**[MS-ODRAWXML]:**

**Office Drawing Extensions to Office Open XML Structure**

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**Revision Summary**

| Date | Revision History | Revision Class | Comments |
| --- | --- | --- | --- |
| 7/13/2009 | 0.1 | Major | Initial Availability |
| 8/28/2009 | 0.2 | Major | Updated and revised the technical content |
| 11/6/2009 | 0.3 | Editorial | Revised and edited the technical content |
| 2/19/2010 | 1.0 | Major | Updated and revised the technical content |
| 3/31/2010 | 1.01 | Editorial | Revised and edited the technical content |
| 4/30/2010 | 1.02 | Editorial | Revised and edited the technical content |
| 6/7/2010 | 1.03 | Editorial | Revised and edited the technical content |
| 6/29/2010 | 1.04 | Editorial | Changed language and formatting in the technical content. |
| 7/23/2010 | 1.04 | None | No changes to the meaning, language, or formatting of the technical content. |
| 9/27/2010 | 1.04 | None | No changes to the meaning, language, or formatting of the technical content. |
| 11/15/2010 | 1.04 | None | No changes to the meaning, language, or formatting of the technical content. |
| 12/17/2010 | 1.04 | None | No changes to the meaning, language, or formatting of the technical content. |
| 3/18/2011 | 1.04 | None | No changes to the meaning, language, or formatting of the technical content. |
| 6/10/2011 | 1.04 | None | No changes to the meaning, language, or formatting of the technical content. |
| 1/20/2012 | 2.0 | Major | Significantly changed the technical content. |
| 4/11/2012 | 2.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 7/16/2012 | 3.0 | Major | Significantly changed the technical content. |
| 10/8/2012 | 3.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 2/11/2013 | 3.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 7/30/2013 | 3.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 11/18/2013 | 3.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 2/10/2014 | 3.1 | Minor | Clarified the meaning of the technical content. |
| 4/30/2014 | 3.2 | Minor | Clarified the meaning of the technical content. |
| 7/31/2014 | 3.3 | Minor | Clarified the meaning of the technical content. |
| 10/30/2014 | 3.4 | Minor | Clarified the meaning of the technical content. |
| 2/10/2015 | 4.0 | Major | Significantly changed the technical content. |
| 3/16/2015 | 5.0 | Major | Significantly changed the technical content. |
| 9/4/2015 | 6.0 | Major | Significantly changed the technical content. |
| 7/15/2016 | 7.0 | Major | Significantly changed the technical content. |
| 9/14/2016 | 7.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 9/22/2016 | 8.0 | Major | Significantly changed the technical content. |
| 9/29/2016 | 8.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 11/14/2016 | 9.0 | Major | Significantly changed the technical content. |
| 12/15/2016 | 10.0 | Major | Significantly changed the technical content. |
| 2/2/2017 | 11.0 | Major | Significantly changed the technical content. |
| 3/28/2017 | 12.0 | Major | Significantly changed the technical content. |
| 4/27/2017 | 13.0 | Major | Significantly changed the technical content. |
| 6/2/2017 | 14.0 | Major | Significantly changed the technical content. |
| 6/27/2017 | 15.0 | Major | Significantly changed the technical content. |
| 8/25/2017 | 16.0 | Major | Significantly changed the technical content. |
| 9/19/2017 | 17.0 | Major | Significantly changed the technical content. |
| 12/12/2017 | 17.1 | Minor | Clarified the meaning of the technical content. |
| 2/9/2018 | 18.0 | Major | Significantly changed the technical content. |

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# Introduction

This document specifies extensions to the DrawingML ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065)) Office Open XML File Formats structure, which is used in WordprocessingML, SpreadsheetML, and PresentationML ([ISO/IEC29500-1:2016]) documents.

Sections 1.7 and 2 of this specification are normative. All other sections and examples in this specification are informative.

## Glossary

This document uses the following terms:

**3D Model**: A mathematical representation of a 3-Dimentional surface of an object. This includes geometry, applied textures, and lighting.

**ActiveX control**: A reusable software control, such as a check box or button, that uses ActiveX technology and provides options to users or runs macros or scripts that automate a task. See also ActiveX object.

**binary large image or picture (BLIP)**: A binary data structure that stores information about a metafile image or bitmap picture.

**cell reference**: A set of coordinates that a cell occupies on a worksheet. For example, "B3" is the reference of a cell that appears at the intersection of column "B" and row "3".

**comment**: An annotation that is associated with a cell, text, or other object to provide context-specific information or reviewer feedback.

**control**: A graphical user interface object that users interact with when working with applications, forms, documents, webpages, and other types of files.

**drawing canvas**: See canvas and drawing space.

**English Metric Unit (EMU)**: A measurement in computer typography. There are 635 EMUs per twip, 6,350 EMUs per half-point, 12,700 EMUs per point, and 914,400 EMUs per inch. These units are used to translate on-screen layouts to printed layouts for specified printer hardware.

**globally unique identifier (GUID)**: A term used interchangeably with universally unique identifier (UUID) in Microsoft protocol technical documents (TDs). Interchanging the usage of these terms does not imply or require a specific algorithm or mechanism to generate the value. Specifically, the use of this term does not imply or require that the algorithms described in [[RFC4122]](https://go.microsoft.com/fwlink/?LinkId=90460) or [[C706]](https://go.microsoft.com/fwlink/?LinkId=89824) must be used for generating the [**GUID**](#gt_f49694cc-c350-462d-ab8e-816f0103c6c1). See also universally unique identifier (UUID).

**group shape**: A shape that contains a group of shapes.

**hue-saturation-luminance (HSL)**: A color model that defines a color by using three dimensions: hue, the color itself; saturation, the purity of the color; and luminance, the amount of light that is either reflected or absorbed by the color. See also color scheme and color space.

**hyperlink**: A relationship between two anchors, as described in [[RFC1866]](https://go.microsoft.com/fwlink/?LinkId=90296).

**ink**: A process of entering text in handwritten form. Instead of converting handwritten text to typed text, ink is converted to an object and displayed exactly as it was written.

**Object Linking and Embedding (OLE)**: A technology for transferring and sharing information between applications by inserting a file or part of a file into a compound document. The inserted file can be either embedded or linked. See also embedded object and linked object.

**red-green-blue (RGB)**: A color model that describes color information in terms of the red (R), green (G), and blue (B) intensities in a color.

**shape**: A collection of qualifiers, such as names, and quantifiers, such as coordinates, that is used to represent a geometric object. A shape can be contained in a document, file structure, run-time structure, or other medium.

**style**: A set of formatting options that is applied to text, tables, charts, and other objects in a document.

**text box story**: An element that contains a set of text that is associated with one or more shapes.

**worksheet**: A single logical container for a set of tabular data and other objects in a workbook.

**XML**: The Extensible Markup Language, as described in [[XML1.0]](https://go.microsoft.com/fwlink/?LinkId=90599).

**MAY, SHOULD, MUST, SHOULD NOT, MUST NOT:** These terms (in all caps) are used as defined in [[RFC2119]](https://go.microsoft.com/fwlink/?LinkId=90317). All statements of optional behavior use either MAY, SHOULD, or SHOULD NOT.

## References

Links to a document in the Microsoft Open Specifications library point to the correct section in the most recently published version of the referenced document. However, because individual documents in the library are not updated at the same time, the section numbers in the documents may not match. You can confirm the correct section numbering by checking the [Errata](https://go.microsoft.com/fwlink/?linkid=850906).

### Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact [dochelp@microsoft.com](mailto:dochelp@microsoft.com). We will assist you in finding the relevant information.

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[MS-DOCX] Microsoft Corporation, "[Word Extensions to the Office Open XML (.docx) File Format](%5bMS-DOCX%5d.pdf#Section_b839fe1fe1ca4fa68c265954d0abbccd)".

[MS-ODRAW] Microsoft Corporation, "[Office Drawing Binary File Format](%5bMS-ODRAW%5d.pdf#Section_8560795e77594745838ff7f2ef2f1872)".

[MS-PPTX] Microsoft Corporation, "[PowerPoint (.pptx) Extensions to the Office Open XML File Format](%5bMS-PPTX%5d.pdf#Section_efd8bb2dd8884e2eaf25cad476730c9f)".

[MS-XLSB] Microsoft Corporation, "[Excel (.xlsb) Binary File Format](%5bMS-XLSB%5d.pdf#Section_acc8aa921f02416799f584f9f676b95a)".

[MS-XLSX] Microsoft Corporation, "[Excel (.xlsx) Extensions to the Office Open XML SpreadsheetML File Format](%5bMS-XLSX%5d.pdf#Section_2c5dee00eff24b2292b60738acd4475e)".

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## Structure Overview (Synopsis)

The structures specified in this format provide an extended XML vocabulary for the DrawingML file format structure. The extended elements and attributes enable the format to indicate further information about a document, or content and formatting of parts of the document beyond the elements and attributes of the Office Open XML File Formats as described in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065). Because these elements and attributes are meant as extensions, their intent and usage varies.

The extensions specified in this format are integrated into Office Open XML file formats by means of the Markup Compatibility and Extensibility features described in [[ISO/IEC29500-3:2015]](https://go.microsoft.com/fwlink/?linkid=861154). Specifically, the **Ignorable** attribute, the **AlternateContent** element, and application-defined extension elements maintain compatibility with Office Open XML File Formats implementations when integrating the extensions from this format. Using these extensions as specified in this document results in Office Open XML file formats conformance.

The following sections provide an overview of the functionality supported by these extensions.

### Charts

Chart extensions add a number of features to charts ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2). Following are the new extensions:

* The **invertSolidFillFmt** extension for the **ser** element described in [ISO/IEC29500-1:2016] section 21.2.2.170 and the **ser** element described in [ISO/IEC29500-1:2016] section 21.2.2.174 specify the color of the negative data points of the chart series ([ISO/IEC29500-1:2016] section 21.2).
* The **pivotOptions** extension for the **chartspace** element ([ISO/IEC29500-1:2016] section 21.2.2.29) specifies which pivot controls appear on the chart ([ISO/IEC29500-1:2016] section 21.2).
* The **style** extension for the **chartspace** element ([ISO/IEC29500-1:2016] section 21.2.2.29) specifies the new styles of the chart ([ISO/IEC29500-1:2016] section 21.2).
* The **filteredLineSeries** extension for the **lineChart** element ([ISO/IEC29500-1:2016] section 21.2.2.97) and the **line3DChart** ([ISO/IEC29500-1:2016] section 21.2.2.96) specifies a series that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).
* The **filteredScatterSeries** extension for the **scatterChart** element ([ISO/IEC29500-1:2016] section 21.2.2.161) specifies a series that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).
* The **filteredRadarSeries** extension for the **radarChart** element ([ISO/IEC29500-1:2016] section 21.2.2.153) specifies a series that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).
* The **filteredBarSeries** extension for the **barChart** element ([ISO/IEC29500-1:2016] section 21.2.2.16) and the **bar3DChart** ([ISO/IEC29500-1:2016] section 21.2.2.15) specifies a series that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).
* The **filteredAreaSeries** extension for the **areaChart** element ([ISO/IEC29500-1:2016] section 21.2.2.5) and the **area3DChart** ([ISO/IEC29500-1:2016] section 21.2.2.4) specifies a series that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).
* The **filteredBubbleSeries** extension for the **bubbleChart** element ([ISO/IEC29500-1:2016] section 21.2.2.20) specifies a series that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).
* The **filteredSurfaceSeries** extension for the **surfaceChart** element ([ISO/IEC29500-1:2016] section 21.2.2.204) and the **surface3DChart** ([ISO/IEC29500-1:2016] section 21.2.2.203) specifies a series that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).
* The **fullRef** extension for the **strRef** element ([ISO/IEC29500-1:2016] section 21.2.2.201) and the **numRef** ([ISO/IEC29500-1:2016] section 21.2.2.123) and the **multiLvlStrRef** ([ISO/IEC29500-1:2016] section 21.2.2.115) specifies the non-filtered data source reference for filtered out chart ([ISO/IEC29500-1:2016] section 21.2) series data.
* The **levelRef** extension for the **strRef** element ([ISO/IEC29500-1:2016] section 21.2.2.201) and the **numRef** ([ISO/IEC29500-1:2016] section 21.2.2.123) and the **multiLvlStrRef** ([ISO/IEC29500-1:2016] section 21.2.2.115) specifies the data source reference for the currently selected label level for a chart ([ISO/IEC29500-1:2016] section 21.2) category axis or a chart ([ISO/IEC29500-1:2016] section 21.2) series title.
* The **formulaRef** extension for the **strRef** element ([ISO/IEC29500-1:2016] section 21.2.2.201) and the **numRef** ([ISO/IEC29500-1:2016] section 21.2.2.123) and the **multiLvlStrRef** ([ISO/IEC29500-1:2016] section 21.2.2.115) specifies the data source reference of the parent element when the parent is part of an extension list.
* The **filteredSeriesTitle** extension for the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.168) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.170) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.174) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.171) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.172) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.169) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.167) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.173) specifies a chart ([ISO/IEC29500-1:2016] section 21.2) series title that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).
* The **filteredCategoryTitle** extension for the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.168) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.170) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.174) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.171) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.172) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.169) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.167) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.173) specifies a chart ([ISO/IEC29500-1:2016] section 21.2) category title that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).
* The **pivotSource** extension for the **chartspace** element ([ISO/IEC29500-1:2016] section 21.2.2.29) specifies the source Non-Worksheet PivotTable ([[MS-XLSX]](%5bMS-XLSX%5d.pdf#Section_2c5dee00eff24b2292b60738acd4475e) section 2.3.3 and [[MS-XLSB]](%5bMS-XLSB%5d.pdf#Section_acc8aa921f02416799f584f9f676b95a) section 2.2.5.5 for the chart ([ISO/IEC29500-1:2016] section 21.2).
* The **numFmt** extension for the **catAx** element ([ISO/IEC29500-1:2016] section 21.2.2.25), **dateAx** element ([ISO/IEC29500-1:2016] section 21.2.2.39), **serAx** element ([ISO/IEC29500-1:2016] section 21.2.2.175) and **valAx** element ([ISO/IEC29500-1:2016] section 21.2.2.226) that specifies the number formatting for the chart category axis, date axis, series axis and value axis ([ISO/IEC29500-1:2016] section 21.2) whose **pivotSource** element specifies a Non-Worksheet PivotTable ([MS-XLSX] section 2.3.3 and [MS-XLSB] section 2.2.5.5).

The **showLeaderLines** extension for the **dLbls** element ([ISO/IEC29500-1:2016] section 21.2.2.49) specifies whether leader lines will be rendered for **Datalabels** (section [2.2.1.2](#Section_80e97775804a4f7e90a18e87e1734d83)) in a chart of any type.

* The **leaderLines** extension for the **dLbls** element ([ISO/IEC29500-1:2016] section 21.2.2.49) specifies the formatting of leader lines for **Datalabels** in a chart of any type.
* The **datalabelsRange** extension for the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.168) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.170) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.174) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.171) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.172) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.169) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.167) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.173) specifies the reference to the formula from which the values of **dLbls** element on a chart series ([ISO/IEC29500-1:2016] section 21.2) are obtained.
* The **categoryFilterExceptions** extension for the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.168) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.170) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.174) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.171) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.172) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.169) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.167) and the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.173) specifies special formatting properties of data points that have been filtered out from the chart series ([ISO/IEC29500-1:2016] section 21.2).
* The **dlblFieldTable** extension for the **dLbls** element ([ISO/IEC29500-1:2016] section 21.2.2.49) or the **dLbl** element ([ISO/IEC29500-1:2016] section 21.2.2.47) specifies the list of formulas from which the value of individual data fields in the **Datalabel** (section [2.2.1.3](#Section_3e77d01c6ea04713886678beb6ece926)) is obtained.
* The **xForSave** extension for the **dLbl** element ([ISO/IEC29500-1:2016] section 21.2.2.47) specifies if this **Datalabel** was created as an exception entry only for saving, but is treated the same as the prototype **Datalabel** in the collection.
* The **showDataLabelsRange** extension for the **dLbls** element ([ISO/IEC29500-1:2016] section 21.2.2.49) or the **dLbl** element ([ISO/IEC29500-1:2016] section 21.2.2.47) specifies if the value of the **Datalabel** contains the range field which allows values to be specified from a formula for multiple **Datalabels**.
* The **tx** extension for the **dLbls** element ([ISO/IEC29500-1:2016] section 21.2.2.49) specifies the custom text associated with the **Datalabels** collection, which determines the value of each **Datalabel** in that collection.
* The **spPr** extension for the **dLbls** element ([ISO/IEC29500-1:2016] section 21.2.2.49) or the **dLbl** element ([ISO/IEC29500-1:2016] section 21.2.2.47) specifies the shape geometry for the **Datalabel**.
* The **layout** extension for the **dLbls** element ([ISO/IEC29500-1:2016] section 21.2.2.49) or the **dLbl** element ([ISO/IEC29500-1:2016] section 21.2.2.47) specifies the custom size of the **Datalabel**.
* The **autoCat** extension for the **strLit** element ([ISO/IEC29500-1:2016] section 21.2.2.200) specifies if the category captions for the chart series were automatically generated and saved out as literal data.
* The **pivotOptions16** extension for the **chartspace** element ([ISO/IEC29500-1:2016] section 21.2.2.29) specifies additional pivot controls that can appear on the chart ([ISO/IEC29500-1:2016] section 21.2).

### Content Parts and Ink

Ink is stored in documents as an extension by using a part referenced by the relationship **id** attribute of a content part element. Some content part elements are described in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 17.3.3.2, 19.3.1.14, and 20.5.2.12. Other content part elements are themselves extensions ([2.2.2](#Section_1f2db05a03df4a03b4628a58cc3e96eb)). The content of the part contains XML that conforms to a subset of the syntax and semantics for the Ink Markup Language as described in [[InkML]](https://go.microsoft.com/fwlink/?LinkId=156829), the W3C EMMA recommendation specification [[EMMA]](https://go.microsoft.com/fwlink/?LinkId=156828), and other extended elements ([2.1.4](#Section_096dacae0d2c4861bc4dc8e4c6405ad3)).

### Pictures

Embedded raster images (bitmaps) can be edited and replaced by the processed results. Unless the document author disables storing image editing data, the original bitmap and the processing parameters applied are stored in the **imgProps** extension ([2.3.1.9](#Section_987a3a4296d74affad43fb600752011e)) to enable non-destructive editing of the bitmap. For backward compatibility and performance, applications do not display changes made to the image-editing data for the embedded bitmaps unless the user edits them with the application UI or through the Object Model.

Bitmap pictures are resampled and compressed when inserted and saved based on document DPI. Individual bitmaps can be set to override the default document compression setting by using the **useLocalDpi** extension ([2.3.1.13](#Section_c05c287ff63e4fa98163e3e106b4105f)).

A user can insert embedded HTML, including online videos, into Word by storing the embedded HTML and related data into the **webVideoPr** extension (section [2.19.1.1](#Section_16a635fbbd3d4327b2ddb1a1c5f6e09e)).

A user can insert a Scalable Vector Graphics (SVG) illustration into Office documents by storing the relationship id(s) of the embedded and/or linked SVG data in the **svgBlip** extension (section [2.26.1.1](#Section_2451f45e5d77466186d10a017fced779)). Embedded data is to be stored within an image part ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 15.2.14). For backward compatibility, Office applications embed a rasterized version of the SVG image (whether linked or embedded) in Portable Network Graphics (PNG) format and refer to the rasterized version from within the main blip.

### Diagrams

The last successful layout for a diagram is stored in documents as an extension by using a Diagram Layout part. The part is referenced by the relationship id attribute of a **DataModelExt** extension to the Data Model. For more information, see [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.4.2.10. The content of the part contains XML as defined by Diagram Layout (section [2.1.3](#Section_ec96c9e0757a4f249725c52d3c34e310)).

The DataModelExt contains a version URI that represents the minimum version required to run the layout. If an application version is insufficient to perform layout, the Diagram Layout can be used to display the diagram.

The **recolorImg** extension specifies recoloring images in the diagram according to the color style currently applied. This gives images a more integrated look.

The **cNvPr** extension adds non-visual drawing properties to points in the diagram. This enables adding [**hyperlinks**](#gt_dbe6a2d4-1841-4b4a-a9f6-562c6df7897e) and alternative text for use by assistive technologies or applications that do not display the diagram shapes.

The Diagram Layout captures the correct layout and shape properties of the last successful diagram rendering but does not capture all the text formatting for the individual shapes in the diagram. When a shape contains text, its style is determined by combining the information from the semantic elements in data.xml with the layout definition in layout.xml. Each semantic element can have zero or more presentation elements, which are defined in layout.xml. For any shape in drawing.xml, the corresponding **presAssocID** attribute ([ISO/IEC29500-1:2016] section L.4.15.2.1) can be found in data.xml. For a **presAssocID** attribute, all the corresponding **presName** ([ISO/IEC29500-1:2016] section 21.4.3.4) attributes are searched for the one which has a text algorithm <dgm:alg type="tx"> associated with it. The **StyleLbl** element ([ISO/IEC29500-1:2016] section 21.4.4.10) for this text node determines the final text format of this shape node.

### Math

Math extensions represent mathematical expressions in DrawingML content. Mathematical equations in objects represented in DrawingML are stored in **AlternateContent** elements. These **AlternateContent** elements contain DrawingML and the math-specific element, **m**. The expression of mathematical content in DrawingML objects is similar to the representation of math in WordprocessingML ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 22.1) with the distinction that the math content in DrawingML is modified by properties specified in the DrawingML namespace, rather than in WordprocessingML.

### SpreadsheetML Drawing

[**ActiveX control**](#gt_f3dcc35f-8f80-474e-ac39-106a23f059c2) objects, Embedded [**Object Linking and Embedding (OLE)**](#gt_171744b8-3f44-4198-b7b9-1c0147282d2c) and form [**control**](#gt_3c89d16f-a826-4166-96ab-bf13e65b1a40) embedded objects in SpreadsheetML are each associated with a [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) in DrawingML. The shape in DrawingML is a placeholder that specifies the position of the embedded object in the worksheet drawing tree that in turn specifies the embedded object z-order and grouping information in relation to other drawing objects.

Visible text and visible text-related properties of form control embedded objects are specified by the **txBody** element of the placeholder shape. For more information, see [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.5.2.34.

An implementing application can replace this shape with any other placeholder shape when saving.

### WordprocessingML Drawing

WordprocessingML drawing extensions integrate graphical objects into WordprocessingML documents. See [2.2.7](#Section_6aaf2ba56974456099833fcd7fead7cb) for a discussion of how these objects are integrated and how interoperation with clients that conform to the Office Open XML file formats, as described in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065), is achieved.

The primary graphical objects introduced are the following:

* [**Shapes**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) are represented by the **wsp** element of type **CT\_WordprocessingShape (**section [2.13.3.3](#Section_6919064727d148908089a8aca57becb9)).
* Groups of graphical objects are represented by the **wgp** element of type **CT\_WordprocessingGroup (**section [2.16.3.2](#Section_c89701a299ac4948b84f1eaecc69dfa0)).
* Canvases are represented by the **wpc** element of type **CT\_WordprocessingCanvas (**section [2.17.3.1](#Section_c62c9d5877b1426fb11d9a6f877e7491)).
* [**Ink**](#gt_9fcdd1d5-3563-49b9-8a2e-bf696fb08fd0) objects are represented by the [**contentPart**](#Section_0d2e1dbbd5564f9f8649821f0f172a0e) element of type **CT\_WordContentPart (**section [2.15.3.1](#Section_d2e499245c10435d9d6b43321ef96ae3)).

Groups and canvases are similar in structure, but have different behavior. Both groups and canvases can contain any graphical object as a **graphic** element as described in [ISO/IEC29500-1:2016] section 20.1.2.2.16 in addition to other shapes, pictures, groups, and ink.

Additionally, the picture type defined for WordprocessingML as described in [ISO/IEC29500-1:2016] section 20.2.2.5 has been extended to enable styling information to be applied.

Moreover, the picture non-visual picture properties represented by the element **cNvPicPr** of type **CT\_NonVisualPictureProperties** (as specified in [ISO/IEC29500-1:2016] section 19.3.1.11) was extended to represent properties for a control or object using a [**CT\_ObjectPr**](#Section_23fc8073eb6f42488fd53e3c3e37f405) element defined as [**objectPr**](#Section_a0948639f8db4458bb04bb3d4ca74a9e).

### Legacy Objects

The picture non visual picture properties represented by the element **cNvPicPr** of type **CT\_NonVisualPictureProperties** (as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 19.3.1.11) was extended to represent properties for a legacy signature line object using a [CT\_SignatureLine](#Section_c2b1ca29f8a146ee91e20449a475c1de) element defined as [signatureLine](#Section_bfb76f8b13a541bba9f64aff2d86ec77).

Additionally, the non-visual group drawing shape properties represented by the element **cNvGrpSpPr** of type **CT\_NonVisualGroupDrawingShapeProps** (as specified in [ISO/IEC29500-1:2016] section 19.3.1.10) was extended to specify if a group was originally a legacy group object using a [CT\_NonVisualGroupProps](#Section_9bf04bf16c8c485d92d3d8d39f190e81) element defined as [nonVisualGroupProps](#Section_1ea2ced6f3a54d7c8d246c8b81b15646).

## Relationship to Protocols and Other Structures

The Office Drawing extensions to Office Open XML file formats are a specified set of extensions to Office Open XML DrawingML, as described in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065). This specification is dependent on the structures and concepts defined in the following references:

* [ISO/IEC29500-1:2016] for baseline DrawingML persistence format
* [[ISO/IEC29500-2:2012]](https://go.microsoft.com/fwlink/?LinkID=330448) for open packaging conventions
* [[ISO/IEC29500-3:2015]](https://go.microsoft.com/fwlink/?linkid=861154) for markup compatibility and extensibility
* [[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) for backward-compatibility considerations
* [[MS-DOCX]](%5bMS-DOCX%5d.pdf#Section_b839fe1fe1ca4fa68c265954d0abbccd) for WordprocessingML extensions
* [[MS-XLSX]](%5bMS-XLSX%5d.pdf#Section_2c5dee00eff24b2292b60738acd4475e) for SpreadsheetML extensions
* [[MS-PPTX]](%5bMS-PPTX%5d.pdf#Section_efd8bb2dd8884e2eaf25cad476730c9f) for PresentationML extensions

## Applicability Statement

This document specifies a persistence format for extensions, as described in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065), to the Office Open XML file formats for DrawingML ([ISO/IEC29500-1:2016]) content in WordprocessingML, SpreadsheetML, and PresentationML ([ISO/IEC29500-1:2016]) documents. The extensions specified in this document enable expressing additional content and properties, and are not applicable as a stand-alone file format. Each structure specified in this document is integrated with the Office Open XML file formats as described in [ISO/IEC29500-1:2016] for DrawingML content as specified in the section for that structure. All structures are integrated into DrawingML content to maintain compatibility with implementations of the Office Open XML file formats as described in [ISO/IEC29500-1:2016].

The extensions specified in this document do not require any other extensions to be used and do not prohibit any other extensions from being used in the same document.

## Versioning and Localization

None.

## Vendor-Extensible Fields

None.

# Structures

## Part Enumerations

The following subsections enumerate the parts, content types, source relationships, and part contents used by extensions specified in this document.

### Chart Colors

The following table shows the content type and source relationship of a Chart Colors part.[<1>](#Appendix_A_1" \o "Product behavior note 1)

| Part components | Value |
| --- | --- |
| Content Type | application/vnd.ms-office.chartcolorstyle+xml |
| Source Relationship | http://schemas.microsoft.com/office/2012/relationships/chartColorStyle |

An instance of this part specifies the colors that are used to resolve placeholder colors in an instance of a Chart Style part.

A Chart Colors part MUST be a sibling to a Chart Part ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 14.2.1).

### Chart Style

The following table shows the content type and source relationship of a Chart Style part.[<2>](#Appendix_A_2" \o "Product behavior note 2)

| Part components | Value |
| --- | --- |
| Content Type | application/vnd.ms-office.chartstyle+xml |
| Source Relationship | http://schemas.microsoft.com/office/2012/relationships/chartStyle |

An instance of this part specifies the formatting properties for all elements on a chart.

A Chart Style part MUST be a sibling to a Chart Part ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 14.2.1).

### Diagram Layout

The following table shows the content type and source relationship of a Diagram Layout part.

| Part components | Value |
| --- | --- |
| Content Type | application/vnd.ms-office.drawingml.diagramDrawing+xml |
| Source Relationship | http://schemas.microsoft.com/office/2007/relationships/diagramDrawing |

An instance of this part specifies the last successful layout of a diagram.

A Diagram Layout part MUST be the target of an relationship from a WordprocessingML Main Document ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 11.3.10); a SpreadsheetML Drawings part ([ISO/IEC29500-1:2016] section 12.3.8), PresentationML Handout Master ([ISO/IEC29500-1:2016] section 13.3.3), Notes Master ([ISO/IEC29500-1:2016] section 13.3.4), Notes Slide ([ISO/IEC29500-1:2016] section 13.3.5), Slide ([ISO/IEC29500-1:2016] section 13.3.8), Slide Layout ([ISO/IEC29500-1:2016] section 13.3.9), or Slide Master ([ISO/IEC29500-1:2016] section 13.3.10) part.

A Diagram Data part is permitted to have explicit relationships to an Image Part ([ISO/IEC29500-1:2016] section 15.2.14) and a Hyperlink ([ISO/IEC29500-1:2016] section 15.3).

The content of the Diagram Layout[<3>](#Appendix_A_3" \o "Product behavior note 3) part is [**XML**](#gt_982b7f8e-d516-4fd5-8d5e-1a836081ed85). The root element of this part is [drawing](#Section_44da438543e14c9e906171557d17155a).

### Ink Content Part

The following table shows the content type and source relationship of an Ink Content part.

| Part components | Value |
| --- | --- |
| Content Type | application/inkml+xml |
| Source Relationship | http://schemas.openxmlformats.org/officeDocument/2006/relationships/customXml |

An instance of this part specifies an **Ink** object.

An Ink Content part MUST be the target of an explicit relationship with a Document part containing a **contentPart** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 17.3.3.2), WordprocessingMLDrawing **contentPart** ([2.3.1.3](#Section_cd1ad738d9cb4912860a325d3720951a)) or **lockedCanvas** element ([ISO/IEC29500-1:2016] section 20.3.2.1) with **contentPart** element (2.3.1.3), a Slide part containing a **contentPart** element ([ISO/IEC29500-1:2016] section 19.3.1.14), a Worksheet Drawing part containing a **contentPart** element ([ISO/IEC29500-1:2016] section 20.5.2.12) or SpreadsheetML group **contentPart** element ([2.20.1.1](#Section_3264167d334f4dffa7eac881a9125cd7)), or a Chart Drawing part containing a **contentPart** element ([2.3.1.4](#Section_3949525a46f34c92b55075ee59eb2aaa)).

The content of the Ink part is [**XML**](#gt_982b7f8e-d516-4fd5-8d5e-1a836081ed85) as specified by a subset of syntax and semantics for the Ink Markup Language as specified in [[InkML]](https://go.microsoft.com/fwlink/?LinkId=156829). The following table defines the subset of constructs supported as specified in [InkML]. The sections in the first column are references to the sections of [InkML]. The second column indicates the level of support for the construct.

| InkML Structural Element | Description |
| --- | --- |
| **ink** | The root element of this part MUST be **ink**, and it MUST be in the http://www.w3.org/2003/InkML namespace. |
| **traceFormat** | MUST be a child of an **inkSource** to be recognized. It can be a child of other elements specified in [InkML], but its presence in elements other than **inkSource** is ignored and not persisted. |
| **intermittentChannels** | Can appear as a child element of **traceFormat** elements, but is ignored and not persisted. |
| **channel** | One or more **channel** elements MUST appear as child elements of a **traceFormat** element.  The **name** attribute can be any string, but strings other than the following strings are ignored: X, Y, Z, S, T, SN, F, TP, BP, OTx, OTy, OA, OE, OR, RP, RR, RY, TW, TH, and TC. If the channel type "T" is used, the channel values MUST be integers that represent milliseconds.  The **orientation** attribute can be present, but is ignored.  The **respectTo** attribute can be present, but is ignored.  The **units** attribute can be any string, but any value other than the following value is ignored: dev, in, cm, deg, rad, s, lb, and g. |
| **trace** | There can be one or more **trace** elements at the root level of the part, or as child elements of **traceGroup** elements.  The **type** attribute can be present, but is ignored and not persisted.  The **continuation** attribute can be present, but is ignored and not persisted.  The **priorRef** attribute can be present, but is ignored and not persisted.  The **contextRef** attribute MUST be present and MUST reference the **id** of a **context** element defined in this part.  The **brushRef** attribute MUST be present and MUST reference the **id** of a **brush** element defined in this part.  The **duration** attribute can be present, but is ignored and not persisted.  The **timeOffset** attribute can be present, but is ignored and not persisted.  The contents of a **trace** element MUST be a string that conforms to the syntax and semantics for the Ink Markup Language as specified in [InkML] section 3.2.1. |
| **traceGroup** | There can be one or more **traceGroup** elements at the root level of the part, or as child elements of other **traceGroup** elements.  The **contextRef** attribute can be present, but is ignored and not persisted.  The **brushRef** attribute can be present, but is ignored and not persisted.  The **annotation** element can be present as a child element, but is ignored and not persisted.  The **annotationXML** element can be present as a child element. If present, it MUST contain an **emma:emma** element conforming to the format described in the following section on the Extensible MultiModal Annotation markup language (EMMA) as specified in the [[EMMA]](https://go.microsoft.com/fwlink/?LinkId=156828) specification. Any other content is ignored and not persisted. |
| **traceView** | The **traceView** element can be present, but is ignored and not persisted. |
| **context** | MUST be a child of a **definitions** element to be recognized. It can be a child of other elements, but its presence in elements other than **definitions** is ignored and not persisted.  The **contextRef** attribute can be present, but is ignored and not persisted.  The **canvasRef** attribute can be present, but is ignored and not persisted.  The **canvasTransformRef** attribute can be present, but is ignored and not persisted.  The **traceFormatRef** attribute can be present, but is ignored and not persisted.  The **inkSourceRef** attribute can be present, but is ignored and not persisted.  The **brushRef** attribute can be present, but is ignored and not persisted.  The **timestampRef** attribute can be present, but is ignored and not persisted.  The **canvas** element can be present as a child element, but is ignored and not persisted.  The **canvasTransform** element can be present as a child element, but is ignored and not persisted.  The **timestamp** element can be present as a child element, but is ignored and not persisted. |
| **inkSource** | The **xml:id** attribute MUST be present. |
| **sampleRate** | Can be present as a child element, but is ignored and not persisted. |
| **latency** | Can be present as a child element, but is ignored and not persisted. |
| **activeArea** | Can be present as a child element, but is ignored and not persisted. |
| **srcProperty** | Can be present as a child element, but is ignored and not persisted. |
| **channelProperties** | The **channelProperties** element is optional and can contain zero or more **channelProperty** elements. If absent, default properties are used that vary depending on the operating system and device drivers present. Can be present as a child element. |
| **channelProperty** | The **channelProperty** element is optional and specifies properties of a given channel. If absent, default properties are used that vary depending on the operating system and device drivers present. Can appear as a child of **channelProperties** elements.  The **channel** attribute MUST specify a channel previously defined in a **traceFormat**.  The **name** attribute can contain any name, but only the value "resolution" is regarded and persisted. All other values are ignored and not persisted. |
| **brush** | Can have a **brushRef** attribute, but it is ignored and not persisted. |
| **brushProperty** | The **brushProperty** element MUST have a **name** attribute. The value of name can be any string, but only the values width, height, color, transparency, tip, rasterOp, antiAliased, fitToCurve, and ignorePressure are used. Any other value causes the **brushProperty** element to be ignored.  The optional **value** and **units** attributes MUST conform to certain parameters depending on the **name** attribute value. If the **value** or **units** values do not conform to the following list, then a default value/unit is used.  **width**  Width of the brush.  The **value** attribute MUST be an xsd:decimal, and the **units** attribute MUST be a length unit as specified in [InkML] section 6.4.  Default is .053 cm.  **height**  Height of the brush.  The **value** attribute MUST be an xsd:decimal, and the **units** attribute MUST be a length unit as specified in [InkML] section 6.4.  Default is .001 cm.  **color**  Color of brush in RGB.  The **value** attribute MUST be a string that begins with a ‘#’ character followed by six hexadecimal digits. The **units** attribute MUST NOT be present.  Default is #000000.  **transparency**  Transparency of brush.  The **value** attribute MUST be an xsd:int in the range of 0-255. The **units** attribute MUST NOT be present.  Default is 0.  **tip**  The type of pen tip.  The **value** attribute MUST be either ellipse or rectangle. The **units** attribute MUST NOT be present.  Default is **ellipse**.  **rasterOp**  A value that defines how the colors of the pen and background interact.  The **value** attribute MUST be noOperation, copyPen, maskPen, black, maskNotPen, maskPenNot, mergeNotPen, mergePen, mergePenNot, not, notCopyPen, notMaskPen, notMergePen, notXOrPen, white, or xOrPen. The **units** attribute MUST NOT be present.  The default value is copyPen.  **antiAliased**  A value that indicates if the drawn ink is anti-aliased.  The **value** attribute MUST be a xsd:boolean. The **units** attribute MUST NOT be present.    Default is true.  **fitToCurve**  A value that indicates if the ink is rendered as a series of curves versus as lines between pen sample points.  The **value** attribute MUST be a xsd:boolean. The **units** attribute MUST NOT be present.  Default is false.  **ignorePressure**  A value that indicates if pressure from the pen tip is ignored.  The **value** attribute MUST be a xsd:boolean. The **units** attribute MUST NOT be present.  Default is false. |
| **timestamp** | Can be present, but is ignored and not persisted. |
| **canvas** | Can be present, but is ignored and not persisted. |
| **canvasTransform** | Can be present, but is ignored and not persisted. |
| **mapping** | Can be present, but is ignored and not persisted. |
| **bind** | Can be present, but is ignored and not persisted. |
| **table** | Can be present, but is ignored and not persisted. |
| **matrix** | Can be present, but is ignored and not persisted. |
| **definitions** | Can contain child **trace** elements, but they are ignored and not persisted. The **trace** element is regarded as a child element of only **ink** or **traceGroup** parent elements.  Can contain child **traceGroup** elements, but they are ignored and not persisted. The **traceGroup** element is regarded as a child element of only **ink** or other **traceGroup** parent elements.  Can contain child **inkSource** elements, but they are ignored and not persisted. The **inkSource** element is regarded as a child element of only **context** parent elements.  Can contain child **traceFormat** elements, but they are ignored and not persisted. The **traceFormat** element is regarded as a child element of only **inkSource** parent elements. |
| **annotation** | Can be present, but is ignored and not persisted. |
| **annotationXML** | If present as a child element of a **traceGroup** element, it MUST contain an **emma:emma** element that conforms to the subset of the EMMA as specified in [EMMA]. Otherwise, it is ignored and not persisted. |

The **annotationXML** elements of a **traceGroup** element if present MUST contain XML that conforms to a subset of the EMMA as specified in [EMMA]. The following table defines the subset of constructs that are supported as specified in [EMMA]. The sections in the first column are references to the sections of [EMMA]. The second column indicates the level of support for the construct.

| EMMA structural element | Description |
| --- | --- |
| Root element: **emma:emma** | The root element of the part MUST be **emma**, and it MUST be in the http://www.w3.org/2003/04/emma namespace. |
| Interpretation element: **emma:interpretation** | The first child element MUST be an **emma:interpretation** element, and it MUST contain a **context** element.  The **id** attribute of the **emma:interpretation** element can be present. If present, this attribute SHOULD be a [**GUID**](#gt_f49694cc-c350-462d-ab8e-816f0103c6c1). If this attribute is present but the value is not a GUID, then the attribute is ignored and not round-tripped.  The **emma:mode** attribute MUST be present and MUST be set to "ink". |
| **emma:one-of** element | The second child element of **emma:emma** is an **emma:one-of** element, it MUST contain one or more **emma:interpretation** elements, and the child elements MUST be **emma:literal** elements that contain plain text. The series of literal interpretations specifies the recognized text of the ink object. The order of the **emma:interpretation** elements MUST be sorted in order of confidence, from highest to lowest.  The **disjunction-type** attribute MUST be present and MUST be set to "recognition". |
| **emma:group** element | The **emma:emma** element can contain an **emma:group** element, but its contents are ignored and not persisted. |
| **emma:sequence** element | The **emma:emma** element can contain an **emma:sequence** element, but its contents are ignored and not persisted. |
| Lattice markup: **emma:lattice**, **emma:arc**, and **emma:node** elements | The **emma:interpretation** element can contain an **emma:lattice** element, but its contents are ignored and not persisted. |

### ChartEx

An instance of a ChartEx part that specifies all layout properties for all elements on that chart. The following table shows the content type and source relationship of a Chart part.

| Part components | Value |
| --- | --- |
| Content Type | application/vnd.ms-office.chartex+xml |
| Source Relationship | http://schemas.microsoft.com/office/2014/relationships/chartEx |

## Extensions

This section specifies the elements from the Office Open XML file formats as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) that are extended by this format. Either the **Ignorable** attribute ([[ISO/IEC29500-3:2015]](https://go.microsoft.com/fwlink/?linkid=861154) section 10.1.1), the **Alternate-Content** elements ([ISO/IEC29500-3:2015] section 10.2), or the **extLst** element ([ISO/IEC29500-1:2016] section 20.1.2.2.15, [ISO/IEC29500-1:2016] section 21.2.2.64, or [ISO/IEC29500-1:2016] section 21.4.2.13) MUST be used to maintain compatibility with Office Open XML file formats as specified in [ISO/IEC29500-1:2016].

### Charts

The **chartspace** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.29) is extended by the addition of an **AlternateContent** child element ([[ISO/IEC29500-3:2015]](https://go.microsoft.com/fwlink/?linkid=861154) section 10.2.1), for which the structure is specified in the following table.

| AlternateContent components | Child element |
| --- | --- |
| Choice: http://schemas.microsoft.com/office/drawing/2007/8/2/chart | **style** |
| Fallback | **style** ([ISO/IEC29500-1:2016] section 21.2.2.202) |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.170) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.

| Extension URI | Child element |
| --- | --- |
| {6F2FDCE9-48DA-4B69-8628-5D25D57E5C99} | **invertSolidFillFmt** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.174) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.

| Extension URI | Child element |
| --- | --- |
| {6F2FDCE9-48DA-4B69-8628-5D25D57E5C99} | **invertSolidFillFmt** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **chartspace** element ([ISO/IEC29500-1:2016] section 21.2.2.29) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.

| Extension URI | Child element |
| --- | --- |
| {781A3756-C4B2-4CAC-9D66-4F8BD8637D16} | **pivotOptions** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **chartspace** element ([ISO/IEC29500-1:2016] section 21.2.2.29) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<4>](#Appendix_A_4" \o "Product behavior note 4)

| Extension URI | Child element |
| --- | --- |
| {723BEF56-08C2-4564-9609-F4CBC75E7E54} | **pivotSource** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **dateAx** element ([ISO/IEC29500-1:2016] section 21.2.2.39) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<5>](#Appendix_A_5" \o "Product behavior note 5)

| Extension URI | Child element |
| --- | --- |
| {F40574EE-89B7-4290-83BB-5DA773EAF853} | **numFmt** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **catAx** element ([ISO/IEC29500-1:2016] section 21.2.2.25) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<6>](#Appendix_A_6" \o "Product behavior note 6)

| Extension URI | Child element |
| --- | --- |
| {F40574EE-89B7-4290-83BB-5DA773EAF853} | **numFmt** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **serAx** element ([ISO/IEC29500-1:2016] section 21.2.2.175) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<7>](#Appendix_A_7" \o "Product behavior note 7)

| Extension URI | Child element |
| --- | --- |
| {F40574EE-89B7-4290-83BB-5DA773EAF853} | **numFmt** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **strLit** element ([ISO/IEC29500-1:2016] section 21.2.2.200) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<8>](#Appendix_A_8" \o "Product behavior note 8)

| Extension URI | Child element |
| --- | --- |
| {E218EAE0-A670-482B-9A64-EF95B99D9540} | **autoCat** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **valAx** element ([ISO/IEC29500-1:2016] section 21.2.2.226) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<9>](#Appendix_A_9" \o "Product behavior note 9)

| Extension URI | Child element |
| --- | --- |
| {F40574EE-89B7-4290-83BB-5DA773EAF853} | **numFmt** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **chartspace** element ([ISO/IEC29500-1:2016] section 21.2.2.29) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<10>](#Appendix_A_10" \o "Product behavior note 10)

| Extension URI | Child element |
| --- | --- |
| {E28EC0CA-F0BB-4C9C-879D-F8772B89E7AC} | **pivotOptions16** |

See [ISO/IEC29500-1:2016] section 10.1.2for more details about extension lists.

#### Filtering

The **extLst** child element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.64) of the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.168) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<11>](#Appendix_A_11" \o "Product behavior note 11)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredSeriesTitle** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredCategoryTitle** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **categoryFilterExceptions** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **datalabelsRange** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.170) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<12>](#Appendix_A_12" \o "Product behavior note 12)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredSeriesTitle** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredCategoryTitle** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **categoryFilterExceptions** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **datalabelsRange** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.174) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<13>](#Appendix_A_13" \o "Product behavior note 13)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredSeriesTitle** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredCategoryTitle** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **categoryFilterExceptions** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **datalabelsRange** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.171) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<14>](#Appendix_A_14" \o "Product behavior note 14)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredSeriesTitle** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredCategoryTitle** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **categoryFilterExceptions** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **datalabelsRange** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.172) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<15>](#Appendix_A_15" \o "Product behavior note 15)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredSeriesTitle** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredCategoryTitle** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **categoryFilterExceptions** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **datalabelsRange** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.169) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<16>](#Appendix_A_16" \o "Product behavior note 16)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredSeriesTitle** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredCategoryTitle** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **categoryFilterExceptions** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **datalabelsRange** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.167) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<17>](#Appendix_A_17" \o "Product behavior note 17)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredSeriesTitle** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredCategoryTitle** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **categoryFilterExceptions** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **datalabelsRange** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **ser** element ([ISO/IEC29500-1:2016] section 21.2.2.173) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<18>](#Appendix_A_18" \o "Product behavior note 18)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredSeriesTitle** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredCategoryTitle** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **categoryFilterExceptions** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **datalabelsRange** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **lineChart** element ([ISO/IEC29500-1:2016] section 21.2.2.97) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<19>](#Appendix_A_19" \o "Product behavior note 19)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredLineSeries** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **line3DChart** element ([ISO/IEC29500-1:2016] section 21.2.2.96) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<20>](#Appendix_A_20" \o "Product behavior note 20)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredLineSeries** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **scatterChart** element ([ISO/IEC29500-1:2016] section 21.2.2.161) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<21>](#Appendix_A_21" \o "Product behavior note 21)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredScatterSeries** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **radarChart** element ([ISO/IEC29500-1:2016] section 21.2.2.153) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<22>](#Appendix_A_22" \o "Product behavior note 22)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredRadarSeries** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **barChart** element ([ISO/IEC29500-1:2016] section 21.2.2.16) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<23>](#Appendix_A_23" \o "Product behavior note 23)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredBarSeries** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **bar3DChart** element ([ISO/IEC29500-1:2016] section 21.2.2.15) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<24>](#Appendix_A_24" \o "Product behavior note 24)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredBarSeries** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **areaChart** element ([ISO/IEC29500-1:2016] section 21.2.2.5) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<25>](#Appendix_A_25" \o "Product behavior note 25)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredAreaSeries** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **area3DChart** element ([ISO/IEC29500-1:2016] section 21.2.2.4) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<26>](#Appendix_A_26" \o "Product behavior note 26)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredAreaSeries** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **bubbleChart** element ([ISO/IEC29500-1:2016] section 21.2.2.20) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<27>](#Appendix_A_27" \o "Product behavior note 27)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredBubbleSeries** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **surfaceChart** element ([ISO/IEC29500-1:2016] section 21.2.2.204) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<28>](#Appendix_A_28" \o "Product behavior note 28)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredSurfaceSeries** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **surface3DChart** element ([ISO/IEC29500-1:2016] section 21.2.2.203) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<29>](#Appendix_A_29" \o "Product behavior note 29)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **filteredSurfaceSeries** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **numRef** element ([ISO/IEC29500-1:2016] section 21.2.2.123) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<30>](#Appendix_A_30" \o "Product behavior note 30)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **fullRef** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **levelRef** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **formulaRef** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **strRef** element ([ISO/IEC29500-1:2016] section 21.2.2.201) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<31>](#Appendix_A_31" \o "Product behavior note 31)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **fullRef** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **levelRef** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **formulaRef** |

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **multiLvlStrRef** element ([ISO/IEC29500-1:2016] section 21.2.2.115) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<32>](#Appendix_A_32" \o "Product behavior note 32)

| Extension URI | Child element |
| --- | --- |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **fullRef** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **levelRef** |
| {02D57815-91ED-43cb-92C2-25804820EDAC} | **formulaRef** |

#### Datalabels

The **extLst** child element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.64) of the **dLbls** element ([ISO/IEC29500-1:2016] section 21.2.2.49) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<33>](#Appendix_A_33" \o "Product behavior note 33)

| Extension URI | Child element |
| --- | --- |
| {CE6537A1-D6FC-4f65-9D91-7224C49458BB} | **showLeaderLines** |
| {CE6537A1-D6FC-4f65-9D91-7224C49458BB} | **leaderLines** |
| {CE6537A1-D6FC-4f65-9D91-7224C49458BB} | **tx** |
| {CE6537A1-D6FC-4f65-9D91-7224C49458BB} | **dlblFieldTable** |
| {CE6537A1-D6FC-4f65-9D91-7224C49458BB} | **showDataLabelsRange** |
| {CE6537A1-D6FC-4f65-9D91-7224C49458BB} | **spPr** |
| {CE6537A1-D6FC-4f65-9D91-7224C49458BB} | **layout** |

#### Datalabel

The **extLst** child element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.64) of the **dLbl** element ([ISO/IEC29500-1:2016] section 21.2.2.47) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.[<34>](#Appendix_A_34" \o "Product behavior note 34)

| Extension URI | Child element |
| --- | --- |
| {CE6537A1-D6FC-4f65-9D91-7224C49458BB} | **dlblFieldTable** |
| {CE6537A1-D6FC-4f65-9D91-7224C49458BB} | **xForSave** |
| {CE6537A1-D6FC-4f65-9D91-7224C49458BB} | **showDataLabelsRange** |
| {CE6537A1-D6FC-4f65-9D91-7224C49458BB} | **spPr** |
| {CE6537A1-D6FC-4f65-9D91-7224C49458BB} | **layout** |

### Content Parts and Ink

An [**ink**](#gt_9fcdd1d5-3563-49b9-8a2e-bf696fb08fd0) object can exist as a content part referenced by a **contentPart** element. See [2.1.4](#Section_096dacae0d2c4861bc4dc8e4c6405ad3) for the syntax of the ink content part.

