1734     | "lgDashDot"
1735     | "lgDashDotDot"
1736     | "sysDash"
1737     | "sysDot"
1738     | "sysDashDot"
1739     | "sysDashDotDot"
1740 a_CT_PresetLineDashProperties =
1741     attribute val { a_ST_PresetLineDashVal }?
1742 a_CT_DashStop =
1743     attribute d { a_ST_PositivePercentage },
1744     attribute sp { a_ST_PositivePercentage }
1745 a_CT_DashStopList = element ds { a_CT_DashStop }*
1746 a_EG_LineDashProperties =
1747     element prstDash { a_CT_PresetLineDashProperties }
1748     | element custDash { a_CT_DashStopList }
1749 a_ST_LineCap = "rnd" | "sq" | "flat"
1750 a_ST_LineWidth =
1751     xsd:int { minInclusive = "0" maxInclusive = "20116800" }
1752 a_ST_PenAlignment = "ctr" | "in"
1753 a_ST_CompoundLine = "sng" | "dbl" | "thickThin" | "thinThick" | "tri"
1754 a_CT_LineProperties =
1755     attribute w { a_ST_LineWidth }?,
1756     attribute cap { a_ST_LineCap }?,
1757     attribute compd { a_ST_CompoundLine }?,
1758     attribute algn { a_ST_PenAlignment }?,
1759     a_EG_LineFillProperties?,

```



```

1760   a_EG_LineDashProperties?,
1761   a_EG_LineJoinProperties?,
1762   element headEnd { a_CT_LineEndProperties }?,
1763   element tailEnd { a_CT_LineEndProperties }?,
1764   element extLst { a_CT_OfficeArtExtensionList }?
1765 a_ST_ShapeID = xsd:token
1766 a_CT_ShapeProperties =
1767   attribute bwMode { a_ST_BlackWhiteMode }?,
1768   element xfrm { a_CT_Transform2D }?,
1769   a_EG_Geometry?,
1770   a_EG_FillProperties?,
1771   element ln { a_CT_LineProperties }?,
1772   a_EG_EffectProperties?,
1773   element scene3d { a_CT_Scene3D }?,
1774   element sp3d { a_CT_Shape3D }?,
1775   element extLst { a_CT_OfficeArtExtensionList }?
1776 a_CT_GroupShapeProperties =
1777   attribute bwMode { a_ST_BlackWhiteMode }?,
1778   element xfrm { a_CT_GroupTransform2D }?,
1779   a_EG_FillProperties?,
1780   a_EG_EffectProperties?,
1781   element scene3d { a_CT_Scene3D }?,
1782   element extLst { a_CT_OfficeArtExtensionList }?
1783 a_CT_StyleMatrixReference =
1784   attribute idx { a_ST_StyleMatrixColumnIndex },
1785   a_EG_ColorChoice?
1786 a_CT_FontReference =
1787   attribute idx { a_ST_FontCollectionIndex },
1788   a_EG_ColorChoice?
1789 a_CT_ShapeStyle =
1790   element lnRef { a_CT_StyleMatrixReference },
1791   element fillRef { a_CT_StyleMatrixReference },
1792   element effectRef { a_CT_StyleMatrixReference },
1793   element fontRef { a_CT_FontReference }
1794 a_CT_DefaultShapeDefinition =
1795   element spPr { a_CT_ShapeProperties },
1796   element bodyPr { a_CT_TextBodyProperties },
1797   element lstStyle { a_CT_TextListStyle },
1798   element style { a_CT_ShapeStyle }?,
1799   element extLst { a_CT_OfficeArtExtensionList }?
1800 a_CT_ObjectStyleDefaults =
1801   element spDef { a_CT_DefaultShapeDefinition }?,
1802   element lnDef { a_CT_DefaultShapeDefinition }?,
1803   element txDef { a_CT_DefaultShapeDefinition }?,
1804   element extLst { a_CT_OfficeArtExtensionList }?
1805 a_CT_EmptyElement = empty
1806 a_CT_ColorMapping =
1807   attribute bg1 { a_ST_ColorSchemeIndex },
1808   attribute tx1 { a_ST_ColorSchemeIndex },
1809   attribute bg2 { a_ST_ColorSchemeIndex },
1810   attribute tx2 { a_ST_ColorSchemeIndex },
1811   attribute accent1 { a_ST_ColorSchemeIndex },
1812   attribute accent2 { a_ST_ColorSchemeIndex },

```



```

1813     attribute accent3 { a_ST_ColorSchemeIndex },
1814     attribute accent4 { a_ST_ColorSchemeIndex },
1815     attribute accent5 { a_ST_ColorSchemeIndex },
1816     attribute accent6 { a_ST_ColorSchemeIndex },
1817     attribute hlink { a_ST_ColorSchemeIndex },
1818     attribute folHlink { a_ST_ColorSchemeIndex },
1819     element extLst { a_CT_OfficeArtExtensionList }?
1820 a_CT_ColorMappingOverride =
1821     element masterClrMapping { a_CT_EmptyElement }
1822     | element overrideClrMapping { a_CT_ColorMapping }
1823 a_CT_ColorSchemeAndMapping =
1824     element clrScheme { a_CT_ColorScheme },
1825     element clrMap { a_CT_ColorMapping }?
1826 a_CT_ColorSchemeList =
1827     element extraClrScheme { a_CT_ColorSchemeAndMapping }*
1828 a_CT_OfficeStyleSheet =
1829     attribute name { xsd:string }?,
1830     element themeElements { a_CT_BaseStyles },
1831     element objectDefaults { a_CT_ObjectStyleDefaults }?,
1832     element extraClrSchemeLst { a_CT_ColorSchemeList }?,
1833     element custClrLst { a_CT_CustomColorList }?,
1834     element extLst { a_CT_OfficeArtExtensionList }?
1835 a_CT_BaseStylesOverride =
1836     element clrScheme { a_CT_ColorScheme }?,
1837     element fontScheme { a_CT_FontScheme }?,
1838     element fmtScheme { a_CT_StyleMatrix }?
1839 a_CT_ClipboardStyleSheet =
1840     element themeElements { a_CT_BaseStyles },
1841     element clrMap { a_CT_ColorMapping }
1842 a_theme = element theme { a_CT_OfficeStyleSheet }
1843 a_themeOverride = element themeOverride { a_CT_BaseStylesOverride }
1844 a_themeManager = element themeManager { a_CT_EmptyElement }
1845 a_CT_TableCellProperties =
1846
1847     ## default value: 91440
1848     attribute marL { a_ST_Coordinate32 }?,
1849
1850     ## default value: 91440
1851     attribute marR { a_ST_Coordinate32 }?,
1852
1853     ## default value: 45720
1854     attribute marT { a_ST_Coordinate32 }?,
1855
1856     ## default value: 45720
1857     attribute marB { a_ST_Coordinate32 }?,
1858
1859     ## default value: horz
1860     attribute vert { a_ST_TextVerticalType }?,
1861
1862     ## default value: t
1863     attribute anchor { a_ST_TextAnchoringType }?,
1864
1865     ## default value: false

```



```

1866 attribute anchorCtr { xsd:boolean }?,
1867
1868 ## default value: clip
1869 attribute horzOverflow { a_ST_TextHorzOverflowType }?,
1870 element lnL { a_CT_LineProperties }?,
1871 element lnR { a_CT_LineProperties }?,
1872 element lnT { a_CT_LineProperties }?,
1873 element lnB { a_CT_LineProperties }?,
1874 element lnTlToBr { a_CT_LineProperties }?,
1875 element lnBlToTr { a_CT_LineProperties }?,
1876 element cell3D { a_CT_Cell3D }?,
1877 a_EG_FillProperties?,
1878 element headers { a_CT_Headers }?,
1879 element extLst { a_CT_OfficeArtExtensionList }?
1880 a_CT_Headers = element header { xsd:string }*
1881 a_CT_TableCol =
1882   attribute w { a_ST_Coordinate },
1883   element extLst { a_CT_OfficeArtExtensionList }?
1884 a_CT_TableGrid = element gridCol { a_CT_TableCol }*
1885 a_CT_TableCell =
1886
1887 ## default value: 1
1888 attribute rowSpan { xsd:int }?,
1889
1890 ## default value: 1
1891 attribute gridSpan { xsd:int }?,
1892
1893 ## default value: false
1894 attribute hMerge { xsd:boolean }?,
1895
1896 ## default value: false
1897 attribute vMerge { xsd:boolean }?,
1898 attribute id { xsd:string }?,
1899 element txBdy { a_CT_TextBody }?,
1900 element tcPr { a_CT_TableCellProperties }?,
1901 element extLst { a_CT_OfficeArtExtensionList }?
1902 a_CT_TableRow =
1903   attribute h { a_ST_Coordinate },
1904   element tc { a_CT_TableCell }*,
1905   element extLst { a_CT_OfficeArtExtensionList }?
1906 a_CT_TableProperties =
1907
1908 ## default value: false
1909 attribute rtl { xsd:boolean }?,
1910
1911 ## default value: false
1912 attribute firstRow { xsd:boolean }?,
1913
1914 ## default value: false
1915 attribute firstCol { xsd:boolean }?,
1916
1917 ## default value: false
1918 attribute lastRow { xsd:boolean }?,

```



```

1919
1920   ## default value: false
1921   attribute lastCol { xsd:boolean }?,
1922
1923   ## default value: false
1924   attribute bandRow { xsd:boolean }?,
1925
1926   ## default value: false
1927   attribute bandCol { xsd:boolean }?,
1928   a_EG_FillProperties?,
1929   a_EG_EffectProperties?,
1930   (element tableStyle { a_CT_TableStyle }
1931     | element tableStyleId { s_ST_Guid })?,
1932   element extLst { a_CT_OfficeArtExtensionList }?
1933 a_CT_Table =
1934   element tblPr { a_CT_TableProperties }?,
1935   element tblGrid { a_CT_TableGrid },
1936   element tr { a_CT_TableRow }*
1937 a_tbl = element tbl { a_CT_Table }
1938 a_CT_Cell3D =
1939
1940   ## default value: plastic
1941   attribute prstMaterial { a_ST_PresetMaterialType }?,
1942   element bevel { a_CT_Bevel },
1943   element lightRig { a_CT_LightRig }?,
1944   element extLst { a_CT_OfficeArtExtensionList }?
1945 a_EG_ThemeableFillStyle =
1946   element fill { a_CT_FillProperties }
1947     | element fillRef { a_CT_StyleMatrixReference }
1948 a_CT_ThemeableLineStyle =
1949   element ln { a_CT_LineProperties }
1950     | element lnRef { a_CT_StyleMatrixReference }
1951 a_EG_ThemeableEffectStyle =
1952   element effect { a_CT_EffectProperties }
1953     | element effectRef { a_CT_StyleMatrixReference }
1954 a_EG_ThemeableFontStyles =
1955   element font { a_CT_FontCollection }
1956     | element fontRef { a_CT_FontReference }
1957 a_ST_OnOffStyleType = "on" | "off" | "def"
1958 a_CT_TableStyleTextStyle =
1959
1960   ## default value: def
1961   attribute b { a_ST_OnOffStyleType }?,
1962
1963   ## default value: def
1964   attribute i { a_ST_OnOffStyleType }?,
1965   a_EG_ThemeableFontStyles?,
1966   a_EG_ColorChoice?,
1967   element extLst { a_CT_OfficeArtExtensionList }?
1968 a_CT_TableCellBorderStyle =
1969   element left { a_CT_ThemeableLineStyle }?,
1970   element right { a_CT_ThemeableLineStyle }?,
1971   element top { a_CT_ThemeableLineStyle }?,

```



```

1972     element bottom { a_CT_ThemeableLineStyle }?,
1973     element insideH { a_CT_ThemeableLineStyle }?,
1974     element insideV { a_CT_ThemeableLineStyle }?,
1975     element tl2br { a_CT_ThemeableLineStyle }?,
1976     element tr2bl { a_CT_ThemeableLineStyle }?,
1977     element extLst { a_CT_OfficeArtExtensionList }?
1978 a_CT_TableBackgroundStyle =
1979     a_EG_ThemeableFillStyle?, a_EG_ThemeableEffectStyle?
1980 a_CT_TableStyleCellStyle =
1981     element tcBdr { a_CT_TableCellStyleStyle }?,
1982     a_EG_ThemeableFillStyle?,
1983     element cell3D { a_CT_Cell3D }?
1984 a_CT_TablePartStyle =
1985     element tcTxStyle { a_CT_TableStyleTextStyle }?,
1986     element tcStyle { a_CT_TableStyleCellStyle }?
1987 a_CT_TableStyle =
1988     attribute styleId { s_ST_Guid },
1989     attribute styleName { xsd:string },
1990     element tblBg { a_CT_TableBackgroundStyle }?,
1991     element wholeTbl { a_CT_TablePartStyle }?,
1992     element band1H { a_CT_TablePartStyle }?,
1993     element band2H { a_CT_TablePartStyle }?,
1994     element band1V { a_CT_TablePartStyle }?,
1995     element band2V { a_CT_TablePartStyle }?,
1996     element lastCol { a_CT_TablePartStyle }?,
1997     element firstCol { a_CT_TablePartStyle }?,
1998     element lastRow { a_CT_TablePartStyle }?,
1999     element seCell { a_CT_TablePartStyle }?,
2000     element swCell { a_CT_TablePartStyle }?,
2001     element firstRow { a_CT_TablePartStyle }?,
2002     element neCell { a_CT_TablePartStyle }?,
2003     element nwCell { a_CT_TablePartStyle }?,
2004     element extLst { a_CT_OfficeArtExtensionList }?
2005 a_CT_TableStyleList =
2006     attribute def { s_ST_Guid },
2007     element tblStyle { a_CT_TableStyle }*
2008 a_tblStyleLst = element tblStyleLst { a_CT_TableStyleList }
2009 a_CT_TextParagraph =
2010     element pPr { a_CT_TextParagraphProperties }?,
2011     a_EG_TextRun*,
2012     element endParaPr { a_CT_TextCharacterProperties }?
2013 a_ST_TextAnchoringType = "t" | "ctr" | "b" | "just" | "dist"
2014 a_ST_TextVertOverflowType = "overflow" | "ellipsis" | "clip"
2015 a_ST_TextHorzOverflowType = "overflow" | "clip"
2016 a_ST_TextVerticalType =
2017     "horz"
2018     | "vert"
2019     | "vert270"
2020     | "wordArtVert"
2021     | "eaVert"
2022     | "mongolianVert"
2023     | "wordArtVertRtl"
2024 a_ST_TextWrappingType = "none" | "square"

```



```

2025 a_ST_TextColumnCount =
2026     xsd:int { minInclusive = "1" maxInclusive = "16" }
2027 a_CT_TextListStyle =
2028     element defPPr { a_CT_TextParagraphProperties }?,
2029     element lvl1pPr { a_CT_TextParagraphProperties }?,
2030     element lvl2pPr { a_CT_TextParagraphProperties }?,
2031     element lvl3pPr { a_CT_TextParagraphProperties }?,
2032     element lvl4pPr { a_CT_TextParagraphProperties }?,
2033     element lvl5pPr { a_CT_TextParagraphProperties }?,
2034     element lvl6pPr { a_CT_TextParagraphProperties }?,
2035     element lvl7pPr { a_CT_TextParagraphProperties }?,
2036     element lvl8pPr { a_CT_TextParagraphProperties }?,
2037     element lvl9pPr { a_CT_TextParagraphProperties }?,
2038     element extLst { a_CT_OfficeArtExtensionList }?
2039 a_ST_TextFontScalePercentOrPercentString =
2040     a_ST_TextFontScalePercent | s_ST_Percentage
2041 a_ST_TextFontScalePercent =
2042     xsd:int { minInclusive = "1000" maxInclusive = "100000" }
2043 a_CT_TextNormalAutofit =
2044
2045     ## default value: 100%
2046     attribute fontScale { a_ST_TextFontScalePercentOrPercentString }?,
2047
2048     ## default value: 0%
2049     attribute lnSpcReduction { a_ST_TextSpacingPercentOrPercentString }?
2050 a_CT_TextShapeAutofit = empty
2051 a_CT_TextNoAutofit = empty
2052 a_EG_TextAutofit =
2053     element noAutofit { a_CT_TextNoAutofit }
2054     | element normAutofit { a_CT_TextNormalAutofit }
2055     | element spAutoFit { a_CT_TextShapeAutofit }
2056 a_CT_TextBodyProperties =
2057     attribute rot { a_ST_Angle }?,
2058     attribute spcFirstLastPara { xsd:boolean }?,
2059     attribute vertOverflow { a_ST_TextVertOverflowType }?,
2060     attribute horzOverflow { a_ST_TextHorzOverflowType }?,
2061     attribute vert { a_ST_TextVerticalType }?,
2062     attribute wrap { a_ST_TextWrappingType }?,
2063     attribute lIns { a_ST_Coordinate32 }?,
2064     attribute tIns { a_ST_Coordinate32 }?,
2065     attribute rIns { a_ST_Coordinate32 }?,
2066     attribute bIns { a_ST_Coordinate32 }?,
2067     attribute numCol { a_ST_TextColumnCount }?,
2068     attribute spcCol { a_ST_PositiveCoordinate32 }?,
2069     attribute rtlCol { xsd:boolean }?,
2070     attribute fromWordArt { xsd:boolean }?,
2071     attribute anchor { a_ST_TextAnchoringType }?,
2072     attribute anchorCtr { xsd:boolean }?,
2073     attribute forceAA { xsd:boolean }?,
2074
2075     ## default value: false
2076     attribute upright { xsd:boolean }?,
2077     attribute compatLnSpc { xsd:boolean }?,

```



```

2078     element prstTxWarp { a_CT_PresetTextShape }?,
2079     a_EG_TextAutofit?,
2080     element scene3d { a_CT_Scene3D }?,
2081     a_EG_Text3D?,
2082     element extLst { a_CT_OfficeArtExtensionList }?
2083 a_CT_TextBody =
2084     element bodyPr { a_CT_TextBodyProperties },
2085     element lstStyle { a_CT_TextListStyle }?,
2086     element p { a_CT_TextParagraph }+
2087 a_ST_TextBulletStartAtNum =
2088     xsd:int { minInclusive = "1" maxInclusive = "32767" }
2089 a_ST_TextAutonumberScheme =
2090     "alphaLcParenBoth"
2091     | "alphaUcParenBoth"
2092     | "alphaLcParenR"
2093     | "alphaUcParenR"
2094     | "alphaLcPeriod"
2095     | "alphaUcPeriod"
2096     | "arabicParenBoth"
2097     | "arabicParenR"
2098     | "arabicPeriod"
2099     | "arabicPlain"
2100     | "romanLcParenBoth"
2101     | "romanUcParenBoth"
2102     | "romanLcParenR"
2103     | "romanUcParenR"
2104     | "romanLcPeriod"
2105     | "romanUcPeriod"
2106     | "circleNumDbPlain"
2107     | "circleNumWdBlackPlain"
2108     | "circleNumWdWhitePlain"
2109     | "arabicDbPeriod"
2110     | "arabicDbPlain"
2111     | "ea1ChsPeriod"
2112     | "ea1ChsPlain"
2113     | "ea1ChtPeriod"
2114     | "ea1ChtPlain"
2115     | "ea1JpnChsDbPeriod"
2116     | "ea1JpnKorPlain"
2117     | "ea1JpnKorPeriod"
2118     | "arabic1Minus"
2119     | "arabic2Minus"
2120     | "hebrew2Minus"
2121     | "thaiAlphaPeriod"
2122     | "thaiAlphaParenR"
2123     | "thaiAlphaParenBoth"
2124     | "thaiNumPeriod"
2125     | "thaiNumParenR"
2126     | "thaiNumParenBoth"
2127     | "hindiAlphaPeriod"
2128     | "hindiNumPeriod"
2129     | "hindiNumParenR"
2130     | "hindiAlpha1Period"

```



```

2131 a_CT_TextBulletColorFollowText = empty
2132 a_EG_TextBulletColor =
2133     element buClrTx { a_CT_TextBulletColorFollowText }
2134     | element buClr { a_CT_Color }
2135 a_ST_TextBulletSize = a_ST_TextBulletSizePercent | a_ST_TextBulletSizeDecimal
2136 a_ST_TextBulletSizePercent =
2137     xsd:string {
2138         pattern = "0*(([5-9])|([3-9][0-9])|([1-3][0-9][0-9])|400)%"
2139     }
2140 a_ST_TextBulletSizeDecimal = xsd:int { minInclusive = "25000" maxInclusive = "400000" }
2141 a_CT_TextBulletSizeFollowText = empty
2142 a_CT_TextBulletSizePercent =
2143     attribute val { a_ST_TextBulletSizePercent }
2144 a_CT_TextBulletSizePoint = attribute val { a_ST_TextFontSize }
2145 a_EG_TextBulletSize =
2146     element buSzTx { a_CT_TextBulletSizeFollowText }
2147     | element buSzPct { a_CT_TextBulletSizePercent }
2148     | element buSzPts { a_CT_TextBulletSizePoint }
2149 a_CT_TextBulletTypefaceFollowText = empty
2150 a_EG_TextBulletTypeface =
2151     element buFontTx { a_CT_TextBulletTypefaceFollowText }
2152     | element buFont { a_CT_TextFont }
2153 a_CT_TextAutonumberBullet =
2154     attribute type { a_ST_TextAutonumberScheme },
2155
2156     ## default value: 1
2157     attribute startAt { a_ST_TextBulletStartAtNum }?
2158 a_CT_TextCharBullet = attribute char { xsd:string }
2159 a_CT_TextBlipBullet = element blip { a_CT_Blip }
2160 a_CT_TextNoBullet = empty
2161 a_EG_TextBullet =
2162     element buNone { a_CT_TextNoBullet }
2163     | element buAutoNum { a_CT_TextAutonumberBullet }
2164     | element buChar { a_CT_TextCharBullet }
2165     | element buBlip { a_CT_TextBlipBullet }
2166 a_ST_TextPoint = a_ST_TextPointUnqualified | s_ST_UniversalMeasure
2167 a_ST_TextPointUnqualified =
2168     xsd:int { minInclusive = "-400000" maxInclusive = "400000" }
2169 a_ST_TextNonNegativePoint =
2170     xsd:int { minInclusive = "0" maxInclusive = "400000" }
2171 a_ST_TextFontSize =
2172     xsd:int { minInclusive = "100" maxInclusive = "400000" }
2173 a_ST_TextTypeface = xsd:string
2174 a_ST_PitchFamily =
2175     xsd:byte "00" | xsd:byte "01" | xsd:byte "02" | xsd:byte "16" |
2176     xsd:byte "17" | xsd:byte "18" | xsd:byte "32" | xsd:byte "33" |
2177     xsd:byte "34" | xsd:byte "48" | xsd:byte "49" | xsd:byte "50" |
2178     xsd:byte "64" | xsd:byte "65" | xsd:byte "66" | xsd:byte "80" |
2179     xsd:byte "81" | xsd:byte "82"
2180 a_CT_TextFont =
2181     attribute typeface { a_ST_TextTypeface },
2182     attribute panose { s_ST_Panose }?,
2183

```



```

2184  ## default value: 0
2185  attribute pitchFamily { a_ST_PitchFamily }?,
2186
2187  ## default value: 1
2188  attribute charset { xsd:byte }?
2189  a_ST_TextUnderlineType =
2190  "none"
2191  | "words"
2192  | "sng"
2193  | "dbl"
2194  | "heavy"
2195  | "dotted"
2196  | "dottedHeavy"
2197  | "dash"
2198  | "dashHeavy"
2199  | "dashLong"
2200  | "dashLongHeavy"
2201  | "dotDash"
2202  | "dotDashHeavy"
2203  | "dotDotDash"
2204  | "dotDotDashHeavy"
2205  | "wavy"
2206  | "wavyHeavy"
2207  | "wavyDb1"
2208  a_CT_TextUnderlineLineFollowText = empty
2209  a_CT_TextUnderlineFillFollowText = empty
2210  a_CT_TextUnderlineFillGroupWrapper = a_EG_FillProperties
2211  a_EG_TextUnderlineLine =
2212  element uLnTx { a_CT_TextUnderlineLineFollowText }
2213  | element uLn { a_CT_LineProperties }?
2214  a_EG_TextUnderlineFill =
2215  element uFillTx { a_CT_TextUnderlineFillFollowText }
2216  | element uFill { a_CT_TextUnderlineFillGroupWrapper }
2217  a_ST_TextStrikeType = "noStrike" | "sngStrike" | "dblStrike"
2218  a_ST_TextCapsType = "none" | "small" | "all"
2219  a_CT_TextCharacterProperties =
2220  attribute kumimoji { xsd:boolean }?,
2221  attribute lang { s_ST_Lang }?,
2222  attribute altLang { s_ST_Lang }?,
2223  attribute sz { a_ST_TextFontSize }?,
2224  attribute b { xsd:boolean }?,
2225  attribute i { xsd:boolean }?,
2226  attribute u { a_ST_TextUnderlineType }?,
2227  attribute strike { a_ST_TextStrikeType }?,
2228  attribute kern { a_ST_TextNonNegativePoint }?,
2229  attribute cap { a_ST_TextCapsType }?,
2230  attribute spc { a_ST_TextPoint }?,
2231  attribute normalizeH { xsd:boolean }?,
2232  attribute baseline { a_ST_Percentage }?,
2233  attribute noProof { xsd:boolean }?,
2234
2235  ## default value: true
2236  attribute dirty { xsd:boolean }?,

```



```

2237
2238   ## default value: false
2239   attribute err { xsd:boolean }?,
2240
2241   ## default value: true
2242   attribute smtClean { xsd:boolean }?,
2243
2244   ## default value: 0
2245   attribute smtId { xsd:unsignedInt }?,
2246   attribute bmk { xsd:string }?,
2247   element ln { a_CT_LineProperties }?,
2248   a_EG_FillProperties?,
2249   a_EG_EffectProperties?,
2250   element highlight { a_CT_Color }?,
2251   a_EG_TextUnderlineLine?,
2252   a_EG_TextUnderlineFill?,
2253   element latin { a_CT_TextFont }?,
2254   element ea { a_CT_TextFont }?,
2255   element cs { a_CT_TextFont }?,
2256   element sym { a_CT_TextFont }?,
2257   element hlinkClick { a_CT_Hyperlink }?,
2258   element hlinkMouseOver { a_CT_Hyperlink }?,
2259   element rtl { a_CT_Boolean }?,
2260   element extLst { a_CT_OfficeArtExtensionList }?
2261 a_CT_Boolean =
2262
2263   ## default value: 0
2264   attribute val { s_ST_OnOff }?
2265 a_ST_TextSpacingPoint =
2266   xsd:int { minInclusive = "0" maxInclusive = "158400" }
2267 a_ST_TextSpacingPercentOrPercentString =
2268   a_ST_TextSpacingPercent | s_ST_Percentage
2269 a_ST_TextSpacingPercent =
2270   xsd:int { minInclusive = "0" maxInclusive = "13200000" }
2271 a_CT_TextSpacingPercent =
2272   attribute val { a_ST_TextSpacingPercentOrPercentString }
2273 a_CT_TextSpacingPoint = attribute val { a_ST_TextSpacingPoint }
2274 a_ST_TextMargin =
2275   xsd:int { minInclusive = "0" maxInclusive = "51206400" }
2276 a_ST_TextIndent =
2277   xsd:int { minInclusive = "-51206400" maxInclusive = "51206400" }
2278 a_ST_TextTabAlignType = "l" | "ctr" | "r" | "dec"
2279 a_CT_TextTabStop =
2280   attribute pos { a_ST_Coordinate32 }?,
2281   attribute algn { a_ST_TextTabAlignType }?
2282 a_CT_TextTabStopList = element tab { a_CT_TextTabStop }*
2283 a_CT_TextLineBreak = element rPr { a_CT_TextCharacterProperties }?
2284 a_CT_TextSpacing =
2285   element spcPct { a_CT_TextSpacingPercent }
2286   | element spcPts { a_CT_TextSpacingPoint }
2287 a_ST_TextAlignType =
2288   "l" | "ctr" | "r" | "just" | "justLow" | "dist" | "thaiDist"
2289 a_ST_TextFontAlignType = "auto" | "t" | "ctr" | "base" | "b"

```



```

2290 a_ST_TextIndentLevelType =
2291     xsd:int { minInclusive = "0" maxInclusive = "8" }
2292 a_CT_TextParagraphProperties =
2293     attribute marL { a_ST_TextMargin }?,
2294     attribute marR { a_ST_TextMargin }?,
2295     attribute lvl { a_ST_TextIndentLevelType }?,
2296     attribute indent { a_ST_TextIndent }?,
2297     attribute algn { a_ST_TextAlignType }?,
2298     attribute defTabSz { a_ST_Coordinate32 }?,
2299     attribute rtl { xsd:boolean }?,
2300     attribute eaLnBrk { xsd:boolean }?,
2301     attribute fontAlgn { a_ST_TextFontAlignType }?,
2302     attribute latinLnBrk { xsd:boolean }?,
2303     attribute hangingPunct { xsd:boolean }?,
2304     element lnSpc { a_CT_TextSpacing }?,
2305     element spcBef { a_CT_TextSpacing }?,
2306     element spcAft { a_CT_TextSpacing }?,
2307     a_EG_TextBulletColor?,
2308     a_EG_TextBulletSize?,
2309     a_EG_TextBulletTypeface?,
2310     a_EG_TextBullet?,
2311     element tabLst { a_CT_TextTabStopList }?,
2312     element defRPr { a_CT_TextCharacterProperties }?,
2313     element extLst { a_CT_OfficeArtExtensionList }?
2314 a_CT_TextField =
2315     attribute id { s_ST_Guid },
2316     attribute type { xsd:string }?,
2317     element rPr { a_CT_TextCharacterProperties }?,
2318     element pPr { a_CT_TextParagraphProperties }?,
2319     element t { xsd:string }?
2320 a_EG_TextRun =
2321     element r { a_CT_RegularTextRun }
2322     | element br { a_CT_TextLineBreak }
2323     | element fld { a_CT_TextField }
2324 a_CT_RegularTextRun =
2325     element rPr { a_CT_TextCharacterProperties }?,
2326     element t { xsd:string }

```

### B.5.1.1 Part Schemas

#### B.5.1.1.1 Table Styles Part

This schema is available in the file DrawingML\_Table\_Styles.rnc.

```

1 include "dml-main.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-diagram.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-lockedCanvas.rnc"
6 include "any.rnc"
7 include "dml-chart.rnc"
8 include "dml-chartDrawing.rnc"
9 include "dml-picture.rnc"

```



```
10 start = a_tblStyleLst
```

### B.5.1.1.2 Theme Part

This schema is available in the file DrawingML\_Theme.rnc.

```
1 include "dml-main.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-diagram.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-lockedCanvas.rnc"
6 include "any.rnc"
7 include "dml-chart.rnc"
8 include "dml-chartDrawing.rnc"
9 include "dml-picture.rnc"
10 start = a_theme
```

### B.5.1.1.3 Theme Override Part

This schema is available in the file DrawingML\_Theme\_Override.rnc.

```
1 include "dml-main.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-diagram.rnc"
4 include "shared-commonSimpleTypes.rnc"
5 include "dml-lockedCanvas.rnc"
6 include "any.rnc"
7 include "dml-chart.rnc"
8 include "dml-chartDrawing.rnc"
9 include "dml-picture.rnc"
10 start = a_themeOverride
```

## B.5.2 DrawingML - Picture

This schema is available in the file dml-picture.rnc.

```
1 default namespace =
2   "http://schemas.openxmlformats.org/drawingml/2006/picture"
3 namespace a = "http://schemas.openxmlformats.org/drawingml/2006/main"
4 namespace dpct =
5   "http://schemas.openxmlformats.org/drawingml/2006/picture"
6 namespace o = "urn:schemas-microsoft-com:office:office"
7 namespace v = "urn:schemas-microsoft-com:vml"
8 namespace w10 = "urn:schemas-microsoft-com:office:word"
9 namespace x = "urn:schemas-microsoft-com:office:excel"
10
11 dpct_CT_PictureNonVisual =
12   element cNvPr { a_CT_NonVisualDrawingProps },
13   element cNvPicPr { a_CT_NonVisualPictureProperties }
14 dpct_CT_Picture =
15   element nvPicPr { dpct_CT_PictureNonVisual },
16   element blipFill { a_CT_BlipFillProperties },
17   element spPr { a_CT_ShapeProperties }
18 dpct_pic = element pic { dpct_CT_Picture }
```



### B.5.3 DrawingML - Locked Canvas

This schema is available in the file dml-lockedCanvas.rnc.

```

1 default namespace =
2   "http://schemas.openxmlformats.org/drawingml/2006/lockedCanvas"
3 namespace a = "http://schemas.openxmlformats.org/drawingml/2006/main"
4 namespace dlckcnv =
5   "http://schemas.openxmlformats.org/drawingml/2006/lockedCanvas"
6 namespace o = "urn:schemas-microsoft-com:office:office"
7 namespace r =
8   "http://schemas.openxmlformats.org/officeDocument/2006/relationships"
9 namespace v = "urn:schemas-microsoft-com:vml"
10 namespace w10 = "urn:schemas-microsoft-com:office:word"
11 namespace x = "urn:schemas-microsoft-com:office:excel"
12
13 dlckcnv_lockedCanvas = element lockedCanvas { a_CT_GvmlGroupShape }
```

### B.5.4 DrawingML - Wordprocessing Drawing

This schema is available in the file dml-wordprocessingDrawing.rnc.

```

1 default namespace =
2   "http://schemas.openxmlformats.org/drawingml/2006/wordprocessingDrawing"
3 namespace a = "http://schemas.openxmlformats.org/drawingml/2006/main"
4 namespace o = "urn:schemas-microsoft-com:office:office"
5 namespace dpct = "http://schemas.openxmlformats.org/drawingml/2006/picture"
6 namespace r = http://schemas.openxmlformats.org/officeDocument/2006/relationships
7 namespace v = "urn:schemas-microsoft-com:vml"
8 namespace w =
9   "http://schemas.openxmlformats.org/wordprocessingml/2006/main"
10 namespace w10 = "urn:schemas-microsoft-com:office:word"
11 namespace wp =
12   "http://schemas.openxmlformats.org/drawingml/2006/wordprocessingDrawing"
13 namespace x = "urn:schemas-microsoft-com:office:excel"
14
15 wp_CT_EffectExtent =
16   attribute l { a_ST_Coordinate },
17   attribute t { a_ST_Coordinate },
18   attribute r { a_ST_Coordinate },
19   attribute b { a_ST_Coordinate }
20 wp_ST_WrapDistance = xsd:unsignedInt
21 wp_CT_Inline =
22   attribute distT { wp_ST_WrapDistance }?,
23   attribute distB { wp_ST_WrapDistance }?,
24   attribute distL { wp_ST_WrapDistance }?,
25   attribute distR { wp_ST_WrapDistance }?,
26   element extent { a_CT_PositiveSize2D },
27   element effectExtent { wp_CT_EffectExtent }?,
28   element docPr { a_CT_NonVisualDrawingProps },
29   element cNvGraphicFramePr { a_CT_NonVisualGraphicFrameProperties }?,
30   a_graphic
31 wp_ST_WrapText = "bothSides" | "left" | "right" | "largest"
```



```

32 wp_CT_WrapPath =
33     attribute edited { xsd:boolean }?,
34     element start { a_CT_Point2D },
35     element lineTo { a_CT_Point2D }+
36 wp_CT_WrapNone = empty
37 wp_CT_WrapSquare =
38     attribute wrapText { wp_ST_WrapText },
39     attribute distT { wp_ST_WrapDistance }?,
40     attribute distB { wp_ST_WrapDistance }?,
41     attribute distL { wp_ST_WrapDistance }?,
42     attribute distR { wp_ST_WrapDistance }?,
43     element effectExtent { wp_CT_EffectExtent }?
44 wp_CT_WrapTight =
45     attribute wrapText { wp_ST_WrapText },
46     attribute distL { wp_ST_WrapDistance }?,
47     attribute distR { wp_ST_WrapDistance }?,
48     element wrapPolygon { wp_CT_WrapPath }
49 wp_CT_WrapThrough =
50     attribute wrapText { wp_ST_WrapText },
51     attribute distL { wp_ST_WrapDistance }?,
52     attribute distR { wp_ST_WrapDistance }?,
53     element wrapPolygon { wp_CT_WrapPath }
54 wp_CT_WrapTopBottom =
55     attribute distT { wp_ST_WrapDistance }?,
56     attribute distB { wp_ST_WrapDistance }?,
57     element effectExtent { wp_CT_EffectExtent }?
58 wp_EG_WrapType =
59     element wrapNone { wp_CT_WrapNone }
60     | element wrapSquare { wp_CT_WrapSquare }
61     | element wrapTight { wp_CT_WrapTight }
62     | element wrapThrough { wp_CT_WrapThrough }
63     | element wrapTopAndBottom { wp_CT_WrapTopBottom }
64 wp_ST_PositionOffset = xsd:int
65 wp_ST_AlignH = "left" | "right" | "center" | "inside" | "outside"
66 wp_ST_RelFromH =
67     "margin"
68     | "page"
69     | "column"
70     | "character"
71     | "leftMargin"
72     | "rightMargin"
73     | "insideMargin"
74     | "outsideMargin"
75 wp_CT_PosH =
76     attribute relativeFrom { wp_ST_RelFromH },
77     (element align { wp_ST_AlignH }
78      | element posOffset { wp_ST_PositionOffset })
79 wp_ST_AlignV = "top" | "bottom" | "center" | "inside" | "outside"
80 wp_ST_RelFromV =
81     "margin"
82     | "page"
83     | "paragraph"
84     | "line"

```



```

85 | "topMargin"
86 | "bottomMargin"
87 | "insideMargin"
88 | "outsideMargin"
89 wp_CT_PosV =
90   attribute relativeFrom { wp_ST_RelFromV },
91   (element align { wp_ST_AlignV }
92     | element posOffset { wp_ST_PositionOffset })
93 wp_CT_Anchor =
94   attribute distT { wp_ST_WrapDistance }?,
95   attribute distB { wp_ST_WrapDistance }?,
96   attribute distL { wp_ST_WrapDistance }?,
97   attribute distR { wp_ST_WrapDistance }?,
98   attribute simplePos { xsd:boolean }?,
99   attribute relativeHeight { xsd:unsignedInt },
100  attribute behindDoc { xsd:boolean },
101  attribute locked { xsd:boolean },
102  attribute layoutInCell { xsd:boolean },
103  attribute hidden { xsd:boolean }?,
104  attribute allowOverlap { xsd:boolean },
105  element simplePos { a_CT_Point2D },
106  element positionH { wp_CT_PosH },
107  element positionV { wp_CT_PosV },
108  element extent { a_CT_PositiveSize2D },
109  element effectExtent { wp_CT_EffectExtent }?,
110  wp_EG_WrapType,
111  element docPr { a_CT_NonVisualDrawingProps },
112  element cNvGraphicFramePr { a_CT_NonVisualGraphicFrameProperties }?,
113  a_graphic
114 wp_CT_TxbxContent = w_EG_BlockLevelElts+
115 wp_CT_TextboxInfo =
116
117   ## default value: 0
118   attribute id { xsd:unsignedShort }?,
119   element txbxContent { wp_CT_TxbxContent },
120   element extLst { a_CT_OfficeArtExtensionList }?
121 wp_CT_LinkedTextboxInformation =
122   attribute id { xsd:unsignedShort },
123   attribute seq { xsd:unsignedShort },
124   element extLst { a_CT_OfficeArtExtensionList }?
125 wp_CT_WordprocessingShape =
126
127   ## default value: false
128   attribute normalEastAsianFlow { xsd:boolean }?,
129   element cNvPr { a_CT_NonVisualDrawingProps }?,
130   (element cNvSpPr { a_CT_NonVisualDrawingShapeProps }
131     | element cNvCnPr { a_CT_NonVisualConnectorProperties }?),
132   element spPr { a_CT_ShapeProperties },
133   element style { a_CT_ShapeStyle }?,
134   element extLst { a_CT_OfficeArtExtensionList }?,
135   (element txbx { wp_CT_TextboxInfo }
136     | element linkedTxbx { wp_CT_LinkedTextboxInformation }?),
137   element bodyPr { a_CT_TextBodyProperties }

```



```

138 wp_CT_GraphicFrame =
139     element cNvPr { a_CT_NonVisualDrawingProps },
140     element cNvFrPr { a_CT_NonVisualGraphicFrameProperties },
141     element xfrm { a_CT_Transform2D },
142     a_graphic,
143     element extLst { a_CT_OfficeArtExtensionList }?
144 wp_CT_WordprocessingContentPartNonVisual =
145     element cNvPr { a_CT_NonVisualDrawingProps }?,
146     element cNvContentPartPr { a_CT_NonVisualContentPartProperties }?
147 wp_CT_WordprocessingContentPart =
148     attribute bwMode { a_ST_BlackWhiteMode }?,
149     r_id,
150     element nvContentPartPr { wp_CT_WordprocessingContentPartNonVisual }?,
151     element xfrm { a_CT_Transform2D }?,
152     element extLst { a_CT_OfficeArtExtensionList }?
153 wp_CT_WordprocessingGroup =
154     element cNvPr { a_CT_NonVisualDrawingProps }?,
155     element cNvGrpSpPr { a_CT_NonVisualGroupDrawingShapeProps },
156     element grpSpPr { a_CT_GroupShapeProperties },
157     (wp_wsp
158     | element grpSp { wp_CT_WordprocessingGroup }
159     | element graphicFrame { wp_CT_GraphicFrame }
160     | dpct_pic
161     | element contentPart { wp_CT_WordprocessingContentPart })*,
162     element extLst { a_CT_OfficeArtExtensionList }?
163 wp_CT_WordprocessingCanvas =
164     element bg { a_CT_BackgroundFormatting }?,
165     element whole { a_CT_WholeE2oFormatting }?,
166     (wp_wsp
167     | dpct_pic
168     | element contentPart { wp_CT_WordprocessingContentPart }
169     | wp_wgp
170     | element graphicFrame { wp_CT_GraphicFrame })*,
171     element extLst { a_CT_OfficeArtExtensionList }?
172 wp_wpc = element wpc { wp_CT_WordprocessingCanvas }
173 wp_wgp = element wgp { wp_CT_WordprocessingGroup }
174 wp_wsp = element wsp { wp_CT_WordprocessingShape }
175 wp_inline = element inline { wp_CT_Inline }
176 wp_anchor = element anchor { wp_CT_Anchor }

```

### B.5.5 DrawingML - Spreadsheet Drawing

This schema is available in the file dml-spreadsheetDrawing.rnc.

```

1 default namespace =
2     "http://schemas.openxmlformats.org/drawingml/2006/spreadsheetDrawing"
3 namespace a = "http://schemas.openxmlformats.org/drawingml/2006/main"
4 namespace o = "urn:schemas-microsoft-com:office:office"
5 namespace r =
6     "http://schemas.openxmlformats.org/officeDocument/2006/relationships"
7 namespace v = "urn:schemas-microsoft-com:vm1"
8 namespace w10 = "urn:schemas-microsoft-com:office:word"
9 namespace x = "urn:schemas-microsoft-com:office:excel"

```



```

10 namespace xdr =
11     "http://schemas.openxmlformats.org/drawingml/2006/spreadsheetDrawing"
12
13 xdr_from = element from { xdr_CT_Marker }
14 xdr_to = element to { xdr_CT_Marker }
15 xdr_CT_AnchorClientData =
16
17     ## default value: true
18     attribute fLocksWithSheet { xsd:boolean }?,
19
20     ## default value: true
21     attribute fPrintsWithSheet { xsd:boolean }?
22 xdr_CT_ShapeNonVisual =
23     element cNvPr { a_CT_NonVisualDrawingProps },
24     element cNvSpPr { a_CT_NonVisualDrawingShapeProps }
25 xdr_CT_Shape =
26     attribute macro { xsd:string }?,
27     attribute textlink { xsd:string }?,
28
29     ## default value: true
30     attribute fLocksText { xsd:boolean }?,
31
32     ## default value: false
33     attribute fPublished { xsd:boolean }?,
34     element nvSpPr { xdr_CT_ShapeNonVisual },
35     element spPr { a_CT_ShapeProperties },
36     element style { a_CT_ShapeStyle }?,
37     element txBody { a_CT_TextBody }?
38 xdr_CT_ConnectorNonVisual =
39     element cNvPr { a_CT_NonVisualDrawingProps },
40     element cNvCxnSpPr { a_CT_NonVisualConnectorProperties }
41 xdr_CT_Connector =
42     attribute macro { xsd:string }?,
43
44     ## default value: false
45     attribute fPublished { xsd:boolean }?,
46     element nvCxnSpPr { xdr_CT_ConnectorNonVisual },
47     element spPr { a_CT_ShapeProperties },
48     element style { a_CT_ShapeStyle }?
49 xdr_CT_PictureNonVisual =
50     element cNvPr { a_CT_NonVisualDrawingProps },
51     element cNvPicPr { a_CT_NonVisualPictureProperties }
52 xdr_CT_Picture =
53     attribute macro { xsd:string }?,
54
55     ## default value: false
56     attribute fPublished { xsd:boolean }?,
57     element nvPicPr { xdr_CT_PictureNonVisual },
58     element blipFill { a_CT_BlipFillProperties },
59     element spPr { a_CT_ShapeProperties },
60     element style { a_CT_ShapeStyle }?
61 xdr_CT_GraphicalObjectFrameNonVisual =
62     element cNvPr { a_CT_NonVisualDrawingProps },

```



```

63     element cNvGraphicFramePr { a_CT_NonVisualGraphicFrameProperties }
64 xdr_CT_GraphicalObjectFrame =
65     attribute macro { xsd:string }?,
66
67     ## default value: false
68     attribute fPublished { xsd:boolean }?,
69     element nvGraphicFramePr { xdr_CT_GraphicalObjectFrameNonVisual },
70     element xfrm { a_CT_Transform2D },
71     a_graphic
72 xdr_CT_GroupShapeNonVisual =
73     element cNvPr { a_CT_NonVisualDrawingProps },
74     element cNvGrpSpPr { a_CT_NonVisualGroupDrawingShapeProps }
75 xdr_CT_GroupShape =
76     element nvGrpSpPr { xdr_CT_GroupShapeNonVisual },
77     element grpSpPr { a_CT_GroupShapeProperties },
78     (element sp { xdr_CT_Shape }
79     | element grpSp { xdr_CT_GroupShape }
80     | element graphicFrame { xdr_CT_GraphicalObjectFrame }
81     | element cxnSp { xdr_CT_Connector }
82     | element pic { xdr_CT_Picture })*
83 xdr_EG_ObjectChoices =
84     element sp { xdr_CT_Shape }
85     | element grpSp { xdr_CT_GroupShape }
86     | element graphicFrame { xdr_CT_GraphicalObjectFrame }
87     | element cxnSp { xdr_CT_Connector }
88     | element pic { xdr_CT_Picture }
89     | element contentPart { xdr_CT_Rel }
90 xdr_CT_Rel = r_id
91 xdr_ST_ColID = xsd:int { minInclusive = "0" }
92 xdr_ST_RowID = xsd:int { minInclusive = "0" }
93 xdr_CT_Marker =
94     element col { xdr_ST_ColID },
95     element colOff { a_ST_Coordinate },
96     element row { xdr_ST_RowID },
97     element rowOff { a_ST_Coordinate }
98 xdr_ST_EditAs = "twoCell" | "oneCell" | "absolute"
99 xdr_CT_TwoCellAnchor =
100
101     ## default value: twoCell
102     attribute editAs { xdr_ST_EditAs }?,
103     element from { xdr_CT_Marker },
104     element to { xdr_CT_Marker },
105     xdr_EG_ObjectChoices,
106     element clientData { xdr_CT_AnchorClientData }
107 xdr_CT_OneCellAnchor =
108     element from { xdr_CT_Marker },
109     element ext { a_CT_PositiveSize2D },
110     xdr_EG_ObjectChoices,
111     element clientData { xdr_CT_AnchorClientData }
112 xdr_CT_AbsoluteAnchor =
113     element pos { a_CT_Point2D },
114     element ext { a_CT_PositiveSize2D },
115     xdr_EG_ObjectChoices,

```



```

116     element clientData { xdr_CT_AnchorClientData }
117 xdr_EG_Anchor =
118     element twoCellAnchor { xdr_CT_TwoCellAnchor }
119     | element oneCellAnchor { xdr_CT_OneCellAnchor }
120     | element absoluteAnchor { xdr_CT_AbsoluteAnchor }
121 xdr_CT_Drawing = xdr_EG_Anchor*
122 xdr_wsDr = element wsDr { xdr_CT_Drawing }

```

## B.6 DrawingML - Components

### B.6.1 DrawingML - Chart

This schema is available in the file dml-chart.rnc.

```

1  default namespace =
2    "http://schemas.openxmlformats.org/drawingml/2006/chart"
3  namespace a = "http://schemas.openxmlformats.org/drawingml/2006/main"
4  namespace cdr =
5    "http://schemas.openxmlformats.org/drawingml/2006/chartDrawing"
6  namespace dchrt =
7    "http://schemas.openxmlformats.org/drawingml/2006/chart"
8  namespace o = "urn:schemas-microsoft-com:office:office"
9  namespace r =
10    "http://schemas.openxmlformats.org/officeDocument/2006/relationships"
11  namespace s =
12    "http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
13  namespace v = "urn:schemas-microsoft-com:vm1"
14  namespace w10 = "urn:schemas-microsoft-com:office:word"
15  namespace x = "urn:schemas-microsoft-com:office:excel"
16
17  dchrt_CT_Boolean =
18
19    ## default value: true
20    attribute val { xsd:boolean }?
21  dchrt_CT_Double = attribute val { xsd:double }
22  dchrt_CT_UnsignedInt = attribute val { xsd:unsignedInt }
23  dchrt_CT_RelId = r_id
24  dchrt_CT_Extension =
25    attribute uri { xsd:token }?,
26    dchrt_CT_Extension_any
27  dchrt_CT_Extension_any =
28    element * - (o:* | v:* | w10:* | x:*) {
29      anyAttribute*,
30      mixed { anyElement* }
31    }
32  dchrt_CT_ExtensionList = element ext { dchrt_CT_Extension }*
33  dchrt_CT_NumVal =
34    attribute idx { xsd:unsignedInt },
35    attribute formatCode { s_ST_Xstring }?,
36    element v { s_ST_Xstring }
37  dchrt_CT_NumData =
38    element formatCode { s_ST_Xstring }?,
39    element ptCount { dchrt_CT_UnsignedInt }?,

```



```

40     element pt { dchrt_CT_NumVal }*,
41     element extLst { dchrt_CT_ExtensionList }?
42 dchrt_CT_NumRef =
43     element f { xsd:string },
44     element numCache { dchrt_CT_NumData }?,
45     element extLst { dchrt_CT_ExtensionList }?
46 dchrt_CT_NumDataSource =
47     element numRef { dchrt_CT_NumRef }
48     | element numLit { dchrt_CT_NumData }
49 dchrt_CT_StrVal =
50     attribute idx { xsd:unsignedInt },
51     element v { s_ST_Xstring }
52 dchrt_CT_StrData =
53     element ptCount { dchrt_CT_UnsignedInt }?,
54     element pt { dchrt_CT_StrVal }*,
55     element extLst { dchrt_CT_ExtensionList }?
56 dchrt_CT_StrRef =
57     element f { xsd:string },
58     element strCache { dchrt_CT_StrData }?,
59     element extLst { dchrt_CT_ExtensionList }?
60 dchrt_CT_Tx =
61     element strRef { dchrt_CT_StrRef }
62     | element rich { a_CT_TextBody }
63 dchrt_CT_TextLanguageID = attribute val { s_ST_Lang }
64 dchrt_CT_Lvl = element pt { dchrt_CT_StrVal }*
65 dchrt_CT_MultiLvlStrData =
66     element ptCount { dchrt_CT_UnsignedInt }?,
67     element lvl { dchrt_CT_Lvl }*,
68     element extLst { dchrt_CT_ExtensionList }?
69 dchrt_CT_MultiLvlStrRef =
70     element f { xsd:string },
71     element multiLvlStrCache { dchrt_CT_MultiLvlStrData }?,
72     element extLst { dchrt_CT_ExtensionList }?
73 dchrt_CT_AxDataSource =
74     element multiLvlStrRef { dchrt_CT_MultiLvlStrRef }
75     | element numRef { dchrt_CT_NumRef }
76     | element numLit { dchrt_CT_NumData }
77     | element strRef { dchrt_CT_StrRef }
78     | element strLit { dchrt_CT_StrData }
79 dchrt_CT_SerTx =
80     element strRef { dchrt_CT_StrRef }
81     | element v { s_ST_Xstring }
82 dchrt_ST_LayoutTarget = string "inner" | string "outer"
83 dchrt_CT_LayoutTarget =
84
85     ## default value: outer
86     attribute val { dchrt_ST_LayoutTarget }?
87 dchrt_ST_LayoutMode = string "edge" | string "factor"
88 dchrt_CT_LayoutMode =
89
90     ## default value: factor
91     attribute val { dchrt_ST_LayoutMode }?
92 dchrt_CT_ManualLayout =

```



```

93     element layoutTarget { dchrt_CT_LayoutTarget }?,
94     element xMode { dchrt_CT_LayoutMode }?,
95     element yMode { dchrt_CT_LayoutMode }?,
96     element wMode { dchrt_CT_LayoutMode }?,
97     element hMode { dchrt_CT_LayoutMode }?,
98     element x { dchrt_CT_Double }?,
99     element y { dchrt_CT_Double }?,
100    element w { dchrt_CT_Double }?,
101    element h { dchrt_CT_Double }?,
102    element extLst { dchrt_CT_ExtensionList }?
103 dchrt_CT_Layout =
104     element manualLayout { dchrt_CT_ManualLayout }?,
105     element extLst { dchrt_CT_ExtensionList }?
106 dchrt_CT_Title =
107     element tx { dchrt_CT_Tx }?,
108     element layout { dchrt_CT_Layout }?,
109     element overlay { dchrt_CT_Boolean }?,
110     element spPr { a_CT_ShapeProperties }?,
111     element txPr { a_CT_TextBody }?,
112     element extLst { dchrt_CT_ExtensionList }?
113 dchrt_ST_RotX = xsd:byte { minInclusive = "-90" maxInclusive = "90" }
114 dchrt_CT_RotX =
115
116     ## default value: 0
117     attribute val { dchrt_ST_RotX }?
118 dchrt_ST_HPercent =
119 dchrt_ST_HPercentWithSymbol | dchrt_ST_HPercentUShort
120 dchrt_ST_HPercentWithSymbol =
121     xsd:string {
122         pattern = "0*(([5-9])|([1-9][0-9])|([1-4][0-9][0-9])|500)%"
123     }
124 dchrt_ST_HPercentUShort =
125     xsd:unsignedShort { minInclusive = "5" maxInclusive = "500" }
126 dchrt_CT_HPercent =
127
128     ## default value: 100%
129     attribute val { dchrt_ST_HPercent }?
130 dchrt_ST_RotY =
131     xsd:unsignedShort { minInclusive = "0" maxInclusive = "360" }
132 dchrt_CT_RotY =
133
134     ## default value: 0
135     attribute val { dchrt_ST_RotY }?
136 dchrt_ST_DepthPercent =
137 dchrt_ST_DepthPercentWithSymbol | dchrt_ST_DepthPercentUShort
138 dchrt_ST_DepthPercentWithSymbol =
139     xsd:string {
140         pattern = "0*(([2-9][0-9])|([1-9][0-9][0-9])|(1[0-9][0-9][0-9])|2000)%"
141     }
142 dchrt_ST_DepthPercentUShort =
143     xsd:unsignedShort { minInclusive = "20" maxInclusive = "2000" }
144 dchrt_CT_DepthPercent =
145

```



```

146  ## default value: 100%
147  attribute val { dchrt_ST_DepthPercent }?
148  dchrt_ST_Perspective =
149    xsd:unsignedByte { minInclusive = "0" maxInclusive = "240" }
150  dchrt_CT_Perspective =
151
152  ## default value: 30
153  attribute val { dchrt_ST_Perspective }?
154  dchrt_CT_View3D =
155    element rotX { dchrt_CT_RotX }?,
156    element hPercent { dchrt_CT_HPercent }?,
157    element rotY { dchrt_CT_RotY }?,
158    element depthPercent { dchrt_CT_DepthPercent }?,
159    element rAngAx { dchrt_CT_Boolean }?,
160    element perspective { dchrt_CT_Perspective }?,
161    element extLst { dchrt_CT_ExtensionList }?
162  dchrt_CT_Surface =
163    element thickness { dchrt_CT_Thickness }?,
164    element spPr { a_CT_ShapeProperties }?,
165    element pictureOptions { dchrt_CT_PictureOptions }?,
166    element extLst { dchrt_CT_ExtensionList }?
167  dchrt_ST_Thickness = dchrt_ST_ThicknessPercent | xsd:unsignedInt
168  dchrt_ST_ThicknessPercent = xsd:string { pattern = "([0-9]+)%" }
169  dchrt_CT_Thickness = attribute val { dchrt_ST_Thickness }
170  dchrt_CT_DTable =
171    element showHorzBorder { dchrt_CT_Boolean }?,
172    element showVertBorder { dchrt_CT_Boolean }?,
173    element showOutline { dchrt_CT_Boolean }?,
174    element showKeys { dchrt_CT_Boolean }?,
175    element spPr { a_CT_ShapeProperties }?,
176    element txPr { a_CT_TextBody }?,
177    element extLst { dchrt_CT_ExtensionList }?
178  dchrt_ST_GapAmount =
179  dchrt_ST_GapAmountPercent | dchrt_ST_GapAmountUShort
180  dchrt_ST_GapAmountPercent =
181    xsd:string {
182      pattern = "0*(([0-9])|([1-9][0-9])|([1-4][0-9][0-9])|500)%"
183    }
184  dchrt_ST_GapAmountUShort =
185    xsd:unsignedShort { minInclusive = "0" maxInclusive = "500" }
186  dchrt_CT_GapAmount =
187
188  ## default value: 150%
189  attribute val { dchrt_ST_GapAmount }?
190  dchrt_ST_Overlap =
191  dchrt_ST_OverlapPercent | dchrt_ST_OverlapByte
192  dchrt_ST_OverlapPercent =
193    xsd:string { pattern = "(-?0*(([0-9])|([1-9][0-9])|100))%" }
194  dchrt_ST_OverlapByte =
195    xsd:byte { minInclusive = "-100" maxInclusive = "100" }
196  dchrt_CT_Overlap =
197
198  ## default value: 0%

```



```

199     attribute val { dchrt_ST_Overlap }?
200 dchrt_ST_BubbleScale =
201     dchrt_ST_BubbleScalePercent | dchrt_ST_BubbleScaleUInt
202 dchrt_ST_BubbleScalePercent =
203     xsd:string {
204         pattern = "0*([0-9])|([1-9][0-9])|([1-2][0-9][0-9])|300)%"
205     }
206 dchrt_ST_BubbleScaleUInt =
207     xsd:unsignedInt { minInclusive = "0" maxInclusive = "300" }
208 dchrt_CT_BubbleScale =
209
210     ## default value: 100%
211     attribute val { dchrt_ST_BubbleScale }?
212 dchrt_ST_SizeRepresents = string "area" | string "w"
213 dchrt_CT_SizeRepresents =
214
215     ## default value: area
216     attribute val { dchrt_ST_SizeRepresents }?
217 dchrt_ST_FirstSliceAng =
218     xsd:unsignedShort { minInclusive = "0" maxInclusive = "360" }
219 dchrt_CT_FirstSliceAng =
220
221     ## default value: 0
222     attribute val { dchrt_ST_FirstSliceAng }?
223 dchrt_ST_HoleSize =
224 dchrt_ST_HoleSizePercent | dchrt_ST_HoleSizeUByte
225 dchrt_ST_HoleSizePercent = xsd:string { pattern = "0*([1-9]|([1-8][0-9])|90)%" }
226 dchrt_ST_HoleSizeUByte = xsd:unsignedByte { minInclusive = "1" maxInclusive = "90" }
227 dchrt_CT_HoleSize =
228
229     ## default value: 10%
230     attribute val { dchrt_ST_HoleSize }?
231 dchrt_ST_SplitType =
232     string "auto"
233     | string "cust"
234     | string "percent"
235     | string "pos"
236     | string "val"
237 dchrt_CT_SplitType =
238
239     ## default value: auto
240     attribute val { dchrt_ST_SplitType }?
241 dchrt_CT_CustSplit = element secondPiePt { dchrt_CT_UnsignedInt }*
242 dchrt_ST_SecondPieSize =
243 dchrt_ST_SecondPieSizePercent | dchrt_ST_SecondPieSizeUShort
244 dchrt_ST_SecondPieSizePercent =
245     xsd:string { pattern = "0*([5-9])|([1-9][0-9])|(1[0-9][0-9])|200)%" }
246 dchrt_ST_SecondPieSizeUShort =
247     xsd:unsignedShort { minInclusive = "5" maxInclusive = "200" }
248 dchrt_CT_SecondPieSize =
249
250     ## default value: 75%
251     attribute val { dchrt_ST_SecondPieSize }?

```