A **contentPart** element is specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) as an element in a WordprocessingML document ([ISO/IEC29500-1:2016] section 17.3.3.2), an element in a PresentationML slide ([ISO/IEC29500-1:2016] section 19.3.1.14), or an element in a SpreadsheetML drawing ([ISO/IEC29500-1:2016] section 20.5.2.12).

The following extensions define additional **contentPart** elements.

The DrawingML **grpSp** element ([ISO/IEC29500-1:2016] section 20.1.2.2.20) and **lockedCanvas** element ([ISO/IEC29500-1:2016] section 20.3.2.1) are extended by the addition of **AlternateContent** child elements ([[ISO/IEC29500-3:2015]](https://go.microsoft.com/fwlink/?linkid=861154) section 10.2.1), for which the structure is specified in the following table.

| AlternateContent components | Child element |
| --- | --- |
| Choice: http://schemas.microsoft.com/office/drawing/2010/main | **contentPart** |
| Fallback | **sp** ([ISO/IEC29500-1:2016] section 20.1.2.2.33) |

The SpreadsheetML **grpSp** element ([ISO/IEC29500-1:2016] section 20.5.2.17) is extended by the addition of an **AlternateContent** child element, for which the structure is specified in the following table:

| AlternateContent components | Child element |
| --- | --- |
| Choice: http://schemas.microsoft.com/office/excel/2010/spreadsheetDrawing | **contentPart** |
| Fallback | **sp** ([ISO/IEC29500-1:2016] section 20.5.2.29) |

The WordprocessingML **contentPart** is an optional child of **CT\_WordprocessingCanvas** (**wpc**), and **CT\_WordprocessingGroup** (**grpSp**, **wgp**), or as a child of **graphicData** ([ISO/IEC29500-1:2016] section 20.1.2.2.17) as specified in [2.2.7.6](#Section_0f92b02612074eaca725d2907262124b).

The PresentationML **contentPart** ([ISO/IEC29500-1:2016] section 19.3.1.14) is an optional child element of **CT\_GroupShape** (**grpSp**, **spTree** ([ISO/IEC29500-1:2016] sections 19.3.1.22 and 19.3.1.45).

### Pictures

The **extLst** child element of the [**binary large image or picture (BLIP)**](#gt_f9c3c085-93c6-49a8-9043-591902711956) element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.8.13) is extended by the addition of **ext** child elements, for which the structure is specified in the following table.

| Extension URI | Child element |
| --- | --- |
| http://schemas.microsoft.com/office/drawing/2010/main | **imgProps** |
| http://schemas.microsoft.com/office/drawing/2010/main | **useLocalDpi** |

See [ISO/IEC29500-1:2016] section 10.1.2for more details about extension lists.

### Diagrams

#### Diagram Layout

The **extLst** child element of the **dataModel** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.4.2.10) is extended by the addition of **ext** child elements, for which the structure is specified in the following table.

| Extension URI | Child element |
| --- | --- |
| http://schemas.microsoft.com/office/drawing/2008/diagram | **dataModelExt** |

See [ISO/IEC29500-1:2016] section 10.1.2for more details about extension lists.

#### Image Recoloring

The **extLst** child element of the **dataModel** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.4.2.10) is extended by the addition of **ext** child elements, for which the structure is specified in the following table.

| Extension URI | Child element |
| --- | --- |
| {C62137D5-CB1D-491b-B009-E17868A290BF} | **recolorImg** |

See [ISO/IEC29500-1:2016] section 10.1.2 for more details about extension lists.

#### Non-Visual Drawing Properties

The **extLst** child element of the **dataModel** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.4.2.10) is extended by the addition of **ext** child elements, for which the structure is specified in the following table.[<35>](#Appendix_A_35" \o "Product behavior note 35)

| Extension URI | Child element |
| --- | --- |
| {E40237B7-FDA0-4F09-8148-C483321AD2D9} | **cNvPr** |

See [ISO/IEC29500-1:2016] section 10.1.2 for more details about extension lists.

### Math

Each of the objects added to DrawingML documents MUST be contained by other instances of extensions or MUST make use of extensibility mechanisms from Office Open XML file formats. For compatibility with existing Office Open XML file formats implementations, all of the extensions are integrated into DrawingML through the use of **AlternateContent** elements as specified in [[ISO/IEC29500-3:2015]](https://go.microsoft.com/fwlink/?linkid=861154) section10.2.1.

| AlternateContent components | Child elements |
| --- | --- |
| Choice:  http://schemas.microsoft.com/office/drawing/2010/main | **m** |
| Fallback | **p:sp**, **p:graphicFrame,** **xdr:sp**. or **cdr:sp** |

The **p:sp** element is specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 19.3.1.43, **p:graphicFrame** is specified in [ISO/IEC29500-1:2016] section 19.3.1.21, **xdr:sp** is specified in [ISO/IEC29500-1:2016] section 20.5.2.29, and **cdr:sp** is specified in [ISO/IEC29500-1:2016] section 21.3.2.22.

Content of the **m** element is specified by DrawingML ([ISO/IEC29500-1:2016] section 20.1) and the mathematics **OMML** ([ISO/IEC29500-1:2016] section 22.1), except as restricted and modified by the following table.

| Element | Description |
| --- | --- |
| WordprocessingML child elements | MUST NOT appear in this extension. |
| **cGp** | MUST NOT appear in this extension. |
| **cGpRule** | MUST NOT appear in this extension. |
| **cSp** | MUST NOT appear in this extension. |
| **eqArrPr** | The child elements **rSp** ([ISO/IEC29500-1:2016] section 22.1.2.92) and **rSpRule** ([ISO/IEC29500-1:2016] section 22.1.2.93) MUST NOT appear as child elements of **eqArrPr**. |
| **mathFont** | Font substitution in the context of this extension conforms to the Office Open XML file formats as specified in [ISO/IEC29500-1:2016] section 21.1.2.5. |
| **mathPr** | The direct child element of the **m** element in the context of presentation properties MUST be **mathPr** ([ISO/IEC29500-1:2016] section 22.1.2.62). Such a **mathPr** MUST only contain **brkBin** ([ISO/IEC29500-1:2016] section 22.1.2.16) and **brkBinSub** ([ISO/IEC29500-1:2016] section 22.1.2.17). |
| **mcJc** | MUST NOT appear in this extension. |
| **mcPr** | The **mcJc** element ([ISO/IEC29500-1:2016] section 22.1.2.65) is not permitted as a child of this element. |
| **mPr** | The following are not permitted as child elements of **mPr** in this extension and MUST NOT appear: **cGp** ([ISO/IEC29500-1:2016] section 22.1.2.18), **cGpRule** ([ISO/IEC29500-1:2016] section 22.1.2.19), **cSp** ([ISO/IEC29500-1:2016] section 22.1.2.22), **rSp** ([ISO/IEC29500-1:2016] section 22.1.2.92), and **rSpRule** ([ISO/IEC29500-1:2016] section 22.1.2.93). |
| **oMath** | The direct child element of the **m** element in the context of a paragraph MUST be either **oMath** or **oMathPara**. |
| **oMathPara** | The direct child element of the m element in the context of a paragraph MUST be either **oMath** or **oMathPara**. Only one justification style is permitted per containing text paragraph. All but the first **jc** values of each **oMathPara**, are ignored. |
| **r** | The **rPr** element ([ISO/IEC29500-1:2016] section 21.1.2.3.9) is not required, and the **t** element ([ISO/IEC29500-1:2016] section 21.1.2.3.11) MUST appear as child elements of **m:r**. |
| **rSp** | MUST NOT appear in this extension. |
| **rSpRule** | MUST NOT appear in this extension. |

### SpreadsheetML Drawing

#### Camera Tool

The **extLst** child element of the **nvPicPr** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.5.2.22) is extended by the addition of **ext** child elements, for which the structure is specified in the following table.

| Extension URI | Child element |
| --- | --- |
| {84589F7E-364E-4c9e-8A38-B11213B215E9} | **cameraTool** |

See [ISO/IEC29500-1:2016] section 10.1.2 for more details about extension lists.

The **twoCellAnchor** element ([ISO/IEC29500-1:2016] section 20.5.2.33), **oneCellAnchor** element ([ISO/IEC29500-1:2016] section 20.5.2.24), **absoluteAnchor** element ([ISO/IEC29500-1:2016] section 20.5.2.1), **pic** element ([ISO/IEC29500-1:2016] section 20.5.2.25), or **grpSp** element ([ISO/IEC29500-1:2016] section 20.5.2.17) are extended by the addition of an **AlternateContent** child element ([[ISO/IEC29500-3:2015]](https://go.microsoft.com/fwlink/?linkid=861154) section 10.2.1), for which the structure is specified in the following table.

| AlternateContent components | Child elements |
| --- | --- |
| Choice:  http://schemas.microsoft.com/office/drawing/2010/main | **cameraTool** |
| Choice structure:   1. <wsDr> 2. <twoCellAnchor> or <oneCellAnchor> or <absoluteAnchor> 3. <grpSp> - if inside a group 4. <pic> 5. <nvPicPr> 6. <cNvPicPr> 7. <extLst> 8. <ext> 9. <cameraTool> 10. ... | |
| Fallback | Empty |

The **wsDr** element is specified in [ISO/IEC29500-1:2016] section 20.5.2.35, **nvPicPr** is specified in [ISO/IEC29500-1:2016] section 20.5.2.22, and **cNvPicPr** is specified in [ISO/IEC29500-1:2016] section 20.5.2.7.

#### Legacy Object Wrapper

The **extLst** child element of the **cNvPr** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.5.2.8) is extended by the addition of **ext** child elements, for which the structure is specified in the following table.

| Extension URI | Child element |
| --- | --- |
| {63B3BB69-23CF-44e3-9099-C40C66FF867C} | **compatExt** |

See [ISO/IEC29500-1:2016] section 10.1.2 for more details about extension lists.

The **twoCellAnchor** element ([ISO/IEC29500-1:2016] section 20.5.2.33), **oneCellAnchor** element ([ISO/IEC29500-1:2016] section 20.5.2.24), **absoluteAnchor** element ([ISO/IEC29500-1:2016] section 20.5.2.1), **sp** element ([ISO/IEC29500-1:2016] section 20.5.2.29), or **grpSp** element ([ISO/IEC29500-1:2016] section 20.5.2.17) are extended by the addition of an **AlternateContent** child element ([[ISO/IEC29500-3:2015]](https://go.microsoft.com/fwlink/?linkid=861154) section 10.2.1), for which the structure is specified in the following table.

| AlternateContent components | Child elements |
| --- | --- |
| Choice:  http://schemas.microsoft.com/office/drawing/2010/main | **compatExt** |
| Choice structure:   1. <wsdr> 2. <twoCellAnchor> or <oneCellAnchor> or <absoluteAnchor> 3. <grpSp> - if inside a group 4. <sp> 5. <nvSpPr> 6. <cNvPr> 7. <extLst> 8. <ext> 9. <compatExt> 10. ... | |
| Fallback | Empty |

The **wsDr** element is specified in [ISO/IEC29500-1:2016] section 20.5.2.35, **nvSpPr** is specified in [ISO/IEC29500-1:2016] section 20.5.2.23, and **cNvPr** is specified in [ISO/IEC29500-1:2016] section 20.5.2.8.

### WordprocessingML Drawing

Each of the objects added to WordprocessingML documents MUST be contained by other instances of extensions or MUST make use of extensibility mechanisms from Office Open XML file formats. For compatibility with existing Office Open XML file format implementations, all extensions are integrated into WordprocessingML through the use of **AlternateContent** elements as specified in [[ISO/IEC29500-3:2015]](https://go.microsoft.com/fwlink/?linkid=861154) section 10.2.1.

In all cases, the **AlternateContent** element MUST have only a single **Choice** element as specified in [ISO/IEC29500-3:2015] section 10.2.2 and a single **Fallback** element as specified in [ISO/IEC29500-3:2015] section 10.2.3 as child elements.

The parent element of the **AlternateContent** element MUST be an **r** (Text Run) element as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 17.3.2.25.

The following sections associate the URIs used to indicate each **Choice** element with the URIs used in the descendent **graphicData** element, the contents of the **graphicData** (Graphic Object Data) element and the contents of the **Fallback** element as specified in [ISO/IEC29500-1:2016] section 20.1.2.2.17,. In all cases, the value of the **uri** attribute of the **graphicData** element MUST match the value of the URI of the ancestor **Choice** element.

Although the URI for the **Requires** attributes of the **Choice** element is specified in the following sections, the **Requires** attributes MUST evaluate to a prefix that resolves to the specified URI. The **Requires** attributes MUST NOT evaluate to the URI itself.

#### ActiveX and OLE Objects

This section specifies how the [CT\_ObjectPr](#Section_23fc8073eb6f42488fd53e3c3e37f405) type and [objectPr](#Section_a0948639f8db4458bb04bb3d4ca74a9e) are integrated into the Office Open XML file formats.[<36>](#Appendix_A_36" \o "Product behavior note 36)

| AlternateContent components | Child elements |
| --- | --- |
| Choice:  urn:schemas-microsoft-com:vml | **Object**  ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065)) section 17.3.3.19 |
| Choice structure:   1. <w:object> 2. <v: ... > 3. ... | |
| Fallback (no VML) | **Object**  ([ISO/IEC29500-1:2016]) section 17.3.3.19 |
| Fallback structure:   1. <w:object> 2. <w:drawing> 3. ... 4. <a:graphic xmlns:a="http://purl.oclc.org/ooxml/drawingml/main" 5. <a:graphicData uri="http://purl.oclc.org/ooxml/drawingml/picture"> 6. <pic:pic xmlns:pic="http://purl.oclc.org/ooxml/drawingml/picture"> 7. <pic:nvPicPr> 8. <pic:cNvPicPr> 9. <a:extLst> 10. <a:ext> 11. <a15:objectPr .../> | |

The **drawing** element is specified in [ISO/IEC29500-1:2016] section 17.3.3.9, **graphic** is specified in [ISO/IEC29500-1:2016] section 20.1.2.2.16, **graphicData** is specified in [ISO/IEC29500-1:2016] section 20.1.2.2.17, **pic** is specified in [ISO/IEC29500-1:2016] section 19.3.1.37, and **nvPicPr** is specified in [ISO/IEC29500-1:2016] section 19.3.1.32.

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **cNvPicPr** element ([ISO/IEC29500-1:2016] section 19.3.1.11) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.

| Extension URI | Child element |
| --- | --- |
| {837473B0-CC2E-450a-ABE3-18F120FF3D37} | **objectPr** |

#### Background Fill

This section specifies how the [[CT\_BackgroundPr](#Section_76932fd094694d5b9666f5689aad8c33)](#Section_23fc8073eb6f42488fd53e3c3e37f405) type and [backgroundPr](#Section_349d772f91874d45bc2e7c162f355b68) are integrated into the Office Open XML file formats.[<37>](#Appendix_A_37" \o "Product behavior note 37)

| AlternateContent components | Child elements |
| --- | --- |
| Choice:  urn:schemas-microsoft-com:vml | **background**  ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068)) section 14.1.2.2 |
| Choice structure:   1. <v:background ...> 2. <v: ... > | |
| Fallback (no VML) | **drawing**  ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065)) section 17.3.3.9 |
| Fallback structure:   1. <w:drawing> 2. <wp:inline ...> 3. ... 4. <wp:docPr ...> 5. <a:extLst xmlns:a="http://purl.oclc.org/ooxml/drawingml/main"> 6. <a:ext> 7. <a15:backgroundPr xmlns:a15="http://schemas.microsoft.com/office/drawing/2012/main" .../> | |

The **drawing** element is specified in [ISO/IEC29500-1:2016] section 17.3.3.9, **inline** is specified in [ISO/IEC29500-1:2016] section 20.4.2.8.

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **docPr** element ([ISO/IEC29500-1:2016] section 20.4.2.5) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.

| Extension URI | Child element |
| --- | --- |
| {A998136B-4AC2-44c3-8CCF-79AB77ABDD1D} | **backgroundPr** |

#### DrawingML Shapes in WordprocessingML

This section specifies how the **CT\_WordprocessingShape** type and **wsp** element are integrated into the Office Open XML file formats.

| AlternateContent components | Child elements |
| --- | --- |
| Choice:  http://schemas.microsoft.com/office/word/2010/wordprocessingShape | **wsp** |
| Choice structure:   1. <drawing> 2. <anchor> or <inline> 3. <graphic> 4. <graphicData uri="http://schemas.microsoft.com/office/word/2010/wordprocessingShape"> 5. <wsp> 6. ... | |
| Fallback | **pict** (VML Object) ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068))section 9.2.2.2 |

The **drawing** element is specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 17.3.3.9, **anchor** is specified in [ISO/IEC29500-1:2016] section 20.4.2.3, **inline** is specified in [ISO/IEC29500-1:2016] section 20.4.2.8, **graphic** is specified in [ISO/IEC29500-1:2016] section 20.1.2.2.16, and **graphicData** is specified in [ISO/IEC29500-1:2016] section 20.1.2.2.17.

#### DrawingML Groups in WordprocessingML

This section specifies how the **CT\_WordprocessingGroup** type and the **wgp** element are integrated into [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065).

| AlternateContent components | Child elements |
| --- | --- |
| Choice:  http://schemas.microsoft.com/office/word/2010/wordprocessingGroup | **wgp** |
| Choice structure:   1. <drawing> 2. <anchor> or <inline> 3. <graphic> 4. <graphicData uri="http://schemas.microsoft.com/office/word/2010/wordprocessingGroup"> 5. <wgp> 6. ... | |
| Fallback | [[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section9.2.2.2 pict (VML Object) |

The **drawing** element is specified in [ISO/IEC29500-1:2016] section 17.3.3.9, **anchor** is specified in [ISO/IEC29500-1:2016] section 20.4.2.3, **inline** is specified in [ISO/IEC29500-1:2016] section 20.4.2.8, **graphic** is specified in [ISO/IEC29500-1:2016] section 20.1.2.2.16, and **graphicData** is specified in [ISO/IEC29500-1:2016] section 20.1.2.2.17.

#### DrawingML Canvases in WordprocessingML

This section specifies how the **CT\_WordprocessingCanvas** type and **wpc** element integrate into the Office Open XML file formats.

| AlternateContent components | | Child elements |
| --- | --- | --- |
| Choice:  http://schemas.microsoft.com/office/word/2010/wordprocessingCanvas | | **wpc** |
| Choice structure:   1. <drawing> 2. <anchor> or <inline> 3. <graphic> 4. <graphicData uri="http://schemas.microsoft.com/office/word/2010/wordprocessingCanvas"> 5. <wpc> 6. ... | | |
| Fallback | **pict** (VML Object) ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section 9.2.2.2) | |

The **drawing** element is specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 17.3.3.9, **anchor** is specified in [ISO/IEC29500-1:2016] section 20.4.2.3, **inline** is specified in [ISO/IEC29500-1:2016] section 20.4.2.8, **graphic** is specified in [ISO/IEC29500-1:2016] section 20.1.2.2.16, and **graphicData** is specified in [ISO/IEC29500-1:2016] section 20.1.2.2.17.

#### DrawingML Content Parts in WordprocessingML

This section specifies how the **CT\_WordContentPart** type and **contentPart** element integrate into Office Open XML file formats.

| AlternateContent components | Child elements |
| --- | --- |
| Choice:  http://schemas.microsoft.com/office/word/2010/wordprocessingInk | **contentPart** |
| Choice structure:   1. <drawing> 2. <anchor> or <inline> 3. <graphic> 4. <graphicData uri="http://schemas.microsoft.com/office/word/2010/wordprocessingInk"> 5. <contentPart> 6. ... | |
| Fallback | **pict** (VML Object) ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section 9.2.2.2) |

The **drawing** element is specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 17.3.3.9, **anchor** is specified in [ISO/IEC29500-1:2016] section 20.4.2.3, **inline** is specified in [ISO/IEC29500-1:2016] section 20.4.2.8, **graphic** is specified in [ISO/IEC29500-1:2016] section 20.1.2.2.16, and **graphicData** is specified in [ISO/IEC29500-1:2016] section 20.1.2.2.17.

### Themes

The **extLst** child element of the theme (**Theme**) element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.6.9) is extended by the addition of **ext** child elements, for which the structure is specified in the following table.

| Extension URI | Child element |
| --- | --- |
| http://schemas.microsoft.com/office/thememl/2012/main | **themeFamily** |

See [ISO/IEC29500-1:2016] section 10.1.2for more details about extension lists.

### Legacy Objects

#### Legacy Groups

This section specifies how the [CT\_NonVisualGroupProps](#Section_9bf04bf16c8c485d92d3d8d39f190e81) type and [nonVisualGroupProps](#Section_1ea2ced6f3a54d7c8d246c8b81b15646) are integrated into the Office Open XML file formats.[<38>](#Appendix_A_38" \o "Product behavior note 38)

| AlternateContent components | Child elements |
| --- | --- |
| Choice:  urn:schemas-microsoft-com:vml | **Object**  ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065)) section 17.3.3.19 |
| Choice structure:   1. <w:object> 2. <v: ... > 3. ... | |
| Fallback (no VML) | **Object**  ([ISO/IEC29500-1:2016]) section 17.3.3.19 |
| Fallback structure:   1. <w:object> 2. <w:drawing> 3. ... 4. <a:graphic xmlns:a="http://purl.oclc.org/ooxml/drawingml/main" 5. <a:graphicData uri="http://purl.oclc.org/ooxml/drawingml/picture"> 6. <wpg:wgp> 7. <wpg:cNvGrpSpPr> 8. ... 9. <a:extLst> 10. <a:ext> 11. <a15:nonVisualGroupProps xmlns:a15="http://schemas.microsoft.com/office/drawing/2012/main" .../> | |

The **drawing** element is specified in [ISO/IEC29500-1:2016] section 17.3.3.9, **graphic** is specified in [ISO/IEC29500-1:2016] section 20.1.2.2.16, **graphicData** is specified in [ISO/IEC29500-1:2016] section 20.1.2.2.17, and **wpg:wgp** is an element from [CT\_WordprocessingCanvas](#Section_c62c9d5877b1426fb11d9a6f877e7491).

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **cNvGrpSpPr** element ([ISO/IEC29500-1:2016] section 20.5.2.6) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.

| Extension URI | Child element |
| --- | --- |
| {F59B8463-F414-42e2-B3A4-FFEF48DC7170} | **nonVisualGroupProps** |

#### Signature Lines

This section specifies how the [CT\_SignatureLine](#Section_c2b1ca29f8a146ee91e20449a475c1de) type and [signatureLine](#Section_bfb76f8b13a541bba9f64aff2d86ec77) are integrated into the Office Open XML file formats.[<39>](#Appendix_A_39" \o "Product behavior note 39)

| AlternateContent components | Child elements |
| --- | --- |
| Choice:  urn:schemas-microsoft-com:vml | **pict**  ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068)) section 9.2.2.2 |
| Choice structure:   1. <w:pict> 2. <v: ... > 3. ... | |
| Fallback (no VML) | **drawing**  ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065)) section 17.3.3.9 |
| Fallback structure:   1. <w:object> 2. <w:drawing> 3. ... 4. <a:graphic xmlns:a="http://purl.oclc.org/ooxml/drawingml/main" 5. <a:graphicData uri="http://purl.oclc.org/ooxml/drawingml/picture"> 6. <pic:pic xmlns:pic="http://purl.oclc.org/ooxml/drawingml/picture"> 7. <pic:nvPicPr> 8. <pic:cNvPicPr> 9. <a:extLst> 10. <a:ext> 11. <a15: signatureLine.../> | |

**graphic** is specified in [ISO/IEC29500-1:2016] section 20.1.2.2.16, **graphicData** is specified in [ISO/IEC29500-1:2016] section 20.1.2.2.17, **pic** is specified in [ISO/IEC29500-1:2016] section 19.3.1.37, and **nvPicPr** is specified in [ISO/IEC29500-1:2016] section 19.3.1.32.

The **extLst** child element ([ISO/IEC29500-1:2016] section 21.2.2.64) of the **cNvPicPr** element ([ISO/IEC29500-1:2016] section 19.3.1.11) is extended by the addition of an **ext** child element, for which the structure is specified in the following table.

| Extension URI | Child element |
| --- | --- |
| {F385189D-CB6C-4498-A905-10932F83BE7A} | **signatureLine** |

### Tables

The **extLst** child element of the **gridCol** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 19.2.1.27) is extended by the addition of a new **ext** child element ([ISO/IEC29500-1:2016] section 19.2.1.11), whose structure is specified in the following table.[<40>](#Appendix_A_40" \o "Product behavior note 40)

| Ext uri | Child element |
| --- | --- |
| {9D8B030D-6E8A-4147-A177-3AD203B41FA5} | **a16:colId**(section [2.25.1.1](#Section_4ca9b64cf5004d3b8d7867af6b591c26)) |

The **extLst** child element of the **tr** element ([ISO/IEC29500-1:2016] section 19.2.1.27) is extended by the addition of a new **ext** child element ([ISO/IEC29500-1:2016] section 19.2.1.11), whose structure is specified in the following table.[<41>](#Appendix_A_41" \o "Product behavior note 41)

| Ext uri | Child element |
| --- | --- |
| {0D108BD9-81ED-4DB2-BD59-A6C34878D82A} | **a16:rowId**(section section [2.25.1.5](#Section_0cfb72cdce1f4be9973ef3b95e73d008)) |

## http://schemas.microsoft.com/office/drawing/2010/main

### Elements

#### cameraTool

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

A [CT\_CameraTool](#Section_997b73db012d4068966a5452529b9be4) element that specifies that a picture, as defined by the **pic** element as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.2.2.5, is a camera object. A camera object is a picture that shows a live view of a cell range in the specified spreadsheet, including any graphic objects contained in the cell range and all formatting applied to the contents of the cell range. Updates to the contents of the cell range are reflected in the camera object. [**Shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) properties, such as the position and size of the camera object, are defined by the parent **pic** element. The view of the cell range MUST be a rectangle. The view of the cell range MUST scale vertically and horizontally to fill the rectangle exactly.

See section [2.2.6.1](#Section_2eba4276701d4d5aa5c6363aeb5ddaef) for information about how this element is integrated with the Open XML file formats.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="cameraTool" type="CT\_CameraTool"/>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### compatExt

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

A [CT\_CompatExt](#Section_3cacf328bd954a4da73667bdb076ecf8) element that specifies a legacy drawing object. The legacy drawing object MUST be a form [**control**](#gt_3c89d16f-a826-4166-96ab-bf13e65b1a40) or a legacy [**OLE**](#gt_171744b8-3f44-4198-b7b9-1c0147282d2c) or [**ActiveX control**](#gt_f3dcc35f-8f80-474e-ac39-106a23f059c2) object.

The application can delete this legacy [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) when loading.[<42>](#Appendix_A_42" \o "Product behavior note 42)

See section 2.2.6 for how this element integrates with the Open XML file formats -as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="compatExt" type="CT\_CompatExt"/>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### contentPart

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

A [CT\_GvmlContentPart](#Section_b03af00a9a4b4a2d9694024aee87345f) element that specifies a reference to XML content in a format not specified by [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065).

This element serves the same purpose as the **contentPart** element in PresentationML ([ISO/IEC29500-1:2016] section 19.3.1.14), but appears as an element in **CT\_GvmlGroupShape** ([ISO/IEC29500-1:2016] section A.4.1).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="contentPart" type="CT\_GvmlContentPart"/>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### hiddenEffects

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

A **CT\_EffectProperties** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that stores the effect information of an object when the effects have been set to invisible. If effects have been set to visible this element is ignored.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="hiddenEffects" type="a:CT\_EffectProperties"/>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### hiddenFill

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

A **CT\_FillProperties** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that stores the fill information of an object when the [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) fill has been set to invisible. If shape fill has been set to visible this element is ignored.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="hiddenFill" type="a:CT\_FillProperties"/>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### hiddenLine

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

A **CT\_LineProperties** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that stores the line information of an object when the line fill has been set to invisible. If line fill has been set to visible this element is ignored.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="hiddenLine" type="a:CT\_LineProperties"/>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### hiddenScene3d

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

A **CT\_Scene3D** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that stores the 3-D scene information of a scene when the 3-D scene effects have been set to invisible. If the 3-D scene effects have been set to visible this element is ignored.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="hiddenScene3d" type="a:CT\_Scene3D"/>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### hiddenSp3d

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

A **CT\_Shape3D** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that stores the 3-D [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) information of an object when the 3-D shape effects have been set to invisible. If the 3-D shape effects have been set to visible this element is ignored.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="hiddenSp3d" type="a:CT\_Shape3D"/>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### imgProps

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Element type:* **CT\_Photo**

*An extension list child element of:* binary large image or picture (BLIP) as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.8.13

(For more details, see [ISO/IEC29500-1:2016] section 10.1.2)

*Extension list Uri attribute:* {BEBA8EAE-BF5A-486c-A8C5-ECC9F3942E4B}

A [CT\_Photo](#Section_e15238f86d144dc68dbdf58104b88cf2) element that specifies properties that produce the embedded picture in the containing BLIP.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="imgProps" type="CT\_Photo"/>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### isCanvas

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Element type:* **CT\_IsGvmlCanvas**

*An extension list child element of:* **grpSp** ([**Group shape**](#gt_b2238184-3c83-4e64-babb-08b02a9138db)) as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.2.2.20

(For more details, see [ISO/IEC29500-1:2016] section 10.1.2.)

*Extension list URI attribute:* {42C33886-CC25-47f2-ACA8-312CCD89CECE}

The **val** attribute of this element MUST be set to TRUE if the containing **grpSp** is a GVML representation of a [**drawing canvas**](#gt_ee7cf8fb-0720-4e24-93fe-f22c5bc8c20f) from a word processing application.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="isCanvas" type="CT\_IsGvmlCanvas"/>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### m

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

A [CT\_TextMath](#Section_cdafda97912448ed8d647f1dd9197c8a) element that specifies either math content in a text paragraph (when such an element is used inside of a text paragraph) or document-level math properties container (when it is used in presentation properties specified by PresentationML). The math content in a text paragraph can be either an inline math zone or a math paragraph.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="m" type="CT\_TextMath"/>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### shadowObscured

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Element type:* **CT\_ShadowObscured**

*An extension list child element of:* [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.2.2.6

For more details, see [ISO/IEC29500-1:2016] section 10.1.2.

*Extension list URI attribute:* {53640926-AAD7-44d8-BBD7-CCE9431645EC}

A [CT\_ShadowObscured](#Section_5f9f9e6092904a68b61f13807194e80b) element that specifies whether a shadow is obscured by a [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) with no fill.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="shadowObscured" type="CT\_ShadowObscured"/>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### useLocalDpi

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Element type:* **CT\_UseLocalDpi**

*An extension list child element of:* BLIP as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.8.13.

For more details, see [ISO/IEC29500-1:2016] section 10.1.2.

*Extension list URI attribute:* {28A0092B-C50C-407e-A947-70E740481C1C}

A [CT\_UseLocalDpi](#Section_2d5944feef104a1e8c473bcee2917930) element that specifies a flag indicating that the local BLIP compression setting overrides the document default compression setting.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="useLocalDpi" type="CT\_UseLocalDpi"/>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

#### legacySpreadsheetColorIndex

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Attribute type:* ST\_LegacySpreadsheetColorIndex

*Extension attribute on type:* **srgbClr** (RGB Color Model - Hex Variant) as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.2.3.32

To maintain compatibility with implementations of Office Open XML file formats, the namespace prefix of this attribute MUST be specified in an **Ignorable** attribute ( [[ISO/IEC29500-3:2015]](https://go.microsoft.com/fwlink/?linkid=861154) section 10.1.1).

This attribute is an index into a color table specified by the **indexedColors** element ([ISO/IEC29500-1:2016] section 18.8.27) defined in a SpreadsheetML document.

When present in the context of a spreadsheet application, this attribute overrides any other color information present under its parent **CT\_SRgbColor** element. This attribute is ignored in all other contexts.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this attribute.

1. <xsd:attribute name="legacySpreadsheetColorIndex" type="ST\_LegacySpreadsheetColorIndex"/>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Complex Types

#### CT\_CameraTool

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [cameraTool](#Section_9e13a8f7c2a3459e8897e50e64f9d62a)

A complex type that specifies camera tool properties.

*Attributes:*

**cellRange:** An **xsd:string** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) that uses standard cell reference syntax as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 18.17.2.3. This specifies the cell range of the camera tool. The cell range MUST use the A1 style reference, instead of the R1C1 reference. The cell range MUST be used when defining the camera tool.

**spid:** An **xsd:string** ([XMLSCHEMA2] section 3.2.1) that specifies the [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) identifier of a legacy drawing object. If string is "0" there is no legacy shape. However the legacy drawing object MUST be deleted if the current drawing element is to be used. Otherwise, two camera tool objects are present.

This string has the following characteristics:

* If string is not the default value it MUST begin with "\_x0000\_" followed by one character and a number that specifies the identifier: \_x0000\_[c]<shape id>
  + The character [c] MUST be set to ‘s’.
  + Shape identifiers MUST be in the range from 1025 through 268435456.
  + Shape identifiers are clustered, and each cluster has 1024 values. The first cluster ranges from 1025 through 2048.
  + Shape identifiers in the same cluster SHOULD only exist in one worksheet.
* It MUST NOT contain Numeric Character Reference (NCR) characters.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_CameraTool">
2. <xsd:attribute name="cellRange" type="xsd:string"/>
3. <xsd:attribute name="spid" use="optional" default="0" type="xsd:string"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_CompatExt

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [compatExt](#Section_5845dd01de5649af9a6e8b1ccdb9d64a)

A complex type that specifies a legacy drawing object.

*Attributes:*

**spid:** An **xsd:string** attribute ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) that specifies the [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) identifier of a legacy drawing object.

This string has the following characteristics:

* It begins with "\_x0000\_" followed by one character and a number that specifies the identifier: \_x0000\_[c]<shape id>
  + The character [c] MUST be set to ‘s’.
  + Shape identifiers MUST be in the range from 1025 through 268435456.
  + Shape identifiers are clustered, and each cluster has 1024 values. The first cluster ranges from 1025 through 2048.
  + Shape identifiers in the same cluster exist in only one worksheet.
* It MUST NOT contain NCR characters.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_CompatExt">
2. <xsd:attribute name="spid" type="xsd:string"/>
3. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ContentPartLocking

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_NonVisualInkContentPartProperties](#Section_02405edf8c8048248cee8b3618dbda13)

Contains various locking properties that prevent or restrict certain changes to the content part properties or restrict how a content part can be manipulated by the user. Restrictions are enforced only at the UI and Object Model levels.

*Child Elements:*

**extLst:** A **CT\_OfficeArtExtensionList** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the extension list in which all future extensions of element type **ext** is defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various types of data to be stored natively in the framework.

*Attributes:*

**noGrp:**  A Boolean attribute that specifies that the generating application does not enable shape grouping for the corresponding content part. That is, it cannot be combined with other shapes to form a group of shapes. The default value is FALSE.

**noSelect:** A Boolean attribute that specifies that the generating application does not enable selecting the corresponding content part. No picture, shapes, or text attached to this content part can be selected if this attribute has been specified. The default value is FALSE.

**noRot:** A Boolean attribute that specifies that the corresponding content part cannot be rotated. The default value is FALSE.

**noChangeAspect:** A Boolean attribute that specifies that the generating application does not enable aspect ratio changes for the corresponding content part. The default value is FALSE.

**noMove:** A Boolean attribute that specifies that the generating application does not enable position changes for the corresponding content part. The default value is FALSE.

**noResize:** A Boolean attribute that specifies that the generating application does not enable size changes for the corresponding content part. The default value is FALSE.

**noEditPoints:** A Boolean attribute that specifies that the generating application does not enable shape point changes for the corresponding content part. The default value is FALSE.

**noAdjustHandles:** A Boolean attribute that specifies that the generating application does not show adjust handles for the corresponding content part. The default value is FALSE.

**noChangeArrowheads:** A Boolean attribute that specifies that the generating application does not enable arrowhead changes for the corresponding content part. The default value is FALSE.

**noChangeShapeType:** A Boolean attribute that specifies that the generating application does not enable shape type changes for the corresponding content part. The default value is FALSE.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ContentPartLocking">
2. <xsd:sequence>
3. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
4. </xsd:sequence>
5. <xsd:attributeGroup ref="a:AG\_Locking"/>
6. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GvmlContentPart

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [contentPart](#Section_cd1ad738d9cb4912860a325d3720951a)

A complex type that specifies a reference to XML content in a format not specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065).

The relationship type of the explicit relationship specified by this element MUST be of type http://schemas.openxmlformats.org/officeDocument/2006/customXml and have a **TargetMode** attribute set to "Internal". If an application cannot process the content of the content type specified by the targeted part, the application ignores the content and continues to process the file.

*Child Elements:*

**nvContentPartPr:** A [CT\_GvmlContentPartNonVisual](#Section_a5243afcdd4540e0bc56d7542b28af88) element that specifies non-visual properties of the content part.

**xfrm:** A **CT\_Transform2D** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the 2-D transform for the content part.

**extLst:** A **CT\_OfficeArtExtensionList** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

*Attributes:*

**bwMode:** An **ST\_BlackWhiteMode** attribute ([ISO/IEC29500-1:2016] section 20.1.10.10) that specifies how to interpret color information contained within a content part to achieve a color, black and white, or grayscale rendering of the content part. This attribute specifies only the rendering mode applied to the content part; it does not affect how the actual color information is persisted.

**r:id:** An **ST\_RelationshipId** attribute ([ISO/IEC29500-1:2016] section 22.8.2.1) that specifies the relationship identifier to a content part.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GvmlContentPart">
2. <xsd:sequence>
3. <xsd:element name="nvContentPartPr" type="CT\_GvmlContentPartNonVisual" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="xfrm" type="a:CT\_Transform2D" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. <xsd:attribute name="bwMode" type="a:ST\_BlackWhiteMode" use="optional"/>
8. <xsd:attribute ref="r:id" use="required"/>
9. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GvmlContentPartNonVisual

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_GvmlContentPart](#Section_b03af00a9a4b4a2d9694024aee87345f)

A complex type which specifies non-visual properties for a **CT\_GvmlContentPart**.

*Child Elements:*

**cNvPr:** A **CT\_NonVisualDrawingProps** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the non-visual drawing properties for the content part. This element provides additional information that does not affect the appearance of the content part to be stored.

**cNvContentPartPr:** A [CT\_NonVisualInkContentPartProperties](#Section_02405edf8c8048248cee8b3618dbda13) element that specifies non-visual [**ink**](#gt_9fcdd1d5-3563-49b9-8a2e-bf696fb08fd0) properties for the content part. This provides additional information that does not affect the appearance of ink in the content part to be stored.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GvmlContentPartNonVisual">
2. <xsd:sequence>
3. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="cNvContentPartPr" type="CT\_NonVisualInkContentPartProperties" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_IsGvmlCanvas

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [isCanvas](#Section_3103cb75dcf74ea4a56510d0d886ca13)

Defines a property with a Boolean value. This property determines whether the container of an instance of this complex type is a GVML representation of a [**drawing canvas**](#gt_ee7cf8fb-0720-4e24-93fe-f22c5bc8c20f) used in a word processing application**.**

*Attributes:*

**val:** A Boolean attribute ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) that specifies whether the container instance of the complex type having this attribute is a GVML representation of a drawing canvas used in a word processing application**.**

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_IsGvmlCanvas">
2. <xsd:attribute name="val" type="xsd:boolean" use="required"/>
3. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_NonVisualInkContentPartProperties

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_ContentPartNonVisual](#Section_6cc737ff9a0d44789b356ee036441beb), [CT\_GvmlContentPartNonVisual](#Section_a5243afcdd4540e0bc56d7542b28af88), [CT\_WordContentPartNonVisual](#Section_73bdd71bc9b9458694df3172723cf40b), [CT\_ContentPartNonVisual](#Section_1eb3f5ba72d24d8692329fa16ef16e11)

A complex type that specifies non-visual [**ink**](#gt_9fcdd1d5-3563-49b9-8a2e-bf696fb08fd0) properties for a content part. This provides additional information that does not affect the appearance of ink in the content part to be stored.

*Child Elements:*

**cpLocks:** A [CT\_ContentPartLocking](#Section_1412667a89a445129142f1919bb3a7af) element that specifies various locking properties that prevent or restrict changes to the content part properties or restrict how a content part can be manipulated by the user.

**extLst:** A **CT\_OfficeArtExtensionList** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables new types of data to be stored natively within the framework.

*Attributes:*

**isComment:** A Boolean attribute ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) that specifies whether the ink shape is a [**comment**](#gt_c8a897b9-522f-4b7a-8df6-40b65ac09f4d) or an annotation. If true, the ink is a comment; otherwise, it is an annotation.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_NonVisualInkContentPartProperties">
2. <xsd:sequence>
3. <xsd:element name="cpLocks" type="CT\_ContentPartLocking" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. <xsd:attribute name="isComment" type="xsd:boolean" use="optional" default="true"/>
7. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Photo

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [imgProps](#Section_987a3a4296d74affad43fb600752011e)

A complex type that specifies properties used to produce the embedded picture in the containing binary large image or picture (BLIP).

*Child Elements:*

**imgLayer:** A **CT\_PictureLayer** element that specifies a relationship to an original picture and contains optional effects applied to the picture in the order applied.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Photo">
2. <xsd:sequence>
3. <xsd:element name="imgLayer" type="CT\_PictureLayer" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectBackgroundRemoval

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a background removal effect applied to a picture. A marquee defines the rectangular region limiting the pixels that are considered to be in the foreground of a picture. Foreground and background marks further specify regions to include and exclude.

*Child Elements:*

**foregroundMark:** A **CT\_PictureEffectBackgroundRemovalForegroundMark** element that specifies a line segment that marks a region to include in a picture.

**backgroundMark:** A **CT\_PictureEffectBackgroundRemovalBackgroundMark** element that specifies a line segment that marks a region to exclude from a picture.

*Attributes:*

**t:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the top position of the marquee, relative to the height of a picture.

**b:** An **ST\_PositiveFixedPercentage** attribute ([ISO/IEC29500-1:2016] section A.4.1) that specifies the bottom position of the marquee, relative to the height of a picture.

**l:** An **ST\_PositiveFixedPercentage** attribute ([ISO/IEC29500-1:2016] section A.4.1) that specifies the left position of the marquee, relative to the width of a picture.

**r:** An **ST\_PositiveFixedPercentage** attribute ([ISO/IEC29500-1:2016] section A.4.1) that specifies the right position of the marquee, relative to the width of a picture.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectBackgroundRemoval">
2. <xsd:sequence>
3. <xsd:element name="foregroundMark" type="CT\_PictureEffectBackgroundRemovalForegroundMark" minOccurs="0" maxOccurs="unbounded"/>
4. <xsd:element name="backgroundMark" type="CT\_PictureEffectBackgroundRemovalBackgroundMark" minOccurs="0" maxOccurs="unbounded"/>
5. </xsd:sequence>
6. <xsd:attribute name="t" type="a:ST\_PositiveFixedPercentage" use="required"/>
7. <xsd:attribute name="b" type="a:ST\_PositiveFixedPercentage" use="required"/>
8. <xsd:attribute name="l" type="a:ST\_PositiveFixedPercentage" use="required"/>
9. <xsd:attribute name="r" type="a:ST\_PositiveFixedPercentage" use="required"/>
10. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectBackgroundRemovalBackgroundMark

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffectBackgroundRemoval](#Section_4f3465d4e7734c7a9ea420e16549145a)

A complex type that specifies a line segment that marks a region to exclude from a picture.

*Attributes:*

**x1:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the first x coordinate of the background mark, relative to the width of a picture.

**y1:** An **ST\_PositiveFixedPercentage** attribute ([ISO/IEC29500-1:2016] section A.4.1) that specifies the first y coordinate of the background mark, relative to the height of a picture**.**

**x2:** An **ST\_PositiveFixedPercentage** attribute ([ISO/IEC29500-1:2016] section A.4.1) that specifies the second x coordinate of the background mark, relative to the width of a picture**.**

**y2:** An **ST\_PositiveFixedPercentage** attribute ([ISO/IEC29500-1:2016] section A.4.1) that specifies the second y coordinate of the background mark, relative to the height of a picture.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectBackgroundRemovalBackgroundMark">
2. <xsd:attribute name="x1" type="a:ST\_PositiveFixedPercentage" use="required"/>
3. <xsd:attribute name="y1" type="a:ST\_PositiveFixedPercentage" use="required"/>
4. <xsd:attribute name="x2" type="a:ST\_PositiveFixedPercentage" use="required"/>
5. <xsd:attribute name="y2" type="a:ST\_PositiveFixedPercentage" use="required"/>
6. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectBackgroundRemovalForegroundMark

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffectBackgroundRemoval](#Section_4f3465d4e7734c7a9ea420e16549145a)

A complex type that specifies a line segment that marks a region to include in a picture.

*Attributes:*

**x1:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the first x coordinate of the foreground mark, relative to the width of a picture.

**y1:** An **ST\_PositiveFixedPercentage** attribute ([ISO/IEC29500-1:2016] section A.4.1) that specifies the first y coordinate of the foreground mark, relative to the height of a picture.

**x2:** An **ST\_PositiveFixedPercentage** attribute ([ISO/IEC29500-1:2016] section A.4.1) that specifies the second x coordinate of the foreground mark, relative to the width of a picture.

**y2:** An **ST\_PositiveFixedPercentage** attribute ([ISO/IEC29500-1:2016] section A.4.1) that specifies the second y coordinate of the foreground mark, relative to the height of a picture.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectBackgroundRemovalForegroundMark">
2. <xsd:attribute name="x1" type="a:ST\_PositiveFixedPercentage" use="required"/>
3. <xsd:attribute name="y1" type="a:ST\_PositiveFixedPercentage" use="required"/>
4. <xsd:attribute name="x2" type="a:ST\_PositiveFixedPercentage" use="required"/>
5. <xsd:attribute name="y2" type="a:ST\_PositiveFixedPercentage" use="required"/>
6. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectBlur

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a blur effect applied to a picture.

The following figure demonstrates the effect applied to a picture with radius values of zero, 5, 10, 20, and 40, respectively.



Figure 1: Effect of changes to blur radius

*Attributes:*

**radius:** An **ST\_ArtisticEffectParam100** attribute that specifies the blur radius.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectBlur">
2. <xsd:attribute name="radius" type="ST\_ArtisticEffectParam100" use="optional" default="10"/>
3. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectBrightnessContrast

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a brightness and contrast effect applied to a picture.