```

252 dchrt_CT_NumFmt =
253     attribute formatCode { s_ST_Xstring },
254     attribute sourceLinked { xsd:boolean }?
255 dchrt_ST_LblAlgn = string "ctr" | string "l" | string "r"
256 dchrt_CT_LblAlgn = attribute val { dchrt_ST_LblAlgn }
257 dchrt_ST_DLblPos =
258     string "bestFit"
259     | string "b"
260     | string "ctr"
261     | string "inBase"
262     | string "inEnd"
263     | string "l"
264     | string "outEnd"
265     | string "r"
266     | string "t"
267 dchrt_CT_DLblPos = attribute val { dchrt_ST_DLblPos }
268 dchrt_EG_DLblShared =
269     element numFmt { dchrt_CT_NumFmt }?,
270     element spPr { a_CT_ShapeProperties }?,
271     element txPr { a_CT_TextBody }?,
272     element dLblPos { dchrt_CT_DLblPos }?,
273     element showLegendKey { dchrt_CT_Boolean }?,
274     element showVal { dchrt_CT_Boolean }?,
275     element showCatName { dchrt_CT_Boolean }?,
276     element showSerName { dchrt_CT_Boolean }?,
277     element showPercent { dchrt_CT_Boolean }?,
278     element showBubbleSize { dchrt_CT_Boolean }?,
279     element separator { xsd:string }?
280 dchrt_Group_DLbl =
281     element layout { dchrt_CT_Layout }?,
282     element tx { dchrt_CT_Tx }?,
283     dchrt_EG_DLblShared
284 dchrt_CT_DLbl =
285     element idx { dchrt_CT_UnsignedInt },
286     (element delete { dchrt_CT_Boolean }
287       | dchrt_Group_DLbl),
288     element extLst { dchrt_CT_ExtensionList }?
289 dchrt_Group_DLbls =
290     dchrt_EG_DLblShared,
291     element showLeaderLines { dchrt_CT_Boolean }?,
292     element leaderLines { dchrt_CT_ChartLines }?
293 dchrt_CT_DLbls =
294     element dLbl { dchrt_CT_DLbl }*,
295     (element delete { dchrt_CT_Boolean }
296       | dchrt_Group_DLbls),
297     element extLst { dchrt_CT_ExtensionList }?
298 dchrt_ST_MarkerStyle =
299     string "circle"
300     | string "dash"
301     | string "diamond"
302     | string "dot"
303     | string "none"
304     | string "picture"

```



```

305 | string "plus"
306 | string "square"
307 | string "star"
308 | string "triangle"
309 | string "x"
310 | string "auto"
311 dchrt_CT_MarkerStyle = attribute val { dchrt_ST_MarkerStyle }
312 dchrt_ST_MarkerSize =
313   xsd:unsignedByte { minInclusive = "2" maxInclusive = "72" }
314 dchrt_CT_MarkerSize =
315
316   ## default value: 5
317   attribute val { dchrt_ST_MarkerSize }?
318 dchrt_CT_Marker =
319   element symbol { dchrt_CT_MarkerStyle }?,
320   element size { dchrt_CT_MarkerSize }?,
321   element spPr { a_CT_ShapeProperties }?,
322   element extLst { dchrt_CT_ExtensionList }?
323 dchrt_CT_DPt =
324   element idx { dchrt_CT_UnsignedInt },
325   element invertIfNegative { dchrt_CT_Boolean }?,
326   element marker { dchrt_CT_Marker }?,
327   element bubble3D { dchrt_CT_Boolean }?,
328   element explosion { dchrt_CT_UnsignedInt }?,
329   element spPr { a_CT_ShapeProperties }?,
330   element pictureOptions { dchrt_CT_PictureOptions }?,
331   element extLst { dchrt_CT_ExtensionList }?
332 dchrt_ST_TrendlineType =
333   string "exp"
334   | string "linear"
335   | string "log"
336   | string "movingAvg"
337   | string "poly"
338   | string "power"
339 dchrt_CT_TrendlineType =
340
341   ## default value: linear
342   attribute val { dchrt_ST_TrendlineType }?
343 dchrt_ST_Order =
344   xsd:unsignedByte { minInclusive = "2" maxInclusive = "6" }
345 dchrt_CT_Order =
346
347   ## default value: 2
348   attribute val { dchrt_ST_Order }?
349 dchrt_ST_Period =
350   xsd:unsignedInt { minInclusive = "2" }
351 dchrt_CT_Period =
352
353   ## default value: 2
354   attribute val { dchrt_ST_Period }?
355 dchrt_CT_TrendlineLbl =
356   element layout { dchrt_CT_Layout }?,
357   element tx { dchrt_CT_Tx }?,

```



```

358     element numFmt { dchrt_CT_NumFmt }?,
359     element spPr { a_CT_ShapeProperties }?,
360     element txPr { a_CT_TextBody }?,
361     element extLst { dchrt_CT_ExtensionList }?
362 dchrt_CT_Trendline =
363     element name { xsd:string }?,
364     element spPr { a_CT_ShapeProperties }?,
365     element trendlineType { dchrt_CT_TrendlineType },
366     element order { dchrt_CT_Order }?,
367     element period { dchrt_CT_Period }?,
368     element forward { dchrt_CT_Double }?,
369     element backward { dchrt_CT_Double }?,
370     element intercept { dchrt_CT_Double }?,
371     element dispRSqr { dchrt_CT_Boolean }?,
372     element dispEq { dchrt_CT_Boolean }?,
373     element trendlineLbl { dchrt_CT_TrendlineLbl }?,
374     element extLst { dchrt_CT_ExtensionList }?
375 dchrt_ST_ErrDir = string "x" | string "y"
376 dchrt_CT_ErrDir = attribute val { dchrt_ST_ErrDir }
377 dchrt_ST_ErrBarType = string "both" | string "minus" | string "plus"
378 dchrt_CT_ErrBarType =
379
380     ## default value: both
381     attribute val { dchrt_ST_ErrBarType }?
382 dchrt_ST_ErrValType =
383     string "cust"
384     | string "fixedVal"
385     | string "percentage"
386     | string "stdDev"
387     | string "stdErr"
388 dchrt_CT_ErrValType =
389
390     ## default value: fixedVal
391     attribute val { dchrt_ST_ErrValType }?
392 dchrt_CT_ErrBars =
393     element errDir { dchrt_CT_ErrDir }?,
394     element errBarType { dchrt_CT_ErrBarType },
395     element errValType { dchrt_CT_ErrValType },
396     element noEndCap { dchrt_CT_Boolean }?,
397     element plus { dchrt_CT_NumDataSource }?,
398     element minus { dchrt_CT_NumDataSource }?,
399     element val { dchrt_CT_Double }?,
400     element spPr { a_CT_ShapeProperties }?,
401     element extLst { dchrt_CT_ExtensionList }?
402 dchrt_CT_UpDownBar = element spPr { a_CT_ShapeProperties }?
403 dchrt_CT_UpDownBars =
404     element gapWidth { dchrt_CT_GapAmount }?,
405     element upBars { dchrt_CT_UpDownBar }?,
406     element downBars { dchrt_CT_UpDownBar }?,
407     element extLst { dchrt_CT_ExtensionList }?
408 dchrt_EG_SerShared =
409     element idx { dchrt_CT_UnsignedInt },
410     element order { dchrt_CT_UnsignedInt },

```



```

411     element tx { dchrt_CT_SerTx }?,
412     element spPr { a_CT_ShapeProperties }?
413 dchrt_CT_LineSer =
414     dchrt_EG_SerShared,
415     element marker { dchrt_CT_Marker }?,
416     element dPt { dchrt_CT_DPt }*,
417     element dLbls { dchrt_CT_DLbls }?,
418     element trendline { dchrt_CT_Trendline }*,
419     element errBars { dchrt_CT_ErrBars }?,
420     element cat { dchrt_CT_AxDataSource }?,
421     element val { dchrt_CT_NumDataSource }?,
422     element smooth { dchrt_CT_Boolean }?,
423     element extLst { dchrt_CT_ExtensionList }?
424 dchrt_CT_ScatterSer =
425     dchrt_EG_SerShared,
426     element marker { dchrt_CT_Marker }?,
427     element dPt { dchrt_CT_DPt }*,
428     element dLbls { dchrt_CT_DLbls }?,
429     element trendline { dchrt_CT_Trendline }*,
430     element errBars { dchrt_CT_ErrBars }*,
431     element xVal { dchrt_CT_AxDataSource }?,
432     element yVal { dchrt_CT_NumDataSource }?,
433     element smooth { dchrt_CT_Boolean }?,
434     element extLst { dchrt_CT_ExtensionList }?
435 dchrt_CT_RadarSer =
436     dchrt_EG_SerShared,
437     element marker { dchrt_CT_Marker }?,
438     element dPt { dchrt_CT_DPt }*,
439     element dLbls { dchrt_CT_DLbls }?,
440     element cat { dchrt_CT_AxDataSource }?,
441     element val { dchrt_CT_NumDataSource }?,
442     element extLst { dchrt_CT_ExtensionList }?
443 dchrt_CT_BarSer =
444     dchrt_EG_SerShared,
445     element invertIfNegative { dchrt_CT_Boolean }?,
446     element pictureOptions { dchrt_CT_PictureOptions }?,
447     element dPt { dchrt_CT_DPt }*,
448     element dLbls { dchrt_CT_DLbls }?,
449     element trendline { dchrt_CT_Trendline }*,
450     element errBars { dchrt_CT_ErrBars }?,
451     element cat { dchrt_CT_AxDataSource }?,
452     element val { dchrt_CT_NumDataSource }?,
453     element shape { dchrt_CT_Shape }?,
454     element extLst { dchrt_CT_ExtensionList }?
455 dchrt_CT_AreaSer =
456     dchrt_EG_SerShared,
457     element pictureOptions { dchrt_CT_PictureOptions }?,
458     element dPt { dchrt_CT_DPt }*,
459     element dLbls { dchrt_CT_DLbls }?,
460     element trendline { dchrt_CT_Trendline }*,
461     element errBars { dchrt_CT_ErrBars }*,
462     element cat { dchrt_CT_AxDataSource }?,
463     element val { dchrt_CT_NumDataSource }?,

```



```

464     element extLst { dchrt_CT_ExtensionList }?
465 dchrt_CT_PieSer =
466     dchrt_EG_SerShared,
467     element explosion { dchrt_CT_UnsignedInt }?,
468     element dPt { dchrt_CT_DPt }*,
469     element dLbIs { dchrt_CT_DLbIs }?,
470     element cat { dchrt_CT_AxDataSource }?,
471     element val { dchrt_CT_NumDataSource }?,
472     element extLst { dchrt_CT_ExtensionList }?
473 dchrt_CT_BubbleSer =
474     dchrt_EG_SerShared,
475     element invertIfNegative { dchrt_CT_Boolean }?,
476     element dPt { dchrt_CT_DPt }*,
477     element dLbIs { dchrt_CT_DLbIs }?,
478     element trendline { dchrt_CT_Trendline }*,
479     element errBars { dchrt_CT_ErrBars }*,
480     element xVal { dchrt_CT_AxDataSource }?,
481     element yVal { dchrt_CT_NumDataSource }?,
482     element bubbleSize { dchrt_CT_NumDataSource }?,
483     element bubble3D { dchrt_CT_Boolean }?,
484     element extLst { dchrt_CT_ExtensionList }?
485 dchrt_CT_SurfaceSer =
486     dchrt_EG_SerShared,
487     element cat { dchrt_CT_AxDataSource }?,
488     element val { dchrt_CT_NumDataSource }?,
489     element extLst { dchrt_CT_ExtensionList }?
490 dchrt_ST_Grouping =
491     string "percentStacked" | string "standard" | string "stacked"
492 dchrt_CT_Grouping =
493
494     ## default value: standard
495     attribute val { dchrt_ST_Grouping }?
496 dchrt_CT_ChartLines = element spPr { a_CT_ShapeProperties }?
497 dchrt_EG_LineChartShared =
498     element grouping { dchrt_CT_Grouping },
499     element varyColors { dchrt_CT_Boolean }?,
500     element ser { dchrt_CT_LineSer }*,
501     element dLbIs { dchrt_CT_DLbIs }?,
502     element dropLines { dchrt_CT_ChartLines }?
503 dchrt_CT_LineChart =
504     dchrt_EG_LineChartShared,
505     element hiLowLines { dchrt_CT_ChartLines }?,
506     element upDownBars { dchrt_CT_UpDownBars }?,
507     element marker { dchrt_CT_Boolean }?,
508     element smooth { dchrt_CT_Boolean }?,
509     element axId { dchrt_CT_UnsignedInt }+,
510     element extLst { dchrt_CT_ExtensionList }?
511 dchrt_CT_Line3DChart =
512     dchrt_EG_LineChartShared,
513     element gapDepth { dchrt_CT_GapAmount }?,
514     element axId { dchrt_CT_UnsignedInt }+,
515     element extLst { dchrt_CT_ExtensionList }?
516 dchrt_CT_StockChart =

```



```

517     element ser { dchrt_CT_LineSer }+,
518     element dLbIs { dchrt_CT_DLbIs }?,
519     element dropLines { dchrt_CT_ChartLines }?,
520     element hiLowLines { dchrt_CT_ChartLines }?,
521     element upDownBars { dchrt_CT_UpDownBars }?,
522     element axId { dchrt_CT_UnsignedInt }+,
523     element extLst { dchrt_CT_ExtensionList }?
524 dchrt_ST_ScatterStyle =
525     string "none"
526     | string "line"
527     | string "lineMarker"
528     | string "marker"
529     | string "smooth"
530     | string "smoothMarker"
531 dchrt_CT_ScatterStyle =
532
533     ## default value: marker
534     attribute val { dchrt_ST_ScatterStyle }?
535 dchrt_CT_ScatterChart =
536     element scatterStyle { dchrt_CT_ScatterStyle },
537     element varyColors { dchrt_CT_Boolean }?,
538     element ser { dchrt_CT_ScatterSer }*,
539     element dLbIs { dchrt_CT_DLbIs }?,
540     element axId { dchrt_CT_UnsignedInt }+,
541     element extLst { dchrt_CT_ExtensionList }?
542 dchrt_ST_RadarStyle =
543     string "standard" | string "marker" | string "filled"
544 dchrt_CT_RadarStyle =
545
546     ## default value: standard
547     attribute val { dchrt_ST_RadarStyle }?
548 dchrt_CT_RadarChart =
549     element radarStyle { dchrt_CT_RadarStyle },
550     element varyColors { dchrt_CT_Boolean }?,
551     element ser { dchrt_CT_RadarSer }*,
552     element dLbIs { dchrt_CT_DLbIs }?,
553     element axId { dchrt_CT_UnsignedInt }+,
554     element extLst { dchrt_CT_ExtensionList }?
555 dchrt_ST_BarGrouping =
556     string "percentStacked"
557     | string "clustered"
558     | string "standard"
559     | string "stacked"
560 dchrt_CT_BarGrouping =
561
562     ## default value: clustered
563     attribute val { dchrt_ST_BarGrouping }?
564 dchrt_ST_BarDir = string "bar" | string "col"
565 dchrt_CT_BarDir =
566
567     ## default value: col
568     attribute val { dchrt_ST_BarDir }?
569 dchrt_ST_Shape =

```



```

570     string "cone"
571     | string "coneToMax"
572     | string "box"
573     | string "cylinder"
574     | string "pyramid"
575     | string "pyramidToMax"
576 dchrt_CT_Shape =
577
578     ## default value: box
579     attribute val { dchrt_ST_Shape }?
580 dchrt_EG_BarChartShared =
581     element barDir { dchrt_CT_BarDir },
582     element grouping { dchrt_CT_BarGrouping }?,
583     element varyColors { dchrt_CT_Boolean }?,
584     element ser { dchrt_CT_BarSer }*,
585     element dLbIs { dchrt_CT_DLbIs }?
586 dchrt_CT_BarChart =
587     dchrt_EG_BarChartShared,
588     element gapWidth { dchrt_CT_GapAmount }?,
589     element overlap { dchrt_CT_Overlap }?,
590     element serLines { dchrt_CT_ChartLines }*,
591     element axId { dchrt_CT_UnsignedInt }+,
592     element extLst { dchrt_CT_ExtensionList }?
593 dchrt_CT_Bar3DChart =
594     dchrt_EG_BarChartShared,
595     element gapWidth { dchrt_CT_GapAmount }?,
596     element gapDepth { dchrt_CT_GapAmount }?,
597     element shape { dchrt_CT_Shape }?,
598     element axId { dchrt_CT_UnsignedInt }+,
599     element extLst { dchrt_CT_ExtensionList }?
600 dchrt_EG_AreaChartShared =
601     element grouping { dchrt_CT_Grouping }?,
602     element varyColors { dchrt_CT_Boolean }?,
603     element ser { dchrt_CT_AreaSer }*,
604     element dLbIs { dchrt_CT_DLbIs }?,
605     element dropLines { dchrt_CT_ChartLines }?
606 dchrt_CT_AreaChart =
607     dchrt_EG_AreaChartShared,
608     element axId { dchrt_CT_UnsignedInt }+,
609     element extLst { dchrt_CT_ExtensionList }?
610 dchrt_CT_Area3DChart =
611     dchrt_EG_AreaChartShared,
612     element gapDepth { dchrt_CT_GapAmount }?,
613     element axId { dchrt_CT_UnsignedInt }+,
614     element extLst { dchrt_CT_ExtensionList }?
615 dchrt_EG_PieChartShared =
616     element varyColors { dchrt_CT_Boolean }?,
617     element ser { dchrt_CT_PieSer }*,
618     element dLbIs { dchrt_CT_DLbIs }?
619 dchrt_CT_PieChart =
620     dchrt_EG_PieChartShared,
621     element firstSliceAng { dchrt_CT_FirstSliceAng }?,
622     element extLst { dchrt_CT_ExtensionList }?

```



```

623 dchrt_CT_Pie3DChart =
624     dchrt_EG_PieChartShared,
625     element extLst { dchrt_CT_ExtensionList }?
626 dchrt_CT_DoughnutChart =
627     dchrt_EG_PieChartShared,
628     element firstSliceAng { dchrt_CT_FirstSliceAng }?,
629     element holeSize { dchrt_CT_HoleSize }?,
630     element extLst { dchrt_CT_ExtensionList }?
631 dchrt_ST_OfPieType = string "pie" | string "bar"
632 dchrt_CT_OfPieType =
633
634     ## default value: pie
635     attribute val { dchrt_ST_OfPieType }?
636 dchrt_CT_OfPieChart =
637     element ofPieType { dchrt_CT_OfPieType },
638     dchrt_EG_PieChartShared,
639     element gapWidth { dchrt_CT_GapAmount }?,
640     element splitType { dchrt_CT_SplitType }?,
641     element splitPos { dchrt_CT_Double }?,
642     element custSplit { dchrt_CT_CustSplit }?,
643     element secondPieSize { dchrt_CT_SecondPieSize }?,
644     element serLines { dchrt_CT_ChartLines }*,
645     element extLst { dchrt_CT_ExtensionList }?
646 dchrt_CT_BubbleChart =
647     element varyColors { dchrt_CT_Boolean }?,
648     element ser { dchrt_CT_BubbleSer }*,
649     element dLbls { dchrt_CT_DLbls }?,
650     element bubble3D { dchrt_CT_Boolean }?,
651     element bubbleScale { dchrt_CT_BubbleScale }?,
652     element showNegBubbles { dchrt_CT_Boolean }?,
653     element sizeRepresents { dchrt_CT_SizeRepresents }?,
654     element axId { dchrt_CT_UnsignedInt }+,
655     element extLst { dchrt_CT_ExtensionList }?
656 dchrt_CT_BandFmt =
657     element idx { dchrt_CT_UnsignedInt },
658     element spPr { a_CT_ShapeProperties }?
659 dchrt_CT_BandFmts = element bandFmt { dchrt_CT_BandFmt }*
660 dchrt_EG_SurfaceChartShared =
661     element wireframe { dchrt_CT_Boolean }?,
662     element ser { dchrt_CT_SurfaceSer }*,
663     element bandFmts { dchrt_CT_BandFmts }?
664 dchrt_CT_SurfaceChart =
665     dchrt_EG_SurfaceChartShared,
666     element axId { dchrt_CT_UnsignedInt }+,
667     element extLst { dchrt_CT_ExtensionList }?
668 dchrt_CT_Surface3DChart =
669     dchrt_EG_SurfaceChartShared,
670     element axId { dchrt_CT_UnsignedInt }+,
671     element extLst { dchrt_CT_ExtensionList }?
672 dchrt_ST_AxPos = string "b" | string "l" | string "r" | string "t"
673 dchrt_CT_AxPos = attribute val { dchrt_ST_AxPos }
674 dchrt_ST_Crosses = string "autoZero" | string "max" | string "min"
675 dchrt_CT_Crosses = attribute val { dchrt_ST_Crosses }

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```

676 dchrt_ST_CrossBetween = string "between" | string "midCat"
677 dchrt_CT_CrossBetween = attribute val { dchrt_ST_CrossBetween }
678 dchrt_ST_TickMark =
679     string "cross" | string "in" | string "none" | string "out"
680 dchrt_CT_TickMark =
681
682     ## default value: cross
683     attribute val { dchrt_ST_TickMark }?
684 dchrt_ST_TickLblPos =
685     string "high" | string "low" | string "nextTo" | string "none"
686 dchrt_CT_TickLblPos =
687
688     ## default value: nextTo
689     attribute val { dchrt_ST_TickLblPos }?
690 dchrt_ST_Skip = xsd:unsignedInt { minInclusive = "1" }
691 dchrt_CT_Skip = attribute val { dchrt_ST_Skip }
692 dchrt_ST_TimeUnit = string "days" | string "months" | string "years"
693 dchrt_CT_TimeUnit =
694
695     ## default value: days
696     attribute val { dchrt_ST_TimeUnit }?
697 dchrt_ST_AxisUnit = xsd:double { minExclusive = "0" }
698 dchrt_CT_AxisUnit = attribute val { dchrt_ST_AxisUnit }
699 dchrt_ST_BuiltInUnit =
700     string "hundreds"
701     | string "thousands"
702     | string "tenThousands"
703     | string "hundredThousands"
704     | string "millions"
705     | string "tenMillions"
706     | string "hundredMillions"
707     | string "billions"
708     | string "trillions"
709 dchrt_CT_BuiltInUnit =
710
711     ## default value: thousands
712     attribute val { dchrt_ST_BuiltInUnit }?
713 dchrt_ST_PictureFormat =
714     string "stretch" | string "stack" | string "stackScale"
715 dchrt_CT_PictureFormat = attribute val { dchrt_ST_PictureFormat }
716 dchrt_ST_PictureStackUnit = xsd:double { minExclusive = "0" }
717 dchrt_CT_PictureStackUnit = attribute val { dchrt_ST_PictureStackUnit }
718 dchrt_CT_PictureOptions =
719     element applyToFront { dchrt_CT_Boolean }?,
720     element applyToSides { dchrt_CT_Boolean }?,
721     element applyToEnd { dchrt_CT_Boolean }?,
722     element pictureFormat { dchrt_CT_PictureFormat }?,
723     element pictureStackUnit { dchrt_CT_PictureStackUnit }?
724 dchrt_CT_DisplUnitsLbl =
725     element layout { dchrt_CT_Layout }?,
726     element tx { dchrt_CT_Tx }?,
727     element spPr { a_CT_ShapeProperties }?,
728     element txPr { a_CT_TextBody }?

```



```

729 dchrt_CT_DispatchUnits =
730   (element custUnit { dchrt_CT_Double }
731     | element builtInUnit { dchrt_CT_BuiltInUnit } ),
732   element dispUnitsLbl { dchrt_CT_DispatchUnitsLbl }?,
733   element extLst { dchrt_CT_ExtensionList }?
734 dchrt_ST_Orientation = string "maxMin" | string "minMax"
735 dchrt_CT_Orientation =
736
737   ## default value: minMax
738   attribute val { dchrt_ST_Orientation }?
739 dchrt_ST_LogBase =
740   xsd:double { minInclusive = "2" maxInclusive = "1000" }
741 dchrt_CT_LogBase = attribute val { dchrt_ST_LogBase }
742 dchrt_CT_Scaling =
743   element logBase { dchrt_CT_LogBase }?,
744   element orientation { dchrt_CT_Orientation }?,
745   element max { dchrt_CT_Double }?,
746   element min { dchrt_CT_Double }?,
747   element extLst { dchrt_CT_ExtensionList }?
748 dchrt_ST_LblOffset =
749 dchrt_ST_LblOffsetPercent | dchrt_ST_LblOffsetUShort
750 dchrt_ST_LblOffsetPercent =
751   xsd:string {
752     pattern = "0*(([0-9])|([1-9][0-9])|([1-9][0-9][0-9])|1000)%"
753   }
754 dchrt_ST_LblOffsetUShort =
755   xsd:unsignedShort { minInclusive = "0" maxInclusive = "1000" }
756 dchrt_CT_LblOffset =
757
758   ## default value: 100%
759   attribute val { dchrt_ST_LblOffset }?
760 dchrt_EG_AxShared =
761   element axId { dchrt_CT_UnsignedInt },
762   element scaling { dchrt_CT_Scaling },
763   element delete { dchrt_CT_Boolean }?,
764   element axPos { dchrt_CT_AxPos },
765   element majorGridlines { dchrt_CT_ChartLines }?,
766   element minorGridlines { dchrt_CT_ChartLines }?,
767   element title { dchrt_CT_Title }?,
768   element numFmt { dchrt_CT_NumFmt }?,
769   element majorTickMark { dchrt_CT_TickMark }?,
770   element minorTickMark { dchrt_CT_TickMark }?,
771   element tickLblPos { dchrt_CT_TickLblPos }?,
772   element spPr { a_CT_ShapeProperties }?,
773   element txPr { a_CT_TextBody }?,
774   element crossAx { dchrt_CT_UnsignedInt },
775   (element crosses { dchrt_CT_Crosses }
776     | element crossesAt { dchrt_CT_Double } )?
777 dchrt_CT_CatAx =
778   dchrt_EG_AxShared,
779   element auto { dchrt_CT_Boolean }?,
780   element lblAlign { dchrt_CT_LblAlign }?,
781   element lblOffset { dchrt_CT_LblOffset }?,

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782     element tickLblSkip { dchrt_CT_Skip }?,
783     element tickMarkSkip { dchrt_CT_Skip }?,
784     element noMultiLvlLbl { dchrt_CT_Boolean }?,
785     element extLst { dchrt_CT_ExtensionList }?
786 dchrt_CT_DateAx =
787     dchrt_EG_AxShared,
788     element auto { dchrt_CT_Boolean }?,
789     element lblOffset { dchrt_CT_LblOffset }?,
790     element baseTimeUnit { dchrt_CT_TimeUnit }?,
791     element majorUnit { dchrt_CT_AxisUnit }?,
792     element majorTimeUnit { dchrt_CT_TimeUnit }?,
793     element minorUnit { dchrt_CT_AxisUnit }?,
794     element minorTimeUnit { dchrt_CT_TimeUnit }?,
795     element extLst { dchrt_CT_ExtensionList }?
796 dchrt_CT_SerAx =
797     dchrt_EG_AxShared,
798     element tickLblSkip { dchrt_CT_Skip }?,
799     element tickMarkSkip { dchrt_CT_Skip }?,
800     element extLst { dchrt_CT_ExtensionList }?
801 dchrt_CT_ValAx =
802     dchrt_EG_AxShared,
803     element crossBetween { dchrt_CT_CrossBetween }?,
804     element majorUnit { dchrt_CT_AxisUnit }?,
805     element minorUnit { dchrt_CT_AxisUnit }?,
806     element dispUnits { dchrt_CT_DispUnits }?,
807     element extLst { dchrt_CT_ExtensionList }?
808 dchrt_CT_PlotArea =
809     element layout { dchrt_CT_Layout }?,
810     (element areaChart { dchrt_CT_AreaChart }
811     | element area3DChart { dchrt_CT_Area3DChart }
812     | element lineChart { dchrt_CT_LineChart }
813     | element line3DChart { dchrt_CT_Line3DChart }
814     | element stockChart { dchrt_CT_StockChart }
815     | element radarChart { dchrt_CT_RadarChart }
816     | element scatterChart { dchrt_CT_ScatterChart }
817     | element pieChart { dchrt_CT_PieChart }
818     | element pie3DChart { dchrt_CT_Pie3DChart }
819     | element doughnutChart { dchrt_CT_DoughnutChart }
820     | element barChart { dchrt_CT_BarChart }
821     | element bar3DChart { dchrt_CT_Bar3DChart }
822     | element ofPieChart { dchrt_CT_OfPieChart }
823     | element surfaceChart { dchrt_CT_SurfaceChart }
824     | element surface3DChart { dchrt_CT_Surface3DChart }
825     | element bubbleChart { dchrt_CT_BubbleChart })+,
826     (element valAx { dchrt_CT_ValAx }
827     | element catAx { dchrt_CT_CatAx }
828     | element dateAx { dchrt_CT_DateAx }
829     | element serAx { dchrt_CT_SerAx })*,
830     element dTable { dchrt_CT_DTable }?,
831     element spPr { a_CT_ShapeProperties }?,
832     element extLst { dchrt_CT_ExtensionList }?
833 dchrt_CT_PivotFmt =
834     element idx { dchrt_CT_UnsignedInt },

```



```

835     element spPr { a_CT_ShapeProperties }?,
836     element txPr { a_CT_TextBody }?,
837     element marker { dchrt_CT_Marker }?,
838     element dLbl { dchrt_CT_DLbl }?,
839     element extLst { dchrt_CT_ExtensionList }?
840 dchrt_CT_PivotFmts = element pivotFmt { dchrt_CT_PivotFmt }*
841 dchrt_ST_LegendPos =
842     string "b" | string "tr" | string "l" | string "r" | string "t"
843 dchrt_CT_LegendPos =
844
845     ## default value: r
846     attribute val { dchrt_ST_LegendPos }?
847 dchrt_EG_LegendEntryData = element txPr { a_CT_TextBody }?
848 dchrt_CT_LegendEntry =
849     element idx { dchrt_CT_UnsignedInt },
850     (element delete { dchrt_CT_Boolean }
851      | dchrt_EG_LegendEntryData),
852     element extLst { dchrt_CT_ExtensionList }?
853 dchrt_CT_Legend =
854     element legendPos { dchrt_CT_LegendPos }?,
855     element legendEntry { dchrt_CT_LegendEntry }*,
856     element layout { dchrt_CT_Layout }?,
857     element overlay { dchrt_CT_Boolean }?,
858     element spPr { a_CT_ShapeProperties }?,
859     element txPr { a_CT_TextBody }?,
860     element extLst { dchrt_CT_ExtensionList }?
861 dchrt_ST_DisbBlanksAs = string "span" | string "gap" | string "zero"
862 dchrt_CT_DisbBlanksAs =
863
864     ### default value: zero
865     attribute val { dchrt_ST_DisbBlanksAs }?
866 dchrt_CT_Chart =
867     element title { dchrt_CT_Title }?,
868     element autoTitleDeleted { dchrt_CT_Boolean }?,
869     element pivotFmts { dchrt_CT_PivotFmts }?,
870     element view3D { dchrt_CT_View3D }?,
871     element floor { dchrt_CT_Surface }?,
872     element sideWall { dchrt_CT_Surface }?,
873     element backWall { dchrt_CT_Surface }?,
874     element plotArea { dchrt_CT_PlotArea },
875     element legend { dchrt_CT_Legend }?,
876     element plotVisOnly { dchrt_CT_Boolean }?,
877     element disbBlanksAs { dchrt_CT_DisbBlanksAs }?,
878     element showDLblsOverMax { dchrt_CT_Boolean }?,
879     element extLst { dchrt_CT_ExtensionList }?
880 dchrt_ST_Style =
881     xsd:unsignedByte { minInclusive = "1" maxInclusive = "48" }
882 dchrt_CT_Style = attribute val { dchrt_ST_Style }
883 dchrt_CT_PivotSource =
884     element name { s_ST_Xstring },
885     element fmtId { dchrt_CT_UnsignedInt },
886     element extLst { dchrt_CT_ExtensionList }*
887 dchrt_CT_Protection =

```



```

888     element chartObject { dchrt_CT_Boolean }?,
889     element data { dchrt_CT_Boolean }?,
890     element formatting { dchrt_CT_Boolean }?,
891     element selection { dchrt_CT_Boolean }?,
892     element userInterface { dchrt_CT_Boolean }?
893 dchrt_CT_HeaderFooter =
894
895     ## default value: true
896     attribute alignWithMargins { xsd:boolean }?,
897
898     ## default value: false
899     attribute differentOddEven { xsd:boolean }?,
900
901     ## default value: false
902     attribute differentFirst { xsd:boolean }?,
903     element oddHeader { s_ST_Xstring }?,
904     element oddFooter { s_ST_Xstring }?,
905     element evenHeader { s_ST_Xstring }?,
906     element evenFooter { s_ST_Xstring }?,
907     element firstHeader { s_ST_Xstring }?,
908     element firstFooter { s_ST_Xstring }?
909 dchrt_CT_PageMargins =
910     attribute l { xsd:double },
911     attribute r { xsd:double },
912     attribute t { xsd:double },
913     attribute b { xsd:double },
914     attribute header { xsd:double },
915     attribute footer { xsd:double }
916 dchrt_ST_PageSetupOrientation =
917     string "default" | string "portrait" | string "landscape"
918 dchrt_CT_ExternalData =
919     r_id,
920     element autoUpdate { dchrt_CT_Boolean }?
921 dchrt_CT_PageSetup =
922
923     ## default value: 1
924     attribute paperSize { xsd:unsignedInt }?,
925     attribute paperHeight { s_ST_PositiveUniversalMeasure }?,
926     attribute paperWidth { s_ST_PositiveUniversalMeasure }?,
927
928     ## default value: 1
929     attribute firstPageNumber { xsd:unsignedInt }?,
930
931     ## default value: default
932     attribute orientation { dchrt_ST_PageSetupOrientation }?,
933
934     ## default value: false
935     attribute blackAndWhite { xsd:boolean }?,
936
937     ## default value: false
938     attribute draft { xsd:boolean }?,
939
940     ## default value: false

```



```

941 attribute useFirstPageNumber { xsd:boolean }?,
942
943 ## default value: 600
944 attribute horizontalDpi { xsd:int }?,
945
946 ## default value: 600
947 attribute verticalDpi { xsd:int }?,
948
949 ## default value: 1
950 attribute copies { xsd:unsignedInt }?
951 dchrt_CT_PrintSettings =
952   element headerFooter { dchrt_CT_HeaderFooter }?,
953   element pageMargins { dchrt_CT_PageMargins }?,
954   element pageSetup { dchrt_CT_PageSetup }?,
955   element legacyDrawingHT { dchrt_CT_RelId }?
956 dchrt_CT_ChartSpace =
957   element date1904 { dchrt_CT_Boolean }?,
958   element lang { dchrt_CT_TextLanguageID }?,
959   element roundedCorners { dchrt_CT_Boolean }?,
960   element style { dchrt_CT_Style }?,
961   element clrMapOvr { a_CT_ColorMapping }?,
962   element pivotSource { dchrt_CT_PivotSource }?,
963   element protection { dchrt_CT_Protection }?,
964   element chart { dchrt_CT_Chart },
965   element spPr { a_CT_ShapeProperties }?,
966   element txPr { a_CT_TextBody }?,
967   element externalData { dchrt_CT_ExternalData }?,
968   element printSettings { dchrt_CT_PrintSettings }?,
969   element userShapes { dchrt_CT_RelId }?,
970   element extLst { dchrt_CT_ExtensionList }?
971 dchrt_chartSpace = element chartSpace { dchrt_CT_ChartSpace }
972 dchrt_userShapes = element userShapes { cdr_CT_Drawing }
973 dchrt_chart = element chart { dchrt_CT_RelId }

```

### B.6.1.1 Part Schemas

#### B.6.1.1.1 Chart Part

This schema is available in the file DrawingML\_Chart.rnc.

```

1 include "dml-chart.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-main.rnc"
4 include "dml-diagram.rnc"
5 include "shared-commonSimpleTypes.rnc"
6 include "dml-lockedCanvas.rnc"
7 include "any.rnc"
8 include "dml-picture.rnc"
9 include "dml-chartDrawing.rnc"
10 start = dchrt_chartSpace

```

#### B.6.1.1.2 Chart Drawing Part

This schema is available in the file DrawingML\_Chart\_Drawing.rnc.



```

1 include "dml-chart.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-main.rnc"
4 include "dml-diagram.rnc"
5 include "shared-commonSimpleTypes.rnc"
6 include "dml-lockedCanvas.rnc"
7 include "any.rnc"
8 include "dml-picture.rnc"
9 include "dml-chartDrawing.rnc"
10 start = dchrt_userShapes

```

## B.6.2 DrawingML - Chart Drawing

This schema is available in the file dml-chartDrawing.rnc.

```

1 default namespace =
2   "http://schemas.openxmlformats.org/drawingml/2006/chartDrawing"
3 namespace a = "http://schemas.openxmlformats.org/drawingml/2006/main"
4 namespace cdr =
5   "http://schemas.openxmlformats.org/drawingml/2006/chartDrawing"
6 namespace o = "urn:schemas-microsoft-com:office:office"
7 namespace v = "urn:schemas-microsoft-com:vml"
8 namespace w10 = "urn:schemas-microsoft-com:office:word"
9 namespace x = "urn:schemas-microsoft-com:office:excel"
10
11 cdr_CT_ShapeNonVisual =
12   element cNvPr { a_CT_NonVisualDrawingProps },
13   element cNvSpPr { a_CT_NonVisualDrawingShapeProps }
14 cdr_CT_Shape =
15   attribute macro { xsd:string }?,
16   attribute textlink { xsd:string }?,
17
18   ## default value: true
19   attribute fLocksText { xsd:boolean }?,
20
21   ## default value: false
22   attribute fPublished { xsd:boolean }?,
23   element nvSpPr { cdr_CT_ShapeNonVisual },
24   element spPr { a_CT_ShapeProperties },
25   element style { a_CT_ShapeStyle }?,
26   element txBody { a_CT_TextBody }?
27 cdr_CT_ConnectorNonVisual =
28   element cNvPr { a_CT_NonVisualDrawingProps },
29   element cNvCxnSpPr { a_CT_NonVisualConnectorProperties }
30 cdr_CT_Connector =
31   attribute macro { xsd:string }?,
32
33   ## default value: false
34   attribute fPublished { xsd:boolean }?,
35   element nvCxnSpPr { cdr_CT_ConnectorNonVisual },
36   element spPr { a_CT_ShapeProperties },
37   element style { a_CT_ShapeStyle }?
38 cdr_CT_PictureNonVisual =

```



```

39     element cNvPr { a_CT_NonVisualDrawingProps },
40     element cNvPicPr { a_CT_NonVisualPictureProperties }
41 cdr_CT_Picture =
42     attribute macro { xsd:string }?,
43
44     ## default value: false
45     attribute fPublished { xsd:boolean }?,
46     element nvPicPr { cdr_CT_PictureNonVisual },
47     element blipFill { a_CT_BlipFillProperties },
48     element spPr { a_CT_ShapeProperties },
49     element style { a_CT_ShapeStyle }?
50 cdr_CT_GraphicFrameNonVisual =
51     element cNvPr { a_CT_NonVisualDrawingProps },
52     element cNvGraphicFramePr { a_CT_NonVisualGraphicFrameProperties }
53 cdr_CT_GraphicFrame =
54     attribute macro { xsd:string }?,
55
56     ## default value: false
57     attribute fPublished { xsd:boolean }?,
58     element nvGraphicFramePr { cdr_CT_GraphicFrameNonVisual },
59     element xfrm { a_CT_Transform2D },
60     a_graphic
61 cdr_CT_GroupShapeNonVisual =
62     element cNvPr { a_CT_NonVisualDrawingProps },
63     element cNvGrpSpPr { a_CT_NonVisualGroupDrawingShapeProps }
64 cdr_CT_GroupShape =
65     element nvGrpSpPr { cdr_CT_GroupShapeNonVisual },
66     element grpSpPr { a_CT_GroupShapeProperties },
67     (element sp { cdr_CT_Shape }
68      | element grpSp { cdr_CT_GroupShape }
69      | element graphicFrame { cdr_CT_GraphicFrame }
70      | element cxnSp { cdr_CT_Connector }
71      | element pic { cdr_CT_Picture })*
72 cdr_EG_ObjectChoices =
73     element sp { cdr_CT_Shape }
74     | element grpSp { cdr_CT_GroupShape }
75     | element graphicFrame { cdr_CT_GraphicFrame }
76     | element cxnSp { cdr_CT_Connector }
77     | element pic { cdr_CT_Picture }
78 cdr_ST_MarkerCoordinate =
79     xsd:double { minInclusive = "0.0" maxInclusive = "1.0" }
80 cdr_CT_Marker =
81     element x { cdr_ST_MarkerCoordinate },
82     element y { cdr_ST_MarkerCoordinate }
83 cdr_CT_RelSizeAnchor =
84     element from { cdr_CT_Marker },
85     element to { cdr_CT_Marker },
86     cdr_EG_ObjectChoices
87 cdr_CT_AbsSizeAnchor =
88     element from { cdr_CT_Marker },
89     element ext { a_CT_PositiveSize2D },
90     cdr_EG_ObjectChoices
91 cdr_EG_Anchor =

```



```

92     element relSizeAnchor { cdr_CT_RelSizeAnchor }
93     | element absSizeAnchor { cdr_CT_AbsSizeAnchor }
94     cdr_CT_Drawing = cdr_EG_Anchor*

```

### B.6.3 DrawingML - Diagrams

This schema is available in the file dml-diagram.rnc.

```

1  default namespace =
2    "http://schemas.openxmlformats.org/drawingml/2006/diagram"
3  namespace a = "http://schemas.openxmlformats.org/drawingml/2006/main"
4  namespace ddgrm =
5    "http://schemas.openxmlformats.org/drawingml/2006/diagram"
6  namespace o = "urn:schemas-microsoft-com:office:office"
7  namespace r =
8    "http://schemas.openxmlformats.org/officeDocument/2006/relationships"
9  namespace s =
10    "http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
11  namespace v = "urn:schemas-microsoft-com:vml"
12  namespace w10 = "urn:schemas-microsoft-com:office:word"
13  namespace x = "urn:schemas-microsoft-com:office:excel"
14
15  ddgrm_CT_CTName =
16    attribute lang { xsd:string }?,
17    attribute val { xsd:string }
18  ddgrm_CT_CTDescription =
19    attribute lang { xsd:string }?,
20    attribute val { xsd:string }
21  ddgrm_CT_CTCategory =
22    attribute type { xsd:anyURI },
23    attribute pri { xsd:unsignedInt }
24  ddgrm_CT_CTCategories = element cat { ddgrm_CT_CTCategory }*
25  ddgrm_ST_ClrAppMethod = "span" | "cycle" | "repeat"
26  ddgrm_ST_HueDir = "cw" | "ccw"
27  ddgrm_CT_Colors =
28
29    ## default value: span
30    attribute meth { ddgrm_ST_ClrAppMethod }?,
31
32    ## default value: cw
33    attribute hueDir { ddgrm_ST_HueDir }?,
34    a_EG_ColorChoice*
35  ddgrm_CT_CTStyleLabel =
36    attribute name { xsd:string },
37    element fillClrLst { ddgrm_CT_Colors }?,
38    element linClrLst { ddgrm_CT_Colors }?,
39    element effectClrLst { ddgrm_CT_Colors }?,
40    element txLinClrLst { ddgrm_CT_Colors }?,
41    element txFillClrLst { ddgrm_CT_Colors }?,
42    element txEffectClrLst { ddgrm_CT_Colors }?,
43    element extLst { a_CT_OfficeArtExtensionList }?
44  ddgrm_CT_ColorTransform =
45    attribute uniqueId { xsd:string }?,

```



```

46
47     attribute minVer { xsd:string }?,
48     element title { ddgrm_CT_CTName }*,
49     element desc { ddgrm_CT_CTDescription }*,
50     element catLst { ddgrm_CT_CTCategories }?,
51     element styleLbl { ddgrm_CT_CTStyleLabel }*,
52     element extLst { a_CT_OfficeArtExtensionList }?
53 ddgrm_colorsDef = element colorsDef { ddgrm_CT_ColorTransform }
54 ddgrm_CT_ColorTransformHeader =
55     attribute uniqueId { xsd:string },
56
57     attribute minVer { xsd:string }?,
58
59     ## default value: 0
60     attribute resId { xsd:int }?,
61     element title { ddgrm_CT_CTName }+,
62     element desc { ddgrm_CT_CTDescription }+,
63     element catLst { ddgrm_CT_CTCategories }?,
64     element extLst { a_CT_OfficeArtExtensionList }?
65 ddgrm_colorsDefHdr =
66     element colorsDefHdr { ddgrm_CT_ColorTransformHeader }
67 ddgrm_CT_ColorTransformHeaderLst =
68     element colorsDefHdr { ddgrm_CT_ColorTransformHeader }*
69 ddgrm_colorsDefHdrLst =
70     element colorsDefHdrLst { ddgrm_CT_ColorTransformHeaderLst }
71 ddgrm_ST_PtType =
72     "node" | "asst" | "doc" | "pres" | "parTrans" | "sibTrans"
73 ddgrm_CT_Pt =
74     attribute modelId { ddgrm_ST_ModelId },
75
76     ## default value: node
77     attribute type { ddgrm_ST_PtType }?,
78
79     ## default value: 0
80     attribute cxnId { ddgrm_ST_ModelId }?,
81     element prSet { ddgrm_CT_ElemPropSet }?,
82     element spPr { a_CT_ShapeProperties }?,
83     element t { a_CT_TextBody }?,
84     element extLst { a_CT_OfficeArtExtensionList }?
85 ddgrm_CT_PtList = element pt { ddgrm_CT_Pt }*
86 ddgrm_ST_CxnType =
87     "parOf" | "presOf" | "presParOf" | "unknownRelationship"
88 ddgrm_CT_Cxn =
89     attribute modelId { ddgrm_ST_ModelId },
90
91     ## default value: parOf
92     attribute type { ddgrm_ST_CxnType }?,
93     attribute srcId { ddgrm_ST_ModelId },
94     attribute destId { ddgrm_ST_ModelId },
95     attribute srcOrd { xsd:unsignedInt },
96     attribute destOrd { xsd:unsignedInt },
97
98     ## default value: 0

```



```

99     attribute parTransId { ddgrm_ST_ModelId }?,
100
101     ## default value: 0
102     attribute sibTransId { ddgrm_ST_ModelId }?,
103     attribute presId { xsd:string }?,
104     element extLst { a_CT_OfficeArtExtensionList }?
105 ddgrm_CT_CxnList = element cxn { ddgrm_CT_Cxn }*
106 ddgrm_CT_DataModel =
107     element ptLst { ddgrm_CT_PtList },
108     element cxnLst { ddgrm_CT_CxnList }?,
109     element bg { a_CT_BackgroundFormatting }?,
110     element whole { a_CT_WholeE2oFormatting }?,
111     element extLst { a_CT_OfficeArtExtensionList }?
112 ddgrm_dataModel = element dataModel { ddgrm_CT_DataModel }
113 ddgrm_AG_IteratorAttributes =
114
115     ## default value: none
116     attribute axis { ddgrm_ST_AxisTypes }?,
117
118     ## default value: all
119     attribute ptType { ddgrm_ST_ElementTypes }?,
120
121     ## default value: true
122     attribute hideLastTrans { ddgrm_ST_Booleans }?,
123
124     ## default value: 1
125     attribute st { ddgrm_ST_Ints }?,
126
127     ## default value: 0
128     attribute cnt { ddgrm_ST_UnsignedInts }?,
129
130     ## default value: 1
131     attribute step { ddgrm_ST_Ints }?
132 ddgrm_AG_ConstraintAttributes =
133     attribute type { ddgrm_ST_ConstraintType },
134
135     ## default value: self
136     attribute for { ddgrm_ST_ConstraintRelationship }?,
137     attribute forName { xsd:string }?,
138
139     ## default value: all
140     attribute ptType { ddgrm_ST_ElementType }?
141 ddgrm_AG_ConstraintRefAttributes =
142
143     ## default value: none
144     attribute refType { ddgrm_ST_ConstraintType }?,
145
146     ## default value: self
147     attribute refFor { ddgrm_ST_ConstraintRelationship }?,
148     attribute refForName { xsd:string }?,
149
150     ## default value: all
151     attribute refPtType { ddgrm_ST_ElementType }?

```



```

152 ddgrm_CT_Constraint =
153     ddgrm_AG_ConstraintAttributes,
154     ddgrm_AG_ConstraintRefAttributes,
155
156     ## default value: none
157     attribute op { ddgrm_ST_BoolOperator }?,
158
159     ## default value: 0
160     attribute val { xsd:double }?,
161
162     ## default value: 1
163     attribute fact { xsd:double }?,
164     element extLst { a_CT_OfficeArtExtensionList }?
165 ddgrm_CT_Constraints = element constr { ddgrm_CT_Constraint }*
166 ddgrm_CT_NumericRule =
167     ddgrm_AG_ConstraintAttributes,
168
169     ## default value: NaN
170     attribute val { xsd:double }?,
171
172     ## default value: NaN
173     attribute fact { xsd:double }?,
174
175     ## default value: NaN
176     attribute max { xsd:double }?,
177     element extLst { a_CT_OfficeArtExtensionList }?
178 ddgrm_CT_Rules = element rule { ddgrm_CT_NumericRule }*
179 ddgrm_CT_PresentationOf =
180     ddgrm_AG_IteratorAttributes,
181     element extLst { a_CT_OfficeArtExtensionList }?
182 ddgrm_ST_LayoutShapeType = a_ST_ShapeType | ddgrm_ST_OutputShapeType
183 ddgrm_ST_Index1 = xsd:unsignedInt { minInclusive = "1" }
184 ddgrm_CT_Adj =
185     attribute idx { ddgrm_ST_Index1 },
186     attribute val { xsd:double }
187 ddgrm_CT_AdjLst = element adj { ddgrm_CT_Adj }*
188 ddgrm_CT_Shape =
189
190     ## default value: 0
191     attribute rot { xsd:double }?,
192
193     ## default value: none
194     attribute type { ddgrm_ST_LayoutShapeType }?,
195     r_blip?,
196
197     ## default value: 0
198     attribute zOrderOff { xsd:int }?,
199
200     ## default value: false
201     attribute hideGeom { xsd:boolean }?,
202
203     ## default value: false
204     attribute lkTxEntry { xsd:boolean }?,

```



```

205
206   ## default value: false
207   attribute blipPhldr { xsd:boolean }?,
208   element adjLst { ddgrm_CT_AdjLst }?,
209   element extLst { a_CT_OfficeArtExtensionList }?
210 ddgrm_CT_Parameter =
211   attribute type { ddgrm_ST_ParameterId },
212   attribute val { ddgrm_ST_ParameterVal }
213 ddgrm_CT_Algorithm =
214   attribute type { ddgrm_ST_AlgorithmType },
215
216   ## default value: 0
217   attribute rev { xsd:unsignedInt }?,
218   element param { ddgrm_CT_Parameter }*,
219   element extLst { a_CT_OfficeArtExtensionList }?
220 ddgrm_CT_LayoutNode =
221   attribute name { xsd:string }?,
222   attribute styleLbl { xsd:string }?,
223
224   ## default value: b
225   attribute chOrder { ddgrm_ST_ChildOrderType }?,
226   attribute moveWith { xsd:string }?,
227   (element alg { ddgrm_CT_Algorithm }?
228   | element shape { ddgrm_CT_Shape }?
229   | element presOf { ddgrm_CT_PresentationOf }?
230   | element constrLst { ddgrm_CT_Constraints }?
231   | element ruleLst { ddgrm_CT_Rules }?
232   | element varLst { ddgrm_CT_LayoutVariablePropertySet }?
233   | element forEach { ddgrm_CT_ForEach }
234   | element layoutNode { ddgrm_CT_LayoutNode }
235   | element choose { ddgrm_CT_Choose }
236   | element extLst { a_CT_OfficeArtExtensionList }?)*
237 ddgrm_CT_ForEach =
238   attribute name { xsd:string }?,
239   attribute ref { xsd:string }?,
240   ddgrm_AG_IteratorAttributes,
241   (element alg { ddgrm_CT_Algorithm }?
242   | element shape { ddgrm_CT_Shape }?
243   | element presOf { ddgrm_CT_PresentationOf }?
244   | element constrLst { ddgrm_CT_Constraints }?
245   | element ruleLst { ddgrm_CT_Rules }?
246   | element forEach { ddgrm_CT_ForEach }
247   | element layoutNode { ddgrm_CT_LayoutNode }
248   | element choose { ddgrm_CT_Choose }
249   | element extLst { a_CT_OfficeArtExtensionList }?)*
250 ddgrm_CT_When =
251   attribute name { xsd:string }?,
252   ddgrm_AG_IteratorAttributes,
253   attribute func { ddgrm_ST_FunctionType },
254
255   ## default value: none
256   attribute arg { ddgrm_ST_FunctionArgument }?,
257   attribute op { ddgrm_ST_FunctionOperator },

```



```

258 attribute val { ddgrm_ST_FunctionValue },
259 (element alg { ddgrm_CT_Algorithm }?
260 | element shape { ddgrm_CT_Shape }?
261 | element presOf { ddgrm_CT_PresentationOf }?
262 | element constrLst { ddgrm_CT_Constraints }?
263 | element ruleLst { ddgrm_CT_Rules }?
264 | element forEach { ddgrm_CT_ForEach }
265 | element layoutNode { ddgrm_CT_LayoutNode }
266 | element choose { ddgrm_CT_Choose }
267 | element extLst { a_CT_OfficeArtExtensionList }?)*
268 ddgrm_CT_Otherwise =
269 attribute name { xsd:string }?,
270 (element alg { ddgrm_CT_Algorithm }?
271 | element shape { ddgrm_CT_Shape }?
272 | element presOf { ddgrm_CT_PresentationOf }?
273 | element constrLst { ddgrm_CT_Constraints }?
274 | element ruleLst { ddgrm_CT_Rules }?
275 | element forEach { ddgrm_CT_ForEach }
276 | element layoutNode { ddgrm_CT_LayoutNode }
277 | element choose { ddgrm_CT_Choose }
278 | element extLst { a_CT_OfficeArtExtensionList }?)*
279 ddgrm_CT_Choose =
280 attribute name { xsd:string }?,
281 element if { ddgrm_CT_When }+,
282 element else { ddgrm_CT_Otherwise }?
283 ddgrm_CT_SampleData =
284
285 ## default value: false
286 attribute useDef { xsd:boolean }?,
287 element dataModel { ddgrm_CT_DataModel }?
288 ddgrm_CT_Category =
289 attribute type { xsd:anyURI },
290 attribute pri { xsd:unsignedInt }
291 ddgrm_CT_Categories = element cat { ddgrm_CT_Category }*
292 ddgrm_CT_Name =
293 attribute lang { xsd:string }?,
294 attribute val { xsd:string }
295 ddgrm_CT_Description =
296 attribute lang { xsd:string }?,
297 attribute val { xsd:string }
298 ddgrm_CT_DiagramDefinition =
299 attribute uniqueId { xsd:string }?,
300
301 attribute minVer { xsd:string }?,
302 attribute defStyle { xsd:string }?,
303 element title { ddgrm_CT_Name }*,
304 element desc { ddgrm_CT_Description }*,
305 element catLst { ddgrm_CT_Categories }?,
306 element sampData { ddgrm_CT_SampleData }?,
307 element styleData { ddgrm_CT_SampleData }?,
308 element clrData { ddgrm_CT_SampleData }?,
309 element layoutNode { ddgrm_CT_LayoutNode },
310 element extLst { a_CT_OfficeArtExtensionList }?

```



```

311 ddgrm_layoutDef = element layoutDef { ddgrm_CT_DiagramDefinition }
312 ddgrm_CT_DiagramDefinitionHeader =
313     attribute uniqueId { xsd:string },
314
315     attribute minVer { xsd:string }?,
316     attribute defStyle { xsd:string }?,
317
318     ## default value: 0
319     attribute resId { xsd:int }?,
320     element title { ddgrm_CT_Name }+,
321     element desc { ddgrm_CT_Description }+,
322     element catLst { ddgrm_CT_Categories }?,
323     element extLst { a_CT_OfficeArtExtensionList }?
324 ddgrm_layoutDefHdr =
325     element layoutDefHdr { ddgrm_CT_DiagramDefinitionHeader }
326 ddgrm_CT_DiagramDefinitionHeaderLst =
327     element layoutDefHdr { ddgrm_CT_DiagramDefinitionHeader }*
328 ddgrm_layoutDefHdrLst =
329     element layoutDefHdrLst { ddgrm_CT_DiagramDefinitionHeaderLst }
330 ddgrm_CT_RelIds = r_dm, r_lo, r_qs, r_cs
331 ddgrm_relIds = element relIds { ddgrm_CT_RelIds }
332 ddgrm_ST_ParameterVal =
333     ddgrm_ST_DiagramHorizontalAlignment
334     | ddgrm_ST_VerticalAlignment
335     | ddgrm_ST_ChildDirection
336     | ddgrm_ST_ChildAlignment
337     | ddgrm_ST_SecondaryChildAlignment
338     | ddgrm_ST_LinearDirection
339     | ddgrm_ST_SecondaryLinearDirection
340     | ddgrm_ST_StartingElement
341     | ddgrm_ST_BendPoint
342     | ddgrm_ST_ConnectorRouting
343     | ddgrm_ST_ArrowheadStyle
344     | ddgrm_ST_ConnectorDimension
345     | ddgrm_ST_RotationPath
346     | ddgrm_ST_CenterShapeMapping
347     | ddgrm_ST_NodeHorizontalAlignment
348     | ddgrm_ST_NodeVerticalAlignment
349     | ddgrm_ST_FallbackDimension
350     | ddgrm_ST_TextDirection
351     | ddgrm_ST_PyramidAccentPosition
352     | ddgrm_ST_PyramidAccentTextMargin
353     | ddgrm_ST_TextBlockDirection
354     | ddgrm_ST_TextAnchorHorizontal
355     | ddgrm_ST_TextAnchorVertical
356     | ddgrm_ST_DiagramTextAlignment
357     | ddgrm_ST_AutoTextRotation
358     | ddgrm_ST_GrowDirection
359     | ddgrm_ST_FlowDirection
360     | ddgrm_ST_ContinueDirection
361     | ddgrm_ST_Breakpoint
362     | ddgrm_ST_Offset
363     | ddgrm_ST_HierarchyAlignment

```



```

364 | xsd:int
365 | xsd:double
366 | xsd:boolean
367 | xsd:string
368 | ddgrm_ST_ConnectorPoint
369 ddgrm_ST_ModelId = xsd:int | s_ST_Guid
370 ddgrm_ST_PrSetCustVal = s_ST_Percentage | xsd:int
371 ddgrm_CT_ElemPropSet =
372     attribute presAssocID { ddgrm_ST_ModelId }?,
373     attribute presName { xsd:string }?,
374     attribute presStyleLbl { xsd:string }?,
375     attribute presStyleIdx { xsd:int }?,
376     attribute presStyleCnt { xsd:int }?,
377     attribute loTypeId { xsd:string }?,
378     attribute loCatId { xsd:string }?,
379     attribute qsTypeId { xsd:string }?,
380     attribute qsCatId { xsd:string }?,
381     attribute csTypeId { xsd:string }?,
382     attribute csCatId { xsd:string }?,
383     attribute coherent3DOff { xsd:boolean }?,
384     attribute phldrT { xsd:string }?,
385     attribute phldr { xsd:boolean }?,
386     attribute custAng { xsd:int }?,
387     attribute custFlipVert { xsd:boolean }?,
388     attribute custFlipHor { xsd:boolean }?,
389     attribute custSzX { xsd:int }?,
390     attribute custSzY { xsd:int }?,
391     attribute custScaleX { ddgrm_ST_PrSetCustVal }?,
392     attribute custScaleY { ddgrm_ST_PrSetCustVal }?,
393     attribute custT { xsd:boolean }?,
394     attribute custLinFactX { ddgrm_ST_PrSetCustVal }?,
395     attribute custLinFactY { ddgrm_ST_PrSetCustVal }?,
396     attribute custLinFactNeighborX { ddgrm_ST_PrSetCustVal }?,
397     attribute custLinFactNeighborY { ddgrm_ST_PrSetCustVal }?,
398     attribute custRadScaleRad { ddgrm_ST_PrSetCustVal }?,
399     attribute custRadScaleInc { ddgrm_ST_PrSetCustVal }?,
400     element presLayoutVars { ddgrm_CT_LayoutVariablePropertySet }?,
401     element style { a_CT_ShapeStyle }?
402 ddgrm_ST_Direction = "norm" | "rev"
403 ddgrm_ST_HierBranchStyle = "l" | "r" | "hang" | "std" | "init"
404 ddgrm_ST_AnimOneStr = "none" | "one" | "branch"
405 ddgrm_ST_AnimLvlStr = "none" | "lvl" | "ctr"
406 ddgrm_CT_OrgChart =
407
408     ## default value: false
409     attribute val { xsd:boolean }?
410 ddgrm_ST_NodeCount = xsd:int { minInclusive = "-1" }
411 ddgrm_CT_ChildMax =
412
413     ## default value: -1
414     attribute val { ddgrm_ST_NodeCount }?
415 ddgrm_CT_ChildPref =
416

```