The following figure demonstrates the effect applied to a picture with brightness values of –40 percent, –20 percent, zero percent, +20 percent, and +40 percent, respectively.



Figure 2: Effect of changes to brightness

The following figure demonstrates the effect applied to a picture with contrast values of –40 percent, –20 percent, zero percent, +20 percent, and +40 percent, respectively.



Figure 3: Effect of changes to contrast

*Attributes:*

**bright:** An **ST\_FixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the percent to change the brightness**.**

**contrast:** An **ST\_FixedPercentage** attribute ([ISO/IEC29500-1:2016] section A.4.1) that specifies the percent to change the contrast.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectBrightnessContrast">
2. <xsd:attribute name="bright" type="a:ST\_FixedPercentage" use="optional" default="0"/>
3. <xsd:attribute name="contrast" type="a:ST\_FixedPercentage" use="optional" default="0"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectCement

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a cement effect applied to a picture.

The following figure demonstrates the effect applied to a picture with **crackSpacing** values of zero, 25, 50, 75, and 100, respectively.



Figure 4: Effect of changes to crackSpacing

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**crackSpacing:** An **ST\_ArtisticEffectParam100** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectCement">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
3. <xsd:attribute name="crackSpacing" type="ST\_ArtisticEffectParam100" use="optional" default="24"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectChalkSketch

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a chalk sketch effect applied to a picture.

The following figure demonstrates the effect applied to a picture with pressure values of zero, 1, 2, 3, and 4 respectively.



Figure 5: Effect of changes to pressure

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**pressure:** An **ST\_ArtisticEffectParam4** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectChalkSketch">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
3. <xsd:attribute name="pressure" type="ST\_ArtisticEffectParam4" use="optional" default="0"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectColorTemperature

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a color temperature effect applied to a picture.

The following figure demonstrates the effect applied to a picture with **colorTemperature** values of 3500, 4500, 6500, 8500, and 10500, respectively.



Figure 6: Effect of changes to colorTemperature

*Attributes:*

**colorTemp:** An **ST\_ColorTemperature** attribute that specifies the color temperature of the light source in a picture.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectColorTemperature">
2. <xsd:attribute name="colorTemp" type="ST\_ColorTemperature" use="optional" default="6500"/>
3. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectCrisscrossEtching

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a crisscross etching effect applied to a picture.

The following figure demonstrates the effect applied to a picture with pressure values of zero, 25, 50, 75, and 100, respectively.



Figure 7: Effect of changes to pressure

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**pressure:** An **ST\_ArtisticEffectParam100** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectCrisscrossEtching">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="75"/>
3. <xsd:attribute name="pressure" type="ST\_ArtisticEffectParam100" use="optional" default="30"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectCutout

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a cutout effect applied to a picture.

The following figure demonstrates the effect applied to a picture with **numberOfShades** values of zero, 2, 3, 4, and 6, respectively.



Figure 8: Effect of changes to numberOfShades

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**numberOfShades:** An **ST\_ArtisticEffectParam6** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectCutout">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
3. <xsd:attribute name="numberOfShades" type="ST\_ArtisticEffectParam6" use="optional" default="2"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffect

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureLayer](#Section_b56e43bc1ce24463a335895bcd622102)

A complex type that specifies an effect applied to a picture. Exactly one child element MUST exist to specify the type of effect.

*Child Elements:*

**artisticBlur:** A **CT\_PictureEffectBlur** element that specifies the blur picture effect.

**artisticCement:** A **CT\_PictureEffectCement** element that specifies the cement picture effect.

**artisticChalkSketch:** A **CT\_PictureEffectChalkSketch** element that specifies the chalk sketch picture effect.

**artisticCrisscrossEtching:** A **CT\_PictureEffectCrisscrossEtching** element that specifies the crisscross etching picture effect.

**artisticCutout:** A **CT\_PictureEffectCutout** element that specifies the cutout picture effect.

**artisticFilmGrain:** A **CT\_PictureEffectFilmGrain** element that specifies the film grain picture effect.

**artisticGlass:** A **CT\_PictureEffectGlass** element that specifies the glass picture effect.

**artisticGlowDiffused:** A **CT\_PictureEffectGlowDiffused** element that specifies the glow diffused picture effect.

**artisticGlowEdges:** A **CT\_PictureEffectGlowEdges** element that specifies the glow edges picture effect.

**artisticLightScreen:** A **CT\_PictureEffectLightScreen** element that specifies the light screen picture effect.

**artisticLineDrawing:** A **CT\_PictureEffectLineDrawing** element that specifies the line-drawing picture effect.

**artisticMarker:** A **CT\_PictureEffectMarker** element that specifies the marker picture effect.

**artisticMosiaicBubbles:** A **CT\_PictureEffectMosiaicBubbles** element that specifies the mosaic bubbles picture effect.

**artisticPaintStrokes:** A **CT\_PictureEffectPaintStrokes** element that specifies the paint strokes picture effect.

**artisticPaintBrush:** A **CT\_PictureEffectPaintBrush** element that specifies the paint-brush picture effect.

**artisticPastelsSmooth:** A **CT\_PictureEffectPastelsSmooth** element that specifies the pastel smooth picture effect.

**artisticPencilGrayscale:** A **CT\_PictureEffectPencilGrayscale** element that specifies the pencil grayscale picture effect.

**artisticPencilSketch:** A **CT\_PictureEffectPencilSketch** element that specifies the pencil-sketch picture effect.

**artisticPhotocopy:** A **CT\_PictureEffectPhotocopy** element that specifies the photocopy picture effect.

**artisticPlasticWrap:** A **CT\_PictureEffectPlasticWrap** element that specifies the plastic wrap picture effect.

**artisticTexturizer:** A **CT\_PictureEffectTexturizer** element that specifies the texture picture effect.

**artisticWatercolorSponge:** A **CT\_PictureEffectWatercolorSponge** element that specifies the watercolor-sponge picture effect.

**backgroundRemoval:** A **CT\_PictureEffectBackgroundRemoval** element that specifies the background-removal picture effect.

**brightnessContrast:** A **CT\_PictureEffectBrightnessContrast** element that specifies the brightness and contrast picture effect.

**colorTemperature:** A **CT\_PictureEffectColorTemperature** element that specifies the color-tone picture effect.

**saturation:** A **CT\_PictureEffectSaturation** element that specifies the color-saturation picture effect.

**sharpenSoften:** A **CT\_PictureEffectSharpenSoften** element that specifies the sharpen and soften picture effect.

*Attributes:*

**visible:** A Boolean attribute ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) that specifies whether this picture effect is rendered.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffect">
2. <xsd:choice minOccurs="1" maxOccurs="1">
3. <xsd:element name="artisticBlur" type="CT\_PictureEffectBlur" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="artisticCement" type="CT\_PictureEffectCement" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="artisticChalkSketch" type="CT\_PictureEffectChalkSketch" minOccurs="1" maxOccurs="1"/>
6. <xsd:element name="artisticCrisscrossEtching" type="CT\_PictureEffectCrisscrossEtching" minOccurs="1" maxOccurs="1"/>
7. <xsd:element name="artisticCutout" type="CT\_PictureEffectCutout" minOccurs="1" maxOccurs="1"/>
8. <xsd:element name="artisticFilmGrain" type="CT\_PictureEffectFilmGrain" minOccurs="1" maxOccurs="1"/>
9. <xsd:element name="artisticGlass" type="CT\_PictureEffectGlass" minOccurs="1" maxOccurs="1"/>
10. <xsd:element name="artisticGlowDiffused" type="CT\_PictureEffectGlowDiffused" minOccurs="1" maxOccurs="1"/>
11. <xsd:element name="artisticGlowEdges" type="CT\_PictureEffectGlowEdges" minOccurs="1" maxOccurs="1"/>
12. <xsd:element name="artisticLightScreen" type="CT\_PictureEffectLightScreen" minOccurs="1" maxOccurs="1"/>
13. <xsd:element name="artisticLineDrawing" type="CT\_PictureEffectLineDrawing" minOccurs="1" maxOccurs="1"/>
14. <xsd:element name="artisticMarker" type="CT\_PictureEffectMarker" minOccurs="1" maxOccurs="1"/>
15. <xsd:element name="artisticMosiaicBubbles" type="CT\_PictureEffectMosiaicBubbles" minOccurs="1" maxOccurs="1"/>
16. <xsd:element name="artisticPaintStrokes" type="CT\_PictureEffectPaintStrokes" minOccurs="1" maxOccurs="1"/>
17. <xsd:element name="artisticPaintBrush" type="CT\_PictureEffectPaintBrush" minOccurs="1" maxOccurs="1"/>
18. <xsd:element name="artisticPastelsSmooth" type="CT\_PictureEffectPastelsSmooth" minOccurs="1" maxOccurs="1"/>
19. <xsd:element name="artisticPencilGrayscale" type="CT\_PictureEffectPencilGrayscale" minOccurs="1" maxOccurs="1"/>
20. <xsd:element name="artisticPencilSketch" type="CT\_PictureEffectPencilSketch" minOccurs="1" maxOccurs="1"/>
21. <xsd:element name="artisticPhotocopy" type="CT\_PictureEffectPhotocopy" minOccurs="1" maxOccurs="1"/>
22. <xsd:element name="artisticPlasticWrap" type="CT\_PictureEffectPlasticWrap" minOccurs="1" maxOccurs="1"/>
23. <xsd:element name="artisticTexturizer" type="CT\_PictureEffectTexturizer" minOccurs="1" maxOccurs="1"/>
24. <xsd:element name="artisticWatercolorSponge" type="CT\_PictureEffectWatercolorSponge" minOccurs="1" maxOccurs="1"/>
25. <xsd:element name="backgroundRemoval" type="CT\_PictureEffectBackgroundRemoval" minOccurs="1" maxOccurs="1"/>
26. <xsd:element name="brightnessContrast" type="CT\_PictureEffectBrightnessContrast" minOccurs="1" maxOccurs="1"/>
27. <xsd:element name="colorTemperature" type="CT\_PictureEffectColorTemperature" minOccurs="1" maxOccurs="1"/>
28. <xsd:element name="saturation" type="CT\_PictureEffectSaturation" minOccurs="1" maxOccurs="1"/>
29. <xsd:element name="sharpenSoften" type="CT\_PictureEffectSharpenSoften" minOccurs="1" maxOccurs="1"/>
30. </xsd:choice>
31. <xsd:attribute name="visible" type="xsd:boolean" use="optional" default="true"/>
32. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectFilmGrain

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a film grain effect applied to a picture.

The following figure demonstrates the effect applied to a picture with **grainSize** values of zero, 25, 50, 75, and 100, respectively.



Figure 9: Effect of changes to grainSize

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**grainSize:** An **ST\_ArtisticEffectParam100** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectFilmGrain">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
3. <xsd:attribute name="grainSize" type="ST\_ArtisticEffectParam100" use="optional" default="40"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectGlass

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a glass effect applied to a picture.

The following figure demonstrates the effect applied to a picture with scaling values of zero, 25, 50, 75, and 100, respectively.



Figure 10: Effect of changes to scaling

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**scaling:** An **ST\_ArtisticEffectParam100** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectGlass">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
3. <xsd:attribute name="scaling" type="ST\_ArtisticEffectParam100" use="optional" default="34"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectGlowDiffused

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a glow diffused effect applied to a picture.

The following figure demonstrates the effect applied to a picture with intensity values of zero, 2, 5, 7, and 10, respectively.



Figure 11: Effect of changes to intensity

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**intensity:** An **ST\_ArtisticEffectParam10** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectGlowDiffused">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
3. <xsd:attribute name="intensity" type="ST\_ArtisticEffectParam10" use="optional" default="5"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectGlowEdges

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a glow edges effect applied to a picture.

The following figure demonstrates the effect applied to a picture with smoothness values of zero, 2, 5, 7, and 10, respectively.



Figure 12: Effect of changes to smoothness

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**smoothness:** An **ST\_ArtisticEffectParam10** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectGlowEdges">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="15"/>
3. <xsd:attribute name="smoothness" type="ST\_ArtisticEffectParam10" use="optional" default="3"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectLightScreen

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a light screen effect applied to a picture.

The following figure demonstrates the effect applied to a picture with **gridSize** values of zero, 2, 5, 7, and 10, respectively.



Figure 13: Effect of changes to gridSize

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**gridSize:** An **ST\_ArtisticEffectParam10** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectLightScreen">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
3. <xsd:attribute name="gridSize" type="ST\_ArtisticEffectParam10" use="optional" default="4"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectLineDrawing

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a line drawing effect applied to a picture.

The following figure demonstrates the effect applied to a picture with **pencilSize** values of zero, 25, 50, 75, and 100, respectively.



Figure 14: Effect of changes to pencilSize

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**pencilSize:** An **ST\_ArtisticEffectParam100** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectLineDrawing">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="25"/>
3. <xsd:attribute name="pencilSize" type="ST\_ArtisticEffectParam100" use="optional" default="0"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectMarker

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a marker effect applied to a picture.

The following figure demonstrates the effect applied to a picture with size values of zero, 25, 50, 75, and 100, respectively.



Figure 15: Effect of changes to size

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**size:** An **ST\_ArtisticEffectParam100** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectMarker">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
3. <xsd:attribute name="size" type="ST\_ArtisticEffectParam100" use="optional" default="97"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectMosiaicBubbles

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a mosaic bubbles effect applied to a picture.

The following figure demonstrates the effect applied to a picture with pressure values of zero, 25, 50, 75, and 100, respectively.



Figure 16: Effect of changes to pressure

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**pressure:** An **ST\_ArtisticEffectParam100** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectMosiaicBubbles">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
3. <xsd:attribute name="pressure" type="ST\_ArtisticEffectParam100" use="optional" default="14"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectPaintBrush

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a paint brush effect applied to a picture.

The following figure demonstrates the effect applied to a picture with **brushSize** values of zero, 2, 5, 7, and 10, respectively.



Figure 17: Effect of changes to brushSize

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**brushSize:** An **ST\_ArtisticEffectParam10** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectPaintBrush">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
3. <xsd:attribute name="brushSize" type="ST\_ArtisticEffectParam10" use="optional" default="2"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectPaintStrokes

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a paint strokes effect applied to a picture.

The following figure demonstrates the effect applied to a picture with intensity values of zero, 2, 5, 7, and 10, respectively.



Figure 18: Effect of changes to intensity

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**intensity:** An **ST\_ArtisticEffectParam10** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectPaintStrokes">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
3. <xsd:attribute name="intensity" type="ST\_ArtisticEffectParam10" use="optional" default="5"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectPastelsSmooth

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a pastel smooth effect applied to a picture.

The following figure demonstrates the effect applied to a picture with scaling values of zero, 25, 50, 75, and 100, respectively.



Figure 19: Effect of changes to scaling

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**scaling:** An **ST\_ArtisticEffectParam100** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectPastelsSmooth">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
3. <xsd:attribute name="scaling" type="ST\_ArtisticEffectParam100" use="optional" default="34"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectPencilGrayscale

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a pencil grayscale effect applied to a picture.

The following figure demonstrates the effect applied to a picture with **pencilSize** values of zero, 25, 50, 75, and 100, respectively.



Figure 20: Effect of changes to pencilSize

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**pencilSize:** An **ST\_ArtisticEffectParam100** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectPencilGrayscale">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
3. <xsd:attribute name="pencilSize" type="ST\_ArtisticEffectParam100" use="optional" default="27"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectPencilSketch

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a pencil sketch effect applied to a picture.

The following figure demonstrates the effect applied to a picture with pressure values of zero, 25, 50, 75, and 100, respectively.



Figure 21: Effect of changes to pressure

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**pressure:** An **ST\_ArtisticEffectParam100** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectPencilSketch">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
3. <xsd:attribute name="pressure" type="ST\_ArtisticEffectParam100" use="optional" default="22"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectPhotocopy

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a photocopy effect applied to a picture.

The following figure demonstrates the effect applied to a picture with **detail** values of zero, 2, 5, 7, and 10, respectively.



Figure 22: Effect of changes to detail

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**detail:** An **ST\_ArtisticEffectParam10** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectPhotocopy">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="30"/>
3. <xsd:attribute name="detail" type="ST\_ArtisticEffectParam10" use="optional" default="3"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectPlasticWrap

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a plastic wrap effect applied to a picture.

The following figure demonstrates the effect applied to a picture with smoothness values of zero, 2, 5, 7, and 10, respectively.



Figure 23: Effect of changes to smoothness

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**smoothness:** An **ST\_ArtisticEffectParam10** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectPlasticWrap">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
3. <xsd:attribute name="smoothness" type="ST\_ArtisticEffectParam10" use="optional" default="5"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectSaturation

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a saturation effect applied to a picture.

The following figure demonstrates the effect applied to a picture with saturation values of zero percent, 50 percent, 100 percent, 200 percent, and 400 percent, respectively.



Figure 24: Effect of changes to saturation

*Attributes:*

**sat:** An **ST\_SaturationAmount** attribute that specifies the amount of saturation applied to a picture.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectSaturation">
2. <xsd:attribute name="sat" type="ST\_SaturationAmount" use="optional" default="100"/>
3. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectSharpenSoften

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a sharpen and soften effect applied to a picture.

The following figure demonstrates the effect applied to a picture with **sharpenSoften** values of –100 percent, –50 percent, zero percent, +50 percent, and +100 percent, respectively.



Figure 25: Effect of changes to sharpenSoften

*Attributes:*

**amount:** An **ST\_FixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the amount to sharpen (if positive) or the amount to blur (if negative).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectSharpenSoften">
2. <xsd:attribute name="amount" type="a:ST\_FixedPercentage" use="optional" default="0"/>
3. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectTexturizer

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a texture effect applied to a picture.

The following figure demonstrates the effect applied to a picture with scaling values of zero, 25, 50, 75, and 100, respectively.



Figure 26: Effect of changes to scaling

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**scaling:** An **ST\_ArtisticEffectParam100** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectTexturizer">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
3. <xsd:attribute name="scaling" type="ST\_ArtisticEffectParam100" use="optional" default="34"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureEffectWatercolorSponge

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffect](#Section_2b64c69f53f94ffb8efb94acbde44df5)

A complex type that specifies a watercolor sponge effect applied to a picture.

The following figure demonstrates the effect applied to a picture with **brushSize** values of zero, 2, 5, 7, and 10, respectively.



Figure 27: Effect of changes to brushSize

*Attributes:*

**trans:** An **ST\_PositiveFixedPercentage** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the transparency of the effect. A value of zero percent specifies that the effect is applied fully. A value of 100 percent specifies that the effect is not applied.

**brushSize:** An **ST\_ArtisticEffectParam10** attribute that specifies the appearance of the effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureEffectWatercolorSponge">
2. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
3. <xsd:attribute name="brushSize" type="ST\_ArtisticEffectParam10" use="optional" default="2"/>
4. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureLayer

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_Photo](#Section_e15238f86d144dc68dbdf58104b88cf2)

A complex type that specifies a relationship to an original picture and contains optional effects applied to the picture in the order applied.

*Child Elements:*

**imgEffect:** A **CT\_PictureEffect** element that specifies an effect applied to the picture.

*Attributes:*

**r:embed:** An **ST\_RelationshipId** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 22.8.2.1) that specifies the relationship identifier that is used to determine the location of the picture.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureLayer">
2. <xsd:sequence>
3. <xsd:element name="imgEffect" type="CT\_PictureEffect" minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. <xsd:attribute ref="r:embed" use="optional" default=""/>
6. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ShadowObscured

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [shadowObscured](#Section_ee983459959243f9b3129e66f3a89fc5)

A complex type that specifies whether the shadow is obscured by a [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) with no fill.

*Attributes:*

**val:** A Boolean attribute ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) that specifies whether the shadow is fully obscured by the shape when the containing shape has no fill. For more details, see [[MS-ODRAW]](%5bMS-ODRAW%5d.pdf#Section_8560795e77594745838ff7f2ef2f1872) section 2.3.13.22 and [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 19.3.1.44.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ShadowObscured">
2. <xsd:attribute name="val" type="xsd:boolean" use="optional" default="false"/>
3. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_TextMath

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [m](#Section_73c574fa37d748cb8715d2e7c14ea3c8)

This type contains either a math zone or document-level math properties. Math zone content can be either an inline math zone or a math paragraph.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_TextMath"/>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_UseLocalDpi

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [useLocalDpi](#Section_c05c287ff63e4fa98163e3e106b4105f)

A complex type that specifies a flag indicating that the local BLIP compression setting overrides the document default compression setting.

*Attributes:*

**val:** A Boolean attribute ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) that specifies whether the **cstate** attribute ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.10.12) of the containing BLIP overrides the document default compression setting as specified in [[MS-PPTX]](%5bMS-PPTX%5d.pdf#Section_efd8bb2dd8884e2eaf25cad476730c9f) section 2.3.1.5, [[MS-DOCX]](%5bMS-DOCX%5d.pdf#Section_b839fe1fe1ca4fa68c265954d0abbccd) section 2.6.1.12, and [[MS-XLSX]](%5bMS-XLSX%5d.pdf#Section_2c5dee00eff24b2292b60738acd4475e) section 2.6.10.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_UseLocalDpi">
2. <xsd:attribute name="val" type="xsd:boolean" use="optional" default="true"/>
3. </xsd:complexType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

#### ST\_ArtisticEffectParam10

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffectGlowDiffused](#Section_192afaf4a76840fe9302b257ee0b0279), [CT\_PictureEffectGlowEdges](#Section_5ed8d7bd3505441f8c9588d7e25f45de), [CT\_PictureEffectLightScreen](#Section_55a91c74b26747bdb5be9f65752abb53), [CT\_PictureEffectPaintBrush](#Section_741f0e02e05f4bad8a5964d76542af4d), [CT\_PictureEffectPaintStrokes](#Section_d4c354818b63447ab0707ba91b6be02e), [CT\_PictureEffectPhotocopy](#Section_ef4fda2591884807b8014f2374109638), [CT\_PictureEffectPlasticWrap](#Section_195ec6c7920c4461ab8b1ea88522f352), [CT\_PictureEffectWatercolorSponge](#Section_5c82065e332948deb6373c32b19e3c35)

A simple type that specifies a parameter value for an artistic picture effect in the range from zero through 10.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_ArtisticEffectParam10">
2. <xsd:restriction base="xsd:int">
3. <xsd:minInclusive value="0"/>
4. <xsd:maxInclusive value="10"/>
5. </xsd:restriction>
6. </xsd:simpleType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_ArtisticEffectParam100

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffectBlur](#Section_07f6e9602b694c139e4e377f425415f1), [CT\_PictureEffectCement](#Section_d299da12132540d6a7b3fe45c8aa9228), [CT\_PictureEffectCrisscrossEtching](#Section_5b4031d5c03041b18fbdd4fdaea62e4c), [CT\_PictureEffectFilmGrain](#Section_13334da2ebd546cf875d5cce03957b97), [CT\_PictureEffectGlass](#Section_8c3d2935d8b44cacb3dd67811eba630d), [CT\_PictureEffectLineDrawing](#Section_3b34c8c37b654e01a2e5efaaad179af7), [CT\_PictureEffectMarker](#Section_eb82f455926642aabdf1da47890f9743), [CT\_PictureEffectMosiaicBubbles](#Section_ed1f7f0cd9464d45a898f75e52d016d9), [CT\_PictureEffectPastelsSmooth](#Section_40182bf2e51b4617adde4243793c04bd), [CT\_PictureEffectPencilGrayscale](#Section_04c4737cd35a4a85af0b8f8a87ed088d), [CT\_PictureEffectPencilSketch](#Section_e8d0f5187dad43f68f488abcd35ae4dc), [CT\_PictureEffectTexturizer](#Section_3697618157e94dcb95796ddd56bd5304)

A simple type that specifies a parameter value for an artistic picture effect in the range from zero through 100.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_ArtisticEffectParam100">
2. <xsd:restriction base="xsd:int">
3. <xsd:minInclusive value="0"/>
4. <xsd:maxInclusive value="100"/>
5. </xsd:restriction>
6. </xsd:simpleType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_ArtisticEffectParam4

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffectChalkSketch](#Section_dca68d0b3da146e19c1ee1c4c84cd79a)

A simple type that specifies a parameter value for an artistic picture effect in the range from zero through 4.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_ArtisticEffectParam4">
2. <xsd:restriction base="xsd:int">
3. <xsd:minInclusive value="0"/>
4. <xsd:maxInclusive value="4"/>
5. </xsd:restriction>
6. </xsd:simpleType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_ArtisticEffectParam6

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffectCutout](#Section_7654cd3087d34460936a30ddb1b71883)

A simple type that specifies a parameter value for an artistic picture effect in the range from zero through 6.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_ArtisticEffectParam6">
2. <xsd:restriction base="xsd:int">
3. <xsd:minInclusive value="0"/>
4. <xsd:maxInclusive value="6"/>
5. </xsd:restriction>
6. </xsd:simpleType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_ColorTemperature

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffectColorTemperature](#Section_2191b8919b354ff599fe768875a04a38)

A simple type that specifies a color temperature value in the range from 1500 through 11500.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_ColorTemperature">
2. <xsd:restriction base="xsd:int">
3. <xsd:minInclusive value="1500"/>
4. <xsd:maxInclusive value="11500"/>
5. </xsd:restriction>
6. </xsd:simpleType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_LegacySpreadsheetColorIndex

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [legacySpreadsheetColorIndex](#Section_f93ee1aa16644508b8db07e4fe7b6e2c)

This type MUST be used only to define a **legacySpreadsheetColorIndex**.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_LegacySpreadsheetColorIndex">
2. <xsd:restriction base="xsd:int">
3. <xsd:minInclusive value="0"/>
4. <xsd:maxInclusive value="80"/>
5. </xsd:restriction>
6. </xsd:simpleType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_SaturationAmount

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/main

*Referenced by:* [CT\_PictureEffectSaturation](#Section_c66719daea9445f3becf248722089fb1)

A simple type that specifies the amount of saturation in the range from zero percent through 400 percent, in one-thousandths of a percent. For more details, see [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.10.40.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_SaturationAmount">
2. <xsd:restriction base="a:ST\_Percentage">
3. <xsd:minInclusive value="0"/>
4. <xsd:maxInclusive value="400000"/>
5. </xsd:restriction>
6. </xsd:simpleType>

See section [5.1](#Section_869af0ef665b4f28a5960917474ede26) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

## http://schemas.microsoft.com/office/thememl/2012/main

### Elements

#### themeFamily

*Target namespace:* http://schemas.microsoft.com/office/thememl/2012/main

A [CT\_ThemeFamily](#Section_787e248c5bbf41be810733c1147d9669) element that specifies the data about the applied theme.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="themeFamily" type="CT\_ThemeFamily"/>

See section [5.17](#Section_de6e746ac9e348ad884a774aac2ad80d) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

#### id

*Target namespace:* http://schemas.microsoft.com/office/thememl/2012/main

An **ST\_Guid** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 22.9.2.4) attribute that specifies the [**GUID**](#gt_f49694cc-c350-462d-ab8e-816f0103c6c1) of the signature line object. This attribute is deprecated and it SHOULD NOT be used.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this attribute.

1. <xsd:attribute name="id" type="a:ST\_Guid"/>

See section [5.17](#Section_de6e746ac9e348ad884a774aac2ad80d) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Complex Types

#### CT\_ThemeFamily

*Target namespace:* http://schemas.microsoft.com/office/thememl/2012/main

*Referenced by:* [themeFamily](#Section_bfee84d2e63543b8841d5399db246a6d)

**CT\_ThemeFamily** contains information about the currently applied theme.

*Child Elements:*

**extLst:** A **CT\_OfficeArtExtensionList** [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) element that specifies the extension list in which all future extensions of element type **ext** is defined.

*Attributes:*

**name:** A string attribute that specifies the name of applied theme.

**id:** An **ST\_Guid** ([ISO/IEC29500-1:2016] section 22.9.2.4) attribute that specifies the [**GUID**](#gt_f49694cc-c350-462d-ab8e-816f0103c6c1) of the applied theme.

**vid:** An **ST\_Guid** attribute that specifies the GUID of the applied variant.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ThemeFamily">
2. <xsd:sequence>
3. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
4. </xsd:sequence>
5. <xsd:attribute name="name" type="xsd:string" use="required"/>
6. <xsd:attribute name="id" type="a:ST\_Guid" use="required"/>
7. <xsd:attribute name="vid" type="a:ST\_Guid" use="required"/>
8. </xsd:complexType>

See section [5.17](#Section_de6e746ac9e348ad884a774aac2ad80d) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

None.

## http://schemas.microsoft.com/office/drawing/2010/chartDrawing

### Elements

#### contentPart

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/chartDrawing

A [CT\_ContentPart](#Section_ecff289f286b44b5949facf988a09dae) element that specifies a reference to XML content in a format not specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065).

This element serves the same purpose as the **contentPart** element in SpreadsheetML Drawing ([ISO/IEC29500-1:2016] section 20.5.2.12), but appears under **CT\_GroupShape** and **EG\_ObjectChoices** ([ISO/IEC29500-1:2016] section A.5.1) to enable content parts in charts.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="contentPart" type="CT\_ContentPart"/>

See section [5.8](#Section_53d31d113b074ca3ac54e8562713e647) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_ApplicationNonVisualDrawingProps

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/chartDrawing

*Referenced by:* [CT\_ContentPart](#Section_f73b6c2067e843d0b99ddf3b22f2c558)

A complex type that specifies Chart DrawingML-specific non-visual properties of a content part.

*Attributes:*

**macro:** A string ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) that specifies the name of the custom function associated with the content part.

The format of this string is application-defined and SHOULD be ignored if not understood.[<43>](#Appendix_A_43" \o "Product behavior note 43)

**fPublished:** A Boolean attribute ([XMLSCHEMA2] section 3.2.2) that specifies whether the content part is published with the chart when sent to the server.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ApplicationNonVisualDrawingProps">
2. <xsd:attribute name="macro" type="xsd:string" use="optional"/>
3. <xsd:attribute name="fPublished" type="xsd:boolean" use="optional" default="false"/>
4. </xsd:complexType>

See section [5.8](#Section_53d31d113b074ca3ac54e8562713e647) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ContentPart

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/chartDrawing

*Referenced by:* [contentPart](#Section_e4401077ee5b4c64baafe7909dbabd0f)

A complex type that specifies a reference to XML content in a format not specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065).

This element serves the same purpose as the **contentPart** element in SpreadsheetML Drawing ([ISO/IEC29500-1:2016] section 20.5.2.12), but appears under **CT\_GroupShape** and **EG\_ObjectChoices** ([ISO/IEC29500-1:2016] section A.5.1) to enable content parts in charts.

*Child Elements:*

**nvContentPartPr:** A [CT\_ContentPartNonVisual](#Section_1eb3f5ba72d24d8692329fa16ef16e11) element that specifies non-visual properties of the content part.

**nvPr:** A [CT\_ApplicationNonVisualDrawingProps](#Section_8d7a43538a7643788120fa56faa2900e) element that specifies non-visual Chart DrawingML-specific properties.

**xfrm:** A CT\_Transform2D element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the 2-D transform for the content part.

**extLst:** A CT\_OfficeArtExtensionList element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

*Attributes:*

**r:id:** An ST\_RelationshipId attribute ([ISO/IEC29500-1:2016] section 22.8.2.1) that specifies the relationship identifier to a content part.

**bwMode:** An ST\_BlackWhiteMode attribute ([ISO/IEC29500-1:2016] section 20.1.10.10) that specifies how to interpret color information contained within a content part to achieve a color, black and white, or grayscale rendering of the content part. This attribute specifies only the rendering mode applied to the content part; it does not affect how the actual color information is persisted

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ContentPart">
2. <xsd:sequence>
3. <xsd:element name="nvContentPartPr" type="CT\_ContentPartNonVisual" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="nvPr" type="CT\_ApplicationNonVisualDrawingProps" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="xfrm" type="a:CT\_Transform2D" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
7. </xsd:sequence>
8. <xsd:attribute ref="r:id" use="required"/>
9. <xsd:attribute name="bwMode" type="a:ST\_BlackWhiteMode" use="optional" default="auto"/>
10. </xsd:complexType>

See section [5.8](#Section_53d31d113b074ca3ac54e8562713e647) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ContentPartNonVisual

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/chartDrawing

*Referenced by:* [CT\_ContentPart](#Section_f73b6c2067e843d0b99ddf3b22f2c558)

A complex type that specifies non-visual properties of a CT\_ContentPart element.

*Child Elements:*

**cNvPr:** A **CT\_NonVisualDrawingProps** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that specifies the non-visual drawing properties for the content part. This allows for additional information that does not affect the appearance of the content part to be stored.

**cNvContentPartPr:** A [CT\_NonVisualInkContentPartProperties](#Section_02405edf8c8048248cee8b3618dbda13) element that specifies non-visual [**ink**](#gt_9fcdd1d5-3563-49b9-8a2e-bf696fb08fd0) properties of the content part. This enables additional information that does not affect the appearance of ink in the content part to be stored.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ContentPartNonVisual">
2. <xsd:sequence>
3. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="cNvContentPartPr" type="a14:CT\_NonVisualInkContentPartProperties" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. </xsd:complexType>

See section [5.8](#Section_53d31d113b074ca3ac54e8562713e647) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

None.

## http://schemas.microsoft.com/office/drawing/2012/chart

### Elements

#### autoCat

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

**autoCat** is a **CT\_Boolean** element[<44>](#Appendix_A_44" \o "Product behavior note 44) ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.5.1) that specifies whether the captions of the data points in this chart series ([ISO/IEC29500-1:2016] section 21.2) were automatically generated. This element is present only if the chart series ([ISO/IEC29500-1:2016] section 21.2) has filtered data points in it.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="autoCat" type="c:CT\_Boolean"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### categoryFilterExceptions

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

**categoryFilterExceptions** is a [CT\_CategoryFilterExceptions](#Section_5629fdb3279d4a1fbcf8c29153b5b29c) element[<45>](#Appendix_A_45" \o "Product behavior note 45) that contains a list of [CT\_CategoryFilterException](#Section_1ef4e659f59c4f8ebe166ab4a03c185d) entries. Each entry corresponds to a single data point in the chart series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2), that has been filtered out. Each entry specifies special formatting properties associated with that data point.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="categoryFilterExceptions" type="CT\_CategoryFilterExceptions"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### datalabelsRange

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

**datalabelsRange** is a [CT\_SeriesDataLabelsRange](#Section_116bd09e66fe4e659a93aaec8978959c) element[<46>](#Appendix_A_46" \o "Product behavior note 46) that specifies the reference to the formula from which the values of dLbls element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.49) on a chart series ([ISO/IEC29500-1:2016] section 21.2) are obtained.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="datalabelsRange" type="CT\_SeriesDataLabelsRange"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### dlblFieldTable

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

The **dlblFieldTable** element is a **CT\_DataLabelFieldTable** element[<47>](#Appendix_A_47" \o "Product behavior note 47) (section [2.6.3.3](#Section_e63f78df417d4fee88b6d90608097d1b)) that contains a list of **CT\_DataLabelFieldTableEntry** entries (section [2.6.3.4](#Section_fca5f9362a10431687fc720d0f2e56a0)). Each entry corresponds to a text field in a **Datalabel** (section [2.2.1.3](#Section_3e77d01c6ea04713886678beb6ece926)) whose value is obtained from a formula reference.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="dlblFieldTable" type="CT\_DataLabelFieldTable"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### filteredAreaSeries

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

A [CT\_FilteredAreaSer](#Section_d3ee9615f56c41dea43e26eabb6bd761) element[<48>](#Appendix_A_48" \o "Product behavior note 48) that specifies a chart area series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.168) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="filteredAreaSeries" type="CT\_FilteredAreaSer"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### filteredBarSeries

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

A [CT\_FilteredBarSer](#Section_1e992b3e96b84a2abaf41ae6c43832d3) element[<49>](#Appendix_A_49" \o "Product behavior note 49) that specifies a chart bar series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.170) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="filteredBarSeries" type="CT\_FilteredBarSer"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### filteredBubbleSeries

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

A [CT\_FilteredBubbleSer](#Section_5edd5418c5a74b82b0d7b67be6983efa) element[<50>](#Appendix_A_50" \o "Product behavior note 50) that specifies a chart bubble series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.174) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="filteredBubbleSeries" type="CT\_FilteredBubbleSer"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### filteredCategoryTitle

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

A [CT\_FilteredCategoryTitle](#Section_d187f3bf289f48ac97aec0ce8d9fe793) element[<51>](#Appendix_A_51" \o "Product behavior note 51) that specifies a chart ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2) category title that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="filteredCategoryTitle" type="CT\_FilteredCategoryTitle"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### filteredLineSeries

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

A [CT\_FilteredLineSer](#Section_bd267f138d1942309032201e158e73ef) element[<52>](#Appendix_A_52" \o "Product behavior note 52) that specifies a chart line series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.171) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="filteredLineSeries" type="CT\_FilteredLineSer"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### filteredPieSeries

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

A [CT\_FilteredPieSer](#Section_cd418aa8397544e7b1cdefccc393c89b) element[<53>](#Appendix_A_53" \o "Product behavior note 53) that specifies a chart pie series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.172) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="filteredPieSeries" type="CT\_FilteredPieSer"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### filteredRadarSeries

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

A [CT\_FilteredRadarSer](#Section_c6ba2962f0564f6b8aabad285934124e) element[<54>](#Appendix_A_54" \o "Product behavior note 54) that specifies a chart radar series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.169) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="filteredRadarSeries" type="CT\_FilteredRadarSer"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### filteredScatterSeries

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

A [CT\_FilteredScatterSer](#Section_b8191adc6b6943eb95d4245475ebf665) element[<55>](#Appendix_A_55" \o "Product behavior note 55) that specifies a chart scatter series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.167) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="filteredScatterSeries" type="CT\_FilteredScatterSer"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### filteredSeriesTitle

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

A [CT\_FilteredSeriesTitle](#Section_7dde8bd595e343b182c82fb74b331257) element[<56>](#Appendix_A_56" \o "Product behavior note 56) that specifies a chart ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2) series title that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="filteredSeriesTitle" type="CT\_FilteredSeriesTitle"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### filteredSurfaceSeries

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

A [CT\_FilteredSurfaceSer](#Section_7fd0d4a5db9441fe8da98b5b03d170de) element[<57>](#Appendix_A_57" \o "Product behavior note 57) that specifies a chart surface series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.173) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="filteredSurfaceSeries" type="CT\_FilteredSurfaceSer"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### formulaRef

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

A **CT\_FormulaRef** element (section [2.6.3.15](#Section_5b53b03910714a1b874dd58cbae9e272)) that specifies the visible data source reference for filtered out chart ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2) series data. This element specifies the reference for the series caption or values or category labels for a chart series that is filtered out from the chart.

This reference is in the form of a book, sheet, and cell reference. This reference does not include the equals sign.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="formulaRef" type="CT\_FormulaRef"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### fullRef

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

A [CT\_FullRef](#Section_c8ed609aebab4963b1ea0ab416f94e97) element[<58>](#Appendix_A_58" \o "Product behavior note 58) that specifies the non-filtered data source reference for filtered out chart ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2) series data.

This reference is in the form of a book, sheet, and cell reference. This reference does not include the equals sign.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="fullRef" type="CT\_FullRef"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### layout

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

**layout** is a **CT\_Layout** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.5.1) element[<59>](#Appendix_A_59" \o "Product behavior note 59) whose child element **manualLayout** ([ISO/IEC29500-1:2016] section A.5.1) specifies the manual layout for a **Datalabel** (section [2.2.1.3](#Section_3e77d01c6ea04713886678beb6ece926)) or the parent **Datalabels** object (section [2.2.1.2](#Section_80e97775804a4f7e90a18e87e1734d83)). The child elements of **CT\_ManualLayout** ([ISO/IEC29500-1:2016] section A.5.1) other than w (Width) and h (Height) are ignored for a **Datalabel** object. The child elements of **CT\_ManualLayout** other than x (Left), y (Top), w (Width) and h (Height) are ignored for a parent **Datalabels** object.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="layout" type="c:CT\_Layout"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### leaderLines

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

**leaderLines** is a **CT\_ChartLines** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.5.1) element[<60>](#Appendix_A_60" \o "Product behavior note 60) that specifies the formatting of leader lines, which are chart lines that connect data labels to their corresponding chart series points.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="leaderLines" type="c:CT\_ChartLines"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### levelRef

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

A [CT\_LevelRef](#Section_fb3c87355c264fe4882c089ccdd86be6) element[<61>](#Appendix_A_61" \o "Product behavior note 61) that specifies the data source reference for the currently selected label level for a chart ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2) category axis or a chart ([ISO/IEC29500-1:2016] section 21.2) series title.

This reference is in the form of a book, sheet, and cell reference. This reference does not include the equals sign.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="levelRef" type="CT\_LevelRef"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### numFmt

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

A **CT\_NumFmt** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.5.1) element[<62>](#Appendix_A_62" \o "Product behavior note 62) that specifies number formatting for elements of type CT\_CatAx ([ISO/IEC29500-1:2016] section A.5.1), CT\_DateAx ([ISO/IEC29500-1:2016] section A.5.1), CT\_SerAx ([ISO/IEC29500-1:2016] section A.5.1) and CT\_ValAx ([ISO/IEC29500-1:2016] section A.5.1). MUST NOT exist if the **CT\_ExtensionList** ([ISO/IEC29500-1:2016] section A.3) element of the parent **CT\_ChartSpace** element ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section A.5.1) does not have a child **CT\_PivotSource** element ([ISO/IEC29500-4:2016] section A.5.1).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="numFmt" type="c:CT\_NumFmt"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### pivotSource

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

A **CT\_PivotSource** ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section A.5.1) element[<63>](#Appendix_A_63" \o "Product behavior note 63) that specifies the source pivot table for a pivot chart. MUST exist only if the pivot table associated with the chart ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2) is a Non-WorkSheet PivotTable ([[MS-XLSX]](%5bMS-XLSX%5d.pdf#Section_2c5dee00eff24b2292b60738acd4475e) section 2.3.3 and [[MS-XLSB]](%5bMS-XLSB%5d.pdf#Section_acc8aa921f02416799f584f9f676b95a) section 2.2.5.5).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="pivotSource" type="c:CT\_PivotSource"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### showDataLabelsRange

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

The **showDataLabelsRange** element is a **CT\_Boolean** element[<64>](#Appendix_A_64" \o "Product behavior note 64) ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.5.1) that specifies whether the value from the **datalabelsrange** (section [2.6.1.3](#Section_d9944abdf5c44b72bce3ef830454436a)) is shown in this **Datalabel** (section [2.2.1.3](#Section_3e77d01c6ea04713886678beb6ece926)). If set to true, the value from the **datalabelsrange** corresponding to the index of this **Datalabel** in the chart series ([ISO/IEC29500-1:2016] section 21.2) is shown in this **Datalabel**. The value will be shown as the first field in the **Datalabel's** text.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="showDataLabelsRange" type="c:CT\_Boolean"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### showLeaderLines

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

The **showLeaderLines** element is a **CT\_Boolean** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.5.1) element[<65>](#Appendix_A_65" \o "Product behavior note 65) that specifies whether leader lines, which are chart lines that connect data labels to their corresponding chart series points, are allowed to be displayed for this set of **Datalabels** (section [2.2.1.3](#Section_3e77d01c6ea04713886678beb6ece926)). If leader lines are displayed, the formatting from the **leaderLines** (section [2.6.1.18](#Section_669d2edf64c242cd814863b4a700794d)) is used for the leader lines of these **Datalabels**.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="showLeaderLines" type="c:CT\_Boolean"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### spPr

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

The **spPr** element is a **CT\_ShapeProperties** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element[<66>](#Appendix_A_66" \o "Product behavior note 66) that specifies the [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) geometry for a **Datalabel** (section [2.2.1.3](#Section_3e77d01c6ea04713886678beb6ece926)).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="spPr" type="a:CT\_ShapeProperties"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### tx

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

The **tx** element is a **CT\_Tx** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.215) element[<67>](#Appendix_A_67" \o "Product behavior note 67) that specifies the text string stored in the default **Datalabel** (section [2.2.1.3](#Section_3e77d01c6ea04713886678beb6ece926)) of a chart series ([ISO/IEC29500-1:2016] section 21.2). This string represents the text that will be shown in every **Datalabel** on the series which does not have custom properties of its own.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="tx" type="c:CT\_Tx"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### xForSave

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

The **xForSave** element is a **CT\_Boolean** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.5.1) element[<68>](#Appendix_A_68" \o "Product behavior note 68) that specifies whether this **Datalabel** (section [2.2.1.3](#Section_3e77d01c6ea04713886678beb6ece926)) was created solely for the purpose of saving. If it is true, it means that when the file is loaded back this **Datalabel** will be merged with the default **Datalabel** on that chart series ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="xForSave" type="c:CT\_Boolean"/>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_CategoryFilterException

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

*Referenced by:* [CT\_CategoryFilterExceptions](#Section_5629fdb3279d4a1fbcf8c29153b5b29c)

**CT\_CategoryFilterException** is a complex type that contains information about special formatting properties associated with a single data point in a chart series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2).[<69>](#Appendix_A_69" \o "Product behavior note 69) This complex type is used to save special data point properties of points that are filtered out of the chart series ([ISO/IEC29500-1:2016] section 21.2). An entry of this type MUST contain exactly one **sqref** element followed by one or more child elements.

*Child Elements:*

**sqref:** A **string** element ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) that specifies the cell reference of the data corresponding to this data point in the chart series ([ISO/IEC29500-1:2016] section 21.2). This element is required. This reference MUST follow the ABNF grammar rules defined in the Formulas section ([[MS-XLSX]](%5bMS-XLSX%5d.pdf#Section_2c5dee00eff24b2292b60738acd4475e) section 2.2.2) with the following restrictions:

* MUST follow the single-sheet-reference rule.
* MUST NOT use the A1-area, A1-relative-column and A1-relative-row rules.
* MUST use only A1-cell, A1-absolute-column, and A1-absolute-row (since a data point in a series can correspond to only one cell, it SHOULD NOT use area references).

An application can adjust this [**cell reference**](#gt_4d15aeb2-3a7d-44d7-b8d1-8a441f1cc24f) when the [**worksheet**](#gt_2fdc6291-fa6a-48a6-afbb-04f910d68615) layout changes, even when the containing **ext** element ([ISO/IEC29500-1:2016] section 18.2.7) is not recognized by the application.

**spPr:** A CT\_ShapeProperties element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the formatting (like fill or line properties) to be shown on this data point.

**explosion:** A CT\_UnsignedInt element ([ISO/IEC29500-1:2016] section A.5.1) that specifies the amount this data point shall be moved from the center of the pie in a pie chart series.

**invertIfNegative:** A **CT\_Boolean** element ([ISO/IEC29500-1:2016] section A.5.1) that specifies if the invert color is shown when this data point has a negative value.

**bubble3D:** A **CT\_Boolean** element ([ISO/IEC29500-1:2016] section A.5.1) that specifies if this data point has a 3D bubble.

**marker:** A CT\_Marker element ([ISO/IEC29500-1:2016] section A.5.1) that specifies the properties of the line marker associated with this data point.

**dLbl:** A CT\_DLbl element ([ISO/IEC29500-1:2016] section A.5.1) that specifies the properties of the **Datalabel** (section [2.2.1.3](#Section_3e77d01c6ea04713886678beb6ece926)) associated with this data point.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_CategoryFilterException">
2. <xsd:sequence>
3. <xsd:element name="sqref" type="xsd:string" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="explosion" type="c:CT\_UnsignedInt" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="invertIfNegative" type="c:CT\_Boolean" minOccurs="0" maxOccurs="1"/>
7. <xsd:element name="bubble3D" type="c:CT\_Boolean" minOccurs="0" maxOccurs="1"/>
8. <xsd:element name="marker" type="c:CT\_Marker" minOccurs="0" maxOccurs="1"/>
9. <xsd:element name="dLbl" type="c:CT\_DLbl" minOccurs="0" maxOccurs="1"/>
10. </xsd:sequence>
11. </xsd:complexType>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_CategoryFilterExceptions

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

*Referenced by:* [categoryFilterExceptions](#Section_9a3eeb15ec25412486ac248105d9367e)

**CT\_CategoryFilteredExceptions** is a complex type that contains one or more entries of type [CT\_CategoryFilterException](#Section_1ef4e659f59c4f8ebe166ab4a03c185d).[<70>](#Appendix_A_70" \o "Product behavior note 70) Each entry specifies special formatting properties associated with a single data point in a chart series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2), that has been filtered out.