```

417   ## default value: -1
418   attribute val { ddgrm_ST_NodeCount }?
419 ddgrm_CT_BulletEnabled =
420
421   ## default value: false
422   attribute val { xsd:boolean }?
423 ddgrm_CT_Direction =
424
425   ## default value: norm
426   attribute val { ddgrm_ST_Direction }?
427 ddgrm_CT_HierBranchStyle =
428
429   ## default value: std
430   attribute val { ddgrm_ST_HierBranchStyle }?
431 ddgrm_CT_AnimOne =
432
433   ## default value: one
434   attribute val { ddgrm_ST_AnimOneStr }?
435 ddgrm_CT_AnimLvl =
436
437   ## default value: none
438   attribute val { ddgrm_ST_AnimLvlStr }?
439 ddgrm_ST_ResizeHandlesStr = "exact" | "rel"
440 ddgrm_CT_ResizeHandles =
441
442   ## default value: rel
443   attribute val { ddgrm_ST_ResizeHandlesStr }?
444 ddgrm_CT_LayoutVariablePropertySet =
445   element orgChart { ddgrm_CT_OrgChart }?,
446   element chMax { ddgrm_CT_ChildMax }?,
447   element chPref { ddgrm_CT_ChildPref }?,
448   element bulletEnabled { ddgrm_CT_BulletEnabled }?,
449   element dir { ddgrm_CT_Direction }?,
450   element hierBranch { ddgrm_CT_HierBranchStyle }?,
451   element animOne { ddgrm_CT_AnimOne }?,
452   element animLvl { ddgrm_CT_AnimLvl }?,
453   element resizeHandles { ddgrm_CT_ResizeHandles }?
454 ddgrm_CT_SDName =
455   attribute lang { xsd:string }?,
456   attribute val { xsd:string }
457 ddgrm_CT_SDDescription =
458   attribute lang { xsd:string }?,
459   attribute val { xsd:string }
460 ddgrm_CT_SDCategory =
461   attribute type { xsd:anyURI },
462   attribute pri { xsd:unsignedInt }
463 ddgrm_CT_SDCategories = element cat { ddgrm_CT_SDCategory }*
464 ddgrm_CT_TextProps = a_EG_Text3D?
465 ddgrm_CT_StyleLabel =
466   attribute name { xsd:string },
467   element scene3d { a_CT_Scene3D }?,
468   element sp3d { a_CT_Shape3D }?,
469   element txPr { ddgrm_CT_TextProps }?,

```



```

470     element style { a_CT_ShapeStyle }?,
471     element extLst { a_CT_OfficeArtExtensionList }?
472 ddgrm_CT_StyleDefinition =
473     attribute uniqueId { xsd:string }?,
474
475     attribute minVer { xsd:string }?,
476     element title { ddgrm_CT_SDName }*,
477     element desc { ddgrm_CT_SDDescription }*,
478     element catLst { ddgrm_CT_SDCategories }?,
479     element scene3d { a_CT_Scene3D }?,
480     element styleLbl { ddgrm_CT_StyleLabel }+,
481     element extLst { a_CT_OfficeArtExtensionList }?
482 ddgrm_styleDef = element styleDef { ddgrm_CT_StyleDefinition }
483 ddgrm_CT_StyleDefinitionHeader =
484     attribute uniqueId { xsd:string },
485
486     attribute minVer { xsd:string }?,
487
488     ## default value: 0
489     attribute resId { xsd:int }?,
490     element title { ddgrm_CT_SDName }+,
491     element desc { ddgrm_CT_SDDescription }+,
492     element catLst { ddgrm_CT_SDCategories }?,
493     element extLst { a_CT_OfficeArtExtensionList }?
494 ddgrm_styleDefHdr =
495     element styleDefHdr { ddgrm_CT_StyleDefinitionHeader }
496 ddgrm_CT_StyleDefinitionHeaderLst =
497     element styleDefHdr { ddgrm_CT_StyleDefinitionHeader }*
498 ddgrm_styleDefHdrLst =
499     element styleDefHdrLst { ddgrm_CT_StyleDefinitionHeaderLst }
500 ddgrm_ST_AlgorithmType =
501     "composite"
502     | "conn"
503     | "cycle"
504     | "hierChild"
505     | "hierRoot"
506     | "pyra"
507     | "lin"
508     | "sp"
509     | "tx"
510     | "snake"
511 ddgrm_ST_AxisType =
512     "self"
513     | "ch"
514     | "des"
515     | "desOrSelf"
516     | "par"
517     | "ancst"
518     | "ancstOrSelf"
519     | "followSib"
520     | "precedSib"
521     | "follow"
522     | "preced"

```



```

523 | "root"
524 | "none"
525 ddgrm_ST_AxisTypes = list { ddgrm_ST_AxisType* }
526 ddgrm_ST_BoolOperator = "none" | "equ" | "gte" | "lte"
527 ddgrm_ST_ChildOrderType = "b" | "t"
528 ddgrm_ST_ConstraintType =
529     "none"
530     | "alignOff"
531     | "begMarg"
532     | "bendDist"
533     | "begPad"
534     | "b"
535     | "bMarg"
536     | "bOff"
537     | "ctrX"
538     | "ctrXOff"
539     | "ctrY"
540     | "ctrYOff"
541     | "connDist"
542     | "diam"
543     | "endMarg"
544     | "endPad"
545     | "h"
546     | "hArH"
547     | "hOff"
548     | "l"
549     | "lMarg"
550     | "lOff"
551     | "r"
552     | "rMarg"
553     | "rOff"
554     | "primFontSz"
555     | "pyraAcctRatio"
556     | "secFontSz"
557     | "sibSp"
558     | "secSibSp"
559     | "sp"
560     | "stemThick"
561     | "t"
562     | "tMarg"
563     | "tOff"
564     | "userA"
565     | "userB"
566     | "userC"
567     | "userD"
568     | "userE"
569     | "userF"
570     | "userG"
571     | "userH"
572     | "userI"
573     | "userJ"
574     | "userK"
575     | "userL"

```



```

576 | "userM"
577 | "userN"
578 | "userO"
579 | "userP"
580 | "userQ"
581 | "userR"
582 | "userS"
583 | "userT"
584 | "userU"
585 | "userV"
586 | "userW"
587 | "userX"
588 | "userY"
589 | "userZ"
590 | "w"
591 | "wArH"
592 | "wOff"
593 ddgrm_ST_ConstraintRelationship = "self" | "ch" | "des"
594 ddgrm_ST_ElementType =
595     "all"
596     | "doc"
597     | "node"
598     | "norm"
599     | "nonNorm"
600     | "asst"
601     | "nonAsst"
602     | "parTrans"
603     | "pres"
604     | "sibTrans"
605 ddgrm_ST_ElementTypes = list { ddgrm_ST_ElementType* }
606 ddgrm_ST_ParameterId =
607     "horzAlign"
608     | "vertAlign"
609     | "chDir"
610     | "chAlign"
611     | "secChAlign"
612     | "linDir"
613     | "secLinDir"
614     | "stElem"
615     | "bendPt"
616     | "connRout"
617     | "begSty"
618     | "endSty"
619     | "dim"
620     | "rotPath"
621     | "ctrShpMap"
622     | "nodeHorzAlign"
623     | "nodeVertAlign"
624     | "fallback"
625     | "txDir"
626     | "pyraAcctPos"
627     | "pyraAcctTxMar"
628     | "txBldir"

```



```

629 | "txAnchorHorz"
630 | "txAnchorVert"
631 | "txAnchorHorzCh"
632 | "txAnchorVertCh"
633 | "parTxLTRAlign"
634 | "parTxRTLAlign"
635 | "shpTxLTRAlignCh"
636 | "shpTxRTLAlignCh"
637 | "autoTxRot"
638 | "grDir"
639 | "flowDir"
640 | "contDir"
641 | "bkpt"
642 | "off"
643 | "hierAlign"
644 | "bkPtFixedVal"
645 | "stBulletLvl"
646 | "stAng"
647 | "spanAng"
648 | "ar"
649 | "lnSpPar"
650 | "lnSpAfParP"
651 | "lnSpCh"
652 | "lnSpAfChP"
653 | "rtShortDist"
654 | "alignTx"
655 | "pyraLvlNode"
656 | "pyraAcctBkgdNode"
657 | "pyraAcctTxNode"
658 | "srcNode"
659 | "dstNode"
660 | "begPts"
661 | "endPts"
662 ddgrm_ST_Ints = list { xsd:int* }
663 ddgrm_ST_UnsignedInts = list { xsd:unsignedInt* }
664 ddgrm_ST_Booleans = list { xsd:boolean* }
665 ddgrm_ST_FunctionType =
666     "cnt"
667     | "pos"
668     | "revPos"
669     | "posEven"
670     | "posOdd"
671     | "var"
672     | "depth"
673     | "maxDepth"
674 ddgrm_ST_FunctionOperator = "equ" | "neq" | "gt" | "lt" | "gte" | "lte"
675 ddgrm_ST_DiagramHorizontalAlignment = "l" | "ctr" | "r" | "none"
676 ddgrm_ST_VerticalAlignment = "t" | "mid" | "b" | "none"
677 ddgrm_ST_ChildDirection = "horz" | "vert"
678 ddgrm_ST_ChildAlignment = "t" | "b" | "l" | "r"
679 ddgrm_ST_SecondaryChildAlignment = "none" | "t" | "b" | "l" | "r"
680 ddgrm_ST_LinearDirection = "fromL" | "fromR" | "fromT" | "fromB"
681 ddgrm_ST_SecondaryLinearDirection =

```



```

682 "none" | "fromL" | "fromR" | "fromT" | "fromB"
683 ddgrm_ST_StartingElement = "node" | "trans"
684 ddgrm_ST_RotationPath = "none" | "alongPath"
685 ddgrm_ST_CenterShapeMapping = "none" | "fNode"
686 ddgrm_ST_BendPoint = "beg" | "def" | "end"
687 ddgrm_ST_ConnectorRouting = "stra" | "bend" | "curve" | "longCurve"
688 ddgrm_ST_ArrowheadStyle = "auto" | "arr" | "noArr"
689 ddgrm_ST_ConnectorDimension = "1D" | "2D" | "cust"
690 ddgrm_ST_ConnectorPoint =
691     "auto"
692     | "bCtr"
693     | "ctr"
694     | "midL"
695     | "midR"
696     | "tCtr"
697     | "bL"
698     | "bR"
699     | "tL"
700     | "tR"
701     | "radial"
702 ddgrm_ST_NodeHorizontalAlignment = "l" | "ctr" | "r"
703 ddgrm_ST_NodeVerticalAlignment = "t" | "mid" | "b"
704 ddgrm_ST_FallbackDimension = "1D" | "2D"
705 ddgrm_ST_TextDirection = "fromT" | "fromB"
706 ddgrm_ST_PyramidAccentPosition = "bef" | "aft"
707 ddgrm_ST_PyramidAccentTextMargin = "step" | "stack"
708 ddgrm_ST_TextBlockDirection = "horz" | "vert"
709 ddgrm_ST_TextAnchorHorizontal = "none" | "ctr"
710 ddgrm_ST_TextAnchorVertical = "t" | "mid" | "b"
711 ddgrm_ST_DiagramTextAlignment = "l" | "ctr" | "r"
712 ddgrm_ST_AutoTextRotation = "none" | "upr" | "grav"
713 ddgrm_ST_GrowDirection = "tL" | "tR" | "bL" | "bR"
714 ddgrm_ST_FlowDirection = "row" | "col"
715 ddgrm_ST_ContinueDirection = "revDir" | "sameDir"
716 ddgrm_ST_Breakpoint = "endCnv" | "bal" | "fixed"
717 ddgrm_ST_Offset = "ctr" | "off"
718 ddgrm_ST_HierarchyAlignment =
719     "tL"
720     | "tR"
721     | "tCtrCh"
722     | "tCtrDes"
723     | "bL"
724     | "bR"
725     | "bCtrCh"
726     | "bCtrDes"
727     | "lT"
728     | "lB"
729     | "lCtrCh"
730     | "lCtrDes"
731     | "rT"
732     | "rB"
733     | "rCtrCh"
734     | "rCtrDes"

```



```

735 ddgrm_ST_FunctionValue =
736     xsd:int
737     | xsd:boolean
738     | ddgrm_ST_Direction
739     | ddgrm_ST_HierBranchStyle
740     | ddgrm_ST_AnimOneStr
741     | ddgrm_ST_AnimLvlStr
742     | ddgrm_ST_ResizeHandlesStr
743 ddgrm_ST_VariableType =
744     "none"
745     | "orgChart"
746     | "chMax"
747     | "chPref"
748     | "bulEnabled"
749     | "dir"
750     | "hierBranch"
751     | "animOne"
752     | "animLvl"
753     | "resizeHandles"
754 ddgrm_ST_FunctionArgument = ddgrm_ST_VariableType
755 ddgrm_ST_OutputShapeType = "none" | "conn"

```

### B.6.3.1 Part Schemas

#### B.6.3.1.1 Diagram Colors Part

This schema is available in the file DrawingML\_Diagram\_Colors.rnc.

```

1  include "dml-diagram.rnc"
2  include "shared-relationshipReference.rnc"
3  include "dml-main.rnc"
4  include "dml-lockedCanvas.rnc"
5  include "any.rnc"
6  include "shared-commonSimpleTypes.rnc"
7  include "dml-chart.rnc"
8  include "dml-chartDrawing.rnc"
9  include "dml-picture.rnc"
10 start = ddgrm_colorsDef

```

#### B.6.3.1.2 Diagram Data Part

This schema is available in the file DrawingML\_Diagram\_Data.rnc.

```

1  include "dml-diagram.rnc"
2  include "shared-relationshipReference.rnc"
3  include "dml-main.rnc"
4  include "dml-lockedCanvas.rnc"
5  include "any.rnc"
6  include "shared-commonSimpleTypes.rnc"
7  include "dml-chart.rnc"
8  include "dml-chartDrawing.rnc"
9  include "dml-picture.rnc"
10 start = ddgrm_dataModel

```



### B.6.3.1.3 Diagram Layout Definitions Part

This schema is available in the file DrawingML\_Diagram\_Layout\_Definition.rnc.

```

1 include "dml-diagram.rnc"
2 include "shared-relationshipReference.rnc"
3 include "dml-main.rnc"
4 include "dml-lockedCanvas.rnc"
5 include "any.rnc"
6 include "shared-commonSimpleTypes.rnc"
7 include "dml-chart.rnc"
8 include "dml-chartDrawing.rnc"
9 include "dml-picture.rnc"
10 start = ddgrm_layoutDef

```

### B.6.3.1.4 Diagram Style Part

This schema is available in the file DrawingML\_Diagram\_Style.rnc.

```

include "dml-diagram.rnc"
include "shared-relationshipReference.rnc"
include "dml-main.rnc"
include "dml-lockedCanvas.rnc"
include "any.rnc"
include "shared-commonSimpleTypes.rnc"
include "dml-chart.rnc"
include "dml-chartDrawing.rnc"
include "dml-picture.rnc"
start = ddgrm_styleDef

```

## B.7 VML

### B.7.1 VML - Main

This schema is available in the file vml-main.rnc.

```

1 namespace o = "urn:schemas-microsoft-com:office:office"
2 namespace pvml = "urn:schemas-microsoft-com:office:powerpoint"
3 namespace r =
4   "http://schemas.openxmlformats.org/officeDocument/2006/relationships"
5 namespace s =
6   "http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
7 default namespace v = "urn:schemas-microsoft-com:vml"
8 namespace w =
9   "http://schemas.openxmlformats.org/wordprocessingml/2006/main"
10 namespace w10 = "urn:schemas-microsoft-com:office:word"
11 namespace x = "urn:schemas-microsoft-com:office:excel"
12
13 v_AG_Id = attribute id { xsd:string }?
14 v_AG_Style = attribute style { xsd:string }?
15 v_AG_Type = attribute type { xsd:string }?
16 v_AG_Adj = attribute adj { xsd:string }?
17 v_AG_Path = attribute path { xsd:string }?

```



```

18 v_AG_Fill =
19     attribute filled { s_ST_TrueFalse }?,
20     attribute fillcolor { s_ST_ColorType }?
21 v_AG_ChromaKey = attribute chromakey { s_ST_ColorType }?
22 v_AG_Ext = attribute v:ext { v_ST_Ext }?
23 v_AG_CoreAttributes =
24     v_AG_Id,
25     v_AG_Style,
26     attribute href { xsd:string }?,
27     attribute target { xsd:string }?,
28     attribute class { xsd:string }?,
29     attribute title { xsd:string }?,
30     attribute alt { xsd:string }?,
31     attribute coordsize { xsd:string }?,
32     attribute coordorigin { xsd:string }?,
33     attribute wrapcoords { xsd:string }?,
34     attribute print { s_ST_TrueFalse }?
35 v_AG_ShapeAttributes =
36     v_AG_ChromaKey,
37     v_AG_Fill,
38     attribute opacity { xsd:string }?,
39     attribute stroked { s_ST_TrueFalse }?,
40     attribute strokecolor { s_ST_ColorType }?,
41     attribute strokeweight { xsd:string }?,
42     attribute insetpen { s_ST_TrueFalse }?
43 v_AG_OfficeCoreAttributes =
44     o_spid?,
45     o_oned?,
46     o_regroupid?,
47     o_doubleclicknotify?,
48     o_button?,
49     o_userhidden?,
50     o_bullet?,
51     o_hr?,
52     o_hrstd?,
53     o_hrnoshade?,
54     o_hrpct?,
55     o_hralign?,
56     o_allowincell?,
57     o_allowoverlap?,
58     o_userdrawn?,
59     o_bordertopcolor?,
60     o_borderleftcolor?,
61     o_borderbottomcolor?,
62     o_borderrightcolor?,
63     o_dgmlayout?,
64     o_dgmnodekind?,
65     o_dgmlayoutmru?,
66     o_insetmode?
67 v_AG_OfficeShapeAttributes =
68     o_spt?,
69     o_connectortype?,
70     o_bwmode?,

```



```

71  o_bwpure?,
72  o_bwnormal?,
73  o_forcedash?,
74  o_oleicon?,
75  o_ole?,
76  o_preferrelative?,
77  o_cliptowrap?,
78  o_clip?
79  v_AG_AllCoreAttributes = v_AG_CoreAttributes, v_AG_OfficeCoreAttributes
80  v_AG_AllShapeAttributes =
81    v_AG_ShapeAttributes, v_AG_OfficeShapeAttributes
82  v_AG_ImageAttributes =
83    attribute src { xsd:string }?,
84    attribute cropleft { xsd:string }?,
85    attribute croptop { xsd:string }?,
86    attribute cropright { xsd:string }?,
87    attribute cropbottom { xsd:string }?,
88    attribute gain { xsd:string }?,
89    attribute blacklevel { xsd:string }?,
90    attribute gamma { xsd:string }?,
91    attribute grayscale { s_ST_TrueFalse }?,
92    attribute bilevel { s_ST_TrueFalse }?
93  v_AG_StrokeAttributes =
94    attribute on { s_ST_TrueFalse }?,
95    attribute weight { xsd:string }?,
96    attribute color { s_ST_ColorType }?,
97    attribute opacity { xsd:string }?,
98    attribute linestyle { v_ST_StrokeLineStyle }?,
99    attribute miterlimit { xsd:decimal }?,
100   attribute joinstyle { v_ST_StrokeJoinStyle }?,
101   attribute endcap { v_ST_StrokeEndCap }?,
102   attribute dashstyle { xsd:string }?,
103   attribute filltype { v_ST_FillType }?,
104   attribute src { xsd:string }?,
105   attribute imageaspect { v_ST_ImageAspect }?,
106   attribute imagesize { xsd:string }?,
107   attribute imagealignshape { s_ST_TrueFalse }?,
108   attribute color2 { s_ST_ColorType }?,
109   attribute startarrow { v_ST_StrokeArrowType }?,
110   attribute startarrowwidth { v_ST_StrokeArrowWidth }?,
111   attribute startarrowlength { v_ST_StrokeArrowLength }?,
112   attribute endarrow { v_ST_StrokeArrowType }?,
113   attribute endarrowwidth { v_ST_StrokeArrowWidth }?,
114   attribute endarrowlength { v_ST_StrokeArrowLength }?,
115   o_href?,
116   o_althref?,
117   o_title?,
118   o_forcedash?,
119   r_id?,
120   attribute insetpen { s_ST_TrueFalse }?,
121   o_relid?
122  v_EG_ShapeElements =
123    v_path

```



```

124 | v_formulas
125 | v_handles
126 | v_fill
127 | v_stroke
128 | v_shadow
129 | v_textbox
130 | v_textpath
131 | v_imagedata
132 | o_skew
133 | o_extrusion
134 | o_callout
135 | o_lock
136 | o_clippath
137 | o_signatureline
138 | w10_wrap
139 | w10_anchorlock
140 | w10_bordertop
141 | w10_borderbottom
142 | w10_borderleft
143 | w10_borderright
144 | x_ClientData?
145 | pvml_textdata?
146 v_shape = element shape { v_CT_Shape }
147 v_shapetype = element shapetype { v_CT_Shapetype }
148 v_group = element group { v_CT_Group }
149 v_background = element background { v_CT_Background }
150 v_CT_Shape =
151     v_AG_AllCoreAttributes,
152     v_AG_AllShapeAttributes,
153     v_AG_Type,
154     v_AG_Adj,
155     v_AG_Path,
156     o_gfxdata?,
157     attribute equationxml { xsd:string }?,
158     (v_EG_ShapeElements | o_ink | pvml_iscomment | o_equationxml)+
159 v_CT_Shapetype =
160     v_AG_AllCoreAttributes,
161     v_AG_AllShapeAttributes,
162     v_AG_Adj,
163     v_AG_Path,
164     o_master?,
165     v_EG_ShapeElements*,
166     o_complex?
167 v_CT_Group =
168     v_AG_AllCoreAttributes,
169     v_AG_Fill,
170     attribute editas { v_ST_EditAs }?,
171     o_tableproperties?,
172     o_tablelimits?,
173     (v_EG_ShapeElements
174         | v_group
175         | v_shape
176         | v_shapetype

```



```

177 | v_arc
178 | v_curve
179 | v_image
180 | v_line
181 | v_oval
182 | v_polyline
183 | v_rect
184 | v_roundrect
185 | o_diagram)+
186 v_CT_Background =
187   v_AG_Id,
188   v_AG_Fill,
189   o_bwmode?,
190   o_bwpure?,
191   o_bwnormal?,
192   o_targetscreenize?,
193   v_fill?
194 v_fill = element fill { v_CT_Fill }
195 v_formulas = element formulas { v_CT_Formulas }
196 v_handles = element handles { v_CT_Handles }
197 v_imagedata = element imagedata { v_CT_ImageData }
198 v_path = element path { v_CT_Path }
199 v_textbox = element textbox { v_CT_Textbox }
200 v_shadow = element shadow { v_CT_Shadow }
201 v_stroke = element stroke { v_CT_Stroke }
202 v_textpath = element textpath { v_CT_TextPath }
203 v_CT_Fill =
204   v_AG_Id,
205   attribute type { v_ST_FillType }?,
206   attribute on { s_ST_TrueFalse }?,
207   attribute color { s_ST_ColorType }?,
208   attribute opacity { xsd:string }?,
209   attribute color2 { s_ST_ColorType }?,
210   attribute src { xsd:string }?,
211   o_href?,
212   o_althref?,
213   attribute size { xsd:string }?,
214   attribute origin { xsd:string }?,
215   attribute position { xsd:string }?,
216   attribute aspect { v_ST_ImageAspect }?,
217   attribute colors { xsd:string }?,
218   attribute angle { xsd:decimal }?,
219   attribute alignshape { s_ST_TrueFalse }?,
220   attribute focus { xsd:string }?,
221   attribute focussize { xsd:string }?,
222   attribute focusposition { xsd:string }?,
223   attribute method { v_ST_FillMethod }?,
224   o_detectmouseclick?,
225   o_title?,
226   o_opacity2?,
227   attribute recolor { s_ST_TrueFalse }?,
228   attribute rotate { s_ST_TrueFalse }?,
229   r_id?,

```



```

230     o_relid?,
231     o_fill?
232 v_CT_Formulas = element f { v_CT_F }*
233 v_CT_F = attribute eqn { xsd:string }?
234 v_CT_Handles = element h { v_CT_H }*
235 v_CT_H =
236     attribute position { xsd:string }?,
237     attribute polar { xsd:string }?,
238     attribute map { xsd:string }?,
239     attribute invx { s_ST_TrueFalse }?,
240     attribute invy { s_ST_TrueFalse }?,
241     attribute switch { s_ST_TrueFalseBlank }?,
242     attribute xrange { xsd:string }?,
243     attribute yrange { xsd:string }?,
244     attribute radiusrange { xsd:string }?
245 v_CT_ImageData =
246     v_AG_Id,
247     v_AG_ImageAttributes,
248     v_AG_ChromaKey,
249     attribute embosscolor { s_ST_ColorType }?,
250     attribute recolortarget { s_ST_ColorType }?,
251     o_href?,
252     o_althref?,
253     o_title?,
254     o_oleid?,
255     o_detectmouseclick?,
256     o_movie?,
257     o_relid?,
258     r_id?,
259     r_pict?,
260     r_href?
261 v_CT_Path =
262     v_AG_Id,
263     attribute v { xsd:string }?,
264     attribute limo { xsd:string }?,
265     attribute textboxrect { xsd:string }?,
266     attribute fillok { s_ST_TrueFalse }?,
267     attribute strokeok { s_ST_TrueFalse }?,
268     attribute shadowok { s_ST_TrueFalse }?,
269     attribute arrowok { s_ST_TrueFalse }?,
270     attribute gradientshapeok { s_ST_TrueFalse }?,
271     attribute textpathok { s_ST_TrueFalse }?,
272     attribute insetpenok { s_ST_TrueFalse }?,
273     o_connecttype?,
274     o_connectlocs?,
275     o_connectangles?,
276     o_extrusionok?
277 v_CT_Shadow =
278     v_AG_Id,
279     attribute on { s_ST_TrueFalse }?,
280     attribute type { v_ST_ShadowType }?,
281     attribute obscured { s_ST_TrueFalse }?,
282     attribute color { s_ST_ColorType }?,

```



```

283     attribute opacity { xsd:string }?,
284     attribute offset { xsd:string }?,
285     attribute color2 { s_ST_ColorType }?,
286     attribute offset2 { xsd:string }?,
287     attribute origin { xsd:string }?,
288     attribute matrix { xsd:string }?
289 v_CT_Stroke =
290     v_AG_Id,
291     v_AG_StrokeAttributes,
292     o_left?,
293     o_top?,
294     o_right?,
295     o_bottom?,
296     o_column?
297 v_CT_Textbox =
298     v_AG_Id,
299     v_AG_Style,
300     attribute inset { xsd:string }?,
301     o_singleclick?,
302     o_insetmode?,
303     (w_txbxContent? | anyHTMLElementAsLocalElement)
304 anyHTMLElementAsLocalElement = element local:* { anyAttribute*, text?,
305     anyHTMLElementAsLocalElement* }
306 v_CT_TextPath =
307     v_AG_Id,
308     v_AG_Style,
309     attribute on { s_ST_TrueFalse }?,
310     attribute fitshape { s_ST_TrueFalse }?,
311     attribute fitpath { s_ST_TrueFalse }?,
312     attribute trim { s_ST_TrueFalse }?,
313     attribute xscale { s_ST_TrueFalse }?,
314     attribute string { xsd:string }?
315 v_arc = element arc { v_CT_Arc }
316 v_curve = element curve { v_CT_Curve }
317 v_image = element image { v_CT_Image }
318 v_line = element line { v_CT_Line }
319 v_oval = element oval { v_CT_Oval }
320 v_polyline = element polyline { v_CT_PolyLine }
321 v_rect = element rect { v_CT_Rect }
322 v_roundrect = element roundrect { v_CT_RoundRect }
323 v_CT_Arc =
324     v_AG_AllCoreAttributes,
325     v_AG_AllShapeAttributes,
326     attribute startAngle { xsd:decimal }?,
327     attribute endAngle { xsd:decimal }?,
328     v_EG_ShapeElements*
329 v_CT_Curve =
330     v_AG_AllCoreAttributes,
331     v_AG_AllShapeAttributes,
332     attribute from { xsd:string }?,
333     attribute control1 { xsd:string }?,
334     attribute control2 { xsd:string }?,
335     attribute to { xsd:string }?,

```



```

336     v_EG_ShapeElements*
337 v_CT_Image =
338     v_AG_AllCoreAttributes,
339     v_AG_AllShapeAttributes,
340     v_AG_ImageAttributes,
341     v_EG_ShapeElements*
342 v_CT_Line =
343     v_AG_AllCoreAttributes,
344     v_AG_AllShapeAttributes,
345     attribute from { xsd:string }?,
346     attribute to { xsd:string }?,
347     v_EG_ShapeElements*
348 v_CT_Oval =
349     v_AG_AllCoreAttributes,
350     v_AG_AllShapeAttributes,
351     (v_EG_ShapeElements)*+
352 v_CT_PolyLine =
353     v_AG_AllCoreAttributes,
354     v_AG_AllShapeAttributes,
355     attribute points { xsd:string }?,
356     (v_EG_ShapeElements | o_ink)*
357 v_CT_Rect =
358     v_AG_AllCoreAttributes,
359     v_AG_AllShapeAttributes,
360     (v_EG_ShapeElements)*+
361 v_CT_RoundRect =
362     v_AG_AllCoreAttributes,
363     v_AG_AllShapeAttributes,
364     attribute arcsize { xsd:string }?,
365     (v_EG_ShapeElements)*+
366 v_ST_Ext = string "view" | string "edit" | string "backwardCompatible"
367 v_ST_FillType =
368     string "solid"
369     | string "gradient"
370     | string "gradientRadial"
371     | string "tile"
372     | string "pattern"
373     | string "frame"
374 v_ST_FillMethod =
375     string "none"
376     | string "linear"
377     | string "sigma"
378     | string "any"
379     | string "linear sigma"
380 v_ST_ShadowType =
381     string "single"
382     | string "double"
383     | string "emboss"
384     | string "perspective"
385 v_ST_StrokeLineStyle =
386     string "single"
387     | string "thinThin"
388     | string "thinThick"

```



```

389 | string "thickThin"
390 | string "thickBetweenThin"
391 v_ST_StrokeJoinStyle = string "round" | string "bevel" | string "miter"
392 v_ST_StrokeEndCap = string "flat" | string "square" | string "round"
393 v_ST_StrokeArrowLength =
394     string "short" | string "medium" | string "long"
395 v_ST_StrokeArrowWidth =
396     string "narrow" | string "medium" | string "wide"
397 v_ST_StrokeArrowType =
398     string "none"
399     | string "block"
400     | string "classic"
401     | string "oval"
402     | string "diamond"
403     | string "open"
404 v_ST_ImageAspect = string "ignore" | string "atMost" | string "atLeast"
405 v_ST_EditAs =
406     string "canvas"
407     | string "orgchart"
408     | string "radial"
409     | string "cycle"
410     | string "stacked"
411     | string "venn"
412     | string "bullseye"

```

## B.7.2 VML - Office Drawing

This schema is available in the file vml-officeDrawing.rnc.

```

1 default namespace o = "urn:schemas-microsoft-com:office:office"
2 namespace r =
3     "http://schemas.openxmlformats.org/officeDocument/2006/relationships"
4 namespace s =
5     "http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
6 namespace v = "urn:schemas-microsoft-com:vml"
7 namespace w10 = "urn:schemas-microsoft-com:office:word"
8 namespace x = "urn:schemas-microsoft-com:office:excel"
9
10 o_bwmode = attribute o:bwmode { o_ST_BWMode }
11 o_bwpure = attribute o:bwpure { o_ST_BWMode }
12 o_bwnormal = attribute o:bwnormal { o_ST_BWMode }
13 o_targetscreenSize = attribute o:targetscreenSize { o_ST_ScreenSize }
14 o_insetmode =
15
16     ## default value: custom
17     attribute o:insetmode { o_ST_InsetMode }
18 o_spt = attribute o:spt { xsd:float }
19 o_wrapcoords = attribute o:wrapcoords { xsd:string }
20 o_oned = attribute o:oned { s_ST_TrueFalse }
21 o_regroupid = attribute o:regroupid { xsd:integer }
22 o_doubleclicknotify = attribute o:doubleclicknotify { s_ST_TrueFalse }
23 o_connectortype =
24

```



```

25  ## default value: straight
26  attribute o:connectortype { o_ST_ConnectorType }
27  o_button = attribute o:button { s_ST_TrueFalse }
28  o_userhidden = attribute o:userhidden { s_ST_TrueFalse }
29  o_forcedash = attribute o:forcedash { s_ST_TrueFalse }
30  o_oleicon = attribute o:oleicon { s_ST_TrueFalse }
31  o_ole = attribute o:ole { s_ST_TrueFalseBlank }
32  o_preferrelative = attribute o:preferrelative { s_ST_TrueFalse }
33  o_cliptowrap = attribute o:cliptowrap { s_ST_TrueFalse }
34  o_clip = attribute o:clip { s_ST_TrueFalse }
35  o_bullet = attribute o:bullet { s_ST_TrueFalse }
36  o_hr = attribute o:hr { s_ST_TrueFalse }
37  o_hrstd = attribute o:hrstd { s_ST_TrueFalse }
38  o_hrnoshade = attribute o:hrnoshade { s_ST_TrueFalse }
39  o_hrpct = attribute o:hrpct { xsd:float }
40  o_hralign =
41
42  ## default value: left
43  attribute o:hralign { o_ST_HrAlign }
44  o_allowincell = attribute o:allowincell { s_ST_TrueFalse }
45  o_allowoverlap = attribute o:allowoverlap { s_ST_TrueFalse }
46  o_userdrawn = attribute o:userdrawn { s_ST_TrueFalse }
47  o_bordertopcolor = attribute o:bordertopcolor { xsd:string }
48  o_borderleftcolor = attribute o:borderleftcolor { xsd:string }
49  o_borderbottomcolor = attribute o:borderbottomcolor { xsd:string }
50  o_borderrightcolor = attribute o:borderrightcolor { xsd:string }
51  o_connecttype = attribute o:connecttype { o_ST_ConnectType }
52  o_connectlocs = attribute o:connectlocs { xsd:string }
53  o_connectangles = attribute o:connectangles { xsd:string }
54  o_master = attribute o:master { xsd:string }
55  o_extrusionok = attribute o:extrusionok { s_ST_TrueFalse }
56  o_href = attribute o:href { xsd:string }
57  o_althref = attribute o:althref { xsd:string }
58  o_title = attribute o:title { xsd:string }
59  o_singleclick = attribute o:singleclick { s_ST_TrueFalse }
60  o_oleid = attribute o:oleid { xsd:float }
61  o_detectmouseclick = attribute o:detectmouseclick { s_ST_TrueFalse }
62  o_movie = attribute o:movie { xsd:float }
63  o_spid = attribute o:spid { xsd:string }
64  o_opacity2 = attribute o:opacity2 { xsd:string }
65  o_relid = attribute o:relid { r_ST_RelationshipId }
66  o_dgmlayout = attribute o:dgmlayout { o_ST_DiagramLayout }
67  o_dgmnodekind = attribute o:dgmnodekind { xsd:integer }
68  o_dgmlayoutmru = attribute o:dgmlayoutmru { o_ST_DiagramLayout }
69  o_gfxdata = attribute o:gfxdata { xsd:base64Binary }
70  o_tableproperties = attribute o:tableproperties { xsd:string }
71  o_tablelimits = attribute o:tablelimits { xsd:string }
72  o_shapedefaults = element shapedefaults { o_CT_ShapeDefaults }
73  o_shapelayout = element shapelayout { o_CT_ShapeLayout }
74  o_signatureline = element signatureline { o_CT_SignatureLine }
75  o_ink = element ink { o_CT_Ink }
76  o_diagram = element diagram { o_CT_Diagram }
77  o_equationxml = element equationxml { o_CT_EquationXml }

```



```

78 o_CT_ShapeDefaults =
79   v_AG_Ext,
80   attribute spidmax { xsd:integer }?,
81   attribute style { xsd:string }?,
82   attribute fill { s_ST_TrueFalse }?,
83   attribute fillcolor { s_ST_ColorType }?,
84   attribute stroke { s_ST_TrueFalse }?,
85   attribute strokecolor { s_ST_ColorType }?,
86   attribute o:allowincell { s_ST_TrueFalse }?,
87   (v_fill?
88     & v_stroke?
89     & v_textbox?
90     & v_shadow?
91     & o_skew?
92     & o_extrusion?
93     & o_callout?
94     & o_lock?
95     & element colormru { o_CT_ColorMru }?
96     & element colormenu { o_CT_ColorMenu }?)?
97 o_CT_Ink =
98   attribute i { xsd:string }?,
99   attribute annotation { s_ST_TrueFalse }?,
100  attribute contentType { o_ST_ContentType }?,
101  empty
102 o_CT_SignatureLine =
103   v_AG_Ext,
104   attribute issignatureline { s_ST_TrueFalse }?,
105   attribute id { s_ST_Guid }?,
106   attribute provid { s_ST_Guid }?,
107   attribute signinginstructionsset { s_ST_TrueFalse }?,
108   attribute allowcomments { s_ST_TrueFalse }?,
109   attribute showsigndate { s_ST_TrueFalse }?,
110   attribute o:suggestedsigner { xsd:string }?,
111   attribute o:suggestedsigner2 { xsd:string }?,
112   attribute o:suggestedsigneremail { xsd:string }?,
113   attribute signinginstructions { xsd:string }?,
114   attribute addlxml { xsd:string }?,
115   attribute sigprovurl { xsd:string }?
116 o_CT_ShapeLayout =
117   v_AG_Ext,
118   (element idmap { o_CT_IdMap }?
119     & element regrouptable { o_CT_RegroupTable }?
120     & element rules { o_CT_Rules }?)
121 o_CT_IdMap =
122   v_AG_Ext,
123   attribute data { xsd:string }?
124 o_CT_RegroupTable =
125   v_AG_Ext,
126   element entry { o_CT_Entry }*
127 o_CT_Entry =
128   attribute new { xsd:int }?,
129   attribute old { xsd:int }?
130 o_CT_Rules =

```



```

131 v_AG_Ext,
132 element r { o_CT_R }*
133 o_CT_R =
134   attribute id { xsd:string },
135   attribute type { o_ST_RType }?,
136   attribute how { o_ST_How }?,
137   attribute idref { xsd:string }?,
138   element proxy { o_CT_Proxy }*
139 o_CT_Proxy =
140
141   ## default value: false
142   attribute start { s_ST_TrueFalseBlank }?,
143
144   ## default value: false
145   attribute end { s_ST_TrueFalseBlank }?,
146   attribute idref { xsd:string }?,
147   attribute connectloc { xsd:int }?
148 o_CT_Diagram =
149   v_AG_Ext,
150   attribute dgmstyle { xsd:integer }?,
151   attribute autoformat { s_ST_TrueFalse }?,
152   attribute reverse { s_ST_TrueFalse }?,
153   attribute autolayout { s_ST_TrueFalse }?,
154   attribute dgmscalex { xsd:integer }?,
155   attribute dgmscaley { xsd:integer }?,
156   attribute dgmfontsize { xsd:integer }?,
157   attribute constrainbounds { xsd:string }?,
158   attribute dgmbasetextscale { xsd:integer }?,
159   element relationtable { o_CT_RelationTable }?
160 o_CT_EquationXml =
161   attribute contentType { o_ST_AlternateMathContentType }?,
162   o_CT_EquationXml_any
163 o_CT_EquationXml_any =
164   element * - (o:* | v:* | w10:* | x:*) {
165     anyAttribute*,
166     mixed { anyElement* }
167   }
168 o_ST_AlternateMathContentType = xsd:string
169 o_CT_RelationTable =
170   v_AG_Ext,
171   element rel { o_CT_Relation }*
172 o_CT_Relation =
173   v_AG_Ext,
174   attribute idsrc { xsd:string }?,
175   attribute iddest { xsd:string }?,
176   attribute idcntr { xsd:string }?
177 o_CT_ColorMru =
178   v_AG_Ext,
179   attribute colors { xsd:string }?
180 o_CT_ColorMenu =
181   v_AG_Ext,
182   attribute strokecolor { s_ST_ColorType }?,
183   attribute fillcolor { s_ST_ColorType }?,

```



```

184     attribute shadowcolor { s_ST_ColorType }?,
185     attribute extrusioncolor { s_ST_ColorType }?
186 o_skew = element skew { o_CT_Skew }
187 o_extrusion = element extrusion { o_CT_Extrusion }
188 o_callout = element callout { o_CT_Callout }
189 o_lock = element lock { o_CT_Lock }
190 o_OLEObject = element OLEObject { o_CT_OLEObject }
191 o_complex = element complex { o_CT_Complex }
192 o_left = element left { o_CT_StrokeChild }
193 o_top = element top { o_CT_StrokeChild }
194 o_right = element right { o_CT_StrokeChild }
195 o_bottom = element bottom { o_CT_StrokeChild }
196 o_column = element column { o_CT_StrokeChild }
197 o_clippath = element clippath { o_CT_ClipPath }
198 o_fill = element fill { o_CT_Fill }
199 o_CT_Skew =
200     v_AG_Ext,
201     attribute id { xsd:string }?,
202     attribute on { s_ST_TrueFalse }?,
203     attribute offset { xsd:string }?,
204     attribute origin { xsd:string }?,
205     attribute matrix { xsd:string }?
206 o_CT_Extrusion =
207     v_AG_Ext,
208     attribute on { s_ST_TrueFalse }?,
209
210     ## default value: parallel
211     attribute type { o_ST_ExtrusionType }?,
212
213     ## default value: solid
214     attribute render { o_ST_ExtrusionRender }?,
215     attribute viewpointorigin { xsd:string }?,
216     attribute viewpoint { xsd:string }?,
217
218     ## default value: XY
219     attribute plane { o_ST_ExtrusionPlane }?,
220     attribute skewangle { xsd:float }?,
221     attribute skewamt { xsd:string }?,
222     attribute foredepth { xsd:string }?,
223     attribute backdepth { xsd:string }?,
224     attribute orientation { xsd:string }?,
225     attribute orientationangle { xsd:float }?,
226     attribute lockrotationcenter { s_ST_TrueFalse }?,
227     attribute autorotationcenter { s_ST_TrueFalse }?,
228     attribute rotationcenter { xsd:string }?,
229     attribute rotationangle { xsd:string }?,
230     attribute colormode { o_ST_ColorMode }?,
231     attribute color { s_ST_ColorType }?,
232     attribute shininess { xsd:float }?,
233     attribute specularity { xsd:string }?,
234     attribute diffusivity { xsd:string }?,
235     attribute metal { s_ST_TrueFalse }?,
236     attribute edge { xsd:string }?,

```



```

237 attribute facet { xsd:string }?,
238 attribute lightface { s_ST_TrueFalse }?,
239 attribute brightness { xsd:string }?,
240 attribute lightposition { xsd:string }?,
241 attribute lightlevel { xsd:string }?,
242 attribute lightharsh { s_ST_TrueFalse }?,
243 attribute lightposition2 { xsd:string }?,
244 attribute lightlevel2 { xsd:string }?,
245 attribute lightharsh2 { s_ST_TrueFalse }?
246 o_CT_Callout =
247   v_AG_Ext,
248   attribute on { s_ST_TrueFalse }?,
249   attribute type { xsd:string }?,
250   attribute gap { xsd:string }?,
251   attribute angle { o_ST_Angle }?,
252   attribute dropauto { s_ST_TrueFalse }?,
253   attribute drop { o_ST_CalloutDrop }?,
254   attribute distance { xsd:string }?,
255
256   ## default value: f
257   attribute lengthspecified { s_ST_TrueFalse }?,
258   attribute length { xsd:string }?,
259   attribute accentbar { s_ST_TrueFalse }?,
260   attribute textborder { s_ST_TrueFalse }?,
261   attribute minusx { s_ST_TrueFalse }?,
262   attribute minusy { s_ST_TrueFalse }?
263 o_CT_Lock =
264   v_AG_Ext,
265   attribute position { s_ST_TrueFalse }?,
266   attribute selection { s_ST_TrueFalse }?,
267   attribute grouping { s_ST_TrueFalse }?,
268   attribute ungrouping { s_ST_TrueFalse }?,
269   attribute rotation { s_ST_TrueFalse }?,
270   attribute cropping { s_ST_TrueFalse }?,
271   attribute verticies { s_ST_TrueFalse }?,
272   attribute adjusthandles { s_ST_TrueFalse }?,
273   attribute text { s_ST_TrueFalse }?,
274   attribute aspectratio { s_ST_TrueFalse }?,
275   attribute shapetype { s_ST_TrueFalse }?
276 o_CT_OLEObject =
277   attribute Type { o_ST_OLEType }?,
278   attribute ProgID { xsd:string }?,
279   attribute ShapeID { xsd:string }?,
280   attribute DrawAspect { o_ST_OLEDrawAspect }?,
281   attribute ObjectID { xsd:string }?,
282   r_id?,
283   attribute UpdateMode { o_ST_OLEUpdateMode }?,
284   element LinkType { o_ST_OLELinkType }?,
285   element LockedField { s_ST_TrueFalseBlank }?,
286   element FieldCodes { xsd:string }?
287 o_CT_Complex = v_AG_Ext
288 o_CT_StrokeChild =
289   v_AG_Ext,

```



```

290 attribute on { s_ST_TrueFalse }?,
291 attribute weight { xsd:string }?,
292 attribute color { s_ST_ColorType }?,
293 attribute color2 { s_ST_ColorType }?,
294 attribute opacity { xsd:string }?,
295 attribute linestyle { v_ST_StrokeLineStyle }?,
296 attribute miterlimit { xsd:decimal }?,
297 attribute jointstyle { v_ST_StrokeJoinStyle }?,
298 attribute endcap { v_ST_StrokeEndCap }?,
299 attribute dashstyle { xsd:string }?,
300 attribute insetpen { s_ST_TrueFalse }?,
301 attribute filltype { v_ST_FillType }?,
302 attribute src { xsd:string }?,
303 attribute imageaspect { v_ST_ImageAspect }?,
304 attribute imagesize { xsd:string }?,
305 attribute imagealignshape { s_ST_TrueFalse }?,
306 attribute startarrow { v_ST_StrokeArrowType }?,
307 attribute startarrowwidth { v_ST_StrokeArrowWidth }?,
308 attribute startarrowlength { v_ST_StrokeArrowLength }?,
309 attribute endarrow { v_ST_StrokeArrowType }?,
310 attribute endarrowwidth { v_ST_StrokeArrowWidth }?,
311 attribute endarrowlength { v_ST_StrokeArrowLength }?,
312 o_href?,
313 o_althref?,
314 o_title?,
315 o_forcedash?
316 o_CT_ClipPath = attribute o:v { xsd:string }
317 o_CT_Fill =
318     v_AG_Ext,
319     attribute type { o_ST_FillType }?
320 o_ST_RType =
321     string "arc" | string "callout" | string "connector" | string "align"
322 o_ST_How =
323     string "top"
324     | string "middle"
325     | string "bottom"
326     | string "left"
327     | string "center"
328     | string "right"
329 o_ST_BWMode =
330     string "color"
331     | string "auto"
332     | string "grayScale"
333     | string "lightGrayscale"
334     | string "inverseGray"
335     | string "grayOutline"
336     | string "highContrast"
337     | string "black"
338     | string "white"
339     | string "hide"
340     | string "undrawn"
341     | string "blackTextAndLines"
342 o_ST_ScreenSize =

```



```

343     string "544,376"
344     | string "640,480"
345     | string "720,512"
346     | string "800,600"
347     | string "1024,768"
348     | string "1152,862"
349 o_ST_InsetMode = string "auto" | string "custom"
350 o_ST_ColorMode = string "auto" | string "custom"
351 o_ST_ContentType = xsd:string
352 o_ST_DiagramLayout = "0" | "1" | "2" | "3"
353 o_ST_ExtrusionType = string "perspective" | string "parallel"
354 o_ST_ExtrusionRender =
355     string "solid" | string "wireFrame" | string "boundingCube"
356 o_ST_ExtrusionPlane = string "XY" | string "ZX" | string "YZ"
357 o_ST_Angle =
358     string "any"
359     | string "30"
360     | string "45"
361     | string "60"
362     | string "90"
363     | string "auto"
364 o_ST_CalloutDrop = xsd:string
365 o_ST_CalloutPlacement =
366     string "top" | string "center" | string "bottom" | string "user"
367 o_ST_ConnectorType =
368     string "none" | string "straight" | string "elbow" | string "curved"
369 o_ST_HrAlign = string "left" | string "right" | string "center"
370 o_ST_ConnectType =
371     string "none" | string "rect" | string "segments" | string "custom"
372 o_ST_OLELinkType = xsd:string
373 o_ST_OLEType = string "Embed" | string "Link"
374 o_ST_OLEDrawAspect = string "Content" | string "Icon"
375 o_ST_OLEUpdateMode = string "Always" | string "OnCall"
376 o_ST_FillType =
377     string "gradientCenter"
378     | string "solid"
379     | string "pattern"
380     | string "tile"
381     | string "frame"
382     | string "gradientUnscaled"
383     | string "gradientRadial"
384     | string "gradient"
385     | string "background"
386 o_any_vml_vml =
387     v_shape
388     | v_shapetype
389     | v_group
390     | v_background
391     | v_fill
392     | v_formulas
393     | v_handles
394     | v_imagedata
395     | v_path

```



```

396 | v_textbox
397 | v_shadow
398 | v_stroke
399 | v_textpath
400 | v_arc
401 | v_curve
402 | v_image
403 | v_line
404 | v_oval
405 | v_polyline
406 | v_rect
407 | v_roundrect

```

### B.7.3 VML - Wordprocessing Drawing

This schema is available in the file vml-wordprocessingDrawing.rnc.

```

1  default namespace = "urn:schemas-microsoft-com:office:word"
2  namespace o = "urn:schemas-microsoft-com:office:office"
3  namespace v = "urn:schemas-microsoft-com:vml"
4  namespace w10 = "urn:schemas-microsoft-com:office:word"
5  namespace x = "urn:schemas-microsoft-com:office:excel"
6
7  w10_bordertop = element bordertop { w10_CT_Border }
8  w10_borderleft = element borderleft { w10_CT_Border }
9  w10_borderright = element borderright { w10_CT_Border }
10 w10_borderbottom = element borderbottom { w10_CT_Border }
11 w10_CT_Border =
12   attribute type { w10_ST_BorderType }?,
13   attribute width { xsd:positiveInteger }?,
14   attribute shadow { w10_ST_BorderShadow }?
15 w10_wrap = element wrap { w10_CT_Wrap }
16 w10_CT_Wrap =
17   attribute type { w10_ST_WrapType }?,
18   attribute side { w10_ST_WrapSide }?,
19   attribute anchorx { w10_ST_HorizontalAnchor }?,
20   attribute anchory { w10_ST_VerticalAnchor }?
21 w10_anchorlock = element anchorlock { w10_CT_AnchorLock }
22 w10_CT_AnchorLock = empty
23 w10_ST_BorderType =
24   string "none"
25   | string "single"
26   | string "thick"
27   | string "double"
28   | string "hairline"
29   | string "dot"
30   | string "dash"
31   | string "dotDash"
32   | string "dashDotDot"
33   | string "triple"
34   | string "thinThickSmall"
35   | string "thickThinSmall"
36   | string "thickBetweenThinSmall"

```



```

37 | string "thinThick"
38 | string "thickThin"
39 | string "thickBetweenThin"
40 | string "thinThickLarge"
41 | string "thickThinLarge"
42 | string "thickBetweenThinLarge"
43 | string "wave"
44 | string "doubleWave"
45 | string "dashedSmall"
46 | string "dashDotStroked"
47 | string "threeDEmboss"
48 | string "threeDEngrave"
49 | string "HTMLOutset"
50 | string "HTMLInset"
51 w10_ST_BorderShadow =
52   string "t" | string "true" | string "f" | string "false"
53 w10_ST_WrapType =
54   string "topAndBottom"
55   | string "square"
56   | string "none"
57   | string "tight"
58   | string "through"
59 w10_ST_WrapSide =
60   string "both" | string "left" | string "right" | string "largest"
61 w10_ST_HorizontalAnchor =
62   string "margin" | string "page" | string "text" | string "char"
63 w10_ST_VerticalAnchor =
64   string "margin" | string "page" | string "text" | string "line"

```

### B.7.4 VML - Spreadsheet Drawing

This schema is available in the file vml-spreadsheetDrawing.rnc.

```

1  default namespace = "urn:schemas-microsoft-com:office:excel"
2  namespace o = "urn:schemas-microsoft-com:office:office"
3  namespace s =
4    "http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
5  namespace v = "urn:schemas-microsoft-com:vml"
6  namespace w10 = "urn:schemas-microsoft-com:office:word"
7  namespace x = "urn:schemas-microsoft-com:office:excel"
8
9  x_ClientData = element ClientData { x_CT_ClientData }
10 x_CT_ClientData =
11   attribute ObjectType { x_ST_ObjectType },
12   (element MoveWithCells { s_ST_TrueFalseBlank }
13    | element SizeWithCells { s_ST_TrueFalseBlank }
14    | element Anchor { xsd:string }
15    | element Locked { s_ST_TrueFalseBlank }
16    | element DefaultSize { s_ST_TrueFalseBlank }
17    | element PrintObject { s_ST_TrueFalseBlank }
18    | element Disabled { s_ST_TrueFalseBlank }
19    | element AutoFill { s_ST_TrueFalseBlank }
20    | element AutoLine { s_ST_TrueFalseBlank }

```



```

21 | element AutoPict { s_ST_TrueFalseBlank }
22 | element FmlaMacro { xsd:string }
23 | element TextHAlign { xsd:string }
24 | element TextVAlign { xsd:string }
25 | element LockText { s_ST_TrueFalseBlank }
26 | element JustLastX { s_ST_TrueFalseBlank }
27 | element SecretEdit { s_ST_TrueFalseBlank }
28 | element Default { s_ST_TrueFalseBlank }
29 | element Help { s_ST_TrueFalseBlank }
30 | element Cancel { s_ST_TrueFalseBlank }
31 | element Dismiss { s_ST_TrueFalseBlank }
32 | element Accel { xsd:integer }
33 | element Accel2 { xsd:integer }
34 | element Row { xsd:integer }
35 | element Column { xsd:integer }
36 | element Visible { s_ST_TrueFalseBlank }
37 | element RowHidden { s_ST_TrueFalseBlank }
38 | element ColHidden { s_ST_TrueFalseBlank }
39 | element VTEdit { xsd:integer }
40 | element MultiLine { s_ST_TrueFalseBlank }
41 | element VScroll { s_ST_TrueFalseBlank }
42 | element ValidIds { s_ST_TrueFalseBlank }
43 | element FmlaRange { xsd:string }
44 | element WidthMin { xsd:integer }
45 | element Sel { xsd:integer }
46 | element NoThreeD2 { s_ST_TrueFalseBlank }
47 | element SelType { xsd:string }
48 | element MultiSel { xsd:string }
49 | element LCT { xsd:string }
50 | element ListItem { xsd:string }
51 | element DropStyle { xsd:string }
52 | element Colored { s_ST_TrueFalseBlank }
53 | element DropLines { xsd:integer }
54 | element Checked { xsd:integer }
55 | element FmlaLink { xsd:string }
56 | element FmlaPict { xsd:string }
57 | element NoThreeD { s_ST_TrueFalseBlank }
58 | element FirstButton { s_ST_TrueFalseBlank }
59 | element FmlaGroup { xsd:string }
60 | element Val { xsd:integer }
61 | element Min { xsd:integer }
62 | element Max { xsd:integer }
63 | element Inc { xsd:integer }
64 | element Page { xsd:integer }
65 | element Horiz { s_ST_TrueFalseBlank }
66 | element Dx { xsd:integer }
67 | element MapOCX { s_ST_TrueFalseBlank }
68 | element CF { x_ST_CF }
69 | element Camera { s_ST_TrueFalseBlank }
70 | element RecalcAlways { s_ST_TrueFalseBlank }
71 | element AutoScale { s_ST_TrueFalseBlank }
72 | element DDE { s_ST_TrueFalseBlank }
73 | element UIObj { s_ST_TrueFalseBlank }

```



```

74 | element ScriptText { xsd:string }
75 | element ScriptExtended { xsd:string }
76 | element ScriptLanguage { xsd:nonNegativeInteger }
77 | element ScriptLocation { xsd:nonNegativeInteger }
78 | element FmlaTxbx { xsd:string })*
79 x_ST_CF = xsd:string
80 x_ST_ObjectType =
81   string "Button"
82   | string "Checkbox"
83   | string "Dialog"
84   | string "Drop"
85   | string "Edit"
86   | string "GBox"
87   | string "Label"
88   | string "LineA"
89   | string "List"
90   | string "Movie"
91   | string "Note"
92   | string "Pict"
93   | string "Radio"
94   | string "RectA"
95   | string "Scroll"
96   | string "Spin"
97   | string "Shape"
98   | string "Group"
99   | string "Rect"

```

### B.7.5 VML - Presentation Drawing

This schema is available in the file vml-presentationDrawing.rnc.

```

1  default namespace = "urn:schemas-microsoft-com:office:powerpoint"
2  namespace o = "urn:schemas-microsoft-com:office:office"
3  namespace pvml = "urn:schemas-microsoft-com:office:powerpoint"
4  namespace v = "urn:schemas-microsoft-com:vml"
5  namespace w10 = "urn:schemas-microsoft-com:office:word"
6  namespace x = "urn:schemas-microsoft-com:office:excel"
7
8  pvml_iscomment = element iscomment { pvml_CT_Empty }
9  pvml_textdata = element textdata { pvml_CT_Rel }
10 pvml_CT_Empty = empty
11 pvml_CT_Rel = attribute id { xsd:string }?

```

### B.7.6 Part Schemas

This schema is available in the file VML\_Drawing.rnc.

```

1  include "wml.rnc"
2  include "shared-relationshipReference.rnc"
3  include "dml-wordprocessingDrawing.rnc"
4  include "dml-main.rnc"
5  include "dml-diagram.rnc"
6  include "shared-commonSimpleTypes.rnc"

```



```

7  include "dml-lockedCanvas.rnc"
8  include "any.rnc"
9  include "dml-chart.rnc"
10 include "dml-chartDrawing.rnc"
11 include "dml-picture.rnc"
12 include "vml-presentationDrawing.rnc"
13 include "xml.rnc"
14 include "shared-customXmlSchemaProperties.rnc"
15 include "vml-officeDrawing.rnc"
16 include "vml-main.rnc"
17 include "vml-spreadsheetDrawing.rnc"
18 include "vml-wordprocessingDrawing.rnc"
19 include "shared-math.rnc"
20 start = element xml {(vml-main | vml-officeDrawing | vml-spreadsheetDrawing |
21   vml-presentationDrawing)* }
22
23 vml-main =
24   v_shape
25   | v_shapetype
26   | v_group
27   | v_background
28   | v_fill
29   | v_formulas
30   | v_handles
31   | v_imagedata
32   | v_path
33   | v_textbox
34   | v_shadow
35   | v_stroke
36   | v_textpath
37   | v_arc
38   | v_curve
39   | v_image
40   | v_line
41   | v_oval
42   | v_polyline
43   | v_rect
44   | v_roundrect
45
46 vml-officeDrawing =
47   o_shapedefaults
48   | o_shapelayout
49   | o_signatureline
50   | o_ink
51   | o_diagram
52   | o_equationxml
53   | o_skew
54   | o_extrusion
55   | o_callout
56   | o_lock
57   | o_OLEObject
58   | o_complex
59   | o_left

```



```

60 | o_top
61 | o_right
62 | o_bottom
63 | o_column
64 | o_clippath
65 | o_fill
66
67 vml-wordprocessingDrawing =
68   w10_bordertop
69   | w10_borderleft
70   | w10_borderright
71   | w10_borderbottom
72   | w10_wrap
73   | w10_anchorlock
74
75 vml-spreadsheetDrawing = x_ClientData
76 vml-presentationDrawing = pvml_iscomment | pvml_textdata

```

## B.8 Shared MLs

### B.8.1 Math

This schema is available in the file shared-math.rnc.