*Child Elements:*

**categoryFilterException:** It is a CT\_CategoryFilterException element that specifies special formatting properties associated with a single data point in a chart series ([ISO/IEC29500-1:2016] section 21.2), which has been filtered out.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_CategoryFilterExceptions">
2. <xsd:sequence>
3. <xsd:element name="categoryFilterException" type="CT\_CategoryFilterException" minOccurs="1" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_DataLabelFieldTable

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

*Referenced by:* [dlblFieldTable](#Section_0c8ce4c3681b449390838cc844717208)

The **CT\_DataLabelFieldTable** is a complex type that contains one or more **CT\_DataLabelFieldTableEntry** entries (section [2.6.3.4](#Section_fca5f9362a10431687fc720d0f2e56a0)) which specify the formula references of each of the cell-reference text fields in the parent **Datalabel** text (section [2.2.1.3](#Section_3e77d01c6ea04713886678beb6ece926)).[<71>](#Appendix_A_71" \o "Product behavior note 71) Each **Datalabel** can have one or more of these cell-reference fields. This complex type contains one entry for each cell-reference field, identifying the field it references using the [**GUID**](#gt_f49694cc-c350-462d-ab8e-816f0103c6c1) of the field. This is pointed to by the **txfldGUID** element of **CT\_DataLabelFieldTableEntry**.

*Child Elements:*

**dlblFTEntry:** A **CT\_DataLabelFieldTableEntry** element that specifies the formula reference for a single cell-reference field in the **Datalabel** text. This formula reference points to the text value of the field.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_DataLabelFieldTable">
2. <xsd:sequence>
3. <xsd:element name="dlblFTEntry" type="CT\_DataLabelFieldTableEntry" minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_DataLabelFieldTableEntry

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

*Referenced by:* [CT\_DataLabelFieldTable](#Section_e63f78df417d4fee88b6d90608097d1b)

The **CT\_DataLabelFieldTableEntry** is a complex type that specifies the formula reference used to obtain the text value of a cell reference field in the parent **dLbl** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.47).[<72>](#Appendix_A_72" \o "Product behavior note 72) A **Datalabel** (section [2.2.1.3](#Section_3e77d01c6ea04713886678beb6ece926)) can contain more than one field pointing to formula references. This complex type associates one field in the **Datalabel** with the formula reference to which it refers.

*Child Elements:*

**txfldGUID:** A **string** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) element that specifies the [**GUID**](#gt_f49694cc-c350-462d-ab8e-816f0103c6c1) (identifier) of the cell-reference field in the **Datalabel** text. This element is used to identify which field in the **Datalabel** text this entry corresponds to.

**f:** A **string** element ([XMLSCHEMA2] section 3.2.1) that specifies the formula reference of the text field in the **Datalabel** text whose GUID is identified by the **txfldGUID** element.

**dlblFieldTableCache:** A CT\_StrData element ([ISO/IEC29500-1:2016] section A.5.1) that contains the value to be inserted into the ancestor **Datalabel**. This is a cached value obtained from the reference formula specified by the **f** element in the parent **Datalabel** field table entry.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_DataLabelFieldTableEntry">
2. <xsd:sequence>
3. <xsd:element name="txfldGUID" type="xsd:string" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="f" type="xsd:string" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="dlblFieldTableCache" type="c:CT\_StrData" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. </xsd:complexType>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_FilteredAreaSer

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

*Referenced by:* [filteredAreaSeries](#Section_28e32b25862b4a378139befc7bad2a7b)

A complex type that specifies a chart area series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.168) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).[<73>](#Appendix_A_73" \o "Product behavior note 73)

*Child Elements:*

**ser:** A CT\_AreaSer ([ISO/IEC29500-1:2016] section 21.2.2.168) element that specifies a chart area series ([ISO/IEC29500-1:2016] section 21.2.2.168) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_FilteredAreaSer">
2. <xsd:sequence>
3. <xsd:element name="ser" type="c:CT\_AreaSer" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_FilteredBarSer

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

*Referenced by:* [filteredBarSeries](#Section_a19c197d27994d05b25636ef55354b8d)

A complex type that specifies a chart bar series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.170) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).[<74>](#Appendix_A_74" \o "Product behavior note 74)

*Child Elements:*

**ser:** A CT\_BarSer ([ISO/IEC29500-1:2016] section 21.2.2.170) element that specifies a chart bar series ([ISO/IEC29500-1:2016] section 21.2.2.170) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_FilteredBarSer">
2. <xsd:sequence>
3. <xsd:element name="ser" type="c:CT\_BarSer" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_FilteredBubbleSer

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

*Referenced by:* [filteredBubbleSeries](#Section_eadf43ae48fe45f0a08e9ced04850384)

A complex type that specifies a chart bubble series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.174) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).[<75>](#Appendix_A_75" \o "Product behavior note 75)

*Child Elements:*

**ser:** A **CT\_BubbleSer** ([ISO/IEC29500-1:2016] section 21.2.2.174) element that specifies a chart bubble series ([ISO/IEC29500-1:2016] section 21.2.2.174) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_FilteredBubbleSer">
2. <xsd:sequence>
3. <xsd:element name="ser" type="c:CT\_BubbleSer" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_FilteredCategoryTitle

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

*Referenced by:* [filteredCategoryTitle](#Section_1ec6c6b43a9d4605a8bcccbdc94e3547)

A complex type that specifies a chart ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2) category title that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2) and the category titles for this chart ([ISO/IEC29500-1:2016] section 21.2) are automatically generated numbers.[<76>](#Appendix_A_76" \o "Product behavior note 76)

*Child Elements:*

**cat:** A CT\_AxDataSource ([ISO/IEC29500-1:2016] section 21.2.2.24) element that specifies the data used for the category axis that has been filtered from the chart.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_FilteredCategoryTitle">
2. <xsd:sequence>
3. <xsd:element name="cat" type="c:CT\_AxDataSource" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_FilteredLineSer

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

*Referenced by:* [filteredLineSeries](#Section_021260a521b945b79e7f122aef95b92a)

A complex type that specifies a chart line series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.171) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).[<77>](#Appendix_A_77" \o "Product behavior note 77)

*Child Elements:*

**ser:** A CT\_LineSer ([ISO/IEC29500-1:2016] section 21.2.2.171) element that specifies a chart line series ([ISO/IEC29500-1:2016] section 21.2.2.171) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_FilteredLineSer">
2. <xsd:sequence>
3. <xsd:element name="ser" type="c:CT\_LineSer" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_FilteredPieSer

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

*Referenced by:* [filteredPieSeries](#Section_62dadf54447b4e7bba3067431b637b68)

A complex type that specifies a chart pie series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.172) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).[<78>](#Appendix_A_78" \o "Product behavior note 78)

*Child Elements:*

**ser:** A CT\_PieSer ([ISO/IEC29500-1:2016] section 21.2.2.172) element that specifies a chart pie series ([ISO/IEC29500-1:2016] section 21.2.2.172) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_FilteredPieSer">
2. <xsd:sequence>
3. <xsd:element name="ser" type="c:CT\_PieSer" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_FilteredRadarSer

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

*Referenced by:* [filteredRadarSeries](#Section_e3ea69e06cf446adbb0140fa310b1831)

A complex type that specifies a chart radar series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.169) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).[<79>](#Appendix_A_79" \o "Product behavior note 79)

*Child Elements:*

**ser:** A CT\_RadarSer ([ISO/IEC29500-1:2016] section 21.2.2.169) element that specifies a chart radar series ([ISO/IEC29500-1:2016] section 21.2.2.169) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_FilteredRadarSer">
2. <xsd:sequence>
3. <xsd:element name="ser" type="c:CT\_RadarSer" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_FilteredScatterSer

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

*Referenced by:* [filteredScatterSeries](#Section_1c208a5d2576498cb59451f6da720bef)

A complex type that specifies a chart scatter series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.167) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).[<80>](#Appendix_A_80" \o "Product behavior note 80)

*Child Elements:*

**ser:** A CT\_ScatterSer ([ISO/IEC29500-1:2016] section 21.2.2.167) element that specifies a chart scatter series ([ISO/IEC29500-1:2016] section 21.2.2.167) that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_FilteredScatterSer">
2. <xsd:sequence>
3. <xsd:element name="ser" type="c:CT\_ScatterSer" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_FilteredSeriesTitle

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

*Referenced by:* [filteredSeriesTitle](#Section_d7adbea598e043518b1be048a622ebb4)

A complex type that specifies a chart ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2) series title that has been filtered from the chart ([ISO/IEC29500-1:2016] section 21.2) and the chart series ([ISO/IEC29500-1:2016] section 21.2) has an automatically generated title.[<81>](#Appendix_A_81" \o "Product behavior note 81)

*Child Elements:*

**tx:** A CT\_Tx ([ISO/IEC29500-1:2016] section 21.2.2.215) element that specifies text for a series name, without rich text formatting, that has been filtered from the chart.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_FilteredSeriesTitle">
2. <xsd:sequence>
3. <xsd:element name="tx" type="c:CT\_Tx" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_FilteredSurfaceSer

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

*Referenced by:* [filteredSurfaceSeries](#Section_b22f24be7d664d87a530c89d3aab656c)

The **CT\_FilteredSurfaceSer** complex type specifies a **chart surface series** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.2.173) that has been filtered from the **chart** ([ISO/IEC29500-1:2016] section 21.2).[<82>](#Appendix_A_82" \o "Product behavior note 82)

*Child Elements:*

**ser:** A **CT\_SurfaceSer** ([ISO/IEC29500-1:2016] section 21.2.2.173) element that specifies a **chart surface series** ([ISO/IEC29500-1:2016] section 21.2.2.173) that has been filtered from the **chart** ([ISO/IEC29500-1:2016] section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_FilteredSurfaceSer">
2. <xsd:sequence>
3. <xsd:element name="ser" type="c:CT\_SurfaceSer" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_FormulaRef

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

*Referenced by:* [formulaRef](#Section_0cf99dd0d5924c9cb36d16e18977950d)

The **CT\_FormulaRef** complex type specifies the data source reference for a chart ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2) with filtered series data.[<83>](#Appendix_A_83" \o "Product behavior note 83)

This reference is in the form of a book, sheet, and cell reference. This reference does not include the equals sign.

*Child Elements:*

**sqref:** A **string** element ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) that specifies the data source reference for the chart data. This reference MUST follow the ABNF grammar rules defined in Formulas ([[MS-XLSX]](%5bMS-XLSX%5d.pdf#Section_2c5dee00eff24b2292b60738acd4475e) section 2.2.2) with the following restrictions:

* MUST follow the ref-nospace-expression rule.
* MUST NOT use the A1-relative-column and A1-relative-row rules.
* MUST use only A1-absolute-column and A1-absolute-row.

Contains the data source reference for the series caption or values, or category labels of a filtered out series in the chart.

An application can adjust these [**cell references**](#gt_4d15aeb2-3a7d-44d7-b8d1-8a441f1cc24f) when the [**worksheet**](#gt_2fdc6291-fa6a-48a6-afbb-04f910d68615) layout changes, even when the containing **ext** element ([ISO/IEC29500-1:2016] section 18.2.7) is not recognized by the application.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_FormulaRef">
2. <xsd:sequence>
3. <xsd:element name="sqref" type="xsd:string" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_FullRef

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

*Referenced by:* [fullRef](#Section_f4ed0f24f7bd41d0887504f80edd0091)

**CT\_FullRef** is a complex type that specifies the complete data source reference for a chart ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2) with filtered series data.[<84>](#Appendix_A_84" \o "Product behavior note 84)

This reference is in the form of a book, sheet, and cell reference. This reference does not include the equals sign.

*Child Elements:*

**sqref:** A **string** element ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) that specifies the data source reference for the chart data. This reference MUST follow the ABNF grammar rules defined in Formulas ([[MS-XLSX]](%5bMS-XLSX%5d.pdf#Section_2c5dee00eff24b2292b60738acd4475e) section 2.2.2) with the following restrictions:

* MUST follow the single-sheet-reference rule.
* MUST NOT use the A1-relative-column and A1-relative-row rules.
* MUST only use A1-absolute-column and A1-absolute-row.

Contains the full set of cell references for the chart, including both filtered and unfiltered data.

An application can adjust these [**cell references**](#gt_4d15aeb2-3a7d-44d7-b8d1-8a441f1cc24f) when the [**worksheet**](#gt_2fdc6291-fa6a-48a6-afbb-04f910d68615) layout changes, even when the containing **ext** element ([ISO/IEC29500-1:2016] section 18.2.7) is not recognized by the application.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_FullRef">
2. <xsd:sequence>
3. <xsd:element name="sqref" type="xsd:string" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_LevelRef

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

*Referenced by:* [levelRef](#Section_5eaa68f2c58e474d93542d021b65f362)

The **CT\_LevelRef** is a complex type that specifies the data source reference for the currently selected label level within a hierarchical set of labels for a chart ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2) category axis or a chart series title.[<85>](#Appendix_A_85" \o "Product behavior note 85)

This reference is in the form of a book, sheet, and cell reference. This reference does not include the equals sign.

*Child Elements:*

**sqref:** A **string** element ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) that specifies the data source reference for the chart data for the associated caption level. This reference MUST follow the ABNF grammar rules defined in Formulas ([[MS-XLSX]](%5bMS-XLSX%5d.pdf#Section_2c5dee00eff24b2292b60738acd4475e) section 2.2.2) with the following restrictions:

* MUST follow the single-sheet-reference rule.
* MUST NOT use the A1-relative-column and A1-relative-row rules.
* MUST only use A1-absolute-column and A1-absolute-row.

An application can adjust these [**cell references**](#gt_4d15aeb2-3a7d-44d7-b8d1-8a441f1cc24f) when the [**worksheet**](#gt_2fdc6291-fa6a-48a6-afbb-04f910d68615) layout changes, even when the containing **ext** element ([ISO/IEC29500-1:2016] section 18.2.7) is not recognized by the application.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_LevelRef">
2. <xsd:sequence>
3. <xsd:element name="sqref" type="xsd:string" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_SeriesDataLabelsRange

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chart

*Referenced by:* [datalabelsRange](#Section_d9944abdf5c44b72bce3ef830454436a)

The **CT\_SeriesDataLabelsRange** is a complex type that specifies the formula from which the values of the **Datalabels** (section [2.2.1.3](#Section_3e77d01c6ea04713886678beb6ece926)) on a chart series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2) are obtained.[<86>](#Appendix_A_86" \o "Product behavior note 86)

*Child Elements:*

**f:** It is a **string** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) element that specifies the reference from which the values of the **Datalabels** on a chart series ([ISO/IEC29500-1:2016] section 21.2) are obtained. This reference MUST follow the ABNF grammar rules defined in the Formulas section ([[MS-XLSX]](%5bMS-XLSX%5d.pdf#Section_2c5dee00eff24b2292b60738acd4475e) section 2.2.2) with the following restrictions:

* MUST follow the single-sheet-reference rule OR the external-name rule.
* MUST NOT use the A1-relative-column and A1-relative-row rules. MUST use only A1-absolute-column and A1-absolute-row
* MUST NOT use the bang-name rule.
* If the string contains a "#REF!", it MUST be the only value in the string.

**dlblRangeCache:** It is a **CT\_StrData** ([ISO/IEC29500-1:2016] section A.5.1) element that contains the values to be inserted in each of the **Datalabels** in the parent chart series ([ISO/IEC29500-1:2016] section 21.2). This is a cache of values obtained from the reference formula specified by the element **f** in this complex type. Each value corresponds to one **Datalabel** in the series. The values are assigned to **Datalabels** in the order of their index.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_SeriesDataLabelsRange">
2. <xsd:sequence>
3. <xsd:element name="f" type="xsd:string" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="dlblRangeCache" type="c:CT\_StrData" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. </xsd:complexType>

See section [5.13](#Section_1c52d95925d345569381cc86c1221029) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

None.

## http://schemas.microsoft.com/office/drawing/2007/8/2/chart

### Elements

#### invertSolidFillFmt

*Target namespace:* http://schemas.microsoft.com/office/drawing/2007/8/2/chart

A **CT\_InvertSolidFillFmt** element that specifies the color of the negative data points of the chart ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2) series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="invertSolidFillFmt" type="CT\_InvertSolidFillFmt"/>

See section [5.10](#Section_070bea842201463caeaacf258492b5b5) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### pivotOptions

*Target namespace:* http://schemas.microsoft.com/office/drawing/2007/8/2/chart

A **CT\_PivotOptions** element that specifies the pivot controls that appear on the chart ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="pivotOptions" type="CT\_PivotOptions"/>

See section [5.10](#Section_070bea842201463caeaacf258492b5b5) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### style

*Target namespace:* http://schemas.microsoft.com/office/drawing/2007/8/2/chart

A **CT\_Style** element that specifies a chart [**style**](#gt_b1e1f096-9da0-411f-909a-f69b92c17633) ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="style" type="CT\_Style"/>

See section [5.10](#Section_070bea842201463caeaacf258492b5b5) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_BooleanFalse

*Target namespace:* http://schemas.microsoft.com/office/drawing/2007/8/2/chart

*Referenced by:* [CT\_PivotOptions](#Section_bd33a182eb534b5bbd88ce01922cd301)

A complex type that specifies a Boolean value that defaults to FALSE.

*Attributes:*

**val:** A Boolean attribute ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) that specifies the value for the property. This MUST be set to one of the following: zero, 1, TRUE, or FALSE.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_BooleanFalse">
2. <xsd:attribute name="val" type="xsd:boolean" use="optional" default="false"/>
3. </xsd:complexType>

See section [5.10](#Section_070bea842201463caeaacf258492b5b5) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_BooleanTrue

*Target namespace:* http://schemas.microsoft.com/office/drawing/2007/8/2/chart

A complex type that specifies a Boolean value that defaults to TRUE.

*Attributes:*

**val:** A Boolean attribute ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) that specifies the value for the property. This MUST be set to one of the following: zero, 1, TRUE, or FALSE.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_BooleanTrue">
2. <xsd:attribute name="val" type="xsd:boolean" use="optional" default="true"/>
3. </xsd:complexType>

See section [5.10](#Section_070bea842201463caeaacf258492b5b5) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_InvertSolidFillFmt

*Target namespace:* http://schemas.microsoft.com/office/drawing/2007/8/2/chart

*Referenced by:* [invertSolidFillFmt](#Section_50779e4ba5594bddaf724756d837e32c)

A complex type that specifies the color of the negative data points of the chart series ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2).

MUST NOT exist if the parent **CT\_BarSer** element ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section A.5.1) or parent **CT\_BubbleSer** element ([ISO/IEC29500-4:2016] section A.5.1) has a child **CT\_ShapeProperties** element ([ISO/IEC29500-4:2016] section A.4.1) that does not have a child **CT\_SolidColorFillProperties** element ([ISO/IEC29500-4:2016] section A.4.1).

MUST NOT exist if not a descendant of a **CT\_BarChart** element ([ISO/IEC29500-4:2016] section A.5.1), **CT\_Bar3DChart** element ([ISO/IEC29500-4:2016] section A.5.1), or **CT\_BubbleChart** element ([ISO/IEC29500-4:2016] section A.5.1).

MUST NOT exist if the parent **CT\_BarSer** element or parent **CT\_BubbleSer** element has a child **invertIfNegative**.

*Child Elements:*

**spPr:** A **CT\_ShapeProperties** element that specifies the solid color of the negative data points of the chart series ([ISO/IEC29500-1:2016] section 21.2). MUST have a child **CT\_SolidColorFillProperties** element.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_InvertSolidFillFmt">
2. <xsd:sequence>
3. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.10](#Section_070bea842201463caeaacf258492b5b5) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PivotOptions

*Target namespace:* http://schemas.microsoft.com/office/drawing/2007/8/2/chart

*Referenced by:* [pivotOptions](#Section_ab2163b89a144bb7b06b4390fd96c3fe)

A complex type that specifies the pivot controls that appear on the chart ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2).

*Child Elements:*

**dropZoneFilter:** A **CT\_BooleanFalse** element that specifies whether a control for each **PivotTable** field ([ISO/IEC29500-1:2016] section 18.10) on the **PivotTable** page axis ([ISO/IEC29500-1:2016] section 18.10) of the source **PivotTable** appears on the chart when **dropZonesVisible** is set to TRUE. MUST NOT exist if the parent **CT\_ChartSpace** element ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section A.5.1) does not have a child **CT\_PivotSource** element ([ISO/IEC29500-4:2016] section A.5.1).

**dropZoneCategories:** A **CT\_BooleanFalse** element that specifies whether a control for each **PivotTable** field on the **PivotTable** row axis of the source **PivotTable** appears on the chart when **dropZonesVisible** is set to TRUE. MUST NOT exist if the parent **CT\_ChartSpace** element does not have a child **CT\_PivotSource** element.

**dropZoneData:** A **CT\_BooleanFalse** element that specifies whether a control for each **PivotTable** field on the **PivotTable** data axis of the source **PivotTable** appears on the chart when **dropZonesVisible** is set to TRUE. MUST NOT exist if the parent **CT\_ChartSpace** element does not have a child **CT\_PivotSource** element.

**dropZoneSeries:** A **CT\_BooleanFalse** element that specifies whether a control for each **PivotTable** field on the **PivotTable** column axis of the source **PivotTable** appears on the chart when **dropZonesVisible** is set to TRUE. MUST NOT exist if the parent **CT\_ChartSpace** element does not have a child **CT\_PivotSource** element.

**dropZonesVisible:** A **CT\_BooleanFalse** element that specifies whether any pivot controls can appear on the pivot chart. For example, if **dropZoneFilter** and **dropZoneCategories** are set to TRUE and **dropZoneData** and **dropZoneSeries** are set to FALSE, if **dropZonesVisible** is set to TRUE, controls corresponding to **PivotTable** fields on the **PivotTable** page axis and **PivotTable** row axis appear on the chart, and if **dropZonesVisible** is set to FALSE, no controls appears on the chart. MUST NOT exist if the **parent CT\_ChartSpace** element does not have a child **CT\_PivotSource** element.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PivotOptions">
2. <xsd:sequence>
3. <xsd:element name="dropZoneFilter" type="CT\_BooleanFalse" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="dropZoneCategories" type="CT\_BooleanFalse" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="dropZoneData" type="CT\_BooleanFalse" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="dropZoneSeries" type="CT\_BooleanFalse" minOccurs="0" maxOccurs="1"/>
7. <xsd:element name="dropZonesVisible" type="CT\_BooleanFalse" minOccurs="0" maxOccurs="1"/>
8. </xsd:sequence>
9. </xsd:complexType>

See section [5.10](#Section_070bea842201463caeaacf258492b5b5) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Style

*Target namespace:* http://schemas.microsoft.com/office/drawing/2007/8/2/chart

*Referenced by:* [style](#Section_3c42a18678df4014b8d04e825fc70d28)

A complex type that specifies a chart style ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2).

If this element exists, the **CT\_Style** element ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section A.5.1) that is a descendent of the **CT\_ChartSpace** element ([ISO/IEC29500-4:2016] section A.5.1) that is the ancestor of this element MUST exist, SHOULD[<87>](#Appendix_A_87" \o "Product behavior note 87) be ignored, and MUST have a **val** attribute equal to the **val** attribute of this element minus 100.

*Attributes:*

**val:** An **ST\_Style** attribute that specifies a chart [**style**](#gt_b1e1f096-9da0-411f-909a-f69b92c17633).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Style">
2. <xsd:attribute name="val" type="ST\_Style" use="required"/>
3. </xsd:complexType>

See section [5.10](#Section_070bea842201463caeaacf258492b5b5) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

#### ST\_Style

*Target namespace:* http://schemas.microsoft.com/office/drawing/2007/8/2/chart

*Referenced by:* [CT\_Style](#Section_d3a2d9da8f0b408689a25906d2d87f96)

A simple type that specifies a chart style ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2).

The [**style**](#gt_b1e1f096-9da0-411f-909a-f69b92c17633) definitions for this simple type are identical to the corresponding **ST\_Style** style definitions ([ISO/IEC29500-1:2016] section 21.2.3.46), with the following exceptions:

* The number for each style in this simple type is 100 plus the corresponding style number in **ST\_Style** ([ISO/IEC29500-1:2016] section 21.2.3.46).
* The **ST\_Style** simple type ([ISO/IEC29500-1:2016] section 21.2.3.46) states, "If the chart does not have a font size set, then the default font size is 10." This is changed in this simple type to the following: If the chart does not have a font size set, the default font size for the chart is 10 points, and the default font size for the chart title is 18 points.
* The **ST\_Style** simple type ([ISO/IEC29500-1:2016] section 21.2.3.46), table 2, column Axis & Major Gridlines has a value of "tx1" for styles 1 to 32. This is changed in this simple type to specify that styles 101 to 132 have a value of "75% tint of tx1".
* The **ST\_Style** simple type ([ISO/IEC29500-1:2016] section 21.2.3.46), table 2, column Axis & Major Gridlines has a value of "dk1" for styles 33 to 48. This is changed in this simple type to specify that styles 133 to 148 have a value of "75% tint of dk1".
* The **ST\_Style** simple type ([ISO/IEC29500-1:2016] section 21.2.3.46), table 2, column Minor Gridlines has a value of "50% tint of tx1" for styles 33 to 40. This is changed in this simple type to specify that styles 133 to 140 have a value of "50% tint of dk1".
* The **ST\_Style** simple type ([ISO/IEC29500-1:2016] section 21.2.3.46), table 2, column Minor Gridlines has a value of "90% tint of tx1" for styles 41 to 48. This is changed in this simple type to specify that styles 141 to 148 have a value of "90% tint of dk1".
* The **ST\_Style** simple type ([ISO/IEC29500-1:2016] section 21.2.3.46), table 2, column Other Lines has a value of "25% shade of dk1" for styles 35 to 40. This is changed in this simple type to specify that styles 135 to 140 have a value of "dk1".
* The **ST\_Style** simple type ([ISO/IEC29500-1:2016] section 21.2.3.46), table 3, column Floor, Walls & Plot Area (2-D) has a value of "accent1-6" for styles 35 to 40. This is changed in this simple type to specify that styles 135 to 140 have a value of "20% tint of accent1-6".
* The **ST\_Style** simple type ([ISO/IEC29500-1:2016] section 21.2.3.46), tables 4 and 5 do not specify the color of the effect. This is changed in this simple type to specify in tables 4 and 5 that the effect color is "dk1" if the style has an effect applied.
* The **ST\_Style** simple type ([ISO/IEC29500-1:2016] section 21.2.3.46), table 5, column Line Color or Pattern has a value of "50% shade of dk1" for style 33. This is changed in this simple type to specify that style 133 has a value of "92.5% tint of dk1".

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_Style">
2. <xsd:restriction base="xsd:unsignedByte">
3. <xsd:minInclusive value="101"/>
4. <xsd:maxInclusive value="148"/>
5. </xsd:restriction>
6. </xsd:simpleType>

See section [5.10](#Section_070bea842201463caeaacf258492b5b5) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

## http://schemas.microsoft.com/office/drawing/2012/chartStyle

### Elements

#### chartStyle

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

A [CT\_ChartStyle](#Section_4019845e6b3847b088b9c6d739e7292f) element[<88>](#Appendix_A_88" \o "Product behavior note 88) that specifies the default formatting for all chart elements.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="chartStyle" type="CT\_ChartStyle"/>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### colorStyle

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

The **colorStyle** element[<89>](#Appendix_A_89" \o "Product behavior note 89) (section [2.8.3.2](#Section_93087d0b22d241e2a2b7a7bea8f18524)), which is of type **CT\_ColorStyle**, specifies the color style for the chart.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="colorStyle" type="CT\_ColorStyle"/>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_ChartStyle

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

*Referenced by:* [chartStyle](#Section_e33978b1447947558fc2d8ac634cc28c)

A complex type that specifies visual and text properties for all elements present on a chart.[<90>](#Appendix_A_90" \o "Product behavior note 90)

*Child Elements:*

**axisTitle:** A [**CT\_StyleEntry**](#Section_502b63f6d2ff47f9a46673af2d4cc03e) element that specifies default formatting for an axis title.

**categoryAxis:** A **CT\_StyleEntry** element that specifies default formatting for a category axis.

**chartArea:** A **CT\_StyleEntry** element that specifies default formatting for a chart area.

**dataLabel:** A **CT\_StyleEntry** element that specifies default formatting for a data label.

**dataLabelCallout:** A CT\_StyleEntry element that specifies default formatting for a data label callout.

**dataPoint:** A **CT\_StyleEntry** element that specifies default formatting for a data point on a 2-D chart of type column, bar, filled radar, stock, bubble, pie, doughnut, and area as well as 3-D bubble.

**dataPoint3D:** A **CT\_StyleEntry** element that specifies default formatting for a data point on a 3-D chart of type column, bar, line, pie, area and surface.

**dataPointLine:** A **CT\_StyleEntry** element that specifies default formatting for a data point on a 2-D chart of type line, scatter and radar.

**dataPointMarker:** A **CT\_StyleEntry** element that specifies default formatting for markers.

**dataPointMarkerLayout:** A [**CT\_MarkerLayout**](#Section_ff6991922d9c40298d02f8b2439db5ad) element that specifies additional marker properties not present in **dataPointMarker**.

**dataPointWireframe:** A **CT\_StyleEntry** element that specifies default formatting for a data point on a surface wireframe chart.

**dataTable:** A **CT\_StyleEntry** element that specifies default formatting for a data table.

**downBar:** A **CT\_StyleEntry** element that specifies default formatting for a down bar.

**dropLine:** A **CT\_StyleEntry** element that specifies default formatting for a drop line.

**errorBar:** A **CT\_StyleEntry** element that specifies default formatting for an error bar.

**floor:** A **CT\_StyleEntry** element that specifies default formatting for a floor.

**gridlineMajor:** A **CT\_StyleEntry** element that specifies default formatting for a major gridline.

**gridlineMinor:** A **CT\_StyleEntry** element that specifies default formatting for a minor gridline.

**hiLoLine:** A **CT\_StyleEntry** element that specifies default formatting for a high low line.

**leaderLine:** A **CT\_StyleEntry** element that specifies default formatting for a leader line.

**legend:** A **CT\_StyleEntry** element that specifies default formatting for a legend.

**plotArea:** A **CT\_StyleEntry** element that specifies default formatting for a plot area on a 2-D chart.

**plotArea3D:** A **CT\_StyleEntry** element that specifies default formatting for a 3-D chart.

**seriesAxis:** A **CT\_StyleEntry** element that specifies default formatting for a series axis.

**seriesLine:** A **CT\_StyleEntry** element that specifies default formatting for a series line.

**title:** A **CT\_StyleEntry** element that specifies default formatting for a chart title.

**trendline:** A **CT\_StyleEntry** element that specifies default formatting for a trend line.

**trendlineLabel:** A **CT\_StyleEntry** element that specifies default formatting for a trend line label.

**upBar:** A **CT\_StyleEntry** element that specifies default formatting for an up bar.

**valueAxis:** A **CT\_StyleEntry** element that specifies default formatting for a value axis.

**wall:** A **CT\_StyleEntry** element that specifies default formatting for a wall.

**extLst:** A **CT\_OfficeArtExtensionList** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables new types of data to be stored natively within the framework.

*Attributes:*

**id:** An **unsignedInt** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22) attribute that specifies the identifier for this **CT\_ChartStyle**.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ChartStyle">
2. <xsd:sequence>
3. <xsd:element name="axisTitle" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="categoryAxis" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="chartArea" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
6. <xsd:element name="dataLabel" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
7. <xsd:element name="dataLabelCallout" type="CT\_StyleEntry" minOccurs="0" maxOccurs="1"/>
8. <xsd:element name="dataPoint" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
9. <xsd:element name="dataPoint3D" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
10. <xsd:element name="dataPointLine" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
11. <xsd:element name="dataPointMarker" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
12. <xsd:element name="dataPointMarkerLayout" type="CT\_MarkerLayout" minOccurs="0" maxOccurs="1"/>
13. <xsd:element name="dataPointWireframe" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
14. <xsd:element name="dataTable" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
15. <xsd:element name="downBar" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
16. <xsd:element name="dropLine" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
17. <xsd:element name="errorBar" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
18. <xsd:element name="floor" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
19. <xsd:element name="gridlineMajor" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
20. <xsd:element name="gridlineMinor" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
21. <xsd:element name="hiLoLine" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
22. <xsd:element name="leaderLine" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
23. <xsd:element name="legend" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
24. <xsd:element name="plotArea" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
25. <xsd:element name="plotArea3D" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
26. <xsd:element name="seriesAxis" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
27. <xsd:element name="seriesLine" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
28. <xsd:element name="title" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
29. <xsd:element name="trendline" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
30. <xsd:element name="trendlineLabel" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
31. <xsd:element name="upBar" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
32. <xsd:element name="valueAxis" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
33. <xsd:element name="wall" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
34. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
35. </xsd:sequence>
36. <xsd:attribute name="id" type="xsd:unsignedInt" use="optional"/>
37. </xsd:complexType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ColorStyle

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

*Referenced by:* [colorStyle](#Section_cbc9320aecf84dc280dc4e4bda8f9045)

The complex type specifies colors used to resolve **CT\_StyleColor** (section [2.8.3.6](#Section_69bc30008ac24fa4801daa74e5fa09d3)) colors in a **CT\_ChartStyle (**section [2.8.3.1](#Section_4019845e6b3847b088b9c6d739e7292f)).[<91>](#Appendix_A_91" \o "Product behavior note 91) The color style consists of a list of colors, a list of variations and a method for iterating the total set of colors.

The total set of colors is all contained colors repeated each time with each variation applied. A color style can contain 6 colors and 7 variations. This yields a total of 42 colors with the first 6 having the first variation applied, the second 6 having the second variation applied and so on. If no variations are present, then the total color set is just the contained colors with no extra variations.

To retrieve a color given an index, a method is applied to map that index into the total set of colors.

*Child Elements:*

**scrgbClr:** A **CT\_ScRgbColor** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that specifies a color using the [**red-green-blue (RGB)**](#gt_2c716d3a-e60b-4e52-bbb0-2fdeb298003b) color model. See ([ISO/IEC29500-1:2016] section 20.1.2.3.30).

**srgbClr:** A **CT\_SRgbColor** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a color using the RGB color model. See ([ISO/IEC29500-1:2016] section 20.1.2.3.32).

**hslClr:** A **CT\_HslColor** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a color using the [**hue-saturation-luminance (HSL)**](#gt_e801f5cb-4827-4f1b-9337-d13e22a43972) color model. See ([ISO/IEC29500-1:2016] section 20.1.2.3.13).

**sysClr:** A **CT\_SystemColor** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a color bound to predefined operating system elements. See ([ISO/IEC29500-1:2016] section 20.1.2.3.33).

**schemeClr:** A **CT\_SchemeColor** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a color bound to a user's theme. See ([ISO/IEC29500-1:2016] section 20.1.2.3.29).

**prstClr:** A **CT\_PresetColor** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a color which is bound to one of a predefined collection of colors. See ([ISO/IEC29500-1:2016] section 20.1.2.3.22).

**variation:** A [**CT\_ColorStyleVariation**](#Section_cd07da0ec5de478d8cc5f345314a73c0) element that specifies a variation applied to all colors to create a longer set of colors without having to explicitly list them all.

**extLst:** A **CT\_OfficeArtExtensionList** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the extension list in which all future extensions of element type **ext** is defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various types of data to be stored natively in the framework.

*Attributes:*

**meth:** An [**ST\_ColorStyleMethod**](#Section_66555982672b465cb35dfd4f122e1e22) attribute that specifies the method for mapping an index for an element in a chart to the total set of colors contained in this **CT\_ColorStyle**.

**id:** An **unsignedInt** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22) attribute that specifies the identifier for this **CT\_ColorStyle**.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ColorStyle">
2. <xsd:sequence>
3. <xsd:group ref="a:EG\_ColorChoice" minOccurs="1" maxOccurs="unbounded"/>
4. <xsd:element name="variation" type="CT\_ColorStyleVariation" minOccurs="0" maxOccurs="unbounded"/>
5. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. <xsd:attribute name="meth" type="ST\_ColorStyleMethod" use="required"/>
8. <xsd:attribute name="id" type="xsd:unsignedInt" use="optional"/>
9. </xsd:complexType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ColorStyleVariation

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

*Referenced by:* [CT\_ColorStyle](#Section_93087d0b22d241e2a2b7a7bea8f18524)

The complex type specifies a list of transforms that are appended to all colors in a CT\_ColorStyle to produce a variation of the color style.[<92>](#Appendix_A_92" \o "Product behavior note 92)

*Child Elements:*

**tint:** A **CT\_PositiveFixedPercentage** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that specifies a lighter version of its input color. See ([ISO/IEC29500-1:2016] section 20.1.2.3.34).

**shade:** A **CT\_PositiveFixedPercentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a darker version of its input color. See ([ISO/IEC29500-1:2016] section 20.1.2.3.31).

**comp:** A **CT\_ComplementTransform** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the complement of its input color. See ([ISO/IEC29500-1:2016] section 20.1.2.3.7).

**inv:** A **CT\_InverseTransform** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the inverse of its input color. See ([ISO/IEC29500-1:2016] section 20.1.2.3.17).

**gray:** A **CT\_GrayscaleTransform** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a grayscale of its input color. See ([ISO/IEC29500-1:2016] section 20.1.2.3.9).

**alpha:** A **CT\_PositiveFixedPercentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies its input color with the specified opacity, but with its color unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.1).

**alphaOff:** A **CT\_FixedPercentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a more or less opaque version of its input color. See ([ISO/IEC29500-1:2016] section 20.1.2.3.3).

**alphaMod:** A **CT\_PositivePercentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a more or less opaque version of its input color. See ([ISO/IEC29500-1:2016] section 20.1.2.3.2).

**hue:** A **CT\_PositiveFixedAngle** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with the specified hue, but with its saturation and luminance unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.14).

**hueOff:** A **CT\_Angle** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its hue shifted, but with its saturation and luminance unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.16).

**hueMod:** A **CT\_PositivePercentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its hue modulated by the given percentage. See ([ISO/IEC29500-1:2016] section 20.1.2.3.15).

**sat:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with the specified saturation, but with its hue and luminance unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.26).

**satOff:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its saturation shifted, but with its hue and luminance unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.28).

**satMod:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its saturation modulated by the given percentage. See ([ISO/IEC29500-1:2016] section 20.1.2.3.27).

**lum:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with the specified luminance, but with its hue and saturation unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.19).

**lumOff:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its luminance shifted, but with its hue and saturation unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.21).

**lumMod:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its luminance modulated by the given percentage. See ([ISO/IEC29500-1:2016] section 20.1.2.3.20).

**red:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with the specified red component, but with its green and blue components unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.23).

**redOff:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its red component shifted, but with its green and blue components unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.25).

**redMod:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its red component modulated by the given percentage. See ([ISO/IEC29500-1:2016] section 20.1.2.3.24).

**green:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with the specified green component, but with its red and blue components unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.10).

**greenOff:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its green component shifted, but with its red and blue components unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.12).

**greenMod:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its green component modulated by the given percentage. See ([ISO/IEC29500-1:2016] section 20.1.2.3.11).

**blue:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with the specified blue component, but with its red and green components unchanged.See ([ISO/IEC29500-1:2016] section 20.1.2.3.4).

**blueOff:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its blue component shifted, but with its red and green components unchanged.See ([ISO/IEC29500-1:2016] section 20.1.2.3.6).

**blueMod:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its blue component modulated by the given percentage. See ([ISO/IEC29500-1:2016] section 20.1.2.3.5).

**gamma:** A **CT\_GammaTransform** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the sRGB gamma shift of its input color.See ([ISO/IEC29500-1:2016] section 20.1.2.3.8).

**invGamma:** A **CT\_InverseGammaTransform** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the inverse sRGB gamma shift of its input color.See ([ISO/IEC29500-1:2016] section 20.1.2.3.18).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ColorStyleVariation">
2. <xsd:sequence>
3. <xsd:group ref="a:EG\_ColorTransform" minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_FontReference

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

*Referenced by:* [CT\_StyleEntry](#Section_502b63f6d2ff47f9a46673af2d4cc03e)

A reference to the document's font scheme.[<93>](#Appendix_A_93" \o "Product behavior note 93) This element is identical to **CT\_FontReference** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) but also allows for a **CT\_StyleColor** (section [2.8.3.6](#Section_69bc30008ac24fa4801daa74e5fa09d3)) element and a modifier list**.**

*Child Elements:*

**scrgbClr:** A **CT\_ScRgbColor** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a color using the [**red-green-blue (RGB)**](#gt_2c716d3a-e60b-4e52-bbb0-2fdeb298003b) color model. See ([ISO/IEC29500-1:2016] section 20.1.2.3.30).

**srgbClr:** A **CT\_SRgbColor** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a color using the RGB color model. See ([ISO/IEC29500-1:2016] section 20.1.2.3.32).

**hslClr:** A **CT\_HslColor** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a color using the [**hue-saturation-luminance (HSL)**](#gt_e801f5cb-4827-4f1b-9337-d13e22a43972) color model. See ([ISO/IEC29500-1:2016] section 20.1.2.3.13).

**sysClr:** A **CT\_SystemColor** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a color bound to predefined operating system elements. See ([ISO/IEC29500-1:2016] section 20.1.2.3.33).

**schemeClr:** A **CT\_SchemeColor** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a color bound to a user's theme. See ([ISO/IEC29500-1:2016] section 20.1.2.3.29).

**prstClr:** A **CT\_PresetColor** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a color which is bound to one of a predefined collection of colors. See ([ISO/IEC29500-1:2016] section 20.1.2.3.22).

**styleClr:** A **CT\_StyleColor** element that specifies a color calculated from a [**CT\_ColorStyle**](#Section_93087d0b22d241e2a2b7a7bea8f18524).

*Attributes:*

**idx:** An **ST\_FontCollectionIndex** ([ISO/IEC29500-1:2016] section 20.1.10.25) attribute that specifies a font associated with the style.

**mods:** An [**ST\_StyleReferenceModifierList**](#Section_128309814e6c427383be502a5cb433ea) attribute that specifies a list of modifiers for this reference.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_FontReference">
2. <xsd:sequence>
3. <xsd:group ref="a:EG\_ColorChoice" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="styleClr" type="CT\_StyleColor" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. <xsd:attribute name="idx" type="a:ST\_FontCollectionIndex" use="required"/>
7. <xsd:attribute name="mods" type="ST\_StyleReferenceModifierList" use="optional"/>
8. </xsd:complexType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_MarkerLayout

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

*Referenced by:* [CT\_ChartStyle](#Section_4019845e6b3847b088b9c6d739e7292f)

The complex type specifies additional properties for data points that have markers.[<94>](#Appendix_A_94" \o "Product behavior note 94)

*Attributes:*

**symbol:** An [**ST\_MarkerStyle**](#Section_d7e41c18076043fc8b3ccb8fc284560b) attribute that specifies a style for markers on a chart.

**size:** An [**ST\_MarkerSize**](#Section_ad06d49f716f4ce6b2ed1f2b73187ccc) attribute that specifies the size for markers on a chart.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_MarkerLayout">
2. <xsd:attribute name="symbol" type="ST\_MarkerStyle" use="optional"/>
3. <xsd:attribute name="size" type="ST\_MarkerSize" use="optional"/>
4. </xsd:complexType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_StyleColor

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

*Referenced by:* [CT\_StyleReference](#Section_a43cbe8a3133435481081ccb927963c9), [CT\_FontReference](#Section_511d2539280643b4a95f0df1dfa279c7)

The complex type specifies a color which is retrieved from **CT\_ColorStyle** (section [2.8.3.2](#Section_93087d0b22d241e2a2b7a7bea8f18524)).[<95>](#Appendix_A_95" \o "Product behavior note 95)

*Child Elements:*

**tint:** A **CT\_PositiveFixedPercentage** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that specifies a lighter version of its input color. See ([ISO/IEC29500-1:2016] section 20.1.2.3.34).

**shade:** A **CT\_PositiveFixedPercentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a darker version of its input color. See ([ISO/IEC29500-1:2016] section 20.1.2.3.31).

**comp:** A **CT\_ComplementTransform** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the complement of its input color. See ([ISO/IEC29500-1:2016] section 20.1.2.3.7).

**inv:** A **CT\_InverseTransform** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the inverse of its input color. See ([ISO/IEC29500-1:2016] section 20.1.2.3.17).

**gray:** A **CT\_GrayscaleTransform** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a grayscale of its input color. See ([ISO/IEC29500-1:2016] section 20.1.2.3.9).

**alpha:** A **CT\_PositiveFixedPercentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies its input color with the specified opacity, but with its color unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.1).

**alphaOff:** A **CT\_FixedPercentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a more or less opaque version of its input color. See ([ISO/IEC29500-1:2016] section 20.1.2.3.3).

**alphaMod:** A **CT\_PositivePercentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a more or less opaque version of its input color. See ([ISO/IEC29500-1:2016] section 20.1.2.3.2).

**hue:** A **CT\_PositiveFixedAngle** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with the specified hue, but with its saturation and luminance unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.14).

**hueOff:** A **CT\_Angle** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its hue shifted, but with its saturation and luminance unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.16).

**hueMod:** A **CT\_PositivePercentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its hue modulated by the given percentage. See ([ISO/IEC29500-1:2016] section 20.1.2.3.15).

**sat:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with the specified saturation, but with its hue and luminance unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.26).

**satOff:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its saturation shifted, but with its hue and luminance unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.28).

**satMod:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its saturation modulated by the given percentage. See ([ISO/IEC29500-1:2016] section 20.1.2.3.27).

**lum:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with the specified luminance, but with its hue and saturation unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.19).

**lumOff:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its luminance shifted, but with its hue and saturation unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.21).

**lumMod:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its luminance modulated by the given percentage. See ([ISO/IEC29500-1:2016] section 20.1.2.3.20).

**red:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with the specified red component, but with its green and blue components unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.23).

**redOff:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its red component shifted, but with its green and blue components unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.25).

**redMod:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its red component modulated by the given percentage. See ([ISO/IEC29500-1:2016] section 20.1.2.3.24).

**green:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with the specified green component, but with its red and blue components unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.10).

**greenOff:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its green component shifted, but with its red and blue components unchanged. See ([ISO/IEC29500-1:2016] section 20.1.2.3.12).

**greenMod:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its green component modulated by the given percentage. See ([ISO/IEC29500-1:2016] section 20.1.2.3.11).

**blue:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with the specified blue component, but with its red and green components unchanged.See ([ISO/IEC29500-1:2016] section 20.1.2.3.4).

**blueOff:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its blue component shifted, but with its red and green components unchanged.See ([ISO/IEC29500-1:2016] section 20.1.2.3.6).

**blueMod:** A **CT\_Percentage** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the input color with its blue component modulated by the given percentage. See ([ISO/IEC29500-1:2016] section 20.1.2.3.5).

**gamma:** A **CT\_GammaTransform** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the sRGB gamma shift of its input color.See ([ISO/IEC29500-1:2016] section 20.1.2.3.8).

**invGamma:** A **CT\_InverseGammaTransform** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the inverse sRGB gamma shift of its input color.See ([ISO/IEC29500-1:2016] section 20.1.2.3.18).

*Attributes:*

**val:** An [**ST\_StyleColorVal**](#Section_9511b022473c48c490af2fcba7e0d8ec) attribute that specifies the value which is used to determine the index of the color in a **CT\_ColorStyle**.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_StyleColor">
2. <xsd:sequence>
3. <xsd:group ref="a:EG\_ColorTransform" minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. <xsd:attribute name="val" type="ST\_StyleColorVal"/>
6. </xsd:complexType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_StyleEntry

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

*Referenced by:* [CT\_ChartStyle](#Section_4019845e6b3847b088b9c6d739e7292f)

This complex type specifies the default formatting for a single type of element on a chart.[<96>](#Appendix_A_96" \o "Product behavior note 96) This element allows for properties to be explicitly specified or hold references to the document's theme.

*Child Elements:*

**lnRef:** A [**CT\_StyleReference**](#Section_a43cbe8a3133435481081ccb927963c9) element that specifies a reference to a line style within the style matrix.

**lineWidthScale:** A **double** ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) element that specifies a multiplier to apply to the line width.

**fillRef:** A **CT\_StyleReference** element that specifies a reference to a fill style within the style matrix.

**effectRef:** A **CT\_StyleReference** element that specifies a reference to an effect style within the style matrix.

**fontRef:** A [**CT\_FontReference**](#Section_511d2539280643b4a95f0df1dfa279c7) element that specifies a reference to a themed font.

**spPr:** A **CT\_ShapeProperties** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that specifies visual [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) properties of the part of the chart associated with this **CT\_StyleEntry**. These properties override properties that are specified by **fillRef**, **lnRef** and **effectRef**.

If a **CT\_SchemeColor** ([ISO/IEC29500-1:2016] section A.4.1) element within this element’s child **CT\_FillProperties** ([ISO/IEC29500-1:2016] section A.4.1) element has a value of **phClr**, then the color is resolved by replacing it with the color specified by **fillRef**.

If a **CT\_SchemeColor** ([ISO/IEC29500-1:2016] section A.4.1) element within this element’s child **CT\_LineProperties** ([ISO/IEC29500-1:2016] section A.4.1) element has a value of **phClr**, then the color is resolved by replacing it with the color specified by **lnRef**.

If a **CT\_SchemeColor** ([ISO/IEC29500-1:2016] section A.4.1) element within this element’s child **CT\_EffectProperties** ([ISO/IEC29500-1:2016] section A.4.1) or **CT\_Shape3D** ([ISO/IEC29500-1:2016] section A.4.1) element has a value of **phClr**, then the color is resolved by replacing it with the color specified by **effectRef**.

**defRPr:** A **CT\_TextCharacterProperties** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the default text character properties for a text body on a chart which is associated with this **CT\_StyleEntry**. If a **CT\_SchemeColo**r ([ISO/IEC29500-1:2016] section A.4.1) element within this element has a value of **phClr**, then the color is resolved by replacing it with the color specified by **fontRef**.

**bodyPr:** A **CT\_TextBodyProperties** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the body properties for a text body on a chart that is associated with this **CT\_StyleEntry**.

**extLst:** A **CT\_OfficeArtExtensionList** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the extension list in which all future extensions of element type **ext** is defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various types of data to be stored natively in the framework.

*Attributes:*

**mods:** An [**ST\_StyleEntryModifierList**](#Section_57f90a473e224319ba757ab575594adf) attribute that specifies modifiers for this style entry.

The following W3C XML Schema ([XMLSCHEMA1] section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_StyleEntry">
2. <xsd:sequence>
3. <xsd:element name="lnRef" type="CT\_StyleReference" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="lineWidthScale" type="xsd:double" minOccurs="0" maxOccurs="1" default="1.0"/>
5. <xsd:element name="fillRef" type="CT\_StyleReference" minOccurs="1" maxOccurs="1"/>
6. <xsd:element name="effectRef" type="CT\_StyleReference" minOccurs="1" maxOccurs="1"/>
7. <xsd:element name="fontRef" type="CT\_FontReference" minOccurs="1" maxOccurs="1"/>
8. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
9. <xsd:element name="defRPr" type="a:CT\_TextCharacterProperties" minOccurs="0" maxOccurs="1"/>
10. <xsd:element name="bodyPr" type="a:CT\_TextBodyProperties" minOccurs="0" maxOccurs="1"/>
11. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
12. </xsd:sequence>
13. <xsd:attribute name="mods" type="ST\_StyleEntryModifierList" use="optional"/>
14. </xsd:complexType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_StyleReference

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

*Referenced by:* [CT\_StyleEntry](#Section_502b63f6d2ff47f9a46673af2d4cc03e)

A reference to the document's theme style matrix.[<97>](#Appendix_A_97" \o "Product behavior note 97) This element is identical to **CT\_StyleMatrixReference** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) but also allows for a **CT\_StyleColor** (section [2.8.3.6](#Section_69bc30008ac24fa4801daa74e5fa09d3)) element and a modifier list**.**

*Child Elements:*

**scrgbClr:** A **CT\_ScRgbColor** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a color using the [**red-green-blue (RGB)**](#gt_2c716d3a-e60b-4e52-bbb0-2fdeb298003b) color model. See ([ISO/IEC29500-1:2016] section 20.1.2.3.30).

**srgbClr:** A **CT\_SRgbColor** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a color using the RGB color model. See ([ISO/IEC29500-1:2016] section 20.1.2.3.32).

**hslClr:** A **CT\_HslColor** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a color using the [**hue-saturation-luminance (HSL)**](#gt_e801f5cb-4827-4f1b-9337-d13e22a43972) color model. See ([ISO/IEC29500-1:2016] section 20.1.2.3.13).

**sysClr:** A **CT\_SystemColor** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a color bound to predefined operating system elements. See ([ISO/IEC29500-1:2016] section 20.1.2.3.33).

**schemeClr:** A **CT\_SchemeColor** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a color bound to a user's theme. See ([ISO/IEC29500-1:2016] section 20.1.2.3.29).

**prstClr:** A **CT\_PresetColor** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies a color which is bound to one of a predefined collection of colors. See ([ISO/IEC29500-1:2016] section 20.1.2.3.22).

**styleClr:** A **CT\_StyleColor** element that specifies a color calculated from a **CT\_ColorStyle**.

*Attributes:*

**idx:** An **ST\_StyleMatrixColumnIndex** ([ISO/IEC29500-1:2016] section 20.1.10.57) attribute that specifies the style matrix index of the style referred to.

**mods:** An [**ST\_StyleReferenceModifierList**](#Section_128309814e6c427383be502a5cb433ea) attribute that specifies a list of modifiers for this reference.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_StyleReference">
2. <xsd:sequence>
3. <xsd:group ref="a:EG\_ColorChoice" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="styleClr" type="CT\_StyleColor" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. <xsd:attribute name="idx" type="a:ST\_StyleMatrixColumnIndex" use="required"/>
7. <xsd:attribute name="mods" type="ST\_StyleReferenceModifierList" use="optional"/>
8. </xsd:complexType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

#### ST\_ColorStyleMethod

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

*Referenced by:* [CT\_ColorStyle](#Section_93087d0b22d241e2a2b7a7bea8f18524)

This simple type specifies the method for mapping an index for an element in a chart to the total set of colors contained in a **CT\_ColorStyle**.[<98>](#Appendix_A_98" \o "Product behavior note 98)Methods are either the enumerations specified here, or unknown methods which are stored as strings. If an unknown method is specified, it is assumed that the method is an **ST\_ColorStyleMethodEnum** (section [2.8.4.2](#Section_e26bbba2f2aa4465a867f5d99836129c)) with a value of **cycle**.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_ColorStyleMethod">
2. <xsd:union memberTypes="ST\_ColorStyleMethodEnum xsd:string"/>
3. </xsd:simpleType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_ColorStyleMethodEnum

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

*Referenced by:* [ST\_ColorStyleMethod](#Section_66555982672b465cb35dfd4f122e1e22)

This simple type specifies how colors are picked from a **CT\_ColorStyle (**section [2.8.3.2](#Section_93087d0b22d241e2a2b7a7bea8f18524)) given a zero based index and a count of objects being colored.[<99>](#Appendix_A_99" \o "Product behavior note 99)

| Value | Meaning |
| --- | --- |
| cycle | The color picked from **CT\_ColorStyle** is the index modulus the total set of colors in **CT\_ColorStyle**. |
| withinLinear | The color picked from **CT\_ColorStyle** is the first color with a brightness that varies from darker to lighter based on how close the index is from 0 and the count of objects being colored respectively. |
| acrossLinear | The color picked from **CT\_ColorStyle** is the index modulus the total set of colors in **CT\_ColorStyle**. The color has a brightness that varies from darker to lighter based on how close the index is from 0 and the count of objects being colored respectively. |
| withinLinearReversed | The color picked from **CT\_ColorStyle** is the first color with a brightness that varies from lighter to darker based on how close the index is from 0 and the count of objects being colored respectively. |
| acrossLinearReversed | The color picked from **CT\_ColorStyle** is the index modulus the total set of colors in **CT\_ColorStyle**. The color has a brightness that varies from lighter to darker based on how close the index is from 0 and the count of objects being colored respectively. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_ColorStyleMethodEnum">
2. <xsd:restriction base="xsd:token">
3. <xsd:enumeration value="cycle"/>
4. <xsd:enumeration value="withinLinear"/>
5. <xsd:enumeration value="acrossLinear"/>
6. <xsd:enumeration value="withinLinearReversed"/>
7. <xsd:enumeration value="acrossLinearReversed"/>
8. </xsd:restriction>
9. </xsd:simpleType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_MarkerSize

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

*Referenced by:* [CT\_MarkerLayout](#Section_ff6991922d9c40298d02f8b2439db5ad)

The simple type specifies that its contents contain an integer between 2 and 72, inclusive, whose contents are a size in points.[<100>](#Appendix_A_100" \o "Product behavior note 100) See ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.3.26)

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_MarkerSize">
2. <xsd:restriction base="xsd:unsignedByte">
3. <xsd:minInclusive value="2"/>
4. <xsd:maxInclusive value="72"/>
5. </xsd:restriction>
6. </xsd:simpleType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_MarkerStyle

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

*Referenced by:* [CT\_MarkerLayout](#Section_ff6991922d9c40298d02f8b2439db5ad)

The simple type specifies a shape for a marker.[<101>](#Appendix_A_101" \o "Product behavior note 101) See ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2.3.27) for visual representations.

| Value | Meaning |
| --- | --- |
| circle | Specifies a circle shall be drawn at each data point. |
| dash | Specifies a dash shall be drawn at each data point. |
| diamond | Specifies a diamond shall be drawn at each data point. |
| dot | Specifies a dot shall be drawn at each data point. |
| plus | Specifies a plus shall be drawn at each data point. |
| square | Specifies a square shall be drawn at each data point. |
| star | Specifies a star shall be drawn at each data point. |
| triangle | Specifies a triangle shall be drawn at each data point. |
| x | Specifies an X shall be drawn at each data point. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_MarkerStyle">
2. <xsd:restriction base="xsd:token">
3. <xsd:enumeration value="circle"/>
4. <xsd:enumeration value="dash"/>
5. <xsd:enumeration value="diamond"/>
6. <xsd:enumeration value="dot"/>
7. <xsd:enumeration value="plus"/>
8. <xsd:enumeration value="square"/>
9. <xsd:enumeration value="star"/>
10. <xsd:enumeration value="triangle"/>
11. <xsd:enumeration value="x"/>
12. </xsd:restriction>
13. </xsd:simpleType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_StyleColorEnum

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

*Referenced by:* [ST\_StyleColorVal](#Section_9511b022473c48c490af2fcba7e0d8ec)

This simple type specifies the properties of a chart element that are used as the index when retrieving a color from the **CT\_ColorStyle** (section [2.8.3.2](#Section_93087d0b22d241e2a2b7a7bea8f18524)).[<102>](#Appendix_A_102" \o "Product behavior note 102)

| Value | Meaning |
| --- | --- |
| auto | The relative index of the element in the chart is used as the index into the **CT\_ColorStyle**. For example, **auto** on a series element will make the first series retrieve the color at the first index; the second will retrieve the color at the second index and so on. Elements that do not have an index (such as a plot area) will retrieve the color at the first index. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_StyleColorEnum">
2. <xsd:restriction base="xsd:token">
3. <xsd:enumeration value="auto"/>
4. </xsd:restriction>
5. </xsd:simpleType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_StyleColorVal

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

*Referenced by:* [CT\_StyleColor](#Section_69bc30008ac24fa4801daa74e5fa09d3)

This simple type specifies what index to use when retrieving a color from **CT\_ColorStyle** (section [2.8.3.2](#Section_93087d0b22d241e2a2b7a7bea8f18524)).[<103>](#Appendix_A_103" \o "Product behavior note 103)

If the type is **xsd:unsignedInt** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22), then that integer value is used as the index, zero being the first index.

If the type is **ST\_StyleColorEnum (**section [2.8.4.5](#Section_8f9dbb38e819470fbd64a4ff8b32a744)), the index is retrieved using the properties of the enumeration specified.

Finally, if the type is a string then the index is assumed to be zero.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_StyleColorVal">
2. <xsd:union memberTypes="xsd:unsignedInt ST\_StyleColorEnum xsd:string"/>
3. </xsd:simpleType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_StyleEntryModifier

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

*Referenced by:* [ST\_StyleEntryModifierList](#Section_57f90a473e224319ba757ab575594adf)

This simple type specifies a modifier to use when resolving a**CT\_StyleEntry** (section [2.8.3.7](#Section_502b63f6d2ff47f9a46673af2d4cc03e)) that alters the properties in the specified way.[<104>](#Appendix_A_104" \o "Product behavior note 104) The modifier is either an enumeration or an unknown modifier. If the modifier is unknown, it is assumed to be a string and has no effect.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_StyleEntryModifier">
2. <xsd:union memberTypes="ST\_StyleEntryModifierEnum xsd:string"/>
3. </xsd:simpleType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_StyleEntryModifierEnum

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

This simple type specifies a modifier to use when resolving a**CT\_StyleEntry** (section [2.8.3.7](#Section_502b63f6d2ff47f9a46673af2d4cc03e)) that alters the properties in the specified way.[<105>](#Appendix_A_105" \o "Product behavior note 105)

| Value | Meaning |
| --- | --- |
| allowNoFillOverride | The fill properties specified on this **CT\_StyleEntry** can be replaced with no fill instead. |
| allowNoLineOverride | The line properties specified on this **CT\_StyleEntry** can be replaced with no line instead. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_StyleEntryModifierEnum">
2. <xsd:restriction base="xsd:token">
3. <xsd:enumeration value="allowNoFillOverride"/>
4. <xsd:enumeration value="allowNoLineOverride"/>
5. </xsd:restriction>
6. </xsd:simpleType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_StyleEntryModifierList

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

*Referenced by:* [CT\_StyleEntry](#Section_502b63f6d2ff47f9a46673af2d4cc03e)

This simple type specifies a list modifiers to use when resolving a**CT\_StyleEntry** (section 2.8.3.7) which alters the properties in the specified way.[<106>](#Appendix_A_106" \o "Product behavior note 106) The modifiers are applied in the order in which they appear.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_StyleEntryModifierList">
2. <xsd:list itemType="ST\_StyleEntryModifier"/>
3. </xsd:simpleType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_StyleReferenceModifier

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

*Referenced by:* [ST\_StyleReferenceModifierList](#Section_128309814e6c427383be502a5cb433ea)

This simple type specifies a modifier to use when resolving a **CT\_StyleReference** (section [2.8.3.8](#Section_a43cbe8a3133435481081ccb927963c9)) which alters the resolved properties in the specified way.[<107>](#Appendix_A_107" \o "Product behavior note 107) The modifier is either a known enumeration or an unknown modifier stored as a string. If it is an unknown modifier, no modification is made.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_StyleReferenceModifier">
2. <xsd:union memberTypes="ST\_StyleReferenceModifierEnum xsd:string"/>
3. </xsd:simpleType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_StyleReferenceModifierEnum

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

This simple type specifies a modifier to use when resolving a **CT\_StyleReference** (section [2.8.3.8](#Section_a43cbe8a3133435481081ccb927963c9)) which alters the resolved properties in the specified way.[<108>](#Appendix_A_108" \o "Product behavior note 108)

| Value | Meaning |
| --- | --- |
| ignoreCSTransforms | When resolving a **CT\_StyleColor** (section [2.8.3.6](#Section_69bc30008ac24fa4801daa74e5fa09d3)) in this **CT\_StyleReference**, a color is retrieved from the **CT\_ColorStyle**. With this modifier, the color retrieved will not have any transforms applied to it. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_StyleReferenceModifierEnum">
2. <xsd:restriction base="xsd:token">
3. <xsd:enumeration value="ignoreCSTransforms"/>
4. </xsd:restriction>
5. </xsd:simpleType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_StyleReferenceModifierList

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/chartStyle

*Referenced by:* [CT\_StyleReference](#Section_a43cbe8a3133435481081ccb927963c9), [CT\_FontReference](#Section_511d2539280643b4a95f0df1dfa279c7)

This simple type specifies a list of modifiers to use when resolving a **CT\_StyleReference** (section 2.8.3.8) which alters the resolved properties in the specified way.[<109>](#Appendix_A_109" \o "Product behavior note 109) Modifiers are applied in order that they are listed.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_StyleReferenceModifierList">
2. <xsd:list itemType="ST\_StyleReferenceModifier"/>
3. </xsd:simpleType>

See section [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

## http://schemas.microsoft.com/office/drawing/2010/diagram

### Elements

#### cNvPr

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/diagram

A **CT\_NonVisualDrawingProps** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the non-visual drawing properties of a point in the data model. This enables additional information that does not affect the appearance of the point to be stored.[<110>](#Appendix_A_110" \o "Product behavior note 110)

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps"/>

See section [5.16](#Section_6a404d6814de4124b7dbbb48398538ac) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### recolorImg

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/diagram

A [CT\_Boolean](#Section_5b14cb92af644964a50dfa64d89e2439) element that specifies that images in the diagram are to be rendered as duotone, and thus rendered with the color specified by the **fillCrlLst** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.4.4.8) of the color transform on the diagram.

The following figures demonstrate the effect of this flag on a diagram with images in it.



Figure 28: recolorImg is set to "false" or not present



Figure 29: recolorImg is set to "true"

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="recolorImg" type="CT\_Boolean"/>

See section [5.16](#Section_6a404d6814de4124b7dbbb48398538ac) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_Boolean

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/diagram

*Referenced by:* [recolorImg](#Section_76eed790d8e045f8a4edc0501c16ea0d)

Defines a property with a Boolean value.

*Attributes:*

**val:** Specifies a binary value for the property defined by the parent **XML** element. The default is FALSE.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Boolean">
2. <xsd:attribute name="val" type="xsd:boolean" use="optional" default="false"/>
3. </xsd:complexType>

See section [5.16](#Section_6a404d6814de4124b7dbbb48398538ac) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

None.

## http://schemas.microsoft.com/office/drawing/2008/diagram

### Elements

#### dataModelExt

*Target namespace:* http://schemas.microsoft.com/office/drawing/2008/diagram

*Element type:* **CT\_DataModelExtBlock**

*An extension list child element of:* **dataModel** as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.4.2.10

*(*For more details, see [ISO/IEC29500-1:2016] section 10*.1.2.)*

*Extension list URI attribute:* http://schemas.microsoft.com/office/drawing/2008/diagram

An additional element of a **dataModel** that defines the explicit part location of the Diagram Drawing and the minimum application version required to layout this diagram.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="dataModelExt" type="CT\_DataModelExtBlock"/>

See section [5.6](#Section_e1b56dd5305b4b3ba98328df1d4ffc3f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### drawing

*Target namespace:* http://schemas.microsoft.com/office/drawing/2008/diagram

A [CT\_Drawing](#Section_d0015cd592964547ac40eec467896f3d) element that specifies the last successful output of diagram layout. This element is the root element of the Diagram Layout part (see [2.1.3](#Section_ec96c9e0757a4f249725c52d3c34e310)).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="drawing" type="CT\_Drawing"/>

See section [5.6](#Section_e1b56dd5305b4b3ba98328df1d4ffc3f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_DataModelExtBlock

*Target namespace:* http://schemas.microsoft.com/office/drawing/2008/diagram

*Referenced by:* [dataModelExt](#Section_052211cd4f974860aeb13fee41317937)

This complex type specifies a relationship identifier to the Diagram Drawing part, as well as a URI that is used to determine the minimum application version required to run layout on the diagram.

*Attributes:*

**relId:** A **string** attribute ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) that specifies the identifier of the part that contains the Diagram Drawing object.

**minVer:** An **anyURI** attribute ([XMLSCHEMA2] section 3.2.17) that specifies the minimum version required to display the layout.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_DataModelExtBlock">
2. <xsd:attribute name="relId" type="xsd:string"/>
3. <xsd:attribute name="minVer" type="xsd:anyURI"/>
4. </xsd:complexType>

See section [5.6](#Section_e1b56dd5305b4b3ba98328df1d4ffc3f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Drawing

*Target namespace:* http://schemas.microsoft.com/office/drawing/2008/diagram

*Referenced by:* [drawing](#Section_44da438543e14c9e906171557d17155a)

This specifies a visual representation of the last successful layout for a diagram.

*Child Elements:*

**spTree:** A **CT\_GroupShape** element that specifies the top-level [**group shape**](#gt_b2238184-3c83-4e64-babb-08b02a9138db) that represents the last layout.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Drawing">
2. <xsd:sequence>
3. <xsd:element name="spTree" type="CT\_GroupShape" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.6](#Section_e1b56dd5305b4b3ba98328df1d4ffc3f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GroupShape

*Target namespace:* http://schemas.microsoft.com/office/drawing/2008/diagram

*Referenced by:* [CT\_Drawing](#Section_d0015cd592964547ac40eec467896f3d)

This complex type specifies a [**group shape**](#gt_b2238184-3c83-4e64-babb-08b02a9138db) that represents one or more shapes grouped together. This [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) is to be treated as if it were a regular shape, but instead of being described by a single geometry, it is made up of all the shape geometries encompassed within it. Within a group shape, each shape in the group is specified as it normally would be. However, a single transform can apply to the group of shapes as though it were a single shape.

*Child Elements:*

**nvGrpSpPr:** A **CT\_GroupShapeNonVisual** element that specifies the non-visual properties of the group shape.

**grpSpPr:** A **CT\_GroupShapeProperties** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies group shape properties.

**sp:** A **CT\_Shape** element that specifies a shape that is a child of this group.

**grpSp:** A **CT\_GroupShape** element that specifies a group shape that is a child of this group.

**extLst:** A **CT\_OfficeArtExtensionList** element ([ISO/IEC29500-1:2016] section A.4.1) that enables future extensions to the group shape.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GroupShape">
2. <xsd:sequence>
3. <xsd:element name="nvGrpSpPr" type="CT\_GroupShapeNonVisual" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="grpSpPr" type="a:CT\_GroupShapeProperties" minOccurs="1" maxOccurs="1"/>
5. <xsd:choice minOccurs="0" maxOccurs="unbounded">
6. <xsd:element name="sp" type="CT\_Shape"/>
7. <xsd:element name="grpSp" type="CT\_GroupShape"/>
8. </xsd:choice>
9. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
10. </xsd:sequence>
11. </xsd:complexType>

See section [5.6](#Section_e1b56dd5305b4b3ba98328df1d4ffc3f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GroupShapeNonVisual

*Target namespace:* http://schemas.microsoft.com/office/drawing/2008/diagram

*Referenced by:* [CT\_GroupShape](#Section_ca67dd1549224246b765a6633b406fcb)

This complex type specifies all non-visual properties for a [**group shape**](#gt_b2238184-3c83-4e64-babb-08b02a9138db). This element is a container for the non-visual shape properties of a group shape. This provides additional information that does not affect the appearance of the group shape to be stored.

*Child Elements:*

**cNvPr:** A **CT\_NonVisualDrawingProps** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies non-visual drawing properties.

**cNvGrpSpPr:** A **CT\_NonVisualGroupDrawingShapeProps** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies all non-visual group shape drawing properties.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GroupShapeNonVisual">
2. <xsd:sequence>
3. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="cNvGrpSpPr" type="a:CT\_NonVisualGroupDrawingShapeProps" minOccurs="1" maxOccurs="1"/>
5. </xsd:sequence>
6. </xsd:complexType>

See section [5.6](#Section_e1b56dd5305b4b3ba98328df1d4ffc3f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Shape

*Target namespace:* http://schemas.microsoft.com/office/drawing/2008/diagram

*Referenced by:* [CT\_GroupShape](#Section_ca67dd1549224246b765a6633b406fcb)

This complex type specifies the existence of a single [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e). A shape can use either a preset or a custom geometry, defined by using the DrawingML framework. In addition to a geometry, each shape can have both visual and non-visual properties. Text and corresponding styling information can also be attached to a shape. This shape is specified along with all other shapes in [**group shape**](#gt_b2238184-3c83-4e64-babb-08b02a9138db) elements.

*Child Elements:*

**nvSpPr:** A **CT\_ShapeNonVisual** element that specifies non-visual shape properties associated with the shape.

**spPr:** A **CT\_ShapeProperties** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies visual shape properties of the shape

**style:** A **CT\_ShapeStyle** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the style of the shape.

**txBody:** A **CT\_TextBody** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the shape text associated with the shape

**txXfrm:** A **CT\_Transform2D** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies a 2-D transform to be applied to the text body of the shape.

**extLst:** A **CT\_OfficeArtExtensionList** element ([ISO/IEC29500-1:2016] section A.4.1) that enables future extensions to the shape.

*Attributes:*

**modelId:** An **ST\_ModelId** attribute ([ISO/IEC29500-1:2016] section 21.4.7.43) that specifies the identifier of the **DataModel** element that this shape represents.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Shape">
2. <xsd:sequence>
3. <xsd:element name="nvSpPr" type="CT\_ShapeNonVisual" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="style" type="a:CT\_ShapeStyle" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="txBody" type="a:CT\_TextBody" minOccurs="0" maxOccurs="1"/>
7. <xsd:element name="txXfrm" type="a:CT\_Transform2D" minOccurs="0" maxOccurs="1"/>
8. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
9. </xsd:sequence>
10. <xsd:attribute name="modelId" type="d:ST\_ModelId" use="required"/>
11. </xsd:complexType>

See section [5.6](#Section_e1b56dd5305b4b3ba98328df1d4ffc3f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ShapeNonVisual

*Target namespace:* http://schemas.microsoft.com/office/drawing/2008/diagram

*Referenced by:* [CT\_Shape](#Section_060cdb7c1d524a9f9319bf1849c1f830)

This complex type specifies all non-visual properties for a [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e). This element is a container for the non-visual identification properties, shape properties, and application properties of a shape. This complex type provides additional information that does not affect the appearance of the shape to be stored.

*Child Elements:*

**cNvPr:** A **CT\_NonVisualDrawingProps** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies non-visual drawing properties for the shape.

**cNvSpPr:** A **CT\_NonVisualDrawingShapeProps** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies all non-visual shape drawing properties of the shape.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ShapeNonVisual">
2. <xsd:sequence>
3. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="cNvSpPr" type="a:CT\_NonVisualDrawingShapeProps" minOccurs="1" maxOccurs="1"/>
5. </xsd:sequence>
6. </xsd:complexType>

See section [5.6](#Section_e1b56dd5305b4b3ba98328df1d4ffc3f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

None.

## http://schemas.microsoft.com/ink/2010/main

### Elements

#### context

*Target namespace:* http://schemas.microsoft.com/ink/2010/main

A [CT\_CtxNode](#Section_b28d4e09455a422eb4c210f49ef511f4) element that specifies the context of a set of Ink traces stored in a **traceGroup** element as specified in [[InkML]](https://go.microsoft.com/fwlink/?LinkId=156829).

This element MUST be a child of an **emma:interpretation** element ([[EMMA]](https://go.microsoft.com/fwlink/?LinkId=156828) section 3.2). The **emma:interpretation** element MUST be a child of an **inkml::annotationXML** element ([InkML] section 6.3.2). The **inkml:annotationXML** element MUST be a child of an **inkml:traceGroup** element ([InkML] section 3.3.1).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="context" type="CT\_CtxNode"/>

See section [5.7](#Section_b0e5b36b68a84fd4874ce5e187ba574f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_CtxLink

*Target namespace:* http://schemas.microsoft.com/ink/2010/main

*Referenced by:* [CT\_CtxNode](#Section_b28d4e09455a422eb4c210f49ef511f4)

An element of this type defines a semantic relationship from one Ink context node to another.

*Attributes:*

**direction:** An **ST\_Dir** attribute that specifies the direction of the semantic link: to, from, or with. The "to" or "from" directions apply to ink that represent connectors or arrows, whereas "with" implies no direction, such as an underline on a word.

**ref:** An **ST\_Ref** attribute that specifies the identifier of the other context node or [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) being linked to, from, or with this context node. If it is an **xsd:unsignedInt**, it MUST reference a shape identifier elsewhere in the drawing. If it is an **ST\_Guid**, it MUST reference another context node in the document.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_CtxLink">
2. <xsd:attribute name="direction" type="ST\_Dir"/>
3. <xsd:attribute name="ref" type="ST\_Ref"/>
4. </xsd:complexType>

See section [5.7](#Section_b0e5b36b68a84fd4874ce5e187ba574f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_CtxNode

*Target namespace:* http://schemas.microsoft.com/ink/2010/main

*Referenced by:* [context](#Section_e1209c1058f540e8b5d03c38d3216af5)

The **CT\_CtxNode** defines an Ink context node and its properties. A context node is a logical collection of Ink traces. When Ink is drawn by the user, the Ink traces are analyzed and organized into a hierarchy of context nodes. Each context node has a type (specified by the **type** attribute) and can have zero or more child content nodes. For example, a **writingRegion** content node can have one or more **paragraph** content nodes. In addition, context nodes can have relational links to each other. For example, if a word is underlined, the context node representing the ink word and the context node representing the underline are linked.

For example, the following figure shows ink that is analyzed as shown in the following code example.



Figure 30: Example ink text

1. <context type="writingRegion"/>
2. ...
3. <context type="paragraph"/>
4. ...
5. <context type="line"/>
6. ...
7. <context type="inkWord"/>
8. ...
9. <context type="inkWord">
10. <destinationLink direction="with" ref="id of inkDrawing below"/>
11. </context>
12. <context type="inkDrawing" semanticType="underline">
13. <sourceLink direction="with" ref="id of inkWord above"/>
14. <context>

*Child Elements:*

**property:** A **CT\_Property** element that specifies a user-defined binary data property.

**sourceLink:** A **CT\_CtxLink** element that specifies a semantic link from another content node.

**destinationLink:** A **CT\_CtxLink** element that specifies a semantic link to another context node.

*Attributes:*

**id:** An **ST\_Guid** attribute that specifies a GUID for this context node.

**type:** An **ST\_CtxNodeType** attribute that specifies the type of this context node.

**rotatedBoundingBox:** An [**ST\_Points**](#Section_3671a480e2b840599b968814734057de) attribute that specifies a rectangular region encompassed by this context node. Applies to all context node types.

**alignmentLevel:** An **xsd:int** attribute ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.17) that specifies the alignment level of a paragraph type context node. If this attribute is present, the value of the type attribute MUST be set to "paragraph".

**contentType:** An **xsd:int** attribute ([XMLSCHEMA2] section 3.3.17) that specifies the content type of the context node. If this attribute is present, the value of the type attribute MUST be set to "paragraph".

**ascender:** An **ST\_Points** attribute that specifies the ascender. If this attribute is present, the value of the type attribute MUST be set to "line".

**descender:** An **ST\_Points** attribute that specifies the descender. If this attribute is present, the value of the type attribute MUST be set to "line".

**baseline:** An **ST\_Points** attribute that specifies the baseline of a line. If this attribute is present, the value of the type attribute MUST be set to "line".

**midline:** An **ST\_Points** attribute that specifies the midline of a line. If this attribute is present, the value of the type attribute MUST be set to "line".

**customRecognizerId:** An **ST\_Guid** attribute that specifies the globally unique identifier (GUID) that represents the custom ink recognizer. If this attribute is present, the value of the type attribute MUST be set to "customRecognizer".

**mathML:** An **xsd:string** attribute ([XMLSCHEMA2] section 3.2.1) that specifies a string of Math Markup Language ([[MathML2.0]](https://go.microsoft.com/fwlink/?LinkId=182878)). If this attribute is present, the value of the type attribute MUST be set to "mathEquation".

**mathStruct:** An **xsd:string** attribute ([XMLSCHEMA2] section 3.2.1) that specifies a math **struct**. If this attribute is present, the value of the type attribute MUST be set to "mathStruct".

**mathSymbol:** An **xsd:string** attribute ([XMLSCHEMA2] section 3.2.1) that specifies a math symbol. If this attribute is present, the value of the type attribute MUST be set to "mathSymbol".

**beginModifierType:** An **xsd:string** attribute ([XMLSCHEMA2] section 3.2.1) that specifies the beginning modifier type. If this attribute is present, the value of the type attribute MUST be set to "inkDrawing", "nonInkDrawing", or "mixedDrawing".

**endModifierType:** An **xsd:string** attribute ([XMLSCHEMA2] section 3.2.1) that specifies the ending modifier type. If this attribute is present, the value of the type attribute MUST be set to "inkDrawing", "nonInkDrawing", or "mixedDrawing".

**rotationAngle:** An **xsd:int** attribute ([XMLSCHEMA2] section 3.3.17) that specifies the rotation angle of the drawing, in degrees. If this attribute is present, the value of the type attribute MUST be set to "inkDrawing", "nonInkDrawing", or "mixedDrawing".

**hotPoints:** An **ST\_Points** attribute that specifies coordinates of the hot points of the drawing. If this attribute is present, the value of the type attribute MUST be set to "inkDrawing", "nonInkDrawing", or "mixedDrawing".

**centroid:** An **ST\_Point** attribute that specifies the center point of the drawing. If this attribute is present, the value of the type attribute MUST be set to "inkDrawing", "nonInkDrawing", or "mixedDrawing".

**semanticType:** An **ST\_SemanticType** attribute that specifies the semantic type of the writing region or drawing. If this attribute is present, the value of the type attribute MUST be set to "writingRegion", "inkDrawing", "nonInkDrawing", or "mixedDrawing".

**shapeName:** An **xsd:string** attribute ([XMLSCHEMA2] section 3.2.1) that specifies the [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) name. If this attribute is present, the value of the type attribute MUST be set to "inkDrawing", "nonInkDrawing", or "mixedDrawing".

**shapeGeometry:** An **ST\_Points** attribute that specifies coordinates of the line segments of a drawing. If this attribute is present, the value of the type attribute MUST be set to "nonInkDrawing".

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_CtxNode">
2. <xsd:sequence>
3. <xsd:element name="property" type="CT\_Property" minOccurs="0" maxOccurs="unbounded"/>
4. <xsd:element name="sourceLink" type="CT\_CtxLink" minOccurs="0" maxOccurs="unbounded"/>
5. <xsd:element name="destinationLink" type="CT\_CtxLink" minOccurs="0" maxOccurs="unbounded"/>
6. </xsd:sequence>
7. <xsd:attribute name="id" type="ST\_Guid" use="optional"/>
8. <xsd:attribute name="type" type="ST\_CtxNodeType" use="required"/>
9. <xsd:attribute name="rotatedBoundingBox" type="ST\_Points" use="optional"/>
10. <xsd:attribute name="alignmentLevel" type="xsd:int" use="optional" default="0"/>
11. <xsd:attribute name="contentType" type="xsd:int" use="optional" default="0"/>
12. <xsd:attribute name="ascender" type="ST\_Points" use="optional" default="0,0"/>
13. <xsd:attribute name="descender" type="ST\_Points" use="optional" default="0,0"/>
14. <xsd:attribute name="baseline" type="ST\_Points" use="optional" default="0,0"/>
15. <xsd:attribute name="midline" type="ST\_Points" use="optional" default="0,0"/>
16. <xsd:attribute name="customRecognizerId" type="ST\_Guid" use="optional"/>
17. <xsd:attribute name="mathML" type="xsd:string" use="optional" default=""/>
18. <xsd:attribute name="mathStruct" type="xsd:string" use="optional" default=""/>
19. <xsd:attribute name="mathSymbol" type="xsd:string" use="optional" default=""/>
20. <xsd:attribute name="beginModifierType" type="xsd:string" use="optional" default=""/>
21. <xsd:attribute name="endModifierType" type="xsd:string" use="optional" default=""/>
22. <xsd:attribute name="rotationAngle" type="xsd:int" use="optional" default="0"/>
23. <xsd:attribute name="hotPoints" type="ST\_Points" use="optional"/>
24. <xsd:attribute name="centroid" type="ST\_Point" use="optional"/>
25. <xsd:attribute name="semanticType" type="ST\_SemanticType" use="optional" default="none"/>
26. <xsd:attribute name="shapeName" type="xsd:string" use="optional" default=""/>
27. <xsd:attribute name="shapeGeometry" type="ST\_Points" use="optional"/>
28. </xsd:complexType>

See section [5.7](#Section_b0e5b36b68a84fd4874ce5e187ba574f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Property

*Target namespace:* http://schemas.microsoft.com/ink/2010/main

*Referenced by:* [CT\_CtxNode](#Section_b28d4e09455a422eb4c210f49ef511f4)

An element of this type stores an arbitrary piece of binary data. The format of the data MUST be represented as an **xsd:hexBinary** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.15).

*Attributes:*

**type:** An **ST\_Guid** attribute that specifies the moniker of the custom data.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Property">
2. <xsd:simpleContent>
3. <xsd:extension base="xsd:hexBinary">
4. <xsd:attribute name="type" type="ST\_Guid"/>
5. </xsd:extension>
6. </xsd:simpleContent>
7. </xsd:complexType>

See section [5.7](#Section_b0e5b36b68a84fd4874ce5e187ba574f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

#### ST\_CtxNodeType

*Target namespace:* http://schemas.microsoft.com/ink/2010/main

*Referenced by:* [CT\_CtxNode](#Section_b28d4e09455a422eb4c210f49ef511f4)

This type defines a moniker of a context node type. MUST be either an **ST\_KnownCtxNodeType** or an **ST\_Guid**.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_CtxNodeType">
2. <xsd:union memberTypes="msink:ST\_KnownCtxNodeType msink:ST\_Guid"/>
3. </xsd:simpleType>

See section [5.7](#Section_b0e5b36b68a84fd4874ce5e187ba574f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_Dir

*Target namespace:* http://schemas.microsoft.com/ink/2010/main

*Referenced by:* [CT\_CtxLink](#Section_c653598d8ccd45ecbc4dd0f5b1941f90)

This type is an enumeration of context node link directions. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| to | The link is the source of a "to" directional link, such as the beginning of an arrow. |
| from | This link is the destination of a "from" directional link, such as the head of an arrow. |
| with | This is a link with no implied direction, such as the underlining of a word. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_Dir">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="to"/>
4. <xsd:enumeration value="from"/>
5. <xsd:enumeration value="with"/>
6. </xsd:restriction>
7. </xsd:simpleType>

See section [5.7](#Section_b0e5b36b68a84fd4874ce5e187ba574f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_Guid

*Target namespace:* http://schemas.microsoft.com/ink/2010/main

*Referenced by:* [CT\_Property](#Section_7e2aaa32bc094fae83c697f09816e16a), [ST\_Ref](#Section_c3532c6c1db34d2883d1d962024abc50), [CT\_CtxNode](#Section_b28d4e09455a422eb4c210f49ef511f4), [ST\_CtxNodeType](#Section_1ec4400684d94479b2ad7a002bc839df)

This type specifies the format of a 128-bit [**GUID**](#gt_f49694cc-c350-462d-ab8e-816f0103c6c1). Values of this type MUST begin with an opening curly bracket character ({), followed by a string that conforms to the Internet standards track protocol as specified in [[RFC4122]](https://go.microsoft.com/fwlink/?LinkId=90460), and end with a closing curly bracket (}).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_Guid">
2. <xsd:restriction base="xsd:token">
3. <xsd:pattern value="\{[0-9A-F]{8}-[0-9A-F]{4}-[0-9A-F]{4}-[0-9A-F]{4}-[0-9A-F]{12}\}"/>
4. </xsd:restriction>
5. </xsd:simpleType>

See section [5.7](#Section_b0e5b36b68a84fd4874ce5e187ba574f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_KnownCtxNodeType

*Target namespace:* http://schemas.microsoft.com/ink/2010/main

*Referenced by:* [ST\_CtxNodeType](#Section_1ec4400684d94479b2ad7a002bc839df)

This type specifies an enumeration of Ink content node types. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| root | A root-level content node. This can be used as the parent of all other context nodes in a collection of ink traces. |
| unclassifiedInk | The ink of this context node cannot be identified as a particular type. |
| writingRegion | A context node that is the parent of **paragraph** context nodes. |
| analysisHint | A context node that contains analysis hint information. |
| object | A context node that might contain non-ink data of an unknown type. |
| inkDrawing | A context node that contains ink strokes that make up an arbitrary drawing and does not contain writing. |
| image | A context node that contains non-ink image data. |
| paragraph | A context node that is the parent of **line** context nodes and the child of **writingRegion** context nodes. |
| line | A context node that is the parent of **inkWord** or **inkBullet** context nodes and the child of **paragraph** context nodes. |
| inkBullet | A context node that is the child of a **line** context node and contains ink traces that represent bullet symbols in a bulleted list. |
| inkWord | A context node that is the child of a **line** context node and contains ink traces that represent written words. |
| textWord | A context node that is the child of a **line** context node and contains textual words, rather than ink-based words. |
| customRecognizer | A context node that uses a custom recognizer. |
| mathRegion | A context node that is the parent of **mathEquation** context nodes. |
| mathEquation | A context node that contains ink traces that represent a mathematical equation. It has child context nodes of type **mathStruct**. |
| mathStruct | A context node that contains portions of a mathematical equations. Supported child context nodes are **mathSymbol**, **mathIndentifier**, **mathOperator**, and **mathNumber** elements. |
| mathSymbol | A context node that represents a mathematical symbol, such as a degree symbol (°). |
| mathIdentifier | A context node that represents a mathematical identifier such as a function name. |
| mathOperator | A context node that represents a mathematical operator such as a plus sign. |
| mathNumber | A context node that represents a number in a mathematical equation. |
| nonInkDrawing | A context node that represents an arbitrary drawing made up of non-ink geometry. |
| groupNode | A context node that represents an arbitrary group of other context nodes. |
| mixedDrawing | A context node that represents a mixture of ink and non-ink drawing traces. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_KnownCtxNodeType">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="root"/>
4. <xsd:enumeration value="unclassifiedInk"/>
5. <xsd:enumeration value="writingRegion"/>
6. <xsd:enumeration value="analysisHint"/>
7. <xsd:enumeration value="object"/>
8. <xsd:enumeration value="inkDrawing"/>
9. <xsd:enumeration value="image"/>
10. <xsd:enumeration value="paragraph"/>
11. <xsd:enumeration value="line"/>
12. <xsd:enumeration value="inkBullet"/>
13. <xsd:enumeration value="inkWord"/>
14. <xsd:enumeration value="textWord"/>
15. <xsd:enumeration value="customRecognizer"/>
16. <xsd:enumeration value="mathRegion"/>
17. <xsd:enumeration value="mathEquation"/>
18. <xsd:enumeration value="mathStruct"/>
19. <xsd:enumeration value="mathSymbol"/>
20. <xsd:enumeration value="mathIdentifier"/>
21. <xsd:enumeration value="mathOperator"/>
22. <xsd:enumeration value="mathNumber"/>
23. <xsd:enumeration value="nonInkDrawing"/>
24. <xsd:enumeration value="groupNode"/>
25. <xsd:enumeration value="mixedDrawing"/>
26. </xsd:restriction>
27. </xsd:simpleType>

See section [5.7](#Section_b0e5b36b68a84fd4874ce5e187ba574f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_KnownSemanticType

*Target namespace:* http://schemas.microsoft.com/ink/2010/main

*Referenced by:* [ST\_SemanticType](#Section_71572cafd6904c2a978bd0b080d3c832)

This type specifies the semantic type of an Ink context node. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| none | The context node does not have a semantic type. |
| underline | The context node represents a straight line segment used for annotation to mark text that appears with a horizontal line under it. |
| strikethrough | The context node represents a straight line segment used for annotation to mark text that appears with a line through it. |
| highlight | The context node represents a highlight demarcating the underlying object to bring it to the attention of the reader. |
| scratchOut | The context node represents a wavy line segment used for erasing content. |
| verticalRange | The context node represents a vertical range consisting of one or more ink strokes that span multiple lines. |
| callout | The context node represents a callout consisting of one or more ink strokes connecting two objects to draw attention to a portion of a text or drawing. |
| enclosure | The context node represents one or more ink strokes that encircle a text, an image or an ink area for emphasis. |
| comment | The context node represents a comment. |
| container | The context node represents a container consisting of one or more ink strokes that make up a standard [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e). |
| connector | The context node represents a connector consisting of one or more ink strokes used to connect two objects. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_KnownSemanticType">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="none"/>
4. <xsd:enumeration value="underline"/>
5. <xsd:enumeration value="strikethrough"/>
6. <xsd:enumeration value="highlight"/>
7. <xsd:enumeration value="scratchOut"/>
8. <xsd:enumeration value="verticalRange"/>
9. <xsd:enumeration value="callout"/>
10. <xsd:enumeration value="enclosure"/>
11. <xsd:enumeration value="comment"/>
12. <xsd:enumeration value="container"/>
13. <xsd:enumeration value="connector"/>
14. </xsd:restriction>
15. </xsd:simpleType>

See section [5.7](#Section_b0e5b36b68a84fd4874ce5e187ba574f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_Point

*Target namespace:* http://schemas.microsoft.com/ink/2010/main

*Referenced by:* [ST\_Points](#Section_3671a480e2b840599b968814734057de), [CT\_CtxNode](#Section_b28d4e09455a422eb4c210f49ef511f4)

This type defines a single coordinate. The coordinate space of both the x and y values is 1/1000 of 1 centimeter. The format of this value MUST be one or more numeric characters optionally preceded by a minus sign, followed by a comma, then one or more numeric characters optionally preceded by a minus sign.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_Point">
2. <xsd:restriction base="xsd:string">
3. <xsd:pattern value="-?[0-9]+,-?[0-9]+"/>
4. </xsd:restriction>
5. </xsd:simpleType>

See section [5.7](#Section_b0e5b36b68a84fd4874ce5e187ba574f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_Points

*Target namespace:* http://schemas.microsoft.com/ink/2010/main

*Referenced by:* [CT\_CtxNode](#Section_b28d4e09455a422eb4c210f49ef511f4)

This value defines a series of zero or more coordinates. Each coordinate MUST conform to the **ST\_Point** format and be delimited by white space characters.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_Points">
2. <xsd:list itemType="msink:ST\_Point"/>
3. </xsd:simpleType>

See section [5.7](#Section_b0e5b36b68a84fd4874ce5e187ba574f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_Ref

*Target namespace:* http://schemas.microsoft.com/ink/2010/main

*Referenced by:* [CT\_CtxLink](#Section_c653598d8ccd45ecbc4dd0f5b1941f90)

This type defines a reference identifier used by context node links. MUST be either an **xsd:unsignedInt** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22) or an **ST\_Guid**.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_Ref">
2. <xsd:union memberTypes="msink:ST\_Guid xsd:unsignedInt"/>
3. </xsd:simpleType>

See section [5.7](#Section_b0e5b36b68a84fd4874ce5e187ba574f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_SemanticType

*Target namespace:* http://schemas.microsoft.com/ink/2010/main

*Referenced by:* [CT\_CtxNode](#Section_b28d4e09455a422eb4c210f49ef511f4)

This type defines a moniker that identifies the semantic type of an Ink context node. MUST be either an **ST\_KnownSemanticType** or an **xsd:unsignedInt** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_SemanticType">
2. <xsd:union memberTypes="ST\_KnownSemanticType xsd:unsignedInt"/>
3. </xsd:simpleType>

See section [5.7](#Section_b0e5b36b68a84fd4874ce5e187ba574f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

## http://schemas.microsoft.com/office/drawing/2012/main

### Elements

#### backgroundPr

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/main

A [CT\_BackgroundPr](#Section_76932fd094694d5b9666f5689aad8c33) element[<111>](#Appendix_A_111" \o "Product behavior note 111) that specifies the properties of the background of the document.

*An extension list child element of:* **CT\_NonVisualDrawingProps** **(cNvPr)** as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 19.3.1.12.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="backgroundPr" type="CT\_BackgroundPr"/>

See section [5.14](#Section_a87e4aa08ba341f1a6a367c2afcca6b3) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### nonVisualGroupProps

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/main

A [CT\_NonVisualGroupProps](#Section_9bf04bf16c8c485d92d3d8d39f190e81) element[<112>](#Appendix_A_112" \o "Product behavior note 112) that specifies non-visual properties of a group.

*An extension list child element of:* **CT\_NonVisualGroupDrawingShapeProps** **(cNvGrpSpPr)** as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 19.3.1.10.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="nonVisualGroupProps" type="CT\_NonVisualGroupProps"/>

See section [5.14](#Section_a87e4aa08ba341f1a6a367c2afcca6b3) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### objectPr

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/main

A [CT\_ObjectPr](#Section_23fc8073eb6f42488fd53e3c3e37f405) element[<113>](#Appendix_A_113" \o "Product behavior note 113) that specifies object properties of a control or object.

*An extension list child element of:* **CT\_NonVisualPictureProperties** **(cNvPicPr)** as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 19.3.1.11.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="objectPr" type="CT\_ObjectPr"/>

See section [5.14](#Section_a87e4aa08ba341f1a6a367c2afcca6b3) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### signatureLine

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/main

A [CT\_SignatureLine](#Section_c2b1ca29f8a146ee91e20449a475c1de) element[<114>](#Appendix_A_114" \o "Product behavior note 114) that specifies a signature line. A signature line provides a visual representation of a signature that is digitally signed.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="signatureLine" type="CT\_SignatureLine"/>

See section [5.14](#Section_a87e4aa08ba341f1a6a367c2afcca6b3) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_BackgroundPr

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/main

*Referenced by:* [backgroundPr](#Section_349d772f91874d45bc2e7c162f355b68)

This complex type describes the visual properties of the background of a WordprocessingML document.[<115>](#Appendix_A_115" \o "Product behavior note 115)

*Attributes:*

**bwMode:** An **ST\_BlackWhiteMode** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.10.10) attribute that specifies in what types of colors the background is rendered.

**bwPure:** An **ST\_BlackWhiteMode** ([ISO/IEC29500-1:2016] section 20.1.10.10) attribute that specifies how the background is rendered using pure black and white color.