```

1  default namespace m =
2    "http://schemas.openxmlformats.org/officeDocument/2006/math"
3  namespace o = "urn:schemas-microsoft-com:office:office"
4  namespace s =
5    "http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
6  namespace v = "urn:schemas-microsoft-com:vml"
7  namespace w =
8    "http://schemas.openxmlformats.org/wordprocessingml/2006/main"
9  namespace w10 = "urn:schemas-microsoft-com:office:word"
10 namespace x = "urn:schemas-microsoft-com:office:excel"
11
12 m_ST_Integer255 =
13   xsd:integer { minInclusive = "1" maxInclusive = "255" }
14 m_CT_Integer255 = attribute m:val { m_ST_Integer255 }
15 m_ST_Integer2 = xsd:integer { minInclusive = "-2" maxInclusive = "2" }
16 m_CT_Integer2 = attribute m:val { m_ST_Integer2 }
17 m_ST_SpacingRule = xsd:integer { minInclusive = "0" maxInclusive = "4" }
18 m_CT_SpacingRule = attribute m:val { m_ST_SpacingRule }
19 m_ST_UnSignedInteger = xsd:unsignedInt
20 m_CT_UnSignedInteger = attribute m:val { m_ST_UnSignedInteger }
21 m_ST_Char = xsd:string { maxLength = "1" }
22 m_CT_Char = attribute m:val { m_ST_Char }
23 m_CT_OnOff = attribute m:val { s_ST_OnOff }?
24 m_CT_String = attribute m:val { s_ST_String }?
25 m_CT_XAlign = attribute m:val { s_ST_XAlign }
26 m_CT_YAlign = attribute m:val { s_ST_YAlign }
27 m_ST_Shp = string "centered" | string "match"
28 m_CT_Shp = attribute m:val { m_ST_Shp }
29 m_ST_FType = string "bar" | string "skw" | string "lin" | string "noBar"

```



```

30 m_CT_FType = attribute m:val { m_ST_FType }
31 m_ST_LimLoc = string "undOvr" | string "subSup"
32 m_CT_LimLoc = attribute m:val { m_ST_LimLoc }
33 m_ST_TopBot = string "top" | string "bot"
34 m_CT_TopBot = attribute m:val { m_ST_TopBot }
35 m_ST_Script =
36     string "roman"
37     | string "script"
38     | string "fraktur"
39     | string "double-struck"
40     | string "sans-serif"
41     | string "monospace"
42 m_CT_Script = attribute m:val { m_ST_Script }?
43 m_ST_Style = string "p" | string "b" | string "i" | string "bi"
44 m_CT_Style = attribute m:val { m_ST_Style }?
45 m_CT_ManualBreak = attribute m:alnAt { m_ST_Integer255 }?
46 m_EG_ScriptStyle =
47     element scr { m_CT_Script }?,
48     element sty { m_CT_Style }?
49 m_CT_RPR =
50     element lit { m_CT_OnOff }?,
51     (element nor { m_CT_OnOff }?
52         | m_EG_ScriptStyle),
53     element brk { m_CT_ManualBreak }?,
54     element aln { m_CT_OnOff }?
55 m_CT_Text = s_ST_String, xml_space?
56 m_CT_R =
57     element rPr { m_CT_RPR }?,
58     w_EG_RPr?,
59     (w_EG_RunInnerContent
60         | element t { m_CT_Text }?)*
61 m_CT_CtrlPr = w_EG_RPrMath?
62 m_CT_AccPr =
63     element chr { m_CT_Char }?,
64     element ctrlPr { m_CT_CtrlPr }?
65 m_CT_Acc =
66     element accPr { m_CT_AccPr }?,
67     element e { m_CT_OMathArg }
68 m_CT_BarPr =
69     element pos { m_CT_TopBot }?,
70     element ctrlPr { m_CT_CtrlPr }?
71 m_CT_Bar =
72     element barPr { m_CT_BarPr }?,
73     element e { m_CT_OMathArg }
74 m_CT_BoxPr =
75     element opEmu { m_CT_OnOff }?,
76     element noBreak { m_CT_OnOff }?,
77     element diff { m_CT_OnOff }?,
78     element brk { m_CT_ManualBreak }?,
79     element aln { m_CT_OnOff }?,
80     element ctrlPr { m_CT_CtrlPr }?
81 m_CT_Box =
82     element boxPr { m_CT_BoxPr }?,

```



```

83     element e { m_CT_OMathArg }
84 m_CT_BorderBoxPr =
85     element hideTop { m_CT_OnOff }?,
86     element hideBot { m_CT_OnOff }?,
87     element hideLeft { m_CT_OnOff }?,
88     element hideRight { m_CT_OnOff }?,
89     element strikeH { m_CT_OnOff }?,
90     element strikeV { m_CT_OnOff }?,
91     element strikeBLTR { m_CT_OnOff }?,
92     element strikeTLBR { m_CT_OnOff }?,
93     element ctrlPr { m_CT_CtrlPr }?
94 m_CT_BorderBox =
95     element borderBoxPr { m_CT_BorderBoxPr }?,
96     element e { m_CT_OMathArg }
97 m_CT_DPr =
98     element begChr { m_CT_Char }?,
99     element sepChr { m_CT_Char }?,
100    element endChr { m_CT_Char }?,
101    element grow { m_CT_OnOff }?,
102    element shp { m_CT_Shp }?,
103    element ctrlPr { m_CT_CtrlPr }?
104 m_CT_D =
105     element dPr { m_CT_DPr }?,
106     element e { m_CT_OMathArg }+
107 m_CT_EqArrPr =
108     element baseJc { m_CT_YAlign }?,
109     element maxDist { m_CT_OnOff }?,
110     element objDist { m_CT_OnOff }?,
111     element rSpRule { m_CT_SpacingRule }?,
112     element rSp { m_CT_UnSignedInteger }?,
113     element ctrlPr { m_CT_CtrlPr }?
114 m_CT_EqArr =
115     element eqArrPr { m_CT_EqArrPr }?,
116     element e { m_CT_OMathArg }+
117 m_CT_FPr =
118     element type { m_CT_FType }?,
119     element ctrlPr { m_CT_CtrlPr }?
120 m_CT_F =
121     element fPr { m_CT_FPr }?,
122     element num { m_CT_OMathArg },
123     element den { m_CT_OMathArg }
124 m_CT_FuncPr = element ctrlPr { m_CT_CtrlPr }?
125 m_CT_Func =
126     element funcPr { m_CT_FuncPr }?,
127     element fName { m_CT_OMathArg },
128     element e { m_CT_OMathArg }
129 m_CT_GroupChrPr =
130     element chr { m_CT_Char }?,
131     element pos { m_CT_TopBot }?,
132     element vertJc { m_CT_TopBot }?,
133     element ctrlPr { m_CT_CtrlPr }?
134 m_CT_GroupChr =
135     element groupChrPr { m_CT_GroupChrPr }?,

```



```

136     element e { m_CT_OMathArg }
137 m_CT_LimLowPr = element ctrlPr { m_CT_CtrlPr }?
138 m_CT_LimLow =
139     element limLowPr { m_CT_LimLowPr }?,
140     element e { m_CT_OMathArg },
141     element lim { m_CT_OMathArg }
142 m_CT_LimUppPr = element ctrlPr { m_CT_CtrlPr }?
143 m_CT_LimUpp =
144     element limUppPr { m_CT_LimUppPr }?,
145     element e { m_CT_OMathArg },
146     element lim { m_CT_OMathArg }
147 m_CT_MCPr =
148     element count { m_CT_Integer255 }?,
149     element mcJc { m_CT_XAlign }?
150 m_CT_MC = element mcPr { m_CT_MCPr }?
151 m_CT_MCS = element mc { m_CT_MC }+
152 m_CT_MPr =
153     element baseJc { m_CT_YAlign }?,
154     element plcHide { m_CT_OnOff }?,
155     element rSpRule { m_CT_SpacingRule }?,
156     element cGpRule { m_CT_SpacingRule }?,
157     element rSp { m_CT_UnSignedInteger }?,
158     element cSp { m_CT_UnSignedInteger }?,
159     element cGp { m_CT_UnSignedInteger }?,
160     element mcs { m_CT_MCS }?,
161     element ctrlPr { m_CT_CtrlPr }?
162 m_CT_MR = element e { m_CT_OMathArg }+
163 m_CT_M =
164     element mPr { m_CT_MPr }?,
165     element mr { m_CT_MR }+
166 m_CT_NaryPr =
167     element chr { m_CT_Char }?,
168     element limLoc { m_CT_LimLoc }?,
169     element grow { m_CT_OnOff }?,
170     element subHide { m_CT_OnOff }?,
171     element supHide { m_CT_OnOff }?,
172     element ctrlPr { m_CT_CtrlPr }?
173 m_CT_Nary =
174     element naryPr { m_CT_NaryPr }?,
175     element sub { m_CT_OMathArg },
176     element sup { m_CT_OMathArg },
177     element e { m_CT_OMathArg }
178 m_CT_PhantPr =
179     element show { m_CT_OnOff }?,
180     element zeroWid { m_CT_OnOff }?,
181     element zeroAsc { m_CT_OnOff }?,
182     element zeroDesc { m_CT_OnOff }?,
183     element transp { m_CT_OnOff }?,
184     element ctrlPr { m_CT_CtrlPr }?
185 m_CT_Phant =
186     element phantPr { m_CT_PhantPr }?,
187     element e { m_CT_OMathArg }
188 m_CT_RadPr =

```



```

189   element degHide { m_CT_OnOff }?,
190   element ctrlPr { m_CT_CtrlPr }?
191 m_CT_Rad =
192   element radPr { m_CT_RadPr }?,
193   element deg { m_CT_OMathArg },
194   element e { m_CT_OMathArg }
195 m_CT_SPrePr = element ctrlPr { m_CT_CtrlPr }?
196 m_CT_SPre =
197   element sPrePr { m_CT_SPrePr }?,
198   element sub { m_CT_OMathArg },
199   element sup { m_CT_OMathArg },
200   element e { m_CT_OMathArg }
201 m_CT_SSubPr = element ctrlPr { m_CT_CtrlPr }?
202 m_CT_SSub =
203   element sSubPr { m_CT_SSubPr }?,
204   element e { m_CT_OMathArg },
205   element sub { m_CT_OMathArg }
206 m_CT_SSubSupPr =
207   element alnScr { m_CT_OnOff }?,
208   element ctrlPr { m_CT_CtrlPr }?
209 m_CT_SSubSup =
210   element sSubSupPr { m_CT_SSubSupPr }?,
211   element e { m_CT_OMathArg },
212   element sub { m_CT_OMathArg },
213   element sup { m_CT_OMathArg }
214 m_CT_SSupPr = element ctrlPr { m_CT_CtrlPr }?
215 m_CT_SSup =
216   element sSupPr { m_CT_SSupPr }?,
217   element e { m_CT_OMathArg },
218   element sup { m_CT_OMathArg }
219 m_EG_OMathMathElements =
220   element acc { m_CT_Acc }
221   | element bar { m_CT_Bar }
222   | element box { m_CT_Box }
223   | element borderBox { m_CT_BorderBox }
224   | element d { m_CT_D }
225   | element eqArr { m_CT_EqArr }
226   | element f { m_CT_F }
227   | element func { m_CT_Func }
228   | element groupChr { m_CT_GroupChr }
229   | element limLow { m_CT_LimLow }
230   | element limUpp { m_CT_LimUpp }
231   | element m { m_CT_M }
232   | element nary { m_CT_Nary }
233   | element phant { m_CT_Phant }
234   | element rad { m_CT_Rad }
235   | element sPre { m_CT_SPre }
236   | element sSub { m_CT_SSub }
237   | element sSubSup { m_CT_SSubSup }
238   | element sSup { m_CT_SSup }
239   | element r { m_CT_R }
240 m_EG_OMathElements = m_EG_OMathMathElements | w_EG_PContentMath
241 m_CT_OMathArgPr = element argSz { m_CT_Integer2 }?

```



```

242 m_CT_OMathArg =
243     element argPr { m_CT_OMathArgPr }?,
244     m_EG_OMathElements*,
245     element ctrlPr { m_CT_CtrlPr }?
246 m_ST_Jc =
247     string "left"
248     | string "right"
249     | string "center"
250     | string "centerGroup"
251 m_CT_OMathJc = attribute m:val { m_ST_Jc }?
252 m_CT_OMathParaPr = element jc { m_CT_OMathJc }?
253 m_CT_TwipsMeasure = attribute m:val { s_ST_TwipsMeasure }
254 m_ST_BreakBin = string "before" | string "after" | string "repeat"
255 m_CT_BreakBin = attribute m:val { m_ST_BreakBin }?
256 m_ST_BreakBinSub = string "--" | string "-+" | string "+-"
257 m_CT_BreakBinSub = attribute m:val { m_ST_BreakBinSub }?
258 m_CT_MathPr =
259     element mathFont { m_CT_String }?,
260     element brkBin { m_CT_BreakBin }?,
261     element brkBinSub { m_CT_BreakBinSub }?,
262     element smallFrac { m_CT_OnOff }?,
263     element dispDef { m_CT_OnOff }?,
264     element lMargin { m_CT_TwipsMeasure }?,
265     element rMargin { m_CT_TwipsMeasure }?,
266     element defJc { m_CT_OMathJc }?,
267     element preSp { m_CT_TwipsMeasure }?,
268     element postSp { m_CT_TwipsMeasure }?,
269     element interSp { m_CT_TwipsMeasure }?,
270     element intraSp { m_CT_TwipsMeasure }?,
271     (element wrapIndent { m_CT_TwipsMeasure }
272      | element wrapRight { m_CT_OnOff })?,
273     element intLim { m_CT_LimLoc }?,
274     element naryLim { m_CT_LimLoc }?
275 m_mathPr = element mathPr { m_CT_MathPr }
276 m_CT_OMathPara =
277     element oMathParaPr { m_CT_OMathParaPr }?,
278     element oMath { m_CT_OMath }+
279 m_CT_OMath = m_EG_OMathElements*
280 m_oMathPara = element oMathPara { m_CT_OMathPara }
281 m_oMath = element oMath { m_CT_OMath }

```

## B.8.2 Extended Properties

This schema is available in the file shared-documentPropertiesExtended.rnc.

```

1 default namespace =
2   "http://schemas.openxmlformats.org/officeDocument/2006/extended-properties"
3 namespace o = "urn:schemas-microsoft-com:office:office"
4 namespace shdDcEP =
5   "http://schemas.openxmlformats.org/officeDocument/2006/extended-properties"
6 namespace v = "urn:schemas-microsoft-com:xml"
7 namespace vt =
8   "http://schemas.openxmlformats.org/officeDocument/2006/docPropsVTypes"

```



```

9 namespace w10 = "urn:schemas-microsoft-com:office:word"
10 namespace x = "urn:schemas-microsoft-com:office:excel"
11
12 shdDcEP_Properties = element Properties { shdDcEP_CT_Properties }
13 shdDcEP_CT_Properties =
14   element Template { xsd:string }?
15   & element Manager { xsd:string }?
16   & element Company { xsd:string }?
17   & element Pages { xsd:int }?
18   & element Words { xsd:int }?
19   & element Characters { xsd:int }?
20   & element PresentationFormat { xsd:string }?
21   & element Lines { xsd:int }?
22   & element Paragraphs { xsd:int }?
23   & element Slides { xsd:int }?
24   & element Notes { xsd:int }?
25   & element TotalTime { xsd:int }?
26   & element HiddenSlides { xsd:int }?
27   & element MMClips { xsd:int }?
28   & element ScaleCrop { xsd:boolean }?
29   & element HeadingPairs { shdDcEP_CT_VectorVariant }?
30   & element TitlesOfParts { shdDcEP_CT_VectorLpstr }?
31   & element LinksUpToDate { xsd:boolean }?
32   & element CharactersWithSpaces { xsd:int }?
33   & element SharedDoc { xsd:boolean }?
34   & element HyperlinkBase { xsd:string }?
35   & element HLinks { shdDcEP_CT_VectorVariant }?
36   & element HyperlinksChanged { xsd:boolean }?
37   & element DigSig { shdDcEP_CT_DigSigBlob }?
38   & element Application { xsd:string }?
39   & element AppVersion { xsd:string }?
40   & element DocSecurity { xsd:int }?
41 shdDcEP_CT_VectorVariant = vt_vector
42 shdDcEP_CT_VectorLpstr = vt_vector
43 shdDcEP_CT_DigSigBlob = vt_blob

```

### B.8.2.1 Part Schemas

#### B.8.2.1.1 Extended File Properties Part

This schema is available in the file Shared\_Extended\_File\_Properties.rnc.

```

1 include "shared-documentPropertiesExtended.rnc"
2 include "shared-documentPropertiesVariantTypes.rnc"
3 include "shared-commonSimpleTypes.rnc"
4 start = shdDcEP_Properties

```

### B.8.3 Custom Properties

This schema is available in the file shared-documentPropertiesCustom.rnc.

```

1 default namespace =
2   "http://schemas.openxmlformats.org/officeDocument/2006/custom-properties"
3 namespace o = "urn:schemas-microsoft-com:office:office"

```



```

4 namespace s =
5   "http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
6 namespace shdCstm =
7   "http://schemas.openxmlformats.org/officeDocument/2006/custom-properties"
8 namespace v = "urn:schemas-microsoft-com:vm1"
9 namespace vt =
10   "http://schemas.openxmlformats.org/officeDocument/2006/docPropsVTypes"
11 namespace w10 = "urn:schemas-microsoft-com:office:word"
12 namespace x = "urn:schemas-microsoft-com:office:excel"
13
14 shdCstm_Properties = element Properties { shdCstm_CT_Properties }
15 shdCstm_CT_Properties = element property { shdCstm_CT_Property }*
16 shdCstm_CT_Property =
17   attribute fmtid { s_ST_Guid },
18   attribute pid { xsd:int },
19   attribute name { xsd:string }?,
20   attribute linkTarget { xsd:string }?,
21   (vt_vector
22     | vt_array
23     | vt_blob
24     | vt_oblob
25     | vt_empty
26     | vt_null
27     | vt_i1
28     | vt_i2
29     | vt_i4
30     | vt_i8
31     | vt_int
32     | vt_ui1
33     | vt_ui2
34     | vt_ui4
35     | vt_ui8
36     | vt_uint
37     | vt_r4
38     | vt_r8
39     | vt_decimal
40     | vt_lpstr
41     | vt_lpwstr
42     | vt_bstr
43     | vt_date
44     | vt_filetime
45     | vt_bool
46     | vt_cy
47     | vt_error
48     | vt_stream
49     | vt_ostream
50     | vt_storage
51     | vt_ostorage
52     | vt_vstream
53     | vt_clsid)

```



### B.8.3.1 Part Schemas

#### B.8.3.1.1 Custom File Properties Part

This schema is available in the file Shared\_Custom\_File\_Properties.rnc.

```

1 include "shared-documentPropertiesCustom.rnc"
2 include "shared-documentPropertiesVariantTypes.rnc"
3 include "shared-commonSimpleTypes.rnc"
4 start = shdCstm_Properties

```

### B.8.4 Variant Types

This schema is available in the file shared-documentPropertiesVariantTypes.rnc.

```

1 default namespace =
2   "http://schemas.openxmlformats.org/officeDocument/2006/docPropsVTypes"
3 namespace o = "urn:schemas-microsoft-com:office:office"
4 namespace s =
5   "http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
6 namespace v = "urn:schemas-microsoft-com:vm1"
7 namespace vt =
8   "http://schemas.openxmlformats.org/officeDocument/2006/docPropsVTypes"
9 namespace w10 = "urn:schemas-microsoft-com:office:word"
10 namespace x = "urn:schemas-microsoft-com:office:excel"
11
12 vt_ST_VectorBaseType =
13   string "variant"
14   | string "i1"
15   | string "i2"
16   | string "i4"
17   | string "i8"
18   | string "ui1"
19   | string "ui2"
20   | string "ui4"
21   | string "ui8"
22   | string "r4"
23   | string "r8"
24   | string "lpstr"
25   | string "lpwstr"
26   | string "bstr"
27   | string "date"
28   | string "filetime"
29   | string "bool"
30   | string "cy"
31   | string "error"
32   | string "clsid"
33 vt_ST_ArrayBaseType =
34   string "variant"
35   | string "i1"
36   | string "i2"
37   | string "i4"
38   | string "int"

```



```

39 | string "ui1"
40 | string "ui2"
41 | string "ui4"
42 | string "uint"
43 | string "r4"
44 | string "r8"
45 | string "decimal"
46 | string "bstr"
47 | string "date"
48 | string "bool"
49 | string "cy"
50 | string "error"
51 vt_ST_Cy = xsd:string { pattern = "\s*[0-9]*\.[0-9]{4}\s*" }
52 vt_ST_Error = xsd:string { pattern = "\s*0x[0-9A-Za-z]{8}\s*" }
53 vt_CT_Empty = empty
54 vt_CT_Null = empty
55 vt_CT_Vector =
56   attribute baseType { vt_ST_VectorBaseType },
57   attribute size { xsd:unsignedInt },
58   (vt_variant
59     | vt_i1
60     | vt_i2
61     | vt_i4
62     | vt_i8
63     | vt_ui1
64     | vt_ui2
65     | vt_ui4
66     | vt_ui8
67     | vt_r4
68     | vt_r8
69     | vt_lpstr
70     | vt_lpwstr
71     | vt_bstr
72     | vt_date
73     | vt_filetime
74     | vt_bool
75     | vt_cy
76     | vt_error
77     | vt_clsid)+
78 vt_CT_Array =
79   attribute lBounds { xsd:int },
80   attribute uBounds { xsd:int },
81   attribute baseType { vt_ST_ArrayBaseType },
82   (vt_variant
83     | vt_i1
84     | vt_i2
85     | vt_i4
86     | vt_int
87     | vt_ui1
88     | vt_ui2
89     | vt_ui4
90     | vt_uint
91     | vt_r4

```



```

92 | vt_r8
93 | vt_decimal
94 | vt_bstr
95 | vt_date
96 | vt_bool
97 | vt_error
98 | vt_cy)+
99 vt_CT_Variant =
100 vt_variant
101 | vt_vector
102 | vt_array
103 | vt_blob
104 | vt_oblob
105 | vt_empty
106 | vt_null
107 | vt_i1
108 | vt_i2
109 | vt_i4
110 | vt_i8
111 | vt_int
112 | vt_ui1
113 | vt_ui2
114 | vt_ui4
115 | vt_ui8
116 | vt_uint
117 | vt_r4
118 | vt_r8
119 | vt_decimal
120 | vt_lpstr
121 | vt_lpwstr
122 | vt_bstr
123 | vt_date
124 | vt_filetime
125 | vt_bool
126 | vt_cy
127 | vt_error
128 | vt_stream
129 | vt_ostream
130 | vt_storage
131 | vt_ostorage
132 | vt_vstream
133 | vt_clsid
134 vt_CT_Vstream =
135   xsd:base64Binary,
136   attribute version { s_ST_Guid }?
137 vt_variant = element variant { vt_CT_Variant }
138 vt_vector = element vector { vt_CT_Vector }
139 vt_array = element array { vt_CT_Array }
140 vt_blob = element blob { xsd:base64Binary }
141 vt_oblob = element oblob { xsd:base64Binary }
142 vt_empty = element empty { vt_CT_Empty }
143 vt_null = element null { vt_CT_Null }
144 vt_i1 = element i1 { xsd:byte }

```



```

145 vt_i2 = element i2 { xsd:short }
146 vt_i4 = element i4 { xsd:int }
147 vt_i8 = element i8 { xsd:long }
148 vt_int = element int { xsd:int }
149 vt_ui1 = element ui1 { xsd:unsignedByte }
150 vt_ui2 = element ui2 { xsd:unsignedShort }
151 vt_ui4 = element ui4 { xsd:unsignedInt }
152 vt_ui8 = element ui8 { xsd:unsignedLong }
153 vt_uint = element uint { xsd:unsignedInt }
154 vt_r4 = element r4 { xsd:float }
155 vt_r8 = element r8 { xsd:double }
156 vt_decimal = element decimal { xsd:decimal }
157 vt_lpstr = element lpstr { xsd:string }
158 vt_lpwstr = element lpwstr { xsd:string }
159 vt_bstr = element bstr { xsd:string }
160 vt_date = element date { xsd:dateTime }
161 vt_filetime = element filetime { xsd:dateTime }
162 vt_bool = element bool { xsd:boolean }
163 vt_cy = element cy { vt_ST_Cy }
164 vt_error = element error { vt_ST_Error }
165 vt_stream = element stream { xsd:base64Binary }
166 vt_ostream = element ostream { xsd:base64Binary }
167 vt_storage = element storage { xsd:base64Binary }
168 vt_ostorage = element ostorage { xsd:base64Binary }
169 vt_vstream = element vstream { vt_CT_Vstream }
170 vt_clsid = element clsid { s_ST_Guid }

```

## B.8.5 Custom XML Data Properties

This schema is available in the file shared-customXmlDataProperties.rnc.

```

1 default namespace ds =
2   "http://schemas.openxmlformats.org/officeDocument/2006/customXml"
3 namespace o = "urn:schemas-microsoft-com:office:office"
4 namespace s =
5   "http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
6 namespace v = "urn:schemas-microsoft-com:vml"
7 namespace w10 = "urn:schemas-microsoft-com:office:word"
8 namespace x = "urn:schemas-microsoft-com:office:excel"
9
10 ds_CT_DatastoreSchemaRef = attribute ds:uri { xsd:string }
11 ds_CT_DatastoreSchemaRefs =
12   element schemaRef { ds_CT_DatastoreSchemaRef }*
13 ds_CT_DatastoreItem =
14   attribute ds:itemID { s_ST_Guid },
15   element schemaRefs { ds_CT_DatastoreSchemaRefs }?
16 ds_datastoreItem = element datastoreItem { ds_CT_DatastoreItem }

```

### B.8.5.1 Part Schemas

#### B.8.5.1.1 Custom XML Data Properties Part

This schema is available in the file Shared\_Custom\_XML\_Data\_Storage\_Properties.rnc.



```

1 include "shared-customXmlDataProperties.rnc"
2 include "shared-commonSimpleTypes.rnc"
3 start = ds_datastoreItem

```

### B.8.6 Bibliography

This schema is available in the file shared-bibliography.rnc.

```

1 default namespace =
2   "http://schemas.openxmlformats.org/officeDocument/2006/bibliography"
3 namespace o = "urn:schemas-microsoft-com:office:office"
4 namespace s =
5   "http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
6 namespace shrdBib =
7   "http://schemas.openxmlformats.org/officeDocument/2006/bibliography"
8 namespace v = "urn:schemas-microsoft-com:xml"
9 namespace w10 = "urn:schemas-microsoft-com:office:word"
10 namespace x = "urn:schemas-microsoft-com:office:excel"
11
12 shrdBib_ST_SourceType =
13   "ArticleInAPeriodical"
14   | "Book"
15   | "BookSection"
16   | "JournalArticle"
17   | "ConferenceProceedings"
18   | "Report"
19   | "SoundRecording"
20   | "Performance"
21   | "Art"
22   | "DocumentFromInternetSite"
23   | "InternetSite"
24   | "Film"
25   | "Interview"
26   | "Patent"
27   | "ElectronicSource"
28   | "Case"
29   | "Misc"
30 shrdBib_CT_NameListType = element Person { shrdBib_CT_PersonType }+
31 shrdBib_CT_PersonType =
32   element Last { s_ST_String }*,
33   element First { s_ST_String }*,
34   element Middle { s_ST_String }*
35 shrdBib_CT_NameType = element NameList { shrdBib_CT_NameListType }
36 shrdBib_CT_NameOrCorporateType =
37   (element NameList { shrdBib_CT_NameListType }
38    | element Corporate { s_ST_String })?
39 shrdBib_CT_AuthorType =
40   (element Artist { shrdBib_CT_NameType }
41    | element Author { shrdBib_CT_NameOrCorporateType }
42    | element BookAuthor { shrdBib_CT_NameType }
43    | element Compiler { shrdBib_CT_NameType }
44    | element Composer { shrdBib_CT_NameType }
45    | element Conductor { shrdBib_CT_NameType }

```



```

46 | element Counsel { shrdBib_CT_NameType }
47 | element Director { shrdBib_CT_NameType }
48 | element Editor { shrdBib_CT_NameType }
49 | element Interviewee { shrdBib_CT_NameType }
50 | element Interviewer { shrdBib_CT_NameType }
51 | element Inventor { shrdBib_CT_NameType }
52 | element Performer { shrdBib_CT_NameOrCorporateType }
53 | element ProducerName { shrdBib_CT_NameType }
54 | element Translator { shrdBib_CT_NameType }
55 | element Writer { shrdBib_CT_NameType })*
56 shrdBib_CT_SourceType =
57   (element AbbreviatedCaseNumber { s_ST_String }
58   | element AlbumTitle { s_ST_String }
59   | element Author { shrdBib_CT_AuthorType }
60   | element BookTitle { s_ST_String }
61   | element Broadcaster { s_ST_String }
62   | element BroadcastTitle { s_ST_String }
63   | element CaseNumber { s_ST_String }
64   | element ChapterNumber { s_ST_String }
65   | element City { s_ST_String }
66   | element Comments { s_ST_String }
67   | element ConferenceName { s_ST_String }
68   | element CountryRegion { s_ST_String }
69   | element Court { s_ST_String }
70   | element Day { s_ST_String }
71   | element DayAccessed { s_ST_String }
72   | element Department { s_ST_String }
73   | element Distributor { s_ST_String }
74   | element Edition { s_ST_String }
75   | element Guid { s_ST_String }
76   | element Institution { s_ST_String }
77   | element InternetSiteTitle { s_ST_String }
78   | element Issue { s_ST_String }
79   | element JournalName { s_ST_String }
80   | element LCID { s_ST_Lang }
81   | element Medium { s_ST_String }
82   | element Month { s_ST_String }
83   | element MonthAccessed { s_ST_String }
84   | element NumberVolumes { s_ST_String }
85   | element Pages { s_ST_String }
86   | element PatentNumber { s_ST_String }
87   | element PeriodicalTitle { s_ST_String }
88   | element ProductionCompany { s_ST_String }
89   | element PublicationTitle { s_ST_String }
90   | element Publisher { s_ST_String }
91   | element RecordingNumber { s_ST_String }
92   | element RefOrder { s_ST_String }
93   | element Reporter { s_ST_String }
94   | element SourceType { shrdBib_ST_SourceType }
95   | element ShortTitle { s_ST_String }
96   | element StandardNumber { s_ST_String }
97   | element StateProvince { s_ST_String }
98   | element Station { s_ST_String }

```



```

99 | element Tag { s_ST_String }
100 | element Theater { s_ST_String }
101 | element ThesisType { s_ST_String }
102 | element Title { s_ST_String }
103 | element Type { s_ST_String }
104 | element URL { s_ST_String }
105 | element Version { s_ST_String }
106 | element Volume { s_ST_String }
107 | element Year { s_ST_String }
108 | element YearAccessed { s_ST_String })*
109 shrdBib_Sources = element Sources { shrdBib_CT_Sources }
110 shrdBib_CT_Sources =
111   attribute SelectedStyle { s_ST_String }?,
112   attribute StyleName { s_ST_String }?,
113   attribute URI { s_ST_String }?,
114   element Source { shrdBib_CT_SourceType }*

```

### B.8.6.1 Part Schemas

#### B.8.6.1.1 Bibliography Part

This schema is available in the file Shared\_Bibliography.rnc.