This is subordinate to **bwMode**. If **bwmMode** 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 black and white and pure black and white.

**bwNormal:** An **ST\_BlackWhiteMode** ([ISO/IEC29500-1:2016] section 20.1.10.10) attribute that specifies how the background is rendered using normal black and white color.

This is subordinate to **bwMode**. If **bwMode** is set to "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 black and white and pure black and white.

**targetScreenSize:** An [**ST\_TargetScreenSz**](#Section_c5ceb0bddf0d41c6a9d38b1adc6f68e6) attribute that specifies the target resolution used for documents with a gradient or picture-filled background.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_BackgroundPr">
2. <xsd:attribute name="bwMode" type="a:ST\_BlackWhiteMode"/>
3. <xsd:attribute name="bwPure" type="a:ST\_BlackWhiteMode"/>
4. <xsd:attribute name="bwNormal" type="a:ST\_BlackWhiteMode"/>
5. <xsd:attribute name="targetScreenSize" type="ST\_TargetScreenSz"/>
6. </xsd:complexType>

See section [5.14](#Section_a87e4aa08ba341f1a6a367c2afcca6b3) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_NonVisualGroupProps

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/main

*Referenced by:* [nonVisualGroupProps](#Section_1ea2ced6f3a54d7c8d246c8b81b15646)

This complex type specifies non-visual properties of a group of shapes.[<116>](#Appendix_A_116" \o "Product behavior note 116)

*Attributes:*

**isLegacyGroup:** A **boolean** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) attribute that specifies if the group is a legacy group.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_NonVisualGroupProps">
2. <xsd:attribute name="isLegacyGroup" type="xsd:boolean"/>
3. </xsd:complexType>

See section [5.14](#Section_a87e4aa08ba341f1a6a367c2afcca6b3) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ObjectPr

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/main

*Referenced by:* [objectPr](#Section_a0948639f8db4458bb04bb3d4ca74a9e)

This complex type specifies the object properties of a control or an object.[<117>](#Appendix_A_117" \o "Product behavior note 117)

*Attributes:*

**objectId:** A **string** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute that specifies a unique ID identifying the [**OLE**](#gt_171744b8-3f44-4198-b7b9-1c0147282d2c) Object.

**isActiveX:** A **boolean** ([XMLSCHEMA2] section 3.2.2) attribute that specifies whether the object is an ActiveX object.

**linkType:** A **string** ([XMLSCHEMA2] section 3.2.1) attribute that specifies the type of image that shall be requested from the application which hosts embedded object data for a linked object.

The following are the possible values for this attribute:

| Value | Meaning |
| --- | --- |
| Bitmap | (Bitmap Image) Specifies that a bitmap shall be requested. |
| EnhancedMetaFile | (Enhanced Metafile Image) Specifies that an enhanced metafile shall be  requested. |
| Picture | (Other Image) Specifies that any image format can be requested. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ObjectPr">
2. <xsd:attribute name="objectId" type="xsd:string"/>
3. <xsd:attribute name="isActiveX" type="xsd:boolean"/>
4. <xsd:attribute name="linkType" type="xsd:string"/>
5. </xsd:complexType>

See section [5.14](#Section_a87e4aa08ba341f1a6a367c2afcca6b3) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_SignatureLine

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/main

*Referenced by:* [signatureLine](#Section_bfb76f8b13a541bba9f64aff2d86ec77)

This complex type specifies the properties of signature lines.[<118>](#Appendix_A_118" \o "Product behavior note 118)

*Attributes:*

**isSignatureLine:** A **boolean** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) attribute that specifies whether the image is a signature line object.

**id:** An **ST\_Guid** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 22.9.2.4) attribute that specifies the [**GUID**](#gt_f49694cc-c350-462d-ab8e-816f0103c6c1) of the signature line object.

**provId:** An **ST\_Guid** ([ISO/IEC29500-1:2016] section 22.9.2.4) attribute that specifies the GUID of the provider that creates the signature line object.

**signingInstructionsSet:** A **boolean** ([XMLSCHEMA2] section 3.2.2) that specifies whether there is data in the **signingInstructions** attribute of the signature line object.

**allowComments:** A **boolean** ([XMLSCHEMA2] section 3.2.2) attribute that specifies whether the user can attach comments at signing time.

**showSignDate:** A **boolean** ([XMLSCHEMA2] section 3.2.2) attribute that specifies whether the signed image generated includes the signing date.

**suggestedSigner:** A **string** ([XMLSCHEMA2] section 3.2.1) attribute that specifies the name of the suggested signer.

**suggestedSigner2:** A **string** ([XMLSCHEMA2] section 3.2.1) attribute that specifies the title or additional information about the suggested signer.

**suggestedSignerEmail:** A **string** ([XMLSCHEMA2] section 3.2.1) attribute that specifies the e-mail address of the suggested signer.

**signingInstructions:** A **string** ([XMLSCHEMA2] section 3.2.1) attribute that specifies the signing instruction that is displayed to the signer.

**addlXml:** A **string** ([XMLSCHEMA2] section 3.2.1) attribute that specifies an optional [**XML**](#gt_982b7f8e-d516-4fd5-8d5e-1a836081ed85) text used to store additional info about the signature line object.

**sigProvUrl:** A **string** ([XMLSCHEMA2] section 3.2.1) attribute that specifies the URL of the provider.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_SignatureLine">
2. <xsd:attribute name="isSignatureLine" type="xsd:boolean"/>
3. <xsd:attribute name="id" type="a:ST\_Guid"/>
4. <xsd:attribute name="provId" type="a:ST\_Guid"/>
5. <xsd:attribute name="signingInstructionsSet" type="xsd:boolean"/>
6. <xsd:attribute name="allowComments" type="xsd:boolean"/>
7. <xsd:attribute name="showSignDate" type="xsd:boolean"/>
8. <xsd:attribute name="suggestedSigner" type="xsd:string"/>
9. <xsd:attribute name="suggestedSigner2" type="xsd:string"/>
10. <xsd:attribute name="suggestedSignerEmail" type="xsd:string"/>
11. <xsd:attribute name="signingInstructions" type="xsd:string"/>
12. <xsd:attribute name="addlXml" type="xsd:string"/>
13. <xsd:attribute name="sigProvUrl" type="xsd:string"/>
14. </xsd:complexType>

See section [5.14](#Section_a87e4aa08ba341f1a6a367c2afcca6b3) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

#### ST\_TargetScreenSz

*Target namespace:* http://schemas.microsoft.com/office/drawing/2012/main

*Referenced by:* [CT\_BackgroundPr](#Section_76932fd094694d5b9666f5689aad8c33)

This simple type specifies possible ideal minimum target screen sizes (width by height, specified in pixels) for how the document could be optimized.[<119>](#Appendix_A_119" \o "Product behavior note 119)

| Value | Meaning |
| --- | --- |
| 544x376 | Specifies that the document is optimized for a screen size of 544x376 |
| 640x480 | Specifies that the document is optimized for a screen size of 640x480 |
| 720x512 | Specifies that the document is optimized for a screen size of 720x512 |
| 800x600 | Specifies that the document is optimized for a screen size of 800x600 |
| 1024x768 | Specifies that the document is optimized for a screen size of 1024x768 |
| 1152x882 | Specifies that the document is optimized for a screen size of 1152x882 |
| 1152x900 | Specifies that the document is optimized for a screen size of 1152x900 |
| 1280x1024 | Specifies that the document is optimized for a screen size of 1280x1024 |
| 1600x1200 | Specifies that the document is optimized for a screen size of 1600x1200 |
| 1800x1440 | Specifies that the document is optimized for a screen size of 1800x1440 |
| 1920x1200 | Specifies that the document is optimized for a screen size of 1920x1200 |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_TargetScreenSz">
2. <xsd:restriction base="xsd:token">
3. <xsd:enumeration value="544x376"/>
4. <xsd:enumeration value="640x480"/>
5. <xsd:enumeration value="720x512"/>
6. <xsd:enumeration value="800x600"/>
7. <xsd:enumeration value="1024x768"/>
8. <xsd:enumeration value="1152x882"/>
9. <xsd:enumeration value="1152x900"/>
10. <xsd:enumeration value="1280x1024"/>
11. <xsd:enumeration value="1600x1200"/>
12. <xsd:enumeration value="1800x1440"/>
13. <xsd:enumeration value="1920x1200"/>
14. </xsd:restriction>
15. </xsd:simpleType>

See section [5.14](#Section_a87e4aa08ba341f1a6a367c2afcca6b3) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

## http://schemas.microsoft.com/office/word/2010/wordprocessingShape

### Elements

#### wsp

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingShape

*Referenced by:* [CT\_WordprocessingGroup](#Section_c89701a299ac4948b84f1eaecc69dfa0), [CT\_WordprocessingCanvas](#Section_c62c9d5877b1426fb11d9a6f877e7491)

A [CT\_WordprocessingShape](#Section_6919064727d148908089a8aca57becb9) element that specifies a [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) in WordprocessingML. See [2.2.7](#Section_6aaf2ba56974456099833fcd7fead7cb) for more details about how this element is integrated with the Open XML file formats as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="wsp" type="CT\_WordprocessingShape"/>

See section [5.2](#Section_f73ea06d47494611b20b755df087eb21) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_LinkedTextboxInformation

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingShape

*Referenced by:* [CT\_WordprocessingShape](#Section_6919064727d148908089a8aca57becb9)

This type contains all the information necessary for a CT\_WordprocessingShape to participate in a [**text box story**](#gt_3bd61b82-dd99-446f-be3e-e0851904d2cd). An element of this type MUST NOT be present on the first CT\_WordprocessingShape element in a series of CT\_WordprocessingShape elements that are part of the same text box story. An element of this type MUST be present on all subsequent CT\_WordprocessingShape elements.

*Child Elements:*

**extLst:** A **CT\_OfficeArtExtensionList** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element to hold future extensions to the parent element of this **extLst** element

*Attributes:*

**id:** An **unsignedShort** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.23) attribute that specifies the text box story to which this text box belongs.

**seq:** An **unsignedShort** ([XMLSCHEMA2] section 3.3.23) attribute that specifies the position of the owning [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) in the given text box story. This value MUST be unique across all **CT\_LinkedTextboxInformation** instances with the same story identifier. This value MUST be greater than 0.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_LinkedTextboxInformation">
2. <xsd:sequence>
3. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
4. </xsd:sequence>
5. <xsd:attribute name="id" type="xsd:unsignedShort" use="required"/>
6. <xsd:attribute name="seq" type="xsd:unsignedShort" use="required"/>
7. </xsd:complexType>

See section [5.2](#Section_f73ea06d47494611b20b755df087eb21) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_TextboxInfo

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingShape

*Referenced by:* [CT\_WordprocessingShape](#Section_6919064727d148908089a8aca57becb9)

This type contains all the text contents of a CT\_WordprocessingShape and associates that textual information, referred to as a [**text box story**](#gt_3bd61b82-dd99-446f-be3e-e0851904d2cd), with a story identifier. An element of this type MUST be present only in the CT\_WordprocessingShape element that is the first in a series of CT\_WordprocessingShape elements that refer to the same text box story.

*Child Elements:*

**w12:txbxContent:** A **CT\_TxbxContent** ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section A.1) element. This element specifies the text contents.

**wne:txbxContent:** A **CT\_TxbxContent** ([ISO/IEC29500-4:2016] section A.1) element that specifies the text contents. This element is used in place of **w12:txbxContent** in documents with strict conformance.

**extLst:** A **CT\_OfficeArtExtensionList** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element to hold future extensions to the parent element of this **extLst** element.

*Attributes:*

**id:** An **unsignedShort** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.23) attribute that specifies the identity of the text box story begun by a **CT\_TextboxInfo** element. This value MUST be unique across a document for each instance of **CT\_TextboxInfo**.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_TextboxInfo">
2. <xsd:sequence>
3. <xsd:element ref="w12:txbxContent" minOccurs="0" maxOccurs="1"/>
4. <xsd:element ref="wne:txbxContent" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. <xsd:attribute name="id" type="xsd:unsignedShort" use="optional" default="0"/>
8. </xsd:complexType>

See section [5.2](#Section_f73ea06d47494611b20b755df087eb21) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_WordprocessingShape

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingShape

*Referenced by:* [wsp](#Section_5af97c23a99c43eb8a4b44709fe2d916), [CT\_WordprocessingGroup](#Section_c89701a299ac4948b84f1eaecc69dfa0), [CT\_WordprocessingCanvas](#Section_c62c9d5877b1426fb11d9a6f877e7491)

This type defines a [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) in a WordprocessingML document.

*Child Elements:*

**cNvPr:** A **CT\_NonVisualDrawingProps** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies non-visual properties. This element MUST NOT be present when the **CT\_WordprocessingShape** is contained directly by a **graphicData** (Graphic Object Data) element as specified in [ISO/IEC29500-1:2016]section 20.1.2.2.17. This element MUST be present when the **CT\_WordprocessingShape** is not contained directly by a **graphicData** element as specified in [ISO/IEC29500-1:2016] section 20.1.2.2.17.[<120>](#Appendix_A_120" \o "Product behavior note 120)

**cNvSpPr:** A **CT\_NonVisualDrawingShapeProps** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies non-visual shape properties.

**cNvCnPr:** A **CT\_NonVisualConnectorProperties** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies non-visual connector properties.

**spPr:** A **CT\_ShapeProperties** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the visual shape properties that can be applied to a shape.[<121>](#Appendix_A_121" \o "Product behavior note 121)

**style:** A **CT\_ShapeStyle** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the style information for a shape.

**extLst:** A **CT\_OfficeArtExtensionList** element ([ISO/IEC29500-1:2016] section A.4.1) to hold future extensions to the parent element of this **extLst** element.

**txbx:** A [CT\_TextboxInfo](#Section_9ef316cc3b39476589acf8524fab383b) element that specifies the textual contents of the shape if the shape is the first in the series of shapes for the same [**text box story**](#gt_3bd61b82-dd99-446f-be3e-e0851904d2cd).

**linkedTxbx:** A [CT\_LinkedTextboxInformation](#Section_bddd410eb5a34af0b5ac96074a6d25e8) element that specifies the textual contents of the shape if the shape is not the first in the series of shapes for the indicated text box story.

**bodyPr:** A **CT\_TextBodyProperties** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the body properties for the text body in a shape.

*Attributes:*

**normalEastAsianFlow:** A Boolean attribute that specifies whether the text flow of the text contents of the shape ignores the text flow value specified by the **vert** attribute of the **bodyPr** element. If this flag is set to TRUE, the value of the **vert** attribute of the **bodyPr** element on this **CT\_WordprocessingShape** MUST be ignored, and text flows in the manner specified by the value "tbV" for an **ST\_TextDirection** (Text Flow Direction) type as specified in [ISO/IEC29500-1:2016] section17.18.93.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_WordprocessingShape">
2. <xsd:sequence minOccurs="1" maxOccurs="1">
3. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps" minOccurs="0" maxOccurs="1"/>
4. <xsd:choice minOccurs="1" maxOccurs="1">
5. <xsd:element name="cNvSpPr" type="a:CT\_NonVisualDrawingShapeProps" minOccurs="1" maxOccurs="1"/>
6. <xsd:element name="cNvCnPr" type="a:CT\_NonVisualConnectorProperties" minOccurs="1" maxOccurs="1"/>
7. </xsd:choice>
8. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="1" maxOccurs="1"/>
9. <xsd:element name="style" type="a:CT\_ShapeStyle" minOccurs="0" maxOccurs="1"/>
10. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
11. <xsd:choice minOccurs="0" maxOccurs="1">
12. <xsd:element name="txbx" type="CT\_TextboxInfo" minOccurs="1" maxOccurs="1"/>
13. <xsd:element name="linkedTxbx" type="CT\_LinkedTextboxInformation" minOccurs="1" maxOccurs="1"/>
14. </xsd:choice>
15. <xsd:element name="bodyPr" type="a:CT\_TextBodyProperties" minOccurs="1" maxOccurs="1"/>
16. </xsd:sequence>
17. <xsd:attribute name="normalEastAsianFlow" type="xsd:boolean" use="optional" default="false"/>
18. </xsd:complexType>

See section [5.2](#Section_f73ea06d47494611b20b755df087eb21) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

None.

## http://schemas.microsoft.com/office/drawing/2010/picture

### Elements

#### extLst

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/picture

A **CT\_OfficeArtExtensionList** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1).

Extension attribute on type: **pic** (Picture) as specified in [ISO/IEC29500-1:2016] section20.2.2.5

To maintain compatibility with Office Open XML implementations, the namespace of this attribute prefix MUST be specified in an **Ignorable** attribute ( [[ISO/IEC29500-3:2015]](https://go.microsoft.com/fwlink/?linkid=861154) section 10.1.1).

This element specifies a list of extensions for a picture.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList"/>

See section [5.12](#Section_81dd13dc144f4099bb1f658ce7b65b6d) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### style

*Target namespace:* http://schemas.microsoft.com/office/drawing/2010/picture

A **CT\_ShapeStyle** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1).

Extension attribute on type: [ISO/IEC29500-1:2016] section 20.2.2.5

To maintain compatibility with Office Open XML file formats, the namespace of this attribute prefix MUST be specified in an **Ignorable** attribute ( [[ISO/IEC29500-3:2015]](https://go.microsoft.com/fwlink/?linkid=861154) section 10.1.1).

This element specifies the style information for a picture.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="style" type="a:CT\_ShapeStyle"/>

See section [5.12](#Section_81dd13dc144f4099bb1f658ce7b65b6d) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

None.

### Simple Types

None.

## http://schemas.microsoft.com/office/word/2010/wordml

### Elements

#### contentPart

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordml

*Referenced by:* [CT\_WordprocessingGroup](#Section_c89701a299ac4948b84f1eaecc69dfa0), [CT\_WordprocessingCanvas](#Section_c62c9d5877b1426fb11d9a6f877e7491)

A [CT\_WordContentPart](#Section_d2e499245c10435d9d6b43321ef96ae3) element that specifies a reference to XML content in a format not specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065).

This element serves the same purpose as the **contentPart** element in WordprocessingML ([ISO/IEC29500-1:2016] section 17.3.3.2), but appears under **graphicData** ([ISO/IEC29500-1:2016] section 20.1.2.2.17), CT\_WordprocessingGroup, and CT\_WordprocessingCanvas.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="contentPart" type="CT\_WordContentPart"/>

See section [5.3](#Section_20b04a8ab93e4ecd952296d4bb1847c8) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_WordContentPart

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordml

*Referenced by:* [contentPart](#Section_0d2e1dbbd5564f9f8649821f0f172a0e), [CT\_WordprocessingGroup](#Section_c89701a299ac4948b84f1eaecc69dfa0), [CT\_WordprocessingCanvas](#Section_c62c9d5877b1426fb11d9a6f877e7491)

A complex type that specifies a reference to XML content in a format not specified by [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065).

This element serves the same purpose as the **contentPart** element in WordprocessingML ([ISO/IEC29500-1:2016] section 17.3.3.2), but appears under **graphicData** ([ISO/IEC29500-1:2016] section 20.1.2.2.17), **CT\_WordprocessingGroup**, and **CT\_WordprocessingCanvas**.

*Child Elements:*

**nvContentPartPr:** A [CT\_WordContentPartNonVisual](#Section_73bdd71bc9b9458694df3172723cf40b) element that specifies non-visual properties for the content part.

**xfrm:** A **CT\_Transform2D** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the 2-D transform for the content part.

**extLst:** A **CT\_OfficeArtExtensionList** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the extension list in which all future extensions of element type **ext** is defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

*Attributes:*

**bwMode:** An **ST\_BlackWhiteMode** attribute ([ISO/IEC29500-1:2016] section 20.1.10.10)

that specifies how to interpret color information contained within a content part to achieve a color, black and white, or grayscale rendering of the content part. This attribute specifies only the rendering mode applied to the content part; it does not affect how the actual color information is persisted.

**r:id:** An **ST\_RelationshipId** attribute ([ISO/IEC29500-1:2016] section 22.8.2.1) that specifies the relationship identifier to a content part.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_WordContentPart">
2. <xsd:sequence>
3. <xsd:element name="nvContentPartPr" type="CT\_WordContentPartNonVisual" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="xfrm" type="a:CT\_Transform2D" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. <xsd:attribute name="bwMode" type="a:ST\_BlackWhiteMode" use="optional"/>
8. <xsd:attribute ref="r:id" use="required"/>
9. </xsd:complexType>

See section [5.3](#Section_20b04a8ab93e4ecd952296d4bb1847c8) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_WordContentPartNonVisual

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordml

*Referenced by:* [CT\_WordContentPart](#Section_d2e499245c10435d9d6b43321ef96ae3)

A complex type that specifies non-visual properties forCT\_WordContentPart.

*Child Elements:*

**cNvPr:** A **CT\_NonVisualDrawingProps** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the non-visual drawing properties for the content part. This provides additional information that does not affect the appearance of the content part to be stored.

**cNvContentPartPr:** A [CT\_NonVisualInkContentPartProperties](#Section_02405edf8c8048248cee8b3618dbda13) element that specifies non-visual ink properties for the content part. This provides additional information that does not affect the appearance of ink in the content part to be stored.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_WordContentPartNonVisual">
2. <xsd:sequence>
3. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="cNvContentPartPr" type="a14:CT\_NonVisualInkContentPartProperties" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. </xsd:complexType>

See section [5.3](#Section_20b04a8ab93e4ecd952296d4bb1847c8) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

None.

## http://schemas.microsoft.com/office/word/2010/wordprocessingGroup

### Elements

#### wgp

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingGroup

*Referenced by:* [CT\_WordprocessingCanvas](#Section_c62c9d5877b1426fb11d9a6f877e7491)

A [CT\_WordprocessingGroup](#Section_c89701a299ac4948b84f1eaecc69dfa0) element that specifies a group in WordprocessingML. See [2.2.7](#Section_6aaf2ba56974456099833fcd7fead7cb) for more details about how this element is integrated with the Open XML file formats as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="wgp" type="CT\_WordprocessingGroup"/>

See section [5.4](#Section_fbe733bf85e246f9b5489292b44670ce) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_GraphicFrame

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingGroup

*Referenced by:* [CT\_WordprocessingGroup](#Section_c89701a299ac4948b84f1eaecc69dfa0), [CT\_WordprocessingCanvas](#Section_c62c9d5877b1426fb11d9a6f877e7491)

This type defines a container for a graphical object as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.2.2.16 to be integrated in the context of the type defined by a CT\_WordprocessingGroup.

*Child Elements:*

**cNvPr:** A **CT\_NonVisualDrawingProps** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the non-visual properties of the current **CT\_GraphicFrame**.

**cNvFrPr:** A **CT\_NonVisualGraphicFrameProperties** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the non-visual frame properties of the current **CT\_GraphicFrame**.

**xfrm:** A **CT\_Transform2D** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the transformation of the current **CT\_GraphicFrame**.

**a:graphic:** A **CT\_GraphicalObject** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the graphical object content in the current **CT\_GraphicFrame**.

**extLst:** A **CT\_OfficeArtExtensionList** element ([ISO/IEC29500-1:2016] section A.4.1) to hold future extensions to the parent element of this **extLst** element.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GraphicFrame">
2. <xsd:sequence>
3. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="cNvFrPr" type="a:CT\_NonVisualGraphicFrameProperties" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="xfrm" type="a:CT\_Transform2D" minOccurs="1" maxOccurs="1"/>
6. <xsd:element ref="a:graphic" minOccurs="1" maxOccurs="1"/>
7. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
8. </xsd:sequence>
9. </xsd:complexType>

See section [5.4](#Section_fbe733bf85e246f9b5489292b44670ce) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_WordprocessingGroup

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingGroup

*Referenced by:* [wgp](#Section_526d1fffc66c4a50b58041a53622f375), [CT\_WordprocessingCanvas](#Section_c62c9d5877b1426fb11d9a6f877e7491)

This complex type defines the data that represents a group of graphical objects in WordprocessingML.

*Child Elements:*

**cNvPr:** A **CT\_NonVisualDrawingProps** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the non-visual properties of the current **CT\_WordprocessingGroup**. This element MUST NOT be present when the **CT\_WordprocessingGroup** is contained directly by a **graphicData** (Graphic Object Data) element as specified in [ISO/IEC29500-1:2016] section 20.1.2.2.17. This element MUST be present when the **CT\_WordprocessingGroup** is not contained directly by a **graphicData** element as specified in [ISO/IEC29500-1:2016] section 20.1.2.2.17.

**cNvGrpSpPr:** A **CT\_NonVisualGroupDrawingShapeProps** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the non-visual group properties of the current **CT\_WordprocessingGroup**.

**grpSpPr:** A **CT\_GroupShapeProperties** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the properties that are common across all shapes in the current **CT\_WordprocessingGroup**. If there are any conflicting properties between the [**group shape**](#gt_b2238184-3c83-4e64-babb-08b02a9138db) properties and [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) properties, the individual shape properties SHOULD[<122>](#Appendix_A_122" \o "Product behavior note 122) take precedence.

**wps:wsp:** A [CT\_WordprocessingShape](#Section_6919064727d148908089a8aca57becb9) element that specifies a shape that is a child of the current **CT\_WordprocessingGroup**.

**grpSp:** A CT\_WordprocessingGroup element that specifies a group that is a child of the current **CT\_WordprocessingGroup**.

**graphicFrame:** A [CT\_GraphicFrame](#Section_8ae0d8768e2a405fb9c13e777d3f8a40) element that specifies a graphical object that is a child of the current **CT\_WordprocessingGroup**.[<123>](#Appendix_A_123" \o "Product behavior note 123)

**pic:pic:** A **CT\_Picture** element ([ISO/IEC29500-1:2016] section A.4.2) that specifies a picture that is a child of the current **CT\_WordprocessingGroup**.

**w14:contentPart:** A [CT\_WordContentPart](#Section_d2e499245c10435d9d6b43321ef96ae3) element that specifies a content part that is a child of the current **CT\_WordprocessingGroup**.

**extLst:** A **CT\_OfficeArtExtensionList** element ([ISO/IEC29500-1:2016] section A.4.1) to hold future extensions to the parent element of this **extLst** element.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_WordprocessingGroup">
2. <xsd:sequence minOccurs="1" maxOccurs="1">
3. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="cNvGrpSpPr" type="a:CT\_NonVisualGroupDrawingShapeProps" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="grpSpPr" type="a:CT\_GroupShapeProperties" minOccurs="1" maxOccurs="1"/>
6. <xsd:choice minOccurs="0" maxOccurs="unbounded">
7. <xsd:element ref="wps:wsp"/>
8. <xsd:element name="grpSp" type="CT\_WordprocessingGroup"/>
9. <xsd:element name="graphicFrame" type="CT\_GraphicFrame"/>
10. <xsd:element ref="pic:pic"/>
11. <xsd:element ref="w14:contentPart"/>
12. </xsd:choice>
13. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
14. </xsd:sequence>
15. </xsd:complexType>

See section [5.4](#Section_fbe733bf85e246f9b5489292b44670ce) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

None.

## http://schemas.microsoft.com/office/word/2010/wordprocessingCanvas

### Elements

#### wpc

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingCanvas

A [CT\_WordprocessingCanvas](#Section_c62c9d5877b1426fb11d9a6f877e7491) element that specifies a [**drawing canvas**](#gt_ee7cf8fb-0720-4e24-93fe-f22c5bc8c20f) in WordprocessingML. See section [2.2.7](#Section_6aaf2ba56974456099833fcd7fead7cb) for more details about how this element is integrated with [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="wpc" type="CT\_WordprocessingCanvas"/>

See section [5.5](#Section_0af4dfe1b07b41eba48b87aadd16b51b) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_WordprocessingCanvas

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingCanvas

*Referenced by:* [wpc](#Section_20e2341adde54f5fb2bbb676eabe0cae)

This type defines a [**drawing canvas**](#gt_ee7cf8fb-0720-4e24-93fe-f22c5bc8c20f) in a WordprocessingML document.

*Child Elements:*

**bg:** A **CT\_BackgroundFormatting** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies formatting applied to the background of a drawing canvas.

**whole:** A **CT\_WholeE2oFormatting** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies line formatting properties applied to a drawing canvas and any reflection effect applied to a drawing canvas that includes reflection of the objects in the drawing canvas.

**wps:wsp:** A [CT\_WordprocessingShape](#Section_6919064727d148908089a8aca57becb9) element that specifies a [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) in a drawing canvas.

**pic:pic:** A **CT\_Picture** element ([ISO/IEC29500-1:2016] section A.4.2) that specifies a picture in a drawing canvas.

**w14:contentPart:** A [CT\_WordContentPart](#Section_d2e499245c10435d9d6b43321ef96ae3) element that specifies a graphical object represented by arbitrary [**XML**](#gt_982b7f8e-d516-4fd5-8d5e-1a836081ed85) stored in a referenced part.

**wpg:wgp:** A [CT\_WordprocessingGroup](#Section_c89701a299ac4948b84f1eaecc69dfa0) element that specifies a groups of graphical objects.

**graphicFrame:** A [CT\_GraphicFrame](#Section_8ae0d8768e2a405fb9c13e777d3f8a40) element that specifies a graphical object that is a child of the current **CT\_WordprocessingCanvas**.[<124>](#Appendix_A_124" \o "Product behavior note 124)

**extLst:** A **CT\_OfficeArtExtensionList** element ([ISO/IEC29500-1:2016] section A.4.1) to hold future extensions to the parent element of this **extLst** element.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_WordprocessingCanvas">
2. <xsd:sequence minOccurs="1" maxOccurs="1">
3. <xsd:element name="bg" type="a:CT\_BackgroundFormatting" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="whole" type="a:CT\_WholeE2oFormatting" minOccurs="0" maxOccurs="1"/>
5. <xsd:choice minOccurs="0" maxOccurs="unbounded">
6. <xsd:element ref="wps:wsp"/>
7. <xsd:element ref="pic:pic"/>
8. <xsd:element ref="w14:contentPart"/>
9. <xsd:element ref="wpg:wgp"/>
10. <xsd:element name="graphicFrame" type="wpg:CT\_GraphicFrame"/>
11. </xsd:choice>
12. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
13. </xsd:sequence>
14. </xsd:complexType>

See section [5.5](#Section_0af4dfe1b07b41eba48b87aadd16b51b) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

None.

## http://schemas.microsoft.com/office/word/2010/wordprocessingDrawing

### Elements

#### pctPosHOffset

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingDrawing

*Child element of:* positionH (Horizontal positioning) as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.4.2.10.

An **ST\_Percentage** element as specified in [[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section 12.1.2.2 and [ISO/IEC29500-1:2016] section 20.1.10.40 that specifies the horizontal offset.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="pctPosHOffset" type="a:ST\_Percentage"/>

See section [5.11](#Section_1a38a99a16ae420d8c7923dc2e922717) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### pctPosVOffset

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingDrawing

*Child element of:* **positionV** (Vertical positioning) as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.4.2.11.

An **ST\_Percentage** element as specified in [[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section 12.1.2.2 and [ISO/IEC29500-1:2016] section 20.1.10.40 that specifies the vertical offset.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="pctPosVOffset" type="a:ST\_Percentage"/>

See section [5.11](#Section_1a38a99a16ae420d8c7923dc2e922717) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### sizeRelH

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingDrawing

*Optional child element of:* **anchor** as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.4.2.3.

If present, this element specifies that the horizontal size (width) is relative. If absent, the horizontal size is absolute.

A **CT\_SizeRelH** element that specifies the relative width of a floating DrawingML object in a WordprocessingML document.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="sizeRelH" type="CT\_SizeRelH"/>

See section [5.11](#Section_1a38a99a16ae420d8c7923dc2e922717) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### sizeRelV

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingDrawing

*Optional child element of:* **anchor** as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.4.2.3.

If present, this element specifies that the vertical size (height) is relative. If absent, the vertical size is absolute.

A **CT\_SizeRelV** element that specifies the relative height of a floating DrawingML object in a WordprocessingML document.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="sizeRelV" type="CT\_SizeRelV"/>

See section [5.11](#Section_1a38a99a16ae420d8c7923dc2e922717) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

#### anchorId

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingDrawing

An optional [ST\_EditId](#Section_f253940073cf40c498031b111261c3ad) attribute that specifies an identifier for the element this attribute is applied to. Values MUST be greater than 0 and less than 0x80000000. See [[MS-DOCX]](%5bMS-DOCX%5d.pdf#Section_b839fe1fe1ca4fa68c265954d0abbccd) section 2.2.6 for how this attribute integrates with [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this attribute.

1. <xsd:attribute name="anchorId" type="ST\_EditId"/>

See section [5.11](#Section_1a38a99a16ae420d8c7923dc2e922717) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### editId

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingDrawing

An optional **ST\_EditId** attribute of an anchor or inline element as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.4.2.3 and [ISO/IEC29500-1:2016] section 20.4.2.8. If present, this attribute specifies whether the object has been edited relative to the corresponding object in another version of the same document. If this attribute is present on an anchor or inline element and that element is edited in a way other than editing the contents of any nested **txbxContent** element ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section 9.8.1.1), the application MUST either change the value of this attribute or remove it. If present, the value of this attribute MUST be greater than zero and less than 0x80000000.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this attribute.

1. <xsd:attribute name="editId" type="ST\_EditId"/>

See section [5.11](#Section_1a38a99a16ae420d8c7923dc2e922717) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Complex Types

#### CT\_SizeRelH

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingDrawing

*Referenced by:* [sizeRelH](#Section_743d307b29f148218232edbeab1f6b72)

Specifies the relative width of a floating DrawingML object in a WordprocessingML document.

*Child Elements:*

**pctWidth:** An **ST\_PositivePercentage** element (as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.10.45) that specifies the width.[<125>](#Appendix_A_125" \o "Product behavior note 125)

*Attributes:*

**relativeFrom:** An **ST\_SizeRelFromH** attribute that specifies the base on which the relative width is calculated.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_SizeRelH">
2. <xsd:sequence>
3. <xsd:element name="pctWidth" type="a:ST\_PositivePercentage" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. <xsd:attribute name="relativeFrom" type="ST\_SizeRelFromH" use="required"/>
6. </xsd:complexType>

See section [5.11](#Section_1a38a99a16ae420d8c7923dc2e922717) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_SizeRelV

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingDrawing

*Referenced by:* [sizeRelV](#Section_0f2b5cc80f084a21b675a65d66ba375f)

Specifies the relative height of a floating DrawingML object in a WordprocessingML document.

*Child Elements:*

**pctHeight:** An **ST\_PositivePercentage** element (as specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.10.45) that specifies the height.[<126>](#Appendix_A_126" \o "Product behavior note 126)

*Attributes:*

**relativeFrom:** An **ST\_SizeRelFromV** attribute that specifies the base on which the relative height is calculated.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_SizeRelV">
2. <xsd:sequence>
3. <xsd:element name="pctHeight" type="a:ST\_PositivePercentage" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. <xsd:attribute name="relativeFrom" type="ST\_SizeRelFromV" use="required"/>
6. </xsd:complexType>

See section [5.11](#Section_1a38a99a16ae420d8c7923dc2e922717) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

#### ST\_EditId

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingDrawing

*Referenced by:* [anchorId](#Section_7d291cf638e8403b95dcf132c8b02021), [editId](#Section_a0a968bcde5241e3986976ae0ceea0f4)

This simple type specifies a number value specified as a four-octet (eight-digit) hexadecimal number.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_EditId">
2. <xsd:restriction base="xsd:hexBinary">
3. <xsd:length value="4"/>
4. </xsd:restriction>
5. </xsd:simpleType>

See section [5.11](#Section_1a38a99a16ae420d8c7923dc2e922717) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_SizeRelFromH

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingDrawing

*Referenced by:* [CT\_SizeRelH](#Section_8824f66801f345ad91f4a509f0ae1120)

A simple type that specifies the base on which the relative width is calculated. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| margin | Relative to margins of the current page. |
| page | Relative to edges of the current page. |
| leftMargin | Relative to the left margin of the current page. |
| rightMargin | Relative to the right margin of the current page. |
| insideMargin | Relative to the inside margin of the current page. |
| outsideMargin | Relative to the outside margin of the current page. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_SizeRelFromH">
2. <xsd:restriction base="xsd:token">
3. <xsd:enumeration value="margin"/>
4. <xsd:enumeration value="page"/>
5. <xsd:enumeration value="leftMargin"/>
6. <xsd:enumeration value="rightMargin"/>
7. <xsd:enumeration value="insideMargin"/>
8. <xsd:enumeration value="outsideMargin"/>
9. </xsd:restriction>
10. </xsd:simpleType>

See section [5.11](#Section_1a38a99a16ae420d8c7923dc2e922717) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_SizeRelFromV

*Target namespace:* http://schemas.microsoft.com/office/word/2010/wordprocessingDrawing

*Referenced by:* [CT\_SizeRelV](#Section_91bbc028408242a69af7170c0a2ec6a2)

A simple type that specifies the base on which the relative height is calculated. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| margin | Relative to margins of the current page. |
| page | Relative to edges of the current page. |
| topMargin | Relative to the top margin of the current page. |
| bottomMargin | Relative to the bottom margin of the current page. |
| insideMargin | Relative to the inside margin of the current page. |
| outsideMargin | Relative to the outside margin of the current page. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_SizeRelFromV">
2. <xsd:restriction base="xsd:token">
3. <xsd:enumeration value="margin"/>
4. <xsd:enumeration value="page"/>
5. <xsd:enumeration value="topMargin"/>
6. <xsd:enumeration value="bottomMargin"/>
7. <xsd:enumeration value="insideMargin"/>
8. <xsd:enumeration value="outsideMargin"/>
9. </xsd:restriction>
10. </xsd:simpleType>

See section [5.11](#Section_1a38a99a16ae420d8c7923dc2e922717) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

## http://schemas.microsoft.com/office/word/2012/wordprocessingDrawing

### Elements

#### webVideoPr

*Target namespace:* http://schemas.microsoft.com/office/word/2012/wordprocessingDrawing

A [CT\_WebVideoPr](#Section_8f50d7ace31742d4bd1223a65175f236) element that specifies the properties for displaying an online video to the user.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="webVideoPr" type="CT\_WebVideoPr"/>

See section [5.18](#Section_44351d27cd96461b89ae3be25ed82425) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_WebVideoPr

*Target namespace:* http://schemas.microsoft.com/office/word/2012/wordprocessingDrawing

*Referenced by:* [webVideoPr](#Section_16a635fbbd3d4327b2ddb1a1c5f6e09e)

A complex type that specifies the properties used to render HTML into the containing binary large image or picture (BLIP).

*Attributes:*

**embeddedHtml:**  An xsd:string attribute (**[XMLSCHEMA2]** section 3.2.1) that specifies the embedded HTML to be rendered within the BLIP. This attribute SHOULD NOT be omitted if the video playback experience is to be fully preserved.

**h:**  An xsd:unsignedInt [[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22) attribute that specifies the height of the rendered HTML page in pixels. This attribute SHOULD NOT be omitted if the video playback experience is to be fully preserved.

**w:**  An xsd:unsignedInt ([XMLSCHEMA2] section 3.3.22) attribute that specifies the width of the rendered HTML page in pixels. This attribute SHOULD NOT be omitted if the video playback experience is to be fully preserved.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_WebVideoPr">
2. <xsd:attribute name="embeddedHtml" type="xsd:string" use="optional" default=""/>
3. <xsd:attribute name="h" type="xsd:unsignedInt" use="optional" default="0"/>
4. <xsd:attribute name="w" type="xsd:unsignedInt" use="optional" default="0"/>
5. </xsd:complexType>

See section [5.18](#Section_44351d27cd96461b89ae3be25ed82425) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

None.

## http://schemas.microsoft.com/office/excel/2010/spreadsheetDrawing

### Elements

#### contentPart

*Target namespace:* http://schemas.microsoft.com/office/excel/2010/spreadsheetDrawing

A [CT\_ContentPart](#Section_ecff289f286b44b5949facf988a09dae) element that specifies a reference to XML content in a format not specified by [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065).

This element serves the same purpose as the **contentPart** element in SpreadsheetML Drawing ([ISO/IEC29500-1:2016] section 20.5.2.12), but appears as an element in **CT\_GroupShape** ([ISO/IEC29500-1:2016] section A.4.5).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="contentPart" type="CT\_ContentPart"/>

See section [5.9](#Section_ec810aeb26c04f32a6a459abb9a0398f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_ApplicationNonVisualDrawingProps

*Target namespace:* http://schemas.microsoft.com/office/excel/2010/spreadsheetDrawing

*Referenced by:* [CT\_ContentPart](#Section_ecff289f286b44b5949facf988a09dae)

A complex type that specifies SpreadsheetML Drawing-specific non-visual properties of a content part.

*Attributes:*

**macro:** A string ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) that specifies the name of the custom function associated with the content part.

The format of this string is application-defined and SHOULD be ignored if not understood.[<127>](#Appendix_A_127" \o "Product behavior note 127)

**fPublished:** A Boolean attribute ([XMLSCHEMA2] section 3.2.2) that specifies whether the content part is published with the worksheet when sent to the server.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ApplicationNonVisualDrawingProps">
2. <xsd:attribute name="macro" type="xsd:string" use="optional"/>
3. <xsd:attribute name="fPublished" type="xsd:boolean" use="optional" default="false"/>
4. </xsd:complexType>

See section [5.9](#Section_ec810aeb26c04f32a6a459abb9a0398f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ContentPart

*Target namespace:* http://schemas.microsoft.com/office/excel/2010/spreadsheetDrawing

*Referenced by:* [contentPart](#Section_3264167d334f4dffa7eac881a9125cd7)

A complex type that specifies a reference to XML content in a format not specified in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065).

This element serves the same purpose as the **contentPart** element in SpreadsheetML Drawing ([ISO/IEC29500-1:2016] section 20.5.2.12), but appears under **CT\_GroupShape** ([ISO/IEC29500-1:2016] section A.4.5) to enable content parts nested in a [**group shape**](#gt_b2238184-3c83-4e64-babb-08b02a9138db).

*Child Elements:*

**nvContentPartPr:** A [CT\_ContentPartNonVisual](#Section_1eb3f5ba72d24d8692329fa16ef16e11) element that specifies non-visual properties of the content part.

**nvPr:** A [CT\_ApplicationNonVisualDrawingProps](#Section_8d7a43538a7643788120fa56faa2900e) element that specifies non-visual SpreadsheetML Drawing-specific properties.

**xfrm:** A **CT\_Transform2D** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the 2-D transform for the content part.

**extLst:** A **CT\_OfficeArtExtensionList** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

*Attributes:*

**r:id:** An **ST\_RelationshipId** attribute ([ISO/IEC29500-1:2016] section 22.8.2.1) that specifies the relationship identifier to a content part.

**bwMode:** An **ST\_BlackWhiteMode** attribute ([ISO/IEC29500-1:2016] section 20.1.10.10) that specifies how to interpret color information contained within a content part to achieve a color, black and white, or grayscale rendering of the content part. This attribute specifies only the rendering mode applied to the content part; it does not affect how the actual color information is persisted.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ContentPart">
2. <xsd:sequence>
3. <xsd:element name="nvContentPartPr" type="CT\_ContentPartNonVisual" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="nvPr" type="CT\_ApplicationNonVisualDrawingProps" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="xfrm" type="a:CT\_Transform2D" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
7. </xsd:sequence>
8. <xsd:attribute ref="r:id" use="required"/>
9. <xsd:attribute name="bwMode" type="a:ST\_BlackWhiteMode" use="optional" default="auto"/>
10. </xsd:complexType>

See section [5.9](#Section_ec810aeb26c04f32a6a459abb9a0398f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ContentPartNonVisual

*Target namespace:* http://schemas.microsoft.com/office/excel/2010/spreadsheetDrawing

*Referenced by:* [CT\_ContentPart](#Section_ecff289f286b44b5949facf988a09dae)

A complex type that specifies non-visual properties of a **contentPart** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.5.2.12).

*Child Elements:*

**cNvPr:** A **CT\_NonVisualDrawingProps** element ([ISO/IEC29500-1:2016] section A.4.1) that specifies the non-visual drawing properties of the content part. This enables additional information that does not affect the appearance of the content part to be stored.

**cNvContentPartPr:** A [CT\_NonVisualInkContentPartProperties](#Section_02405edf8c8048248cee8b3618dbda13) element that specifies non-visual [**ink**](#gt_9fcdd1d5-3563-49b9-8a2e-bf696fb08fd0) properties of the content part. This enables additional information that does not affect the appearance of ink in the content part to be stored.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ContentPartNonVisual">
2. <xsd:sequence>
3. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="cNvContentPartPr" type="a14:CT\_NonVisualInkContentPartProperties" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. </xsd:complexType>

See section [5.9](#Section_ec810aeb26c04f32a6a459abb9a0398f) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

None.

## http://schemas.microsoft.com/office/powerpoint/2014/inkAction

### Elements

#### actions

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

A [CT\_Actions](#Section_6cfd8ba946ee497eb4e2a0a480e835eb) element[<128>](#Appendix_A_128" \o "Product behavior note 128) that specifies the root element for ink actions.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="actions" type="CT\_Actions"/>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_Action

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

*Referenced by:* [CT\_ActionGroup](#Section_fa6c134f1ec846c2bb86d2d60c220b0c), [CT\_Actions](#Section_6cfd8ba946ee497eb4e2a0a480e835eb)

A complex type[<129>](#Appendix_A_129" \o "Product behavior note 129) that represents an ink action.

*Child Elements:*

**property:** A [CT\_ActionProperty](#Section_84e8a198f91f4fab9e3ff94b4fcf1d62) element[<130>](#Appendix_A_130" \o "Product behavior note 130) that specifies additional properties for the ink action. Additional properties include data type required by the ink action, or the render style for the ink action.

**actionData:** A [CT\_ActionData](#Section_270104291e1c48db96cdf547f2b00c34) element[<131>](#Appendix_A_131" \o "Product behavior note 131) that specifies the data used by the ink action.

**actionDataGroup:** A [CT\_ActionDataGroup](#Section_e606401d55c743a9add735163dccef20) element[<132>](#Appendix_A_132" \o "Product behavior note 132) that specifies a group of data used by the ink action.

*Attributes:*

**xml:id:** A **xsd:string** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<133>](#Appendix_A_133" \o "Product behavior note 133) that specifies identifier for the ink action.

**type:** An [ST\_ActionType](#Section_aea8774e98c145b0ac128083866a4f25) attribute[<134>](#Appendix_A_134" \o "Product behavior note 134) that specifies the type of the ink action. The ink action type can be "add", "remove" or "transform".

**startTime:** A **xsd:decimal** ([XMLSCHEMA2] section 3.2.3) attribute[<135>](#Appendix_A_135" \o "Product behavior note 135) that specifies the relative start time for the ink action. The unit is specified by the **timeUnit** attribute in CT\_Actions.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Action">
2. <xsd:sequence>
3. <xsd:element name="property" type="CT\_ActionProperty" minOccurs="0" maxOccurs="unbounded"/>
4. <xsd:choice minOccurs="0" maxOccurs="unbounded">
5. <xsd:element name="actionData" type="CT\_ActionData"/>
6. <xsd:element name="actionDataGroup" type="CT\_ActionDataGroup"/>
7. </xsd:choice>
8. </xsd:sequence>
9. <xsd:attribute ref="xml:id" use="optional" default=""/>
10. <xsd:attribute name="type" type="ST\_ActionType" use="required"/>
11. <xsd:attribute name="startTime" type="xsd:decimal" use="required"/>
12. </xsd:complexType>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ActionData

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

*Referenced by:* [CT\_ActionDataGroup](#Section_e606401d55c743a9add735163dccef20), [CT\_Action](#Section_eac2b69aedac4ff89a5a0d44b9a299d3)

A complex type[<136>](#Appendix_A_136" \o "Product behavior note 136) that represents ink action data.

*Child Elements:*

**transform:** A **CT\_Matrix** ([[InkML]](https://go.microsoft.com/fwlink/?LinkId=156829) section 6.1.4) element[<137>](#Appendix_A_137" \o "Product behavior note 137) that specifies the transformation applied to the data.

**inkml:trace:** A **CT\_Trace** ([InkML] section 3.2.1) element[<138>](#Appendix_A_138" \o "Product behavior note 138) that specifies an ink stroke data trace captured by the digitizer.

**inkml:traceView:** A **CT\_TraceView** ([InkML] section 3.3.2) element[<139>](#Appendix_A_139" \o "Product behavior note 139) that specifies traces by reference.

*Attributes:*

**xml:id:** An **xsd:string** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<140>](#Appendix_A_140" \o "Product behavior note 140) that specifies the identifier for the ink action data.

**name:** An [ST\_DataName](#Section_a166bc6614f040fab99e36a9e10f711a) attribute[<141>](#Appendix_A_141" \o "Product behavior note 141) that specifies the name of ink action data. Ink actions "add" and "remove" require ink action data with the name "stroke". Ink action "transform" requires ink action data names "target" and "path".

**ref:** An **anyURI** ([XMLSCHEMA2] section 3.2.17) attribute[<142>](#Appendix_A_142" \o "Product behavior note 142) that specifies ink action data by reference.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ActionData">
2. <xsd:sequence>
3. <xsd:element name="transform" type="inkml:CT\_Matrix" minOccurs="0" maxOccurs="1"/>
4. <xsd:choice minOccurs="0" maxOccurs="unbounded">
5. <xsd:element ref="inkml:trace"/>
6. <xsd:element ref="inkml:traceView"/>
7. </xsd:choice>
8. </xsd:sequence>
9. <xsd:attribute ref="xml:id" use="optional" default=""/>
10. <xsd:attribute name="name" type="ST\_DataName" use="optional" default="stroke"/>
11. <xsd:attribute name="ref" type="xsd:anyURI" use="optional" default=""/>
12. </xsd:complexType>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ActionDataGroup

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

*Referenced by:* [CT\_Action](#Section_eac2b69aedac4ff89a5a0d44b9a299d3)

A complex type[<143>](#Appendix_A_143" \o "Product behavior note 143) that represents a group of action data.

*Child Elements:*

**actionData:** A [CT\_ActionData](#Section_270104291e1c48db96cdf547f2b00c34) element[<144>](#Appendix_A_144" \o "Product behavior note 144) that specifies ink action data in the group.

*Attributes:*

**xml:id:** An **xsd:string** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<145>](#Appendix_A_145" \o "Product behavior note 145) that specifies the identifier for the ink action data group.

**name:** An [ST\_DataName](#Section_a166bc6614f040fab99e36a9e10f711a) attribute[<146>](#Appendix_A_146" \o "Product behavior note 146) that specifies the name of the ink action data group.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ActionDataGroup">
2. <xsd:sequence>
3. <xsd:element name="actionData" type="CT\_ActionData" minOccurs="1" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. <xsd:attribute ref="xml:id" use="optional" default=""/>
6. <xsd:attribute name="name" type="ST\_DataName" use="optional" default="stroke"/>
7. </xsd:complexType>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ActionGroup

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

*Referenced by:* [CT\_Actions](#Section_6cfd8ba946ee497eb4e2a0a480e835eb)

A complex type[<147>](#Appendix_A_147" \o "Product behavior note 147) that represents a group of actions.

*Child Elements:*

**action:** A [CT\_Action](#Section_eac2b69aedac4ff89a5a0d44b9a299d3) element[<148>](#Appendix_A_148" \o "Product behavior note 148) that specifies an ink action.

*Attributes:*

**xml:id:** An **xsd:string** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<149>](#Appendix_A_149" \o "Product behavior note 149) that specifies an identifier for the ink action group.

**type:** An [ST\_ActionType](#Section_aea8774e98c145b0ac128083866a4f25) attribute that specifies the type of the ink action group.

**startTime:** A **xsd:decimal** ([XMLSCHEMA2] section 3.2.3) attribute[<150>](#Appendix_A_150" \o "Product behavior note 150) that specifies the start time of the ink action group.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ActionGroup">
2. <xsd:sequence>
3. <xsd:element name="action" type="CT\_Action" minOccurs="1" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. <xsd:attribute ref="xml:id" use="optional" default=""/>
6. <xsd:attribute name="type" type="ST\_ActionType" use="required"/>
7. <xsd:attribute name="startTime" type="xsd:decimal" use="required"/>
8. </xsd:complexType>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ActionProperty

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

*Referenced by:* [CT\_Action](#Section_eac2b69aedac4ff89a5a0d44b9a299d3)

A complex type[<151>](#Appendix_A_151" \o "Product behavior note 151) that represents an action property.

*Attributes:*

**name:** An [ST\_PropertyName](#Section_da3e79eb9c27492980d4a12457452700) attribute[<152>](#Appendix_A_152" \o "Product behavior note 152) that specifies the name of the action property.

**value:** An [ST\_PropertyValue](#Section_7e84f3fdf5b749259905a7fe4a18a47b) attribute[<153>](#Appendix_A_153" \o "Product behavior note 153) that specifies the value of the action property.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ActionProperty">
2. <xsd:attribute name="name" type="ST\_PropertyName" use="required"/>
3. <xsd:attribute name="value" type="ST\_PropertyValue" use="optional" default="ink"/>
4. </xsd:complexType>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Actions

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

*Referenced by:* [actions](#Section_2a7f7c6d332a4d42b06dac60bd0c3b2a)

A complex type[<154>](#Appendix_A_154" \o "Product behavior note 154) that represents the root of ink actions.

*Child Elements:*

**inkml:definitions:** A **CT\_Definitions** ([[InkML]](https://go.microsoft.com/fwlink/?LinkId=156829) section 6.2.1) element[<155>](#Appendix_A_155" \o "Product behavior note 155) that specifies definitions used by the ink actions.

**actionGroup:** A [CT\_ActionGroup](#Section_fa6c134f1ec846c2bb86d2d60c220b0c) element[<156>](#Appendix_A_156" \o "Product behavior note 156) that specifies a group of ink actions.

**action:** A [CT\_Action](#Section_eac2b69aedac4ff89a5a0d44b9a299d3) element[<157>](#Appendix_A_157" \o "Product behavior note 157) that specifies an ink action.

*Attributes:*

**xml:id:** An **xsd:string** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<158>](#Appendix_A_158" \o "Product behavior note 158) that specifies the identifier for ink actions.

**lengthUnit:** An **ST\_StandardLengthUnits** attribute[<159>](#Appendix_A_159" \o "Product behavior note 159) that specifies length unit used in ink actions. This attribute is defined based on the length attribute of **Units** in [InkML] section 6.4.

**timeUnit:** An **ST\_StandardTimeUnits** attribute[<160>](#Appendix_A_160" \o "Product behavior note 160) that specifies time unit used in ink actions. This attribute is defined based on the time attribute of **Units** in [InkML] section 6.4.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Actions">
2. <xsd:sequence>
3. <xsd:element ref="inkml:definitions" minOccurs="0" maxOccurs="1"/>
4. <xsd:choice minOccurs="0" maxOccurs="unbounded">
5. <xsd:element name="actionGroup" type="CT\_ActionGroup"/>
6. <xsd:element name="action" type="CT\_Action"/>
7. </xsd:choice>
8. </xsd:sequence>
9. <xsd:attribute ref="xml:id" use="optional" default=""/>
10. <xsd:attribute name="lengthUnit" type="inkml:ST\_StandardLengthUnits" use="required"/>
11. <xsd:attribute name="timeUnit" type="inkml:ST\_StandardTimeUnits" use="required"/>
12. </xsd:complexType>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

#### ST\_ActionType

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

*Referenced by:* [CT\_Action](#Section_eac2b69aedac4ff89a5a0d44b9a299d3), [CT\_ActionGroup](#Section_fa6c134f1ec846c2bb86d2d60c220b0c)

This simple type[<161>](#Appendix_A_161" \o "Product behavior note 161) specifies a major action type.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_ActionType">
2. <xsd:union memberTypes="ST\_ActionTypeReserved ST\_ActionTypeUser"/>
3. </xsd:simpleType>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_ActionTypeReserved

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

*Referenced by:* [ST\_ActionType](#Section_aea8774e98c145b0ac128083866a4f25)

This simple type[<162>](#Appendix_A_162" \o "Product behavior note 162) specifies reserved major action types.

| Value | Meaning |
| --- | --- |
| add | Add data. Ink strokes are added in ink actions with type "add" type. "add" ink action has one child element data or dataGroup with name "stroke" or "path". |
| remove | Remove data. Ink strokes are removed in ink actions with "remove" type. "remove" ink action has one child element data or dataGroup with name "stroke". |
| transform | Transform data. "transform" ink action has two child elements **data** or **dataGroup** with name "target" and "path". |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_ActionTypeReserved">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="add"/>
4. <xsd:enumeration value="remove"/>
5. <xsd:enumeration value="transform"/>
6. </xsd:restriction>
7. </xsd:simpleType>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_ActionTypeUser

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

*Referenced by:* [ST\_ActionType](#Section_aea8774e98c145b0ac128083866a4f25)

This simple type[<163>](#Appendix_A_163" \o "Product behavior note 163) specifies a user major action type.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_ActionTypeUser">
2. <xsd:restriction base="xsd:string"/>
3. </xsd:simpleType>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_DataName

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

*Referenced by:* [CT\_ActionData](#Section_270104291e1c48db96cdf547f2b00c34), [CT\_ActionDataGroup](#Section_e606401d55c743a9add735163dccef20)

This simple type[<164>](#Appendix_A_164" \o "Product behavior note 164) specifies a data name. Data names are named parameters for actions.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_DataName">
2. <xsd:union memberTypes="ST\_DataNameReserved ST\_DataNameUser"/>
3. </xsd:simpleType>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_DataNameReserved

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

*Referenced by:* [ST\_DataName](#Section_a166bc6614f040fab99e36a9e10f711a)

This simple type[<165>](#Appendix_A_165" \o "Product behavior note 165) specifies reserved data names.

| Value | Meaning |
| --- | --- |
| stroke | The data represents an ink stroke. |
| path | The data represents an eraser path. |
| target | The data represents a target. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_DataNameReserved">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="stroke"/>
4. <xsd:enumeration value="path"/>
5. <xsd:enumeration value="target"/>
6. </xsd:restriction>
7. </xsd:simpleType>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_DataNameUser

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

*Referenced by:* [ST\_DataName](#Section_a166bc6614f040fab99e36a9e10f711a)

This simple type[<166>](#Appendix_A_166" \o "Product behavior note 166) specifies a user data name.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_DataNameUser">
2. <xsd:restriction base="xsd:string"/>
3. </xsd:simpleType>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_PropertyName

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

*Referenced by:* [CT\_ActionProperty](#Section_84e8a198f91f4fab9e3ff94b4fcf1d62)

This simple type[<167>](#Appendix_A_167" \o "Product behavior note 167) specifies an action property name.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_PropertyName">
2. <xsd:union memberTypes="ST\_PropertyNameReserved ST\_PropertyNameUser"/>
3. </xsd:simpleType>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_PropertyNameReserved

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

*Referenced by:* [ST\_PropertyName](#Section_da3e79eb9c27492980d4a12457452700)

This simple type[<168>](#Appendix_A_168" \o "Product behavior note 168) specifies reserved action property names.

| Value | Meaning |
| --- | --- |
| dataType | Indicates data type. Value can be "ink", "pointEraser", or "strokeEraser". |
| style | Indicates render style. Value can be "instant". |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_PropertyNameReserved">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="dataType"/>
4. <xsd:enumeration value="style"/>
5. </xsd:restriction>
6. </xsd:simpleType>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_PropertyNameUser

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

*Referenced by:* [ST\_PropertyName](#Section_da3e79eb9c27492980d4a12457452700)

This simple type[<169>](#Appendix_A_169" \o "Product behavior note 169) specifies a user action property name.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_PropertyNameUser">
2. <xsd:restriction base="xsd:string"/>
3. </xsd:simpleType>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_PropertyValue

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

*Referenced by:* [CT\_ActionProperty](#Section_84e8a198f91f4fab9e3ff94b4fcf1d62)

This simple type[<170>](#Appendix_A_170" \o "Product behavior note 170) specifies action property values.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_PropertyValue">
2. <xsd:union memberTypes="ST\_PropertyValueReserved ST\_PropertyValueUser"/>
3. </xsd:simpleType>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_PropertyValueReserved

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

*Referenced by:* [ST\_PropertyValue](#Section_7e84f3fdf5b749259905a7fe4a18a47b)

This simple type[<171>](#Appendix_A_171" \o "Product behavior note 171) specifies reserved action property values.

| Value | Meaning |
| --- | --- |
| ink | The action represents an ink stroke. |
| pointEraser | The action represents a point eraser. |
| strokeEraser | The action represents a stroke eraser. |
| instant | The action represents data that will be rendered instantly, ignoring any time in [CT\_ActionData](#Section_270104291e1c48db96cdf547f2b00c34). |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_PropertyValueReserved">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="ink"/>
4. <xsd:enumeration value="pointEraser"/>
5. <xsd:enumeration value="strokeEraser"/>
6. <xsd:enumeration value="instant"/>
7. </xsd:restriction>
8. </xsd:simpleType>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_PropertyValueUser

*Target namespace:* http://schemas.microsoft.com/office/powerpoint/2014/inkAction

*Referenced by:* [ST\_PropertyValue](#Section_7e84f3fdf5b749259905a7fe4a18a47b)

This simple type[<172>](#Appendix_A_172" \o "Product behavior note 172) specifies a user action property value.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_PropertyValueUser">
2. <xsd:restriction base="xsd:string"/>
3. </xsd:simpleType>

See section [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

## http://schemas.microsoft.com/office/drawing/2014/chart

### Elements

#### bubble3D

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

*Referenced by:* [CT\_CategoryFilterException](#Section_cd15c548eca54b8c8e53eecdd76e188e)

A **CT\_Boolean** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.5.1) element[<173>](#Appendix_A_173" \o "Product behavior note 173) that specifies whether this data point has a 3D bubble.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="bubble3D" type="c:CT\_Boolean"/>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### categoryFilterExceptions

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

A [CT\_CategoryFilterExceptions](#Section_0e91295c218a443f84913168a5a87361) element[<174>](#Appendix_A_174" \o "Product behavior note 174) that specifies exception data points for a filtered category in a series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="categoryFilterExceptions" type="CT\_CategoryFilterExceptions"/>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### datapointuniqueidmap

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

A [CT\_ChartDataPointUniqueIDMap](#Section_1fbba64a2b894f1dbf2d903c6b70473e) element[<175>](#Appendix_A_175" \o "Product behavior note 175) that specifies a mapping from each data point index to the unique ID of that data point entry, for a single series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="datapointuniqueidmap" type="CT\_ChartDataPointUniqueIDMap"/>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### dLbl

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

*Referenced by:* [CT\_CategoryFilterException](#Section_cd15c548eca54b8c8e53eecdd76e188e)

A CT\_DLbl ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.5.1) element[<176>](#Appendix_A_176" \o "Product behavior note 176) that specifies the properties of the **Datalabel** (section [2.2.1.3](#Section_3e77d01c6ea04713886678beb6ece926)) associated with this data point.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="dLbl" type="c:CT\_DLbl"/>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### explosion

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

*Referenced by:* [CT\_CategoryFilterException](#Section_cd15c548eca54b8c8e53eecdd76e188e)

A CT\_UnsignedInt ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.5.1) element[<177>](#Appendix_A_177" \o "Product behavior note 177) that specifies the amount this data point shall be moved from the center of the pie in a pie chart series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="explosion" type="c:CT\_UnsignedInt"/>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### invertIfNegative

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

*Referenced by:* [CT\_CategoryFilterException](#Section_cd15c548eca54b8c8e53eecdd76e188e)

A **CT\_Boolean** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.5.1) element[<178>](#Appendix_A_178" \o "Product behavior note 178) that specifies whether the invert color is shown when this data point has a negative value.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="invertIfNegative" type="c:CT\_Boolean"/>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### marker

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

*Referenced by:* [CT\_CategoryFilterException](#Section_cd15c548eca54b8c8e53eecdd76e188e)

A CT\_Marker ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.5.1) element[<179>](#Appendix_A_179" \o "Product behavior note 179) that specifies the properties of the line marker associated with this data point.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="marker" type="c:CT\_Marker"/>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### pivotOptions16

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

A [CT\_PivotOptions16](#Section_110b47a6ba7249439ce73321d55f5bf7) element[<180>](#Appendix_A_180" \o "Product behavior note 180) that specifies the pivot controls that appear on the chart ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="pivotOptions16" type="CT\_PivotOptions16"/>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### spPr

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

*Referenced by:* [CT\_CategoryFilterException](#Section_cd15c548eca54b8c8e53eecdd76e188e)

A CT\_ShapeProperties ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element[<181>](#Appendix_A_181" \o "Product behavior note 181) that specifies the formatting (like fill or line properties) to be shown on this data point.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="spPr" type="a:CT\_ShapeProperties"/>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_BooleanFalse

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

*Referenced by:* [CT\_PivotOptions16](#Section_110b47a6ba7249439ce73321d55f5bf7)

A complex type[<182>](#Appendix_A_182" \o "Product behavior note 182) that specifies a Boolean value that defaults to FALSE**.**

*Attributes:*

**val:** A Boolean ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) attribute[<183>](#Appendix_A_183" \o "Product behavior note 183) that specifies the value of the property.

ThisMUST be set to one of the following: zero, 1, TRUE, or FALSE.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_BooleanFalse">
2. <xsd:attribute name="val" type="xsd:boolean" use="optional" default="false"/>
3. </xsd:complexType>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_CategoryFilterException

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

*Referenced by:* [CT\_CategoryFilterExceptions](#Section_0e91295c218a443f84913168a5a87361)

A complex type[<184>](#Appendix_A_184" \o "Product behavior note 184) that specifies an exception data point for a filtered category in a series.

*Child Elements:*

**uniqueId:** A [CT\_ChartUniqueID](#Section_7891f0a5b4fe40fe9de4a41d85058c0b) element[<185>](#Appendix_A_185" \o "Product behavior note 185) that specifies the unique ID of a data point in the parent series. The exceptional properties stored in this complex type belong to that data point. The data point is filtered out from the chart series.

**spPr:** A CT\_ShapeProperties ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element[<186>](#Appendix_A_186" \o "Product behavior note 186) that specifies the formatting (like fill or line properties) to be shown on this data point.

**explosion:** A CT\_UnsignedInt ([ISO/IEC29500-1:2016] section A.5.1) element[<187>](#Appendix_A_187" \o "Product behavior note 187) that specifies the amount this data point shall be moved from the center of the pie in a pie chart series.

**invertIfNegative:** A **CT\_Boolean** ([ISO/IEC29500-1:2016] section A.5.1) element[<188>](#Appendix_A_188" \o "Product behavior note 188) that specifies whether the invert color is shown when this data point has a negative value.

**bubble3D:** A **CT\_Boolean** ([ISO/IEC29500-1:2016] section A.5.1) element[<189>](#Appendix_A_189" \o "Product behavior note 189) that specifies whether this data point has a 3D bubble.

**marker:** A CT\_Marker ([ISO/IEC29500-1:2016] section A.5.1) element[<190>](#Appendix_A_190" \o "Product behavior note 190) that specifies the properties of the line marker associated with this data point

**dLbl:** A CT\_DLbl ([ISO/IEC29500-1:2016] section A.5.1) element[<191>](#Appendix_A_191" \o "Product behavior note 191) that specifies the properties of the **Datalabel** (section [2.2.1.3](#Section_3e77d01c6ea04713886678beb6ece926)) associated with this data point.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_CategoryFilterException">
2. <xsd:sequence>
3. <xsd:element name="uniqueId" type="CT\_ChartUniqueID" minOccurs="1" maxOccurs="1"/>
4. <xsd:element ref="spPr" minOccurs="0" maxOccurs="1"/>
5. <xsd:element ref="explosion" minOccurs="0" maxOccurs="1"/>
6. <xsd:element ref="invertIfNegative" minOccurs="0" maxOccurs="1"/>
7. <xsd:element ref="bubble3D" minOccurs="0" maxOccurs="1"/>
8. <xsd:element ref="marker" minOccurs="0" maxOccurs="1"/>
9. <xsd:element ref="dLbl" minOccurs="0" maxOccurs="1"/>
10. </xsd:sequence>
11. </xsd:complexType>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_CategoryFilterExceptions

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

*Referenced by:* [categoryFilterExceptions](#Section_857e2a946b0647e7828534debb0cd020)

A complex type[<192>](#Appendix_A_192" \o "Product behavior note 192) that specifies exception data points for a filtered category in a series.

*Child Elements:*

**categoryFilterException:** A [CT\_CategoryFilterException](#Section_cd15c548eca54b8c8e53eecdd76e188e) element[<193>](#Appendix_A_193" \o "Product behavior note 193) that specifies one exception data point for a filtered category in a series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_CategoryFilterExceptions">
2. <xsd:sequence>
3. <xsd:element name="categoryFilterException" type="CT\_CategoryFilterException" minOccurs="1" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ChartDataPointUniqueIDMap

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

*Referenced by:* [datapointuniqueidmap](#Section_20162a4ebd4d402e9363e199af89a514)

A complex type[<194>](#Appendix_A_194" \o "Product behavior note 194) that specifies a mapping from each data point index to the unique ID of that data point entry, for a single series. This mapping is stored as an extension to the chart series.

*Child Elements:*

**ptentry:** A [CT\_ChartDataPointUniqueIDMapEntry](#Section_d28c826c3c5c4c38b4b04005de78665f) element[<195>](#Appendix_A_195" \o "Product behavior note 195) that specifies a mapping entry.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ChartDataPointUniqueIDMap">
2. <xsd:sequence>
3. <xsd:element name="ptentry" type="CT\_ChartDataPointUniqueIDMapEntry" minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ChartDataPointUniqueIDMapEntry

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

*Referenced by:* [CT\_ChartDataPointUniqueIDMap](#Section_1fbba64a2b894f1dbf2d903c6b70473e)

A complex type[<196>](#Appendix_A_196" \o "Product behavior note 196) that specifies a single entry representing the datapoint index and its unique ID in a series. This is used to store unique IDs of filtered-out datapoints that have special properties, such as formatting, datalabels, markers, or pie explosion.

*Child Elements:*

**ptidx:** An **unsignedInt** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22) element[<197>](#Appendix_A_197" \o "Product behavior note 197) that specifies this data point index.

**uniqueID:** A [CT\_ChartUniqueID](#Section_7891f0a5b4fe40fe9de4a41d85058c0b) element[<198>](#Appendix_A_198" \o "Product behavior note 198) that specifies the unique ID of a data point.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ChartDataPointUniqueIDMapEntry">
2. <xsd:sequence>
3. <xsd:element name="ptidx" type="xsd:unsignedInt" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="uniqueID" type="CT\_ChartUniqueID" minOccurs="1" maxOccurs="1"/>
5. </xsd:sequence>
6. </xsd:complexType>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ChartUniqueID

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

*Referenced by:* [CT\_ChartDataPointUniqueIDMapEntry](#Section_d28c826c3c5c4c38b4b04005de78665f), [CT\_CategoryFilterException](#Section_cd15c548eca54b8c8e53eecdd76e188e)

A complex type[<199>](#Appendix_A_199" \o "Product behavior note 199) that specifies a unique identifier for a data point.

*Attributes:*

**val:** A string ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<200>](#Appendix_A_200" \o "Product behavior note 200) that specifies the GUID of the data point.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ChartUniqueID">
2. <xsd:attribute name="val" type="xsd:string" use="required"/>
3. </xsd:complexType>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_LiteralDataChart

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

A complex type[<201>](#Appendix_A_201" \o "Product behavior note 201) that specifies whether this chart was saved by an application that does not support formula references.[<202>](#Appendix_A_202" \o "Product behavior note 202) The chart data is stored as a set of literal values (numbers and strings) with the chart series.

*Attributes:*

**val:** A Boolean ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) attribute[<203>](#Appendix_A_203" \o "Product behavior note 203) that specifies whether this chart was saved by an application that does not support formula references.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_LiteralDataChart">
2. <xsd:attribute name="val" type="xsd:boolean" use="required"/>
3. </xsd:complexType>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_MultiLvlStrFilteredLiteralCache

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

A complex type[<204>](#Appendix_A_204" \o "Product behavior note 204) that specifies a cached hierarchical data string for category labels of filtered data points in the chart. This type is stored for charts with literal data (the data contains no references) that have categories filtered out.

*Child Elements:*

**multiLvlStrCache:** A CT\_MultiLvlStrData ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.5.1) element[<205>](#Appendix_A_205" \o "Product behavior note 205) that specifies a cached hierarchical data string for category labels of filtered data points in the chart.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_MultiLvlStrFilteredLiteralCache">
2. <xsd:sequence>
3. <xsd:element name="multiLvlStrCache" type="c:CT\_MultiLvlStrData" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_NumFilteredLiteralCache

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

A complex type[<206>](#Appendix_A_206" \o "Product behavior note 206) that specifies a cached value for charts with literal data (the data contains no references) that have categories filtered out.

*Child Elements:*

**numCache:** A CT\_NumData ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.5.1) element[<207>](#Appendix_A_207" \o "Product behavior note 207) that specifies a cached data value for a filtered data point in the chart.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_NumFilteredLiteralCache">
2. <xsd:sequence>
3. <xsd:element name="numCache" type="c:CT\_NumData" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PivotOptions16

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

*Referenced by:* [pivotOptions16](#Section_8c98caca899945d9b032085514e145ff)

A complex type[<208>](#Appendix_A_208" \o "Product behavior note 208) that specifies additional pivot controls that can appear on the chart ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 21.2).

*Child Elements:*

**showExpandCollapseFieldButtons:** A [CT\_BooleanFalse](#Section_730f45bbf17b407c84c03c073ed5f8be) element[<209>](#Appendix_A_209" \o "Product behavior note 209) that specifies whether two controls are visible on a **PivotChart**, an Expand Entire Field button and a Collapse Entire Field button, when **pivotOptions:dropZonesVisible** is set to TRUE. MUST NOT exist if the parent **CT\_ChartSpace** element does not have a child **CT\_PivotSource** element.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PivotOptions16">
2. <xsd:sequence>
3. <xsd:element name="showExpandCollapseFieldButtons" type="CT\_BooleanFalse" minOccurs="0" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_StrFilteredLiteralCache

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart

A complex type[<210>](#Appendix_A_210" \o "Product behavior note 210) that specifies a cached data string for charts with literal data (the data contains no references) that have categories filtered out.

*Child Elements:*

**strCache:** A CT\_StrData ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.5.1) element[<211>](#Appendix_A_211" \o "Product behavior note 211) that specifies a cached data string for a filtered data point in the chart.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_StrFilteredLiteralCache">
2. <xsd:sequence>
3. <xsd:element name="strCache" type="c:CT\_StrData" minOccurs="1" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

None.

## http://schemas.microsoft.com/office/drawing/2014/chart/ac

### Elements

#### multiLvlStrLit

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chart/ac

A CT\_MultiLvlStrData ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.5.1) element[<212>](#Appendix_A_212" \o "Product behavior note 212) that specifies a cached data string for filtered data points in the chart.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="multiLvlStrLit" type="c:CT\_MultiLvlStrData"/>

See section [5.21](#Section_5a2048a5711648a995b69c7b8e70ff44) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

None.

### Simple Types

None.

## http://schemas.microsoft.com/office/drawing/2014/chartex

### Elements

#### chart

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

A [CT\_RelId](#Section_d8ede39ea36c48ad8a170086a2d0889b) element that specifies the relationship identifier for the relationship for this ChartEx part. The type of the relationship is ChartEx (section [2.1.5](#Section_5d0d453eadac43bea79759b9916593dd)).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="chart" type="CT\_RelId"/>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### chartSpace

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

A [CT\_ChartSpace](#Section_416e664fc6f64ed9914b4eaaa20724dd) element that specifies the chart container object.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="chartSpace" type="CT\_ChartSpace"/>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_Address

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoLocation](#Section_d96c3ae5e13141fdb863aae9e6661e51)

A complex type[<213>](#Appendix_A_213" \o "Product behavior note 213) that specifies geographical properties of the geographical entity of the geocoding result.

*Attributes:*

**address1:** A string ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<214>](#Appendix_A_214" \o "Product behavior note 214) that specifies the name of the geographical entity of the geocoding result, in the language indicated by the cultureLanguage attribute of the [CT\_Geography](#Section_5e722ee2d933454f81988490cbf17e77) complex type.

**countryRegion:** A string ([XMLSCHEMA2] section 3.2.1) attribute[<215>](#Appendix_A_215" \o "Product behavior note 215) that specifies the country or region of the geocoding result, in the language indicated by the cultureLanguage attribute of the CT\_Geography complex type.

**adminDistrict1:** A string ([XMLSCHEMA2] section 3.2.1) attribute[<216>](#Appendix_A_216" \o "Product behavior note 216) that specifies the first order administrative subdivision of a country or region of the geographical entity of the geocoding result, such as a state or province. Specified in the language indicated by the cultureLanguage attribute of the CT\_Geography complex type.

**adminDistrict2:** A string ([XMLSCHEMA2] section 3.2.1) attribute[<217>](#Appendix_A_217" \o "Product behavior note 217) that specifies the second order administrative subdivision of a country or region of the geographical entity of the geocoding result, such as a county. Specified in the language indicated by the cultureLanguage attribute of the CT\_Geography complex type.

**postalCode:** A string ([XMLSCHEMA2] section 3.2.1) attribute[<218>](#Appendix_A_218" \o "Product behavior note 218) that specifies the post code, postal code, or ZIP Code of the geocoding result.

**locality:** A string ([XMLSCHEMA2] section 3.2.1) attribute[<219>](#Appendix_A_219" \o "Product behavior note 219) that specifies a geocoding result that is a populated place, such as a city, suburb, or neighborhood. Specified in the language indicated by the cultureLanguage attribute of the CT\_Geography complex type.

**isoCountryCode:** A string ([XMLSCHEMA2] section 3.2.1) attribute[<220>](#Appendix_A_220" \o "Product behavior note 220) that specifies the ISO-3166-1 alpha 2 country code of the country or region of the geocoding result.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Address">
2. <xsd:attribute name="address1" type="xsd:string" use="optional"/>
3. <xsd:attribute name="countryRegion" type="xsd:string" use="optional"/>
4. <xsd:attribute name="adminDistrict1" type="xsd:string" use="optional"/>
5. <xsd:attribute name="adminDistrict2" type="xsd:string" use="optional"/>
6. <xsd:attribute name="postalCode" type="xsd:string" use="optional"/>
7. <xsd:attribute name="locality" type="xsd:string" use="optional"/>
8. <xsd:attribute name="isoCountryCode" type="xsd:string" use="optional"/>
9. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Aggregation

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_SeriesLayoutProperties](#Section_1ff5c9ad828a4d0cbe7207754eba3588)

A complex type[<221>](#Appendix_A_221" \o "Product behavior note 221) that specifies data aggregation properties.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Aggregation"/>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Axis

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_PlotArea](#Section_3d47df5e721a4c2cab2550ed82b6b6a3)

A complex type[<222>](#Appendix_A_222" \o "Product behavior note 222) that specifies an axis.

*Child Elements:*

**catScaling:** A [CT\_CategoryAxisScaling](#Section_a630f348bc494045b2aad6b1fb6f22b6) element[<223>](#Appendix_A_223" \o "Product behavior note 223) that specifies the category axis scaling properties.

**valScaling:** A [CT\_ValueAxisScaling](#Section_bd42958defa444009647a0b3cb3d1beb) element[<224>](#Appendix_A_224" \o "Product behavior note 224) that specifies the value axis scaling properties.

**title:** A [CT\_AxisTitle](#Section_c062d934bee74372b0022dd9d6eb54ca) element[<225>](#Appendix_A_225" \o "Product behavior note 225) that specifies the axis title.

**units:** A [CT\_AxisUnits](#Section_b2d05c3fa2f24c549160bdb3a0a4ea5d) element that specifies the axis display units.

**majorGridlines:** A [CT\_Gridlines](#Section_a4a37a38ef0148b1bbd2fe0d18a012e6) element[<226>](#Appendix_A_226" \o "Product behavior note 226) that specifies the major gridlines.

**minorGridlines:** A CT\_Gridlines element[<227>](#Appendix_A_227" \o "Product behavior note 227) that specifies the minor gridlines.

**majorTickMarks:** A [CT\_TickMarks](#Section_1200f47fcb664c738bd8b7ba2b27849b) element[<228>](#Appendix_A_228" \o "Product behavior note 228) that specifies the major tick marks.

**minorTickMarks:** A CT\_TickMarks element[<229>](#Appendix_A_229" \o "Product behavior note 229) that specifies the minor tick marks.

**tickLabels:** A [CT\_TickLabels](#Section_7eb496b219d14d1b9fb02b822e01888a) element[<230>](#Appendix_A_230" \o "Product behavior note 230) that specifies the tick labels.

**numFmt:** A [CT\_NumberFormat](#Section_3d314305d54a4475990c7c6e81322f85) element[<231>](#Appendix_A_231" \o "Product behavior note 231) that specifies the number format information.

**spPr:** A **CT\_ShapeProperties** ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section A.4.1) element[<232>](#Appendix_A_232" \o "Product behavior note 232) that specifies the OfficeArt shape properties for the axis.

**txPr:** A **CT\_TextBody** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element[<233>](#Appendix_A_233" \o "Product behavior note 233) that specifies the OfficeArt text properties for the axis as a single paragraph with no text runs. Any further paragraphs, and any text runs in the first paragraph, are ignored.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<234>](#Appendix_A_234" \o "Product behavior note 234) that specifies an extensibility container.

*Attributes:*

**id:** An [ST\_AxisId](#Section_80d24e4ac3a342c08a2060cf964b4341) attribute[<235>](#Appendix_A_235" \o "Product behavior note 235) that specifies the axis identifier.

**hidden:** A **boolean** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) attribute[<236>](#Appendix_A_236" \o "Product behavior note 236) that specifies whether this axis is hidden (true) or not (false).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Axis">
2. <xsd:sequence>
3. <xsd:choice minOccurs="1" maxOccurs="1">
4. <xsd:element name="catScaling" type="CT\_CategoryAxisScaling"/>
5. <xsd:element name="valScaling" type="CT\_ValueAxisScaling"/>
6. </xsd:choice>
7. <xsd:element name="title" type="CT\_AxisTitle" minOccurs="0" maxOccurs="1"/>
8. <xsd:element name="units" type="CT\_AxisUnits" minOccurs="0" maxOccurs="1"/>
9. <xsd:element name="majorGridlines" type="CT\_Gridlines" minOccurs="0" maxOccurs="1"/>
10. <xsd:element name="minorGridlines" type="CT\_Gridlines" minOccurs="0" maxOccurs="1"/>
11. <xsd:element name="majorTickMarks" type="CT\_TickMarks" minOccurs="0" maxOccurs="1"/>
12. <xsd:element name="minorTickMarks" type="CT\_TickMarks" minOccurs="0" maxOccurs="1"/>
13. <xsd:element name="tickLabels" type="CT\_TickLabels" minOccurs="0" maxOccurs="1"/>
14. <xsd:element name="numFmt" type="CT\_NumberFormat" minOccurs="0" maxOccurs="1"/>
15. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
16. <xsd:element name="txPr" type="a:CT\_TextBody" minOccurs="0" maxOccurs="1"/>
17. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
18. </xsd:sequence>
19. <xsd:attribute name="id" type="ST\_AxisId" use="required"/>
20. <xsd:attribute name="hidden" type="xsd:boolean" use="optional" default="0"/>
21. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_AxisTitle

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Axis](#Section_f2235d6d370d49b98a742232ffc8ab76)

A complex type[<237>](#Appendix_A_237" \o "Product behavior note 237) that specifies an axis title.

*Child Elements:*

**tx:** A [CT\_Text](#Section_39e5bc48b35f47bfb5ff4c8d790c94cb) element[<238>](#Appendix_A_238" \o "Product behavior note 238) that specifies the custom text.

**spPr:** A **CT\_ShapeProperties** ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section A.4.1) element[<239>](#Appendix_A_239" \o "Product behavior note 239) that specifies the OfficeArt shape properties for the axis title.

**txPr:** A **CT\_TextBody** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element[<240>](#Appendix_A_240" \o "Product behavior note 240) that specifies the OfficeArt text properties for the axis title as a single paragraph with no text runs. Any further paragraphs, and any text runs in the first paragraph, are ignored.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<241>](#Appendix_A_241" \o "Product behavior note 241) that specifies an extensibility container.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_AxisTitle">
2. <xsd:sequence>
3. <xsd:element name="tx" type="CT\_Text" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="txPr" type="a:CT\_TextBody" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
7. </xsd:sequence>
8. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_AxisUnits

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Axis](#Section_f2235d6d370d49b98a742232ffc8ab76)

A complex type[<242>](#Appendix_A_242" \o "Product behavior note 242) that specifies axis display units.

*Child Elements:*

**unitsLabel:** A [CT\_AxisUnitsLabel](#Section_f7d4edc242514150a1976b87b548e1fd) element[<243>](#Appendix_A_243" \o "Product behavior note 243) that specifies the axis display units label.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<244>](#Appendix_A_244" \o "Product behavior note 244) that specifies an extensibility container.

*Attributes:*

**unit:** An [ST\_AxisUnit](#Section_bc84901b0b4341cfbf2ea74bd1b33847) attribute[<245>](#Appendix_A_245" \o "Product behavior note 245) that specifies the display unit for the axis.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_AxisUnits">
2. <xsd:sequence>
3. <xsd:element name="unitsLabel" type="CT\_AxisUnitsLabel" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. <xsd:attribute name="unit" type="ST\_AxisUnit" use="optional"/>
7. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_AxisUnitsLabel

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_AxisUnits](#Section_b2d05c3fa2f24c549160bdb3a0a4ea5d)

A complex type[<246>](#Appendix_A_246" \o "Product behavior note 246) that specifies the axis display units label.

*Child Elements:*

**tx:** A [CT\_Text](#Section_39e5bc48b35f47bfb5ff4c8d790c94cb) element[<247>](#Appendix_A_247" \o "Product behavior note 247) that specifies custom label text.

**spPr:** A **CT\_ShapeProperties** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element[<248>](#Appendix_A_248" \o "Product behavior note 248) that specifies OfficeArt shape properties for the axit unit label.

**txPr:** A **CT\_TextBody** ([ISO/IEC29500-1:2016] section A.4.1) element[<249>](#Appendix_A_249" \o "Product behavior note 249) that specifies OfficeArt text properties for the axis as a single paragraph with no text runs. Any further paragraphs, and any text runs in the first paragraph, are ignored.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<250>](#Appendix_A_250" \o "Product behavior note 250) that specifies an extensibility container.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_AxisUnitsLabel">
2. <xsd:sequence>
3. <xsd:element name="tx" type="CT\_Text" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="txPr" type="a:CT\_TextBody" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
7. </xsd:sequence>
8. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Binning

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_SeriesLayoutProperties](#Section_1ff5c9ad828a4d0cbe7207754eba3588)

A complex type[<251>](#Appendix_A_251" \o "Product behavior note 251) that specifies data binning properties.

*Child Elements:*

**binSize:** A **double** ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) element[<252>](#Appendix_A_252" \o "Product behavior note 252) that specifies the binning by bin size.

**binCount:** An **unsignedInt** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22) element[<253>](#Appendix_A_253" \o "Product behavior note 253) that specifies the binning by bin count.

*Attributes:*

**intervalClosed:** An [ST\_IntervalClosedSide](#Section_21a3a14c7dde4b9f9812a2f9a96fc5fe) attribute[<254>](#Appendix_A_254" \o "Product behavior note 254) that specifies the interval closed side.

**underflow:** An [ST\_DoubleOrAutomatic](#Section_7d4f4fcd1ae34d1ca090c0f956d3a490) attribute[<255>](#Appendix_A_255" \o "Product behavior note 255) that specifies the custom value for underflow bin, or an automatic value.

**overflow:** An ST\_DoubleOrAutomatic attribute[<256>](#Appendix_A_256" \o "Product behavior note 256) that specifies the custom value for the overflow bin, or an automatic value.

The following W3C XML Schema ([XMLSCHEMA1] section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Binning">
2. <xsd:choice minOccurs="0" maxOccurs="1">
3. <xsd:element name="binSize" type="xsd:double"/>
4. <xsd:element name="binCount" type="xsd:unsignedInt"/>
5. </xsd:choice>
6. <xsd:attribute name="intervalClosed" type="ST\_IntervalClosedSide" use="optional"/>
7. <xsd:attribute name="underflow" type="ST\_DoubleOrAutomatic" use="optional"/>
8. <xsd:attribute name="overflow" type="ST\_DoubleOrAutomatic" use="optional"/>
9. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_CategoryAxisScaling

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Axis](#Section_f2235d6d370d49b98a742232ffc8ab76)

A complex type[<257>](#Appendix_A_257" \o "Product behavior note 257) that specifies the category axis scaling properties.

*Attributes:*

**gapWidth:** An [ST\_GapWidthRatio](#Section_55b11e8e31c549e085ee90a9c7fb8e72) attribute[<258>](#Appendix_A_258" \o "Product behavior note 258) that specifies the space between data points as a ratio of gap width over category width.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_CategoryAxisScaling">
2. <xsd:attribute name="gapWidth" type="ST\_GapWidthRatio" use="optional"/>
3. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Chart

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ChartSpace](#Section_416e664fc6f64ed9914b4eaaa20724dd)

A complex type[<259>](#Appendix_A_259" \o "Product behavior note 259) that specifies chart layout and formatting information.

*Child Elements:*

**title:** A [CT\_ChartTitle](#Section_deda6fcebc6b4873bf8a2a469fd143aa) element[<260>](#Appendix_A_260" \o "Product behavior note 260) that specifies chart title data and formatting.

**plotArea:** A [CT\_PlotArea](#Section_3d47df5e721a4c2cab2550ed82b6b6a3) element[<261>](#Appendix_A_261" \o "Product behavior note 261) that specifies the plot area layout and formatting.

**legend:** A [CT\_Legend](#Section_9575d5ad48014b29818af611a304654d) element[<262>](#Appendix_A_262" \o "Product behavior note 262) that specifies legend layout and formatting**.**

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<263>](#Appendix_A_263" \o "Product behavior note 263) that specifies an extensibility container.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Chart">
2. <xsd:sequence>
3. <xsd:element name="title" type="CT\_ChartTitle" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="plotArea" type="CT\_PlotArea" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="legend" type="CT\_Legend" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
7. </xsd:sequence>
8. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ChartData

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ChartSpace](#Section_416e664fc6f64ed9914b4eaaa20724dd)

A complex type[<264>](#Appendix_A_264" \o "Product behavior note 264) that specifies the data source for the chart object.

*Child Elements:*

**externalData:** A [CT\_ExternalData](#Section_9a9d715bdcae4b0389e9a6362994e1a2) element that specifies the external data used for the chart.

This element specifies the relationship to the data for this chart. The data can be linked, pointing to a spreadsheet in another file. Alternately, the data can be embedded, contained in a separate part within the same XML package containing the chart. Embedded data is stored as an embedded Spreadsheet object in Office Open XML format.

This element is not used by a spreadsheet application, as the spreadsheet application can maintain its own reference to the data in the spreadsheet by using the [CT\_Formula](#Section_174c9b3329d84764a3c87ad71abf4424) element.

**data:** A [CT\_Data](#Section_b895f5cfd6a54fc1b5667b594b2a4e60) element[<265>](#Appendix_A_265" \o "Product behavior note 265) that specifies the data used for the chart.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<266>](#Appendix_A_266" \o "Product behavior note 266) that specifies an extensibility container.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ChartData">
2. <xsd:sequence>
3. <xsd:element name="externalData" type="CT\_ExternalData" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="data" type="CT\_Data" minOccurs="1" maxOccurs="unbounded"/>
5. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ChartSpace

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [chartSpace](#Section_35fc78ce59dc432aada53d22e51d1aae)

A complex type[<267>](#Appendix_A_267" \o "Product behavior note 267) that specifies the chart container object.

*Child Elements:*

**chartData:** A [CT\_ChartData](#Section_8a963284245d4c2a935dcc6aef448b09) element[<268>](#Appendix_A_268" \o "Product behavior note 268) that specifies the data for the chart.

**chart:** A [CT\_Chart](#Section_72c0708d9807417594193f867679bb88) element[<269>](#Appendix_A_269" \o "Product behavior note 269) that specifies chart layout and formatting information.

**spPr:** A **CT\_ShapeProperties** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element[<270>](#Appendix_A_270" \o "Product behavior note 270) that specifies OfficeArt shape properties for the entire chart.

**txPr:** A **CT\_TextBody** ([ISO/IEC29500-1:2016] section A.4.1) element[<271>](#Appendix_A_271" \o "Product behavior note 271) that specifies OfficeArt text properties for the entire chart.

**clrMapOvr:** A **CT\_ColorMapping** ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the color mapping override for the entire chart. This is used to override the application's color mapping when the user has elected to keep the source formatting during a copy-and-paste.

**fmtOvrs:** A [CT\_FormatOverrides](#Section_b979da7e716240bd91116e24761cfcfb) element[<272>](#Appendix_A_272" \o "Product behavior note 272) that specifies format overrides.

**printSettings:** A [CT\_PrintSettings](#Section_e6eede7916d54e86a7580210ac19ae64) element[<273>](#Appendix_A_273" \o "Product behavior note 273) that specifies print settings.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<274>](#Appendix_A_274" \o "Product behavior note 274) that specifies an extensibility container.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ChartSpace">
2. <xsd:sequence>
3. <xsd:element name="chartData" type="CT\_ChartData" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="chart" type="CT\_Chart" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="txPr" type="a:CT\_TextBody" minOccurs="0" maxOccurs="1"/>
7. <xsd:element name="clrMapOvr" type="a:CT\_ColorMapping" minOccurs="0" maxOccurs="1"/>
8. <xsd:element name="fmtOvrs" type="CT\_FormatOverrides" minOccurs="0" maxOccurs="1"/>
9. <xsd:element name="printSettings" type="CT\_PrintSettings" minOccurs="0" maxOccurs="1"/>
10. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
11. </xsd:sequence>
12. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ChartTitle

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Chart](#Section_72c0708d9807417594193f867679bb88)

A complex type[<275>](#Appendix_A_275" \o "Product behavior note 275) that specifies a chart title.

*Child Elements:*

**tx:** A [CT\_Text](#Section_39e5bc48b35f47bfb5ff4c8d790c94cb) element[<276>](#Appendix_A_276" \o "Product behavior note 276) that specifies the custom text.

**spPr:** A **CT\_ShapeProperties** ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section A.4.1) element[<277>](#Appendix_A_277" \o "Product behavior note 277) that specifies the OfficeArt shape properties for the chart title.

**txPr:** A **CT\_TextBody** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element[<278>](#Appendix_A_278" \o "Product behavior note 278) that specifies the OfficeArt text properties for the chart title as a single paragraph with no text runs. Any further paragraphs, and any text runs in the first paragraph, are ignored.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<279>](#Appendix_A_279" \o "Product behavior note 279) that specifies an extensibility container.

*Attributes:*

**pos:** An [ST\_SidePos](#Section_8d5550e8f4ca435e901b91b316bbcd5c) attribute[<280>](#Appendix_A_280" \o "Product behavior note 280) that specifies the side position of the chart title.

**align:** An [ST\_PosAlign](#Section_dea01c610a8f4b109f72e60ed7ea82e5) attribute[<281>](#Appendix_A_281" \o "Product behavior note 281) that specifies the alignment along the side position of the chart title.

**overlay:** A **boolean** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) attribute[<282>](#Appendix_A_282" \o "Product behavior note 282) that specifies whether the chart title is floating on the chart area and excluded from normal layout (true), or not (false).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ChartTitle">
2. <xsd:sequence>
3. <xsd:element name="tx" type="CT\_Text" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="txPr" type="a:CT\_TextBody" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
7. </xsd:sequence>
8. <xsd:attribute name="pos" type="ST\_SidePos" use="optional" default="t"/>
9. <xsd:attribute name="align" type="ST\_PosAlign" use="optional" default="ctr"/>
10. <xsd:attribute name="overlay" type="xsd:boolean" use="optional" default="0"/>
11. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Clear

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoCache](#Section_e926e112d64d45d3b536dfd73ca93db0)

A complex type[<283>](#Appendix_A_283" \o "Product behavior note 283) that specifies the geographic data for the geospatial series.

*Child Elements:*

**geoLocationQueryResults:** A [CT\_GeoLocationQueryResults](#Section_988a1f05ef854262887dbb78814cb1a5) element[<284>](#Appendix_A_284" \o "Product behavior note 284) that specifies geocoding query and results for data points in the geographical category of a geospatial series.

**geoDataEntityQueryResults:** A [CT\_GeoDataEntityQueryResults](#Section_83199593b69e4ccd8add688308d9a0e1) element[<285>](#Appendix_A_285" \o "Product behavior note 285) that specifies layout properties of the geographical polygons of a geospatial series.

**geoDataPointToEntityQueryResults:** A [CT\_GeoDataPointToEntityQueryResults](#Section_6a38e49387ce4c89a41247fe6f48dc04) element[<286>](#Appendix_A_286" \o "Product behavior note 286) that specifies a mapping between data points in the geographical category of a geospatial series and their respective geographical entity identifier.