```

1 include "shared-bibliography.rnc"
2 include "shared-commonSimpleTypes.rnc"
3 start = shrdBib_Sources

```

### B.8.7 Additional Characteristics

This schema is available in the file shared-additionalCharacteristics.rnc.

```

1 default namespace =
2   "http://schemas.openxmlformats.org/officeDocument/2006/characteristics"
3 namespace o = "urn:schemas-microsoft-com:office:office"
4 namespace shrdChr =
5   "http://schemas.openxmlformats.org/officeDocument/2006/characteristics"
6 namespace v = "urn:schemas-microsoft-com:vm1"
7 namespace w10 = "urn:schemas-microsoft-com:office:word"
8 namespace x = "urn:schemas-microsoft-com:office:excel"
9
10 shrdChr_CT_AdditionalCharacteristics =
11   element characteristic { shrdChr_CT_Characteristic }*
12 shrdChr_CT_Characteristic =
13   attribute name { xsd:string },
14   attribute relation { shrdChr_ST_Relation },
15   attribute val { xsd:string },
16   attribute vocabulary { xsd:anyURI }?
17 shrdChr_ST_Relation =
18   string "ge" | string "le" | string "gt" | string "lt" | string "eq"
19 shrdChr_additionalCharacteristics =
20   element additionalCharacteristics {
21     shrdChr_CT_AdditionalCharacteristics
22   }

```



## B.8.7.1 Part Schemas

### B.8.7.1.1 Additional Characteristics Part

This schema is available in the file Shared\_Additional\_Characteristics.rnc.

```

1 include "shared-additionalCharacteristics.rnc"
2 start = shrdChr_additionalCharacteristics

```

## B.8.8 Office Document Relationships

This schema is available in the file shared-relationshipReference.rnc.

```

1 namespace o = "urn:schemas-microsoft-com:office:office"
2 namespace r =
3   "http://schemas.openxmlformats.org/officeDocument/2006/relationships"
4 namespace v = "urn:schemas-microsoft-com:vm1"
5 namespace w10 = "urn:schemas-microsoft-com:office:word"
6 namespace x = "urn:schemas-microsoft-com:office:excel"
7
8 r_ST_RelationshipId = xsd:string
9 r_id = attribute r:id { r_ST_RelationshipId }
10 r_embed = attribute r:embed { r_ST_RelationshipId }
11 r_link = attribute r:link { r_ST_RelationshipId }
12 r_dm = attribute r:dm { r_ST_RelationshipId }
13 r_lo = attribute r:lo { r_ST_RelationshipId }
14 r_qs = attribute r:qs { r_ST_RelationshipId }
15 r_cs = attribute r:cs { r_ST_RelationshipId }
16 r_blip = attribute r:blip { r_ST_RelationshipId }
17 r_pict = attribute r:pict { r_ST_RelationshipId }
18 r_href = attribute r:href { r_ST_RelationshipId }
19 r_topLeft = attribute r:topLeft { r_ST_RelationshipId }
20 r_topRight = attribute r:topRight { r_ST_RelationshipId }
21 r_bottomLeft = attribute r:bottomLeft { r_ST_RelationshipId }
22 r_bottomRight = attribute r:bottomRight { r_ST_RelationshipId }

```

## B.8.9 Shared Simple Types

This schema is available in the file shared-commonSimpleTypes.rnc.

```

1 namespace o = "urn:schemas-microsoft-com:office:office"
2 namespace s =
3   "http://schemas.openxmlformats.org/officeDocument/2006/sharedTypes"
4 namespace v = "urn:schemas-microsoft-com:vm1"
5 namespace w10 = "urn:schemas-microsoft-com:office:word"
6 namespace x = "urn:schemas-microsoft-com:office:excel"
7
8 s_ST_Lang = xsd:string
9 s_ST_HexColorRGB = xsd:hexBinary { length = "3" }
10 s_ST_Panose = xsd:hexBinary { length = "10" }
11 s_ST_CalendarType =
12   string "gregorian"
13   | string "gregorianUs"

```



```

14 | string "gregorianMeFrench"
15 | string "gregorianArabic"
16 | string "hijri"
17 | string "hebrew"
18 | string "taiwan"
19 | string "japan"
20 | string "thai"
21 | string "korea"
22 | string "saka"
23 | string "gregorianXlitEnglish"
24 | string "gregorianXlitFrench"
25 | string "none"
26 s_ST_AlgorithmClass = string "hash" | string "custom"
27 s_ST_CryptProv = string "rsaAES" | string "rsaFull" | string "custom"
28 s_ST_AlgorithmType = string "typeAny" | string "custom"
29 s_ST_ColorType = xsd:string
30 s_ST_Guid =
31     xsd:token {
32         pattern =
33             "\{[0-9A-F]{8}-[0-9A-F]{4}-[0-9A-F]{4}-[0-9A-F]{4}-[0-9A-F]{12}\}"
34     }
35 s_ST_OnOff = xsd:boolean | s_ST_OnOff1
36 s_ST_OnOff1 = string "on" | string "off"
37 s_ST_String = xsd:string
38 s_ST_XmlName = xsd:NCName { minLength = "1" maxLength = "255" }
39 s_ST_TrueFalse =
40     string "t" | string "f" | string "true" | string "false"
41 s_ST_TrueFalseBlank =
42     string "t"
43     | string "f"
44     | string "true"
45     | string "false"
46     | string ""
47     | string "True"
48     | string "False"
49 s_ST_UnsignedDecimalNumber = xsd:unsignedLong
50 s_ST_TwipsMeasure =
51     s_ST_UnsignedDecimalNumber | s_ST_PositiveUniversalMeasure
52 s_ST_VerticalAlignRun =
53     string "baseline" | string "superscript" | string "subscript"
54 s_ST_Xstring = xsd:string
55 s_ST_XAlign =
56     string "left"
57     | string "center"
58     | string "right"
59     | string "inside"
60     | string "outside"
61 s_ST_YAlign =
62     string "inline"
63     | string "top"
64     | string "center"
65     | string "bottom"
66     | string "inside"

```



```

67 | string "outside"
68 s_ST_ConformanceClass = string "strict" | string "transitional"
69 s_ST_UniversalMeasure =
70   xsd:string { pattern = "-?[0-9]+(\\.[0-9]+)?(mm|cm|in|pt|pc|pi)" }
71 s_ST_PositiveUniversalMeasure =
72   xsd:string {
73     pattern = "-?[0-9]+(\\.[0-9]+)?(mm|cm|in|pt|pc|pi)"
74     pattern = "[0-9]+(\\.[0-9]+)?(mm|cm|in|pt|pc|pi)"
75   }
76 s_ST_Percentage = xsd:string { pattern = "-?[0-9]+(\\.[0-9]+)?%" }
77 s_ST_FixedPercentage =
78   xsd:string {
79     pattern = "-?[0-9]+(\\.[0-9]+)?%"
80     pattern = "-?((100)|([0-9][0-9]?))(\\.[0-9][0-9]?)?%"
81   }
82 s_ST_PositivePercentage =
83   xsd:string {
84     pattern = "-?[0-9]+(\\.[0-9]+)?%"
85     pattern = "[0-9]+(\\.[0-9]+)?%"
86   }
87 s_ST_PositiveFixedPercentage =
88   xsd:string {
89     pattern = "-?[0-9]+(\\.[0-9]+)?%"
90     pattern = "((100)|([0-9][0-9]?))(\\.[0-9][0-9]?)?%"
91   }

```

## B.9 Custom XML Schema References

This schema is available in the file shared-customXmlSchemaProperties.rnc.

```

1 namespace o = "urn:schemas-microsoft-com:office:office"
2 default namespace sl =
3   "http://schemas.openxmlformats.org/schemaLibrary/2006/main"
4 namespace v = "urn:schemas-microsoft-com:vm1"
5 namespace w10 = "urn:schemas-microsoft-com:office:word"
6 namespace x = "urn:schemas-microsoft-com:office:excel"
7
8 sl_CT_Schema =
9   attribute sl:uri { xsd:string }?,
10  attribute sl:manifestLocation { xsd:string }?,
11  attribute sl:schemaLocation { xsd:string }?,
12  attribute sl:schemaLanguage { xsd:token }?
13 sl_CT_SchemaLibrary = element schema { sl_CT_Schema }*
14 sl_schemaLibrary = element schemaLibrary { sl_CT_SchemaLibrary }

```

## B.10 Additional Resources

### B.10.1 Any

This schema is available in the file any.rnc.

```

1 anyElement = element * { anyAttribute*, text?, anyElement* }
2 anyAttribute = attribute * { text }

```



## B.10.2 XML

This schema is available in the file xml.rnc.

```
1 xml_lang = attribute xml:lang { xsd:language | xsd:string "" }
2 xml_space = attribute xml:space { "default" | "preserve" }
3 xml_base = attribute xml:base { xsd:anyURI }
4 xml_id = attribute xml:id { xsd:ID }
5 xml_specialAttrs = xml_base?, xml_lang?, xml_space?, xml_id?
```

**End of informative text.**



# Annex C. (informative)

## Namespace Prefix Mapping in Examples

**This Annex is informative.**

Throughout ECMA-376, XML syntax is provided to illustrate the concepts being documented. These examples leverage XML namespace prefixes, and, typically, for brevity, do not show the actual namespace mappings. This Annex lists the namespace prefix mappings that are used within these examples.

Prefix	Namespace
a	<a href="http://schemas.openxmlformats.org/drawingml/2006/main">http://schemas.openxmlformats.org/drawingml/2006/main</a>
b	<a href="http://schemas.openxmlformats.org/officeDocument/2006/bibliography">http://schemas.openxmlformats.org/officeDocument/2006/bibliography</a>
cp	<a href="http://schemas.openxmlformats.org/package/2006/metadata/core-properties">http://schemas.openxmlformats.org/package/2006/metadata/core-properties</a>
cdr	<a href="http://schemas.openxmlformats.org/drawingml/2006/chartDrawing">http://schemas.openxmlformats.org/drawingml/2006/chartDrawing</a>
dc	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
dcmitype	<a href="http://purl.org/dc/dcmitype/">http://purl.org/dc/dcmitype/</a>
dcterms	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
ds	<a href="http://schemas.openxmlformats.org/officeDocument/2006/customXml">http://schemas.openxmlformats.org/officeDocument/2006/customXml</a>
m	<a href="http://schemas.openxmlformats.org/officeDocument/2006/math">http://schemas.openxmlformats.org/officeDocument/2006/math</a>
o	urn:schemas-microsoft-com:office:office
p	<a href="http://schemas.openxmlformats.org/presentationml/2006/main">http://schemas.openxmlformats.org/presentationml/2006/main</a>
pic	<a href="http://schemas.openxmlformats.org/drawingml/2006/picture">http://schemas.openxmlformats.org/drawingml/2006/picture</a>
pvm1	urn:schemas-microsoft-com:office:powerpoint
r	<a href="http://schemas.openxmlformats.org/officeDocument/2006/relationships">http://schemas.openxmlformats.org/officeDocument/2006/relationships</a>
sl	<a href="http://schemas.openxmlformats.org/schemaLibrary/2006/main">http://schemas.openxmlformats.org/schemaLibrary/2006/main</a>
v	urn:schemas-microsoft-com:vml
ve	<a href="http://schemas.openxmlformats.org/markup-compatibility/2006">http://schemas.openxmlformats.org/markup-compatibility/2006</a>
vt	<a href="http://schemas.openxmlformats.org/officeDocument/2006/docPropsVTypes">http://schemas.openxmlformats.org/officeDocument/2006/docPropsVTypes</a>
w	<a href="http://schemas.openxmlformats.org/wordprocessingml/2006/main">http://schemas.openxmlformats.org/wordprocessingml/2006/main</a>
w10	urn:schemas-microsoft-com:office:word



Prefix	Namespace
wp	<a href="http://schemas.openxmlformats.org/drawingml/2006/wordprocessingDrawing">http://schemas.openxmlformats.org/drawingml/2006/wordprocessingDrawing</a>
x	urn:schemas-microsoft-com:office:excel
xdr	<a href="http://schemas.openxmlformats.org/drawingml/2006/spreadsheetDrawing">http://schemas.openxmlformats.org/drawingml/2006/spreadsheetDrawing</a>
xsd	<a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a>
xsi	<a href="http://www.w3.org/2001/XMLSchema-instance">http://www.w3.org/2001/XMLSchema-instance</a>

If no namespace prefix is specified, it should be assumed that that element or attribute is contained within the namespace defined by the parent subclause. For example, unprefixed elements in Part 1, §18 are contained in the <http://schemas.openxmlformats.org/spreadsheetml/2006/main> namespace.

**End informative Annex.**



# Annex D. (informative)

## Differences Between ECMA-376:2016 and ECMA-376:2006

**This annex is informative.**

### D.1 General

This annex highlights the differences between the versions of the Transitional form of the Office Open XML schemas, as defined in ECMA-376:2016 and the schemas as defined by ECMA-376:2006.

### D.2 WordprocessingML

The following changes occurred to the WordprocessingML schema:

- The algorithmName, hashValue, saltValue, and spinCount attributes were added to documentProtection (Part 1, §17.15.1.29) and writeProtection (Part 1, §17.15.1.93)
- The allStyles, customStyles, latentStyles, stylesInUse, headingStyles, numberingStyles, tableStyles, directFormattingOnRuns, directFormattingOnParagraphs, directFormattingOnNumbering, directFormattingOnTables, clearFormatting, top3HeadingStyles, and visibleStyles attributes were added to the stylePaneFormatFilter element (Part 1, §17.15.1.85)
- The bdo element (Part 1, §17.3.2.3) was added
- The characterSet attribute was added to the charset element (Part 1, §17.8.3.2)
- The compatSetting element (Part 1, §17.15.3.4) was added
- The conformance attribute was added to document (Part 1, §17.2.3)
- The content model of ST\_HpsMeasure (Part 1, §17.18.42) was modified to allow ST\_PositiveUniversalMeasure (Part 1, §22.9.2.12)
- The content model of ST\_OnOff (Part 1, §22.9.2.7) was changed to an xsd:boolean, removing the values on and off
- The content model of ST\_SignedHpsMeasure (Part 1, §17.18.80) was modified to allow ST\_UniversalMeasure (Part 1, §22.9.2.15)
- The content model of ST\_SignedTwipsMeasure (Part 1, §17.18.81) was modified to allow ST\_UniversalMeasure (Part 1, §22.9.2.15)
- The contentPart element (Part 1, §17.3.3.2) was added
- The dir element (Part 1, §17.3.2.8) was added
- The end element (Part 1, §17.4.10) was added
- The end element (Part 1, §17.4.11) was added



- The end element (Part 1, §17.4.12) was added
- The end element (Part 1, §17.4.13) was added
- The firstRow, lastRow, firstColumn, lastColumn, noHBand, and noVBand attributes were added to the tblLook element (Part 1, §17.4.55; Part 1, §17.4.56)
- The firstRow, lastRow, firstColumn, lastColumn, oddVBand, evenVBand, oddHBand, evenHBand, firstRowFirstColumn, firstRowLastColumn, lastRowFirstColumn, and lastRowLastColumn attributes were added to the cnfStyle element (Part 1, §17.3.1.8; Part 1, §17.4.8; Part 1, §17.4.7)
- The following enumeration values were added to the ST\_Border simple type (Part 1, §17.18.2): earth3, triangle1, triangle2, triangleCircle1, triangleCircle2, shapes1, shapes2, custom
- The following enumeration values were added to the ST\_CalendarType simple type (Part 1, §22.9.2.1): gregorianArabic, gregorianMeFrench, and gregorianUs.
- The following enumeration values were added to the ST\_Jc simple type (Part 1, §17.18.44): start, end
- The following enumeration values were added to the ST\_NumberFormat simple type (Part 1, §17.18.59): bahtText, dollarText, custom
- The following enumeration values were added to the ST\_TabJc simple type (Part 1, §17.18.84): start, end
- The following enumeration values were added to the ST\_TextDirection simple type (Part 1, §17.18.93): tb, rl, lr, tbV, rlV, and lrV.
- The following enumeration values were removed from the ST\_Border simple type (Part 1, §17.18.2): tribal1, tribal2, tribal3, tribal4, tribal5, tribal6
- The fontSz attribute on the readModeInkLockDown element (Part 1, §17.15.1.66) was modified to use ST\_DecimalNumberOrPercent (Part 1, §17.18.11)
- The format attribute was added to the numFmt element (Part 1, §17.9.18)
- The header element (Part 1, §17.4.18) was added
- The headers element (Part 1, §17.4.19) was added
- The id attribute was added to the left element (Part 1, §17.6.7) and right element (Part 1, §17.6.15)
- The id attribute was added to the tc element (Part 1, §17.4.66)
- The id, bottomLeft, and bottomRight attributes were added to the bottom element (Part 1, §17.6.2)
- The id, topLeft, and topRight attributes were added to the top element (Part 1, §17.6.21)
- The jc element (Part 1, §17.4.29) was modified to use the ST\_JcTable simple type (Part 1, §17.18.45)
- The label element (Part 1, §17.5.2.19) was added
- The longDesc element (Part 1, §17.15.2.23) was added
- The objectEmbed element (Part 1, §17.3.3.20) was added
- The objectLink element (Part 1, §17.3.3.21) was added
- The percent attribute on the zoom element (Part 1, §17.15.1.94) was modified to use ST\_DecimalNumberOrPercent (Part 1, §17.18.11)
- The ST\_ColorSchemeIndex simple type was renamed to ST\_WmlColorSchemeIndex (Part 1, §17.18.103)
- The ST\_DecimalNumberOrPercent (Part 1, §17.18.11) simple type was added
- The ST\_Direction simple type (Part 1, §17.18.12) was added
- The ST\_DocType simple type (Part 1, §17.18.19) was modified to allow any xsd:string



- The ST\_JcTable simple type (Part 1, §17.18.45) was added
- The ST\_LangCode simple type was removed
- The ST\_MailMergeDataType simple type (Part 1, §17.18.54) was modified to allow any xsd:string
- The ST\_ObjectDrawAspect simple type (Part 1, §17.18.60) was added
- The ST\_ObjectUpdateMode simple type (Part 1, §17.18.61) was added
- The ST\_StyleSort simple type (Part 1, §17.18.82) was added
- The ST\_UnqualifiedPercentage simple type (§14.11.10) was added
- The start element (Part 1, §17.4.34) was added
- The start element (Part 1, §17.4.35) was added
- The start element (Part 1, §17.4.36) was added
- The start element (Part 1, §17.4.37) was added
- The start, startChars, end, endChars attributes were added to the ind element (Part 1, §17.3.1.12)
- The tabIndex element (Part 1, §17.5.2.41) was added
- The target attribute was added to the optimizeForBrowser element (Part 1, §17.15.2.33)
- The tblCaption element (Part 1, §17.4.41) was added
- The tblDescription element (Part 1, §17.4.47) was added
- The title element (Part 1, §17.15.2.43) was added
- The uiCompat97To2003 element was removed
- The vendorID and dllVersions attributes on the activeWritingStyle element (Part 1, §17.15.1.1) was modified to use ST\_String (Part 1, §22.9.2.13)

### D.3 SpreadsheetML

The following changes occurred to the SpreadsheetML schema:

- The algorithmName, hashValue, saltValue, and spinCount attributes were added to sheetProtection (Part 1, §18.3.1.85; Part 1, §18.3.1.84), protectedRange (Part 1, §18.3.1.71), sheetProtection (Part 1, §18.3.1.85), and fileSharing (Part 1, §18.2.12)
- The anchor element (Part 1, §18.3.1.1) was added
- The characterSet attribute was added to the textPr element (Part 1, §18.13.12) and the webPublishing element (Part 1, §18.2.24)
- The commentPr element (Part 1, §18.7.5) was added
- The conformance attribute was added to the workbook element (Part 1, §18.2.27)
- The controlPr element (Part 1, §18.3.1.20) was added
- The drawingHF element (Part 1, §18.3.1.37) was added
- The end element (Part 1, §18.8.16) was added
- The objectPr element (Part 1, §18.3.1.56) was added
- The paperHeight and paperWidth attributes were added to the pageSetup element (Part 1, §18.3.1.63)
- The paperHeight and paperWidth attributes were added to the pageSetup element (Part 1, §18.3.1.64)
- The refreshedDateIso attribute was added to the pivotCacheDefinition element (Part 1, §18.10.1.67)
- The Schema element (Part 1, §18.16.4) now allows mixed content
- The SchemaLanguage attribute was added to the schema element (Part 1, §18.16.4)



- The securityDescriptor element (Part 1, §18.3.1.77) was added
- The shapeId attribute was added to the comment element (Part 1, §18.7.3)
- The ST\_CalendarType simple type (Part 1, §22.9.2.1) now allows an enumeration value of saka
- The ST\_CellType simple type (Part 1, §18.18.11) now allows an enumeration value of d
- The ST\_FileType simple type (Part 1, §18.18.29) now allows enumeration values of lin and other
- The ST\_PivotAreaType simple type (Part 1, §18.18.58) now allows an enumeration value of topEnd
- The ST\_TextHAlign simple type (Part 1, §18.18.80) was added
- The ST\_TextVAlign simple type (Part 1, §18.18.81) was added
- The ST\_XmlDataType simple type (Part 1, §18.18.93) was modified to allow any xsd:string
- The start element (Part 1, §18.8.37) was added
- The startLabels attribute was added to the dataConsolidate element (Part 1, §18.3.1.29)
- The vallso and maxVallso attributes were added to the dynamicFilter element (Part 1, §18.3.2.5)
- The workbookPasswordCharacterSet, revisionsPasswordCharacterSet, revisionsAlgorithmName, revisionsHashValue, revisionsSaltValue, revisionsSpinCount, workbookAlgorithmName, workbookHashValue, workbookSaltValue, and workbookSpinCount attributes were added to the workbookProtection element (Part 1, §18.2.29)

## D.4 PresentationML

The following changes occurred to the PresentationML schema:

- The algorithmName, hashValue, saltValue, and spinCount attributes were added to the modifyVerifier element (Part 1, §19.2.1.19)
- The conformance attribute was added to the presentation element (Part 1, §19.2.1.26)
- The contentPart element was added (Part 1, §19.3.1.14)
- The pubBrowser attribute on the htmlPubPr element (§16.3.1.1) was renamed target
- The ST\_HtmlPublishWebBrowserSupport simple type was removed and replaced by xsd:string

## D.5 DrawingML

### D.5.1 DrawingML – Main

The following changes occurred to the DrawingML Main schema:

- The builtIn attribute was removed from the snd element (Part 1, §19.5.68)
- The content model of ST\_Coordinate (Part 1, §20.1.10.16) was modified to allow ST\_UniversalMeasure (Part 1, §22.9.2.15)
- The content model of ST\_Coordinate32 (Part 1, §20.1.10.17) was modified to allow ST\_UniversalMeasure (Part 1, §22.9.2.15)
- The content model of ST\_FixedPercentage (Part 1, §20.1.10.24) was modified to allow ST\_FixedPercentage (Part 1, §22.9.2.3)
- The content model of ST\_Percentage (Part 1, §20.1.10.40) was modified to allow ST\_Percentage (Part 1, §22.9.2.9)



- The content model of ST\_PositiveFixedPercentage (Part 1, §20.1.10.45) was modified to allow ST\_PositiveFixedPercentage (Part 1, §22.9.2.10)
- The content model of ST\_PositivePercentage (Part 1, §20.1.10.46) was modified to allow ST\_PositivePercentage (Part 1, §22.9.2.11)
- The contentType attribute was added to the videoFile (Part 1, §20.1.3.6) and audioFile elements (Part 1, §20.1.3.2)
- The header element (Part 1, §21.1.3.3) was added
- The headers element (Part 1, §21.1.3.4) was added
- The id attribute was added to the tc element (Part 1, §21.1.3.16)
- The rtl element (Part 1, §21.1.2.2.8) was added
- The ST\_PresetColorVal simple type (Part 1, §20.1.10.48) now allows enumeration values of: darkBlue, darkCyan, darkGoldenrod, darkGray, darkGrey, darkGreen, darkKhaki, darkMagenta, darkOliveGreen, darkOrange, darkOrchid, darkRed, darkSalmon, darkSeaGreen, darkSlateBlue, darkSlateGray, darkSlateGrey, darkTurquoise, darkViolet, dkGrey, dkSlateGrey, dimGrey, grey, lightBlue, lightCoral, lightCyan, lightGoldenrodYellow, lightGray, lightGrey, lightGreen, lightPink, lightSalmon, lightSeaGreen, lightSkyBlue, lightSlateGray, lightSlateGrey, lightSteelBlue, lightYellow, ltGrey, ltSlateGrey, mediumAquamarine, mediumBlue, mediumOrchid, mediumPurple, mediumSeaGreen, mediumSlateBlue, mediumSpringGreen, mediumTurquoise, mediumVioletRed, slateGrey
- The ST\_TextFontScalePercent simple type was renamed to ST\_TextFontScalePercentOrPercentString (Part 1, §20.1.10.67) and modified to allow ST\_Percentage (Part 1, §22.9.2.9)
- The ST\_TextPoint simple type (Part 1, §20.1.10.74) was modified to allow ST\_UniversalMeasure (Part 1, §22.9.2.15)
- The ST\_TextSpacingPercent simple type was renamed to ST\_TextSpacingPercentOrPercentString (Part 1, §20.1.10.77) and modified to allow ST\_Percentage (Part 1, §22.9.2.9)
- The title attribute was added to the cNvPr element (Part 1, §20.1.2.2.8)

### D.5.2 DrawingML – Chart

The following changes occurred to the Chart schema:

- The paperHeight and paperWidth attributes were added to the pageSetup element (Part 1, §21.2.2.134)

### D.5.3 DrawingML – Diagrams

The following changes occurred to the Diagram schema:

- The ST\_HorizontalAlignment simple type was renamed to ST\_DiagramHorizontalAlignment (Part 1, §21.4.7.24)
- The ST\_TextAlignment simple type was renamed to ST\_DiagramTextAlignment (Part 1, §21.4.7.25)

### D.5.4 DrawingML – Spreadsheet Drawing

The following changes occurred to the Spreadsheet Drawing schema:



- The contentPart element (Part 1, §20.5.2.12) was added

## D.6 VML

### D.6.1 VML

The following changes occurred to the VML schema:

- The ST\_TrueFalseBlank simple type (§20.1.2.6) now allows enumeration values of True and False

### D.6.2 VML – Office Drawing

The following changes occurred to the Office Drawing schema:

- The ST\_DiagramLayout simple type (§19.2.3.10) was added
- The equationxml element (§19.2.2.10) was added
- The contentType attribute was added to the ink element (§19.2.2.15)
- The ST\_AlternateMathContentType simple type (§19.2.3.1) was added
- The ST\_OLELinkType simple type (§19.2.3.19) was modified to allow any xsd:string
- The ST\_TrueFalseBlank simple type (§20.1.2.6) now allows enumeration values of True and False

### D.6.3 VML – Spreadsheet Drawing

The following changes occurred to the Spreadsheet Drawing schema:

- The ST\_CF simple type (§19.4.3.1) was modified to allow any xsd:string
- The ST\_TrueFalseBlank simple type (§20.1.2.6) now allows enumeration values of true and false

## D.7 Shared

### D.7.1 Shared – Bibliography

The following changes occurred to the Bibliography schema:

- The ST\_String255 simple type was removed and replaced by ST\_String (Part 1, §22.9.2.13)

### D.7.2 Shared – Custom Properties Variant Types

The following changes occurred to the Custom Properties Variant Types schema:

- The cf element was removed
- The ST\_Cf simple type was removed

### D.7.3 Shared – Math

The following changes occurred to the Math schema:

- The ST\_YAlign simple type (Part 1, §22.9.2.20) now uses an enumeration value of bottom in place of bot, and allows values inside and outside



- The ST\_XAlign simple type (Part 1, §22.9.2.18) now allows values inside and outside
- The content model of ST\_OnOff (Part 1, §22.9.2.7) was changed to an xsd:boolean, removing the values on and off

#### D.7.4 Shared Simple Types

The following changes occurred to shared simple types:

- The ST\_UniversalMeasure simple type (Part 1, §22.9.2.15) was added
- The ST\_Align simple type (§20.1.2.1) now uses an enumeration value of custom in place of invalid
- The ST\_AlignType simple type (§20.1.2.2) now uses an enumeration value of custom in place of invalid
- The ST\_CryptProv simple type (§20.1.2.4) now uses an enumeration value of custom in place of invalid
- The content model of ST\_OnOff (Part 1, §22.9.2.7) was changed to an xsd:boolean, removing the values on and off
- The content model of ST\_TwipsMeasure (Part 1, §22.9.2.14) was modified to allow ST\_PositiveUniversalMeasure (Part 1, §22.9.2.12)
- The ST\_PositiveUniversalMeasure simple type (Part 1, §22.9.2.12) was added
- The ST\_Percentage simple type (Part 1, §22.9.2.9) was added
- The ST\_FixedPercentage simple type (Part 1, §22.9.2.3) was added
- The ST\_PositivePercentage simple type (Part 1, §22.9.2.11) was added
- The ST\_PositiveFixedPercentage simple type (Part 1, §22.9.2.10) was added

#### D.8 Custom XML Schema References

The following changes occurred to the Custom XML Schema References schema:

- The schemaLanguage attribute was added to the schema element (Part 1, §23.2.1)

**End informative annex.**



# Bibliography

The following documents are useful references for implementers and users of this International Standard, in addition to the Normative References:

*Information on elements, attributes, and OPC parts in ISO/IEC 29500 (OOXML),*  
<https://w3id.org/ooxml/onlineInfomativeAnnexes/>