**geoChildEntitiesQueryResults:** A [CT\_GeoChildEntitiesQueryResults](#Section_8fe8d1f00989419aa9ab12f66027652e) element[<287>](#Appendix_A_287" \o "Product behavior note 287) that specifies the geographical lineage of the geographical entities of a geospatial series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Clear">
2. <xsd:sequence>
3. <xsd:element name="geoLocationQueryResults" type="CT\_GeoLocationQueryResults" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="geoDataEntityQueryResults" type="CT\_GeoDataEntityQueryResults" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="geoDataPointToEntityQueryResults" type="CT\_GeoDataPointToEntityQueryResults" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="geoChildEntitiesQueryResults" type="CT\_GeoChildEntitiesQueryResults" minOccurs="0" maxOccurs="1"/>
7. </xsd:sequence>
8. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Copyrights

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoData](#Section_ee9b19d5358b427d9afbea6c5d2e6ae2)

A complex type[<288>](#Appendix_A_288" \o "Product behavior note 288) that specifies the set of entities that hold copyrights for a polygon in the composition of the returned geographic polygon.

*Child Elements:*

**copyright:** A string ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) element[<289>](#Appendix_A_289" \o "Product behavior note 289) that specifies an entity that holds the copyright for a polygon in the composition of the returned geographic polygon.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Copyrights">
2. <xsd:sequence>
3. <xsd:element name="copyright" type="xsd:string" minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Data

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ChartData](#Section_8a963284245d4c2a935dcc6aef448b09)

A complex type[<290>](#Appendix_A_290" \o "Product behavior note 290) that specifies the number dimension and string dimension for the specified chart data.

*Child Elements:*

**numDim:** A [CT\_NumericDimension](#Section_37fbbd78c3e64f339d0b3fe428ad1c09) element[<291>](#Appendix_A_291" \o "Product behavior note 291) that specifies numeric dimension data.

**strDim:** A [CT\_StringDimension](#Section_ab157fdd8e5a4b428205aaf41384d457) element[<292>](#Appendix_A_292" \o "Product behavior note 292) that specifies string dimension data.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<293>](#Appendix_A_293" \o "Product behavior note 293) that specifies an extensibility container.

*Attributes:*

**id:** An ST\_DataId (section [2.24.4.4](#Section_a8ac0b74aed14bcf912a2065d316d90b)) attribute[<294>](#Appendix_A_294" \o "Product behavior note 294) that specifies the identifier of this data.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Data">
2. <xsd:sequence>
3. <xsd:choice minOccurs="1" maxOccurs="unbounded">
4. <xsd:element name="numDim" type="CT\_NumericDimension" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="strDim" type="CT\_StringDimension" minOccurs="1" maxOccurs="1"/>
6. </xsd:choice>
7. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
8. </xsd:sequence>
9. <xsd:attribute name="id" type="ST\_DataId" use="required"/>
10. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_DataId

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Series](#Section_86df19ea8e9449fc9160377c1b40b985)

A complex type[<295>](#Appendix_A_295" \o "Product behavior note 295) that specifies a data identifier.

*Attributes:*

**val:** An ST\_DataId (section [2.24.4.4](#Section_a8ac0b74aed14bcf912a2065d316d90b)) attribute[<296>](#Appendix_A_296" \o "Product behavior note 296) that specifies the data identifier.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_DataId">
2. <xsd:attribute name="val" type="ST\_DataId" use="required"/>
3. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_DataLabel

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_DataLabels](#Section_ab25525c374c46c9997ecee7cc73436e)

A complex type[<297>](#Appendix_A_297" \o "Product behavior note 297) that specifies data label formatting.

*Child Elements:*

**numFmt:** A [CT\_NumberFormat](#Section_3d314305d54a4475990c7c6e81322f85) element[<298>](#Appendix_A_298" \o "Product behavior note 298) that specifies the number format information.

**spPr:** A **CT\_ShapeProperties** ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section A.4.1) element[<299>](#Appendix_A_299" \o "Product behavior note 299) that specifies the OfficeArt shape properties for the data label.

**txPr:** A **CT\_TextBody** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element[<300>](#Appendix_A_300" \o "Product behavior note 300) that specifies the OfficeArt text properties for the data label.

**visibility:** A [CT\_DataLabelVisibilities](#Section_09f308edc45c4da082952200e68604db) element[<301>](#Appendix_A_301" \o "Product behavior note 301) that specifies the visibilities of data label sub-parts.

**separator:** A **string** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) element[<302>](#Appendix_A_302" \o "Product behavior note 302) that specifies data label separator text.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<303>](#Appendix_A_303" \o "Product behavior note 303) that specifies an extensibility container.

*Attributes:*

**idx:** An **unsignedInt** ([XMLSCHEMA2] section 3.3.22) attribute[<304>](#Appendix_A_304" \o "Product behavior note 304) that specifies the index of the data point this label is for.

**pos:** An [ST\_DataLabelPos](#Section_a8ac0b74aed14bcf912a2065d316d90b) attribute[<305>](#Appendix_A_305" \o "Product behavior note 305) that specifies the position of the data labels.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_DataLabel">
2. <xsd:sequence>
3. <xsd:element name="numFmt" type="CT\_NumberFormat" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="txPr" type="a:CT\_TextBody" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="visibility" type="CT\_DataLabelVisibilities" minOccurs="0" maxOccurs="1"/>
7. <xsd:element name="separator" type="xsd:string" minOccurs="0" maxOccurs="1"/>
8. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
9. </xsd:sequence>
10. <xsd:attribute name="idx" type="xsd:unsignedInt" use="required"/>
11. <xsd:attribute name="pos" type="ST\_DataLabelPos" use="optional"/>
12. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_DataLabelHidden

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_DataLabels](#Section_ab25525c374c46c9997ecee7cc73436e)

A complex type[<306>](#Appendix_A_306" \o "Product behavior note 306) that specifies a hidden data label.

*Attributes:*

**idx:** An **unsignedInt** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22) attribute[<307>](#Appendix_A_307" \o "Product behavior note 307) that specifies the index of the data point this label is for.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_DataLabelHidden">
2. <xsd:attribute name="idx" type="xsd:unsignedInt" use="required"/>
3. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_DataLabels

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Series](#Section_86df19ea8e9449fc9160377c1b40b985)

A complex type[<308>](#Appendix_A_308" \o "Product behavior note 308) that specifies the formatting for a data labels collection.

*Child Elements:*

**numFmt:** A [CT\_NumberFormat](#Section_3d314305d54a4475990c7c6e81322f85) element[<309>](#Appendix_A_309" \o "Product behavior note 309) that specifies the number format information.

**spPr:** A **CT\_ShapeProperties** ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section A.4.1) element[<310>](#Appendix_A_310" \o "Product behavior note 310) that specifies the OfficeArt shape properties for the data labels collection.

**txPr:** A **CT\_TextBody** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element[<311>](#Appendix_A_311" \o "Product behavior note 311) that specifies the OfficeArt text properties for the data labels collection as a single paragraph with no text runs. Any further paragraphs, and any text runs in the first paragraph, are ignored.

**visibility:** A [CT\_DataLabelVisibilities](#Section_09f308edc45c4da082952200e68604db) element[<312>](#Appendix_A_312" \o "Product behavior note 312) that specifies the visibilities of data label sub-parts.

**separator:** A **string** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) element[<313>](#Appendix_A_313" \o "Product behavior note 313) that specifies the data label separator text.

**dataLabel:** A [CT\_DataLabel](#Section_b35bbd841663401daddfb1cabe61a54f) element[<314>](#Appendix_A_314" \o "Product behavior note 314) that specifies the data label formatting.

**dataLabelHidden:** A [CT\_DataLabelHidden](#Section_2adc7fd4a61141808928203c24813b0b) element[<315>](#Appendix_A_315" \o "Product behavior note 315) that specifies the hidden data labels.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<316>](#Appendix_A_316" \o "Product behavior note 316) that specifies an extensibility container.

*Attributes:*

**pos:** An [ST\_DataLabelPos](#Section_a8ac0b74aed14bcf912a2065d316d90b) attribute[<317>](#Appendix_A_317" \o "Product behavior note 317) that specifies the position of the data labels.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_DataLabels">
2. <xsd:sequence>
3. <xsd:element name="numFmt" type="CT\_NumberFormat" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="txPr" type="a:CT\_TextBody" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="visibility" type="CT\_DataLabelVisibilities" minOccurs="0" maxOccurs="1"/>
7. <xsd:element name="separator" type="xsd:string" minOccurs="0" maxOccurs="1"/>
8. <xsd:element name="dataLabel" type="CT\_DataLabel" minOccurs="0" maxOccurs="unbounded"/>
9. <xsd:element name="dataLabelHidden" type="CT\_DataLabelHidden" minOccurs="0" maxOccurs="unbounded"/>
10. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
11. </xsd:sequence>
12. <xsd:attribute name="pos" type="ST\_DataLabelPos" use="optional"/>
13. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_DataLabelVisibilities

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_DataLabel](#Section_b35bbd841663401daddfb1cabe61a54f), [CT\_DataLabels](#Section_ab25525c374c46c9997ecee7cc73436e)

A complex type[<318>](#Appendix_A_318" \o "Product behavior note 318) that specifies the visibilities of the parts of a data label.

*Attributes:*

**seriesName:** A Boolean ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) attribute[<319>](#Appendix_A_319" \o "Product behavior note 319) that specifies whether the series name in the data label is visible.

**categoryName:** A Boolean ([XMLSCHEMA2] section 3.2.2) attribute[<320>](#Appendix_A_320" \o "Product behavior note 320) that specifies whether the category name in the data label is visible.

**value:** A Boolean ([XMLSCHEMA2] section 3.2.2) attribute[<321>](#Appendix_A_321" \o "Product behavior note 321) that specifies whether the data point value in the data label is visible.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_DataLabelVisibilities">
2. <xsd:attribute name="seriesName" type="xsd:boolean" use="optional"/>
3. <xsd:attribute name="categoryName" type="xsd:boolean" use="optional"/>
4. <xsd:attribute name="value" type="xsd:boolean" use="optional"/>
5. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_DataPoint

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Series](#Section_86df19ea8e9449fc9160377c1b40b985)

A complex type[<322>](#Appendix_A_322" \o "Product behavior note 322) that specifies a data point.

*Child Elements:*

**spPr:** A **CT\_ShapeProperties** ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section A.4.1) element[<323>](#Appendix_A_323" \o "Product behavior note 323) that specifies the OfficeArt shape properties for this data point.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<324>](#Appendix_A_324" \o "Product behavior note 324) that specifies an extensibility container.

*Attributes:*

**idx:** An **unsignedInt** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22) attribute[<325>](#Appendix_A_325" \o "Product behavior note 325) that specifies the index of this data point in the series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_DataPoint">
2. <xsd:sequence>
3. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. <xsd:attribute name="idx" type="xsd:unsignedInt" use="required"/>
7. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Extension

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e)

A complex type[<326>](#Appendix_A_326" \o "Product behavior note 326) that specifies an extensibility container.

*Attributes:*

**uri:** A **token** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.2) attribute[<327>](#Appendix_A_327" \o "Product behavior note 327) that specifies the identifier for this extensibility container.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Extension">
2. <xsd:sequence>
3. <xsd:any processContents="lax"/>
4. </xsd:sequence>
5. <xsd:attribute name="uri" type="xsd:token"/>
6. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ExtensionList

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Data](#Section_b895f5cfd6a54fc1b5667b594b2a4e60), [CT\_ChartData](#Section_8a963284245d4c2a935dcc6aef448b09), [CT\_ChartTitle](#Section_deda6fcebc6b4873bf8a2a469fd143aa), [CT\_AxisTitle](#Section_c062d934bee74372b0022dd9d6eb54ca), [CT\_AxisUnitsLabel](#Section_f7d4edc242514150a1976b87b548e1fd), [CT\_AxisUnits](#Section_b2d05c3fa2f24c549160bdb3a0a4ea5d), [CT\_Gridlines](#Section_a4a37a38ef0148b1bbd2fe0d18a012e6), [CT\_TickMarks](#Section_1200f47fcb664c738bd8b7ba2b27849b), [CT\_TickLabels](#Section_7eb496b219d14d1b9fb02b822e01888a), [CT\_Axis](#Section_f2235d6d370d49b98a742232ffc8ab76), [CT\_SeriesLayoutProperties](#Section_1ff5c9ad828a4d0cbe7207754eba3588), [CT\_DataPoint](#Section_d055224543df497b8dc9a107b260b20e), [CT\_DataLabel](#Section_b35bbd841663401daddfb1cabe61a54f), [CT\_DataLabels](#Section_ab25525c374c46c9997ecee7cc73436e), [CT\_Series](#Section_86df19ea8e9449fc9160377c1b40b985), [CT\_Legend](#Section_9575d5ad48014b29818af611a304654d), [CT\_PlotSurface](#Section_dd3e294656504cbbb9179e2f598f388e), [CT\_PlotAreaRegion](#Section_953cac64c127438abfc43e1b17b3f9a4), [CT\_PlotArea](#Section_3d47df5e721a4c2cab2550ed82b6b6a3), [CT\_Chart](#Section_72c0708d9807417594193f867679bb88), [CT\_FormatOverride](#Section_23ba6e303b3c40a0bc4f75108b0aa250), [CT\_ChartSpace](#Section_416e664fc6f64ed9914b4eaaa20724dd)

A complex type[<328>](#Appendix_A_328" \o "Product behavior note 328) that specifies a list of extensibility containers.

*Child Elements:*

**ext:** A [CT\_Extension](#Section_bddef6c692294f79bf837f098eb204f9) element[<329>](#Appendix_A_329" \o "Product behavior note 329) that specifies an extensibility container.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ExtensionList">
2. <xsd:sequence>
3. <xsd:element name="ext" type="CT\_Extension" minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ExternalData

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ChartData](#Section_8a963284245d4c2a935dcc6aef448b09)

A complex type[<330>](#Appendix_A_330" \o "Product behavior note 330) that specifies external data used for the chart.

*Attributes:*

**r:id:** An **ST\_RelationshipId** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 22.8.2.1) attribute[<331>](#Appendix_A_331" \o "Product behavior note 331) that specifies the relationship identifier for the relationship for this chart. The relationship explicitly targeted by this attribute MUST either be of type http://schemas.openxmlformats.org/officeDocument/2006/relationships/package, or http://schemas.openxmlformats.org/officeDocument/2006/relationships/oleObject.

**autoUpdate:** A **boolean** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) attribute[<332>](#Appendix_A_332" \o "Product behavior note 332) that specifies whether the external link will automatically update (true) or not (false).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ExternalData">
2. <xsd:attribute ref="r:id" use="required"/>
3. <xsd:attribute name="autoUpdate" type="xsd:boolean" use="optional"/>
4. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ExtremeValueColorPosition

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ValueColorEndPosition](#Section_6b29dfeceade47f4a35544a2e66dcda5)

A complex type[<333>](#Appendix_A_333" \o "Product behavior note 333) that specifies a color position at an extreme end of the data range. This complex type specifies either the minimum or maximum value.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ExtremeValueColorPosition"/>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_FormatOverride

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_FormatOverrides](#Section_b979da7e716240bd91116e24761cfcfb)

A complex type[<334>](#Appendix_A_334" \o "Product behavior note 334) that specifies an override of a chart’s data point color style format.

*Child Elements:*

**spPr:** A CT\_ShapeProperties ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section A.4.1) element[<335>](#Appendix_A_335" \o "Product behavior note 335) that specifies the shape properties to override the chart’s color style format. A chart’s color style assigns a unique color format per data point according to an index.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<336>](#Appendix_A_336" \o "Product behavior note 336) that specifies an extensibility container.

*Attributes:*

**idx:** An unsignedInt ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22) attribute[<337>](#Appendix_A_337" \o "Product behavior note 337) that specifies the index of the color format being overridden.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_FormatOverride">
2. <xsd:sequence>
3. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. <xsd:attribute name="idx" type="xsd:unsignedInt" use="required"/>
7. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_FormatOverrides

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ChartSpace](#Section_416e664fc6f64ed9914b4eaaa20724dd)

A complex type[<338>](#Appendix_A_338" \o "Product behavior note 338) that specifies a set of format overrides of a chart’s style format.

*Child Elements:*

**fmtOvr:** A [CT\_FormatOverride](#Section_23ba6e303b3c40a0bc4f75108b0aa250) element[<339>](#Appendix_A_339" \o "Product behavior note 339) that specifies an override of a chart’s style format.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_FormatOverrides">
2. <xsd:sequence>
3. <xsd:element name="fmtOvr" type="CT\_FormatOverride" minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Formula

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_StringDimension](#Section_ab157fdd8e5a4b428205aaf41384d457), [CT\_NumericDimension](#Section_37fbbd78c3e64f339d0b3fe428ad1c09), [CT\_TextData](#Section_938a605b86fc4f069bf0cd7361eabb48)

A complex type[<340>](#Appendix_A_340" \o "Product behavior note 340) that specifies a data reference (such as an Excel formula).

*Attributes:*

**dir:** An [ST\_FormulaDirection](#Section_dc4c0e17c0a44cebab6ce3be112af187) attribute[<341>](#Appendix_A_341" \o "Product behavior note 341) that specifies the orientation of the data reference.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Formula">
2. <xsd:simpleContent>
3. <xsd:extension base="xsd:string">
4. <xsd:attribute name="dir" type="ST\_FormulaDirection" use="optional" default="col"/>
5. </xsd:extension>
6. </xsd:simpleContent>
7. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoCache

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Geography](#Section_5e722ee2d933454f81988490cbf17e77)

A complex type[<342>](#Appendix_A_342" \o "Product behavior note 342) that specifies the geographical data for the geospatial series.

*Child Elements:*

**binary:** A base64Binary ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.16) element[<343>](#Appendix_A_343" \o "Product behavior note 343) that specifies the geographic data for the geospatial series in base64binary.

**clear:** A [CT\_Clear](#Section_0e804f2210ad4b68bdd04377ae7d9f37) element[<344>](#Appendix_A_344" \o "Product behavior note 344) that specifies the geographic data for the geospatial series.

*Attributes:*

**provider:** A string ([XMLSCHEMA2] section 3.2.1) attribute[<345>](#Appendix_A_345" \o "Product behavior note 345) that specifies a unique identifier for the provider or source of the geographical data for the geospatial series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoCache">
2. <xsd:choice minOccurs="1" maxOccurs="unbounded">
3. <xsd:element name="binary" type="xsd:base64Binary" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="clear" type="CT\_Clear" minOccurs="0" maxOccurs="1"/>
5. </xsd:choice>
6. <xsd:attribute name="provider" type="xsd:string" use="required"/>
7. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoChildEntities

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoChildEntitiesQueryResult](#Section_0dc3663721ab4d30a739a5dac73ae14e)

A complex type[<346>](#Appendix_A_346" \o "Product behavior note 346) that specifies the result of a query to obtain the geographical lineage of a geographical entity of a geospatial series.

*Child Elements:*

**geoHierarchyEntity:** A [CT\_GeoHierarchyEntity](#Section_5ce68a3f5dcc48889d2258b93ed894f1) element[<347>](#Appendix_A_347" \o "Product behavior note 347) that specifies a descendant in the geographic hierarchy returned by this query.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoChildEntities">
2. <xsd:sequence>
3. <xsd:element name="geoHierarchyEntity" type="CT\_GeoHierarchyEntity " minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoChildEntitiesQuery

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoChildEntitiesQueryResult](#Section_0dc3663721ab4d30a739a5dac73ae14e)

A complex type[<348>](#Appendix_A_348" \o "Product behavior note 348) that specifies a query to obtain the geographical lineage of a geographical entity of a geospatial series.

*Child Elements:*

**geoChildTypes:** A [CT\_GeoChildTypes](#Section_85dd6e4a86cb40f6a2f434daec0c06e4) element[<349>](#Appendix_A_349" \o "Product behavior note 349) that specifies the geographical entity types which specify the types of descendants in the geographic hierarchy to be returned by this query.

*Attributes:*

**entityId:** A string ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<350>](#Appendix_A_350" \o "Product behavior note 350) that specifies the geographical entity identifier of the geographical entity for which to obtain the geographical lineage of a geographical entity of a geospatial series.The value of this attribute is unique to a given geographical entity.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoChildEntitiesQuery">
2. <xsd:sequence>
3. <xsd:element name="geoChildTypes" type="CT\_GeoChildTypes" minOccurs="0" maxOccurs="1"/>
4. </xsd:sequence>
5. <xsd:attribute name="entityId" type="xsd:string" use="required"/>
6. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoChildEntitiesQueryResult

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoChildEntitiesQueryResults](#Section_8fe8d1f00989419aa9ab12f66027652e)

A complex type[<351>](#Appendix_A_351" \o "Product behavior note 351) that specifies the geographical lineage of a geographical entity of a geospatial series.

*Child Elements:*

**geoChildEntitiesQuery:** A [CT\_GeoChildEntitiesQuery](#Section_c4f8026d09994fcbb0c597b89a13f38b) element[<352>](#Appendix_A_352" \o "Product behavior note 352) that specifies a query to obtain the geographical lineage of a geographical entity of a geospatial series.

**geoChildEntities:** A [CT\_GeoChildEntities](#Section_3446af1c5dc34f4980e23be6573a77ca) element[<353>](#Appendix_A_353" \o "Product behavior note 353) that specifies the result of a query to obtain the geographical lineage of a geographical entity of a geospatial series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoChildEntitiesQueryResult">
2. <xsd:sequence>
3. <xsd:element name="geoChildEntitiesQuery" type="CT\_GeoChildEntitiesQuery" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="geoChildEntities" type="CT\_GeoChildEntities" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoChildEntitiesQueryResults

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Clear](#Section_0e804f2210ad4b68bdd04377ae7d9f37)

A complex type[<354>](#Appendix_A_354" \o "Product behavior note 354) that specifies the geographical lineage of the geographical entities of a geospatial series.

*Child Elements:*

**geoChildEntitiesQueryResult:** A [CT\_GeoChildEntitiesQueryResult](#Section_0dc3663721ab4d30a739a5dac73ae14e) element that specifies the geographical lineage of a geographical entity of a geospatial series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoChildEntitiesQueryResults">
2. <xsd:sequence>
3. <xsd:element name="geoChildEntitiesQueryResult" type="CT\_GeoChildEntitiesQueryResult" minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoChildTypes

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoChildEntitiesQuery](#Section_c4f8026d09994fcbb0c597b89a13f38b)

A complex type that specifies the geographical entity type which specify the type of descendant in the geographic hierarchy to be returned by this query.

*Child Elements:*

**entityType:** An [ST\_EntityType](#Section_b633a8e434684e1f8f942d4e2bb43817) element[<355>](#Appendix_A_355" \o "Product behavior note 355) that specifies a geographical entity type which specifies the type of descendants in the geographic hierarchy to be returned by this query.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoChildTypes">
2. <xsd:sequence>
3. <xsd:element name="entityType" type="ST\_EntityType" minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoData

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoDataEntityQueryResult](#Section_813ed42f56e54de596ec3e7a5d768edb)

A complex type[<356>](#Appendix_A_356" \o "Product behavior note 356) that specifies the result of the query for the geographical polygon of a geospatial series.

*Child Elements:*

**geoPolygons:** A [CT\_GeoPolygons](#Section_9b3cb51b4d96440f8749fdb0321928c2) element[<357>](#Appendix_A_357" \o "Product behavior note 357) that specifies the set of polygons composing the returned geographical polygon.

**copyrights:** A [CT\_Copyrights](#Section_67bab9d9520842259dbcaf40780ae9d3) element[<358>](#Appendix_A_358" \o "Product behavior note 358) that specifies the set of entities that hold copyrights for a polygon in the composition of the returned geographic polygon.

*Attributes:*

**entityName:** A string ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<359>](#Appendix_A_359" \o "Product behavior note 359) that specifies the name of the geographic entity represented by the returned geographical polygon.

**entityId:** A string ([XMLSCHEMA2] section 3.2.1) attribute[<360>](#Appendix_A_360" \o "Product behavior note 360) that specifies the geographical entity identifier of the geographic entity represented by the returned geographical polygon. The value of this attribute is unique to a given geographical entity.

**east:** A double ([XMLSCHEMA2] section 3.2.1) attribute[<361>](#Appendix_A_361" \o "Product behavior note 361) that specifies the eastern longitude of the smallest bounding box, representing a rectangular area on the Earth, that fully encloses the returned geographical polygon.

**west:** A double ([XMLSCHEMA2] section 3.2.1) attribute[<362>](#Appendix_A_362" \o "Product behavior note 362) that specifies the western longitude of the smallest bounding box, representing a rectangular area on the Earth, that fully encloses the returned geographical polygon.

**north:** A double ([XMLSCHEMA2] section 3.2.1) attribute[<363>](#Appendix_A_363" \o "Product behavior note 363) that specifies the northern latitude of the smallest bounding box, representing a rectangular area on the Earth, that fully encloses the returned geographical polygon.

**south:** A double ([XMLSCHEMA2] section 3.2.1) attribute[<364>](#Appendix_A_364" \o "Product behavior note 364) that specifies the southern latitude of the smallest bounding box, representing a rectangular area on the Earth, that fully encloses the returned geographical polygon.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoData">
2. <xsd:sequence>
3. <xsd:element name="geoPolygons" type="CT\_GeoPolygons" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="copyrights" type="CT\_Copyrights" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. <xsd:attribute name="entityName" type="xsd:string" use="required"/>
7. <xsd:attribute name="entityId" type="xsd:string" use="required"/>
8. <xsd:attribute name="east" type="xsd:double" use="required"/>
9. <xsd:attribute name="west" type="xsd:double" use="required"/>
10. <xsd:attribute name="north" type="xsd:double" use="required"/>
11. <xsd:attribute name="south" type="xsd:double" use="required"/>
12. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoDataEntityQuery

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoDataEntityQueryResult](#Section_813ed42f56e54de596ec3e7a5d768edb)

A complex type[<365>](#Appendix_A_365" \o "Product behavior note 365) that specifies the query for the geographical polygon of a geospatial series.

*Attributes:*

**entityType:** An [ST\_EntityType](#Section_b633a8e434684e1f8f942d4e2bb43817) attribute[<366>](#Appendix_A_366" \o "Product behavior note 366) that specifies the classification of the geographical entity type of the queried geographical polygon of a geospatial series.

**entityId:** A string ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<367>](#Appendix_A_367" \o "Product behavior note 367) that specifies the geographical entity identifier of the queried geographical polygon of a geospatial series. The value of this attribute is unique to a given geographical entity.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoDataEntityQuery">
2. <xsd:attribute name="entityType" type="ST\_EntityType" use="required"/>
3. <xsd:attribute name="entityId" type="xsd:string" use="required"/>
4. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoDataEntityQueryResult

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoDataEntityQueryResults](#Section_83199593b69e4ccd8add688308d9a0e1)

A complex type[<368>](#Appendix_A_368" \o "Product behavior note 368) that specifies the layout properties of a geographical polygon of a geospatial series.

*Child Elements:*

**geoDataEntityQuery:** A [CT\_GeoDataEntityQuery](#Section_dc8861a499824677ac2aa92aaebdbfd7) element[<369>](#Appendix_A_369" \o "Product behavior note 369) that specifies the query for the geographical polygon of a geospatial series.

**geoData:** A [CT\_GeoData](#Section_ee9b19d5358b427d9afbea6c5d2e6ae2) element[<370>](#Appendix_A_370" \o "Product behavior note 370) that specifies the result of the query for the geographical polygon of a geospatial series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoDataEntityQueryResult">
2. <xsd:sequence>
3. <xsd:element name="geoDataEntityQuery" type="CT\_GeoDataEntityQuery" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="geoData" type="CT\_GeoData" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoDataEntityQueryResults

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Clear](#Section_0e804f2210ad4b68bdd04377ae7d9f37)

A complex type[<371>](#Appendix_A_371" \o "Product behavior note 371) that specifies layout properties of the geographical polygons of a geospatial series.

*Child Elements:*

**geoDataEntityQueryResult:** A [CT\_GeoDataEntityQueryResult](#Section_813ed42f56e54de596ec3e7a5d768edb) element[<372>](#Appendix_A_372" \o "Product behavior note 372) that specifies the layout properties of a geographical polygon of a geospatial series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoDataEntityQueryResults">
2. <xsd:sequence>
3. <xsd:element name="geoDataEntityQueryResult" type="CT\_GeoDataEntityQueryResult" minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoDataPointQuery

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoDataPointToEntityQueryResult](#Section_0e6d2754d9df41c4ab2c74e0a60c077b)

A complex type[<373>](#Appendix_A_373" \o "Product behavior note 373) that specifies a query to establish a mapping between a data point in the geographical category of a geospatial series and its respective geographical entity identifier.

*Attributes:*

**entityType:** An [ST\_EntityType](#Section_b633a8e434684e1f8f942d4e2bb43817) attribute[<374>](#Appendix_A_374" \o "Product behavior note 374) that specifies the classification of the geographical entity type of the data point in the geographical category.

**latitude:** A double ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<375>](#Appendix_A_375" \o "Product behavior note 375) that specifies the latitude of a point that resides within the geographical entity represented by the data point in the geographical category of a geospatial series.

**longitude:** A double ([XMLSCHEMA2] section 3.2.1) attribute[<376>](#Appendix_A_376" \o "Product behavior note 376) that specifies the longitude of a point that resides within the geographical entity represented by the data point in the geographical category of a geospatial series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoDataPointQuery">
2. <xsd:attribute name="entityType" type="ST\_EntityType" use="required"/>
3. <xsd:attribute name="latitude" type="xsd:double" use="required"/>
4. <xsd:attribute name="longitude" type="xsd:double" use="required"/>
5. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoDataPointToEntityQuery

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoDataPointToEntityQueryResult](#Section_0e6d2754d9df41c4ab2c74e0a60c077b)

A complex type[<377>](#Appendix_A_377" \o "Product behavior note 377) that specifies the result of a query to establish a mapping between a data point in the geographical category of a geospatial series and its respective geographical entity identifier.

*Attributes:*

**entityType:** An [ST\_EntityType](#Section_b633a8e434684e1f8f942d4e2bb43817) attribute[<378>](#Appendix_A_378" \o "Product behavior note 378) that specifies the classification of the geographical entity type of the data point in the geographical category.

**entityId:** A string ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<379>](#Appendix_A_379" \o "Product behavior note 379) that specifies the geographical entity identifier of the geographical entity represented by the data point in the geographical category**.** The value of this attribute is unique to a given geographical entity.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoDataPointToEntityQuery">
2. <xsd:attribute name="entityType" type="ST\_EntityType" use="required"/>
3. <xsd:attribute name="entityId" type="xsd:string" use="required"/>
4. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoDataPointToEntityQueryResult

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoDataPointToEntityQueryResults](#Section_6a38e49387ce4c89a41247fe6f48dc04)

A complex type[<380>](#Appendix_A_380" \o "Product behavior note 380) that specifies a mapping between a data point in the geographical category of a geospatial series and its respective geographical entity identifier.

*Child Elements:*

**geoDataPointQuery:** A [CT\_GeoDataPointQuery](#Section_e5b5c4de54ff425e94875a7b6f5fdfe3) element[<381>](#Appendix_A_381" \o "Product behavior note 381) that specifies a query to establish a mapping between a data point in the geographical category of a geospatial series and its respective geographical entity identifier.

**geoDataPointToEntityQuery:** A [CT\_GeoDataPointToEntityQuery](#Section_2220029258a641ff85873ede1eb1f3f5) element[<382>](#Appendix_A_382" \o "Product behavior note 382) that specifies the result of a query to establish a mapping between a data point in the geographical category of a geospatial series and its respective geographical entity identifier.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoDataPointToEntityQueryResult">
2. <xsd:sequence>
3. <xsd:element name="geoDataPointQuery" type="CT\_GeoDataPointQuery" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="geoDataPointToEntityQuery" type="CT\_GeoDataPointToEntityQuery" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoDataPointToEntityQueryResults

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Clear](#Section_0e804f2210ad4b68bdd04377ae7d9f37)

A complex type[<383>](#Appendix_A_383" \o "Product behavior note 383) that specifies a mapping between data points in the geographical category of a geospatial series and their respective geographical entity identifier.

*Child Elements:*

**geoDataPointToEntityQueryResult:** A [CT\_GeoDataPointToEntityQueryResult](#Section_0e6d2754d9df41c4ab2c74e0a60c077b) element[<384>](#Appendix_A_384" \o "Product behavior note 384) that specifies a mapping between a data point in the geographical category of a geospatial series and its respective geographical entity identifier.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoDataPointToEntityQueryResults">
2. <xsd:sequence>
3. <xsd:element name="geoDataPointToEntityQueryResult" type="CT\_GeoDataPointToEntityQueryResult" minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Geography

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_SeriesLayoutProperties](#Section_1ff5c9ad828a4d0cbe7207754eba3588)

A complex type[<385>](#Appendix_A_385" \o "Product behavior note 385) that specifies layout properties for a geospatial series.

*Child Elements:*

**geoCache:** A [CT\_GeoCache](#Section_e926e112d64d45d3b536dfd73ca93db0) element[<386>](#Appendix_A_386" \o "Product behavior note 386) that specifies the geographical data for the geospatial series.

*Attributes:*

**projectionType:** An [ST\_GeoProjectionType](#Section_2444fd04930a40429a1b6a38c8bce42b) attribute[<387>](#Appendix_A_387" \o "Product behavior note 387) that specifies the cartographic map projection for the geospatial series.

**viewedRegionType:** An [ST\_GeoMappingLevel](#Section_4f06cf765e654c54aa9bf6996c7cbb8b) attribute[<388>](#Appendix_A_388" \o "Product behavior note 388) that specifies the level of view for the geospatial series.

**cultureLanguage:** A language ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.4.3) attribute[<389>](#Appendix_A_389" \o "Product behavior note 389) that specifies the language of the geospatial series.

**cultureRegion:** A string ([XMLSCHEMA2] section 3.2.1) attribute[<390>](#Appendix_A_390" \o "Product behavior note 390) that specifies the ISO-3166-1 alpha 2 country code specifying the country/region of the geospatial series.

**attribution:** A string ([XMLSCHEMA2] section 3.2.1) attribute[<391>](#Appendix_A_391" \o "Product behavior note 391) that specifies the provider or source of the geographical data of the geospatial series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Geography">
2. <xsd:sequence>
3. <xsd:element name="geoCache" type="CT\_GeoCache" minOccurs="0" maxOccurs="1"/>
4. </xsd:sequence>
5. <xsd:attribute name="projectionType" type="ST\_GeoProjectionType" use="optional"/>
6. <xsd:attribute name="viewedRegionType" type="ST\_GeoMappingLevel" use="optional"/>
7. <xsd:attribute name="cultureLanguage" type="xsd:language" use="required"/>
8. <xsd:attribute name="cultureRegion" type="xsd:string" use="required"/>
9. <xsd:attribute name="attribution" type="xsd:string" use="required"/>
10. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoHierarchyEntity

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoChildEntities](#Section_3446af1c5dc34f4980e23be6573a77ca)

A complex type[<392>](#Appendix_A_392" \o "Product behavior note 392) that specifies a descendant in the geographic hierarchy returned by this query.

*Attributes:*

**entityName:** A string ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<393>](#Appendix_A_393" \o "Product behavior note 393) that specifies the name of the descendant returned by this query, in the language indicated by the cultureLanguage attribute of the [CT\_Geography](#Section_5e722ee2d933454f81988490cbf17e77) complex type.

**entityId:** A string ([XMLSCHEMA2] section 3.2.1) attribute[<394>](#Appendix_A_394" \o "Product behavior note 394) that specifies the geographical entity identifier of the descendant returned by this query. The value of this attribute is unique to a given geographical entity.

**entityType:** An [ST\_EntityType](#Section_b633a8e434684e1f8f942d4e2bb43817) attribute[<395>](#Appendix_A_395" \o "Product behavior note 395) that specifies the classification of the geographical entity type of the descendant returned by this query.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoHierarchyEntity">
2. <xsd:attribute name="entityName" type="xsd:string" use="required"/>
3. <xsd:attribute name="entityId" type="xsd:string" use="required"/>
4. <xsd:attribute name="entityType" type="ST\_EntityType" use="required"/>
5. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoLocation

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoLocations](#Section_066d5c58ac78401c93f0d1bea54ff699)

A complex type[<396>](#Appendix_A_396" \o "Product behavior note 396) that specifies the geocoding result of a data point in the geographical category of a geospatial series.

*Child Elements:*

**address:** A [CT\_Address](#Section_cb386960bc1648159a7fa95553b68b7c) element[<397>](#Appendix_A_397" \o "Product behavior note 397) that specifies geographical properties of the geographical entity of the geocoding result.

*Attributes:*

**latitude:** A double ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<398>](#Appendix_A_398" \o "Product behavior note 398) that specifies the latitude of a point that resides within the geographical entity of the geocoding result.

**longitude:** A double ([XMLSCHEMA2] section 3.2.1) attribute[<399>](#Appendix_A_399" \o "Product behavior note 399) that specifies the longitude of a point that resides within the geographical entity of the geocoding result.

**entityName:** A string ([XMLSCHEMA2] section 3.2.1) attribute[<400>](#Appendix_A_400" \o "Product behavior note 400) that specifies the name of the geographical entity of the geocoding result, in the language indicated by the cultureLanguage attribute of the CT\_Geography complex type.

**entityType:** An [ST\_EntityType](#Section_b633a8e434684e1f8f942d4e2bb43817) attribute[<401>](#Appendix_A_401" \o "Product behavior note 401) that specifies the classification of the geographical entity type of the entity of the geocoding result.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoLocation">
2. <xsd:sequence>
3. <xsd:element name="address" type="CT\_Address" minOccurs="0" maxOccurs="1"/>
4. </xsd:sequence>
5. <xsd:attribute name="latitude" type="xsd:double" use="optional"/>
6. <xsd:attribute name="longitude" type="xsd:double" use="optional"/>
7. <xsd:attribute name="entityName" type="xsd:string" use="required"/>
8. <xsd:attribute name="entityType" type="ST\_EntityType" use="required"/>
9. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoLocationQuery

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoLocationQueryResult](#Section_c50ba15be1c942aea5756bbe5ebcf60c)

A complex type[<402>](#Appendix_A_402" \o "Product behavior note 402) that specifies the geocoding query of a data point in the geographical category of a geospatial series.

*Attributes:*

**countryRegion:** A string ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<403>](#Appendix_A_403" \o "Product behavior note 403) that specifies the name of a data point in the geographical category of a geospatial series. Exists if the data point has been deemed to be indicative of a country or region.

**adminDistrict1:** A string ([XMLSCHEMA2] section 3.2.1) attribute[<404>](#Appendix_A_404" \o "Product behavior note 404) that specifies the name of a data point in the geographical category of a geospatial series. Exists if the data point has been deemed to be indicative of a first order administrative subdivision of a country or region, such as a state or province.

**adminDistrict2:** A string ([XMLSCHEMA2] section 3.2.1) attribute[<405>](#Appendix_A_405" \o "Product behavior note 405) that specifies the name of a data point in the geographical category of a geospatial series. Exists if the data point has been deemed to be indicative of a second order administrative subdivision of a country or region, such as a county.

**postalCode:** A string ([XMLSCHEMA2] section 3.2.1) attribute[<406>](#Appendix_A_406" \o "Product behavior note 406) that specifies the name of a data point in the geographical category of a geospatial series. Exists if the data point has been deemed to be indicative of a post code, postal code, or ZIP Code of a country or region.

**entityType:** An [ST\_EntityType](#Section_b633a8e434684e1f8f942d4e2bb43817) attribute[<407>](#Appendix_A_407" \o "Product behavior note 407) that specifies the classification of the geographical entity type of the data point in the geographical category of a geospatial series. The set of entity types are “countryRegion”, “adminDistrict”, “adminDistrict2”, and “postalCode”.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoLocationQuery">
2. <xsd:attribute name="countryRegion" type="xsd:string" use="optional"/>
3. <xsd:attribute name="adminDistrict1" type="xsd:string" use="optional"/>
4. <xsd:attribute name="adminDistrict2" type="xsd:string" use="optional"/>
5. <xsd:attribute name="postalCode" type="xsd:string" use="optional"/>
6. <xsd:attribute name="entityType" type="ST\_EntityType" use="required"/>
7. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoLocationQueryResult

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoLocationQueryResults](#Section_988a1f05ef854262887dbb78814cb1a5)

A complex type[<408>](#Appendix_A_408" \o "Product behavior note 408) that specifies a geocoding query and result for a data point in the geographical category of a geospatial series.

*Child Elements:*

**geoLocationQuery:** A [CT\_GeoLocationQuery](#Section_7f0cdca3ab8f4c25a1b2753509a66d60) element[<409>](#Appendix_A_409" \o "Product behavior note 409) that specifies the geocoding query of a data point in the geographical category of a geospatial series.

**geoLocations:** A [CT\_GeoLocations](#Section_066d5c58ac78401c93f0d1bea54ff699) element[<410>](#Appendix_A_410" \o "Product behavior note 410) that specifies the geocoding results of a data point in the geographical category of a geospatial series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoLocationQueryResult">
2. <xsd:sequence>
3. <xsd:element name="geoLocationQuery" type="CT\_GeoLocationQuery" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="geoLocations" type="CT\_GeoLocations" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoLocationQueryResults

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Clear](#Section_0e804f2210ad4b68bdd04377ae7d9f37)

A complex type[<411>](#Appendix_A_411" \o "Product behavior note 411) that specifies geocoding query and results for data points in the geographical category of a geospatial series.

*Child Elements:*

**geoLocationQueryResult:** A [CT\_GeoLocationQueryResult](#Section_c50ba15be1c942aea5756bbe5ebcf60c) element[<412>](#Appendix_A_412" \o "Product behavior note 412) that specifies a geocoding query and result for a data point in the geographical category of a geospatial series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoLocationQueryResults">
2. <xsd:sequence>
3. <xsd:element name="geoLocationQueryResult" type="CT\_GeoLocationQueryResult" minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoLocations

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoLocationQueryResult](#Section_c50ba15be1c942aea5756bbe5ebcf60c)

A complex type[<413>](#Appendix_A_413" \o "Product behavior note 413) that specifies the geocoding results of a data point in the geographical category of a geospatial series.

*Child Elements:*

**geoLocation:** A [CT\_GeoLocation](#Section_d96c3ae5e13141fdb863aae9e6661e51) element[<414>](#Appendix_A_414" \o "Product behavior note 414) that specifies the geocoding result of a data point in the geographical category of a geospatial series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoLocations">
2. <xsd:sequence>
3. <xsd:element name="geoLocation" type="CT\_GeoLocation" minOccurs="0" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoPolygon

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoPolygons](#Section_9b3cb51b4d96440f8749fdb0321928c2)

A complex type[<415>](#Appendix_A_415" \o "Product behavior note 415) that specifies a single polygon in the composition of the returned geographic polygon.

*Attributes:*

**polygonId:** A string ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<416>](#Appendix_A_416" \o "Product behavior note 416) that specifies the identification of a polygon in the composition of the returned geographic polygon.

**numPoints:** An integer ([XMLSCHEMA2] section 3.2.1) attribute[<417>](#Appendix_A_417" \o "Product behavior note 417) that specifies the number of latitude and longitude pairs composing a polygon in the composition of the returned geographic polygon.

**pcaRings:** A string ([XMLSCHEMA2] section 3.2.1) attribute[<418>](#Appendix_A_418" \o "Product behavior note 418) that specifies a set of latitude and longitude pairs, compressed using Bing Point Compression Algorithm (<https://msdn.microsoft.com/en-us/library/jj158958.aspx>), that specifies a polygon in the composition of the returned geographic polygon.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoPolygon">
2. <xsd:attribute name="polygonId" type="xsd:string" use="required"/>
3. <xsd:attribute name="numPoints" type="xsd:integer" use="required"/>
4. <xsd:attribute name="pcaRings" type="xsd:string" use="required"/>
5. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GeoPolygons

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoData](#Section_ee9b19d5358b427d9afbea6c5d2e6ae2)

A complex type[<419>](#Appendix_A_419" \o "Product behavior note 419) that specifies the set of polygons composing the returned geographical polygon.

*Child Elements:*

**geoPolygon:** A [CT\_GeoPolygon](#Section_0462abd6817c4313b795e4fc87ef43f9) element[<420>](#Appendix_A_420" \o "Product behavior note 420) that specifies a single polygon in the composition of the returned geographic polygon.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GeoPolygons">
2. <xsd:sequence>
3. <xsd:element name="geoPolygon" type="CT\_GeoPolygon" minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Gridlines

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Axis](#Section_f2235d6d370d49b98a742232ffc8ab76)

A complex type[<421>](#Appendix_A_421" \o "Product behavior note 421) that specifies gridlines.

*Child Elements:*

**spPr:** A **CT\_ShapeProperties** element ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section A.4.1) element[<422>](#Appendix_A_422" \o "Product behavior note 422) that specifies the OfficeArt shape properties for the gridlines.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<423>](#Appendix_A_423" \o "Product behavior note 423) that specifies an extensibility container.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Gridlines">
2. <xsd:sequence>
3. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_HeaderFooter

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_PrintSettings](#Section_e6eede7916d54e86a7580210ac19ae64)

A complex type[<424>](#Appendix_A_424" \o "Product behavior note 424) that specifies page header and footer settings.

*Child Elements:*

**oddHeader:** A **string** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) element[<425>](#Appendix_A_425" \o "Product behavior note 425) that specifies the odd page header string.

**oddFooter:** A **string** ([XMLSCHEMA2] section 3.2.1) element[<426>](#Appendix_A_426" \o "Product behavior note 426) that specifies the odd page footer string.

**evenHeader:** A **string** ([XMLSCHEMA2] section 3.2.1) element[<427>](#Appendix_A_427" \o "Product behavior note 427) that specifies the even page header string.

**evenFooter:** A **string** ([XMLSCHEMA2] section 3.2.1) element[<428>](#Appendix_A_428" \o "Product behavior note 428) that specifies the even page footer string.

**firstHeader:** A **string** ([XMLSCHEMA2] section 3.2.1) element[<429>](#Appendix_A_429" \o "Product behavior note 429) that specifies first page header string.

**firstFooter:** A **string** ([XMLSCHEMA2] section 3.2.1) element[<430>](#Appendix_A_430" \o "Product behavior note 430) that specifies the first page footer string.

*Attributes:*

**alignWithMargins:** A Boolean ([XMLSCHEMA2] section 3.2.2) attribute[<431>](#Appendix_A_431" \o "Product behavior note 431) that specifies whether to align the header and footer margins with the page margins.

**differentOddEven:** A Boolean ([XMLSCHEMA2] section 3.2.2) attribute[<432>](#Appendix_A_432" \o "Product behavior note 432) that specifies whether there are odd and even page headers and footers.

**differentFirst:** A Boolean ([XMLSCHEMA2] section 3.2.2) attribute[<433>](#Appendix_A_433" \o "Product behavior note 433) that specifies whether there is a first page header and footer.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_HeaderFooter">
2. <xsd:sequence>
3. <xsd:element name="oddHeader" type="xsd:string" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="oddFooter" type="xsd:string" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="evenHeader" type="xsd:string" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="evenFooter" type="xsd:string" minOccurs="0" maxOccurs="1"/>
7. <xsd:element name="firstHeader" type="xsd:string" minOccurs="0" maxOccurs="1"/>
8. <xsd:element name="firstFooter" type="xsd:string" minOccurs="0" maxOccurs="1"/>
9. </xsd:sequence>
10. <xsd:attribute name="alignWithMargins" type="xsd:boolean" use="optional" default="true"/>
11. <xsd:attribute name="differentOddEven" type="xsd:boolean" use="optional" default="false"/>
12. <xsd:attribute name="differentFirst" type="xsd:boolean" use="optional" default="false"/>
13. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Legend

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Chart](#Section_72c0708d9807417594193f867679bb88)

A complex type[<434>](#Appendix_A_434" \o "Product behavior note 434) that specifies a chart legend.

*Child Elements:*

**spPr:** A **CT\_ShapeProperties** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element[<435>](#Appendix_A_435" \o "Product behavior note 435) that specifies OfficeArt shape properties for the legend.

**txPr:** A **CT\_TextBody** element ([ISO/IEC29500-1:2016] section A.4.1) element[<436>](#Appendix_A_436" \o "Product behavior note 436) that specifies OfficeArt text properties for the legend as a single paragraph with no text runs. Any runs in the first paragraph and paragraphs in addition to the first are ignored.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<437>](#Appendix_A_437" \o "Product behavior note 437) that specifies an extensibility container.

*Attributes:*

**pos:** An [ST\_SidePos](#Section_8d5550e8f4ca435e901b91b316bbcd5c) attribute[<438>](#Appendix_A_438" \o "Product behavior note 438) that specifies the side position of the legend.

**align:** An [ST\_PosAlign](#Section_dea01c610a8f4b109f72e60ed7ea82e5) attribute[<439>](#Appendix_A_439" \o "Product behavior note 439) that specifies the legend alignment along the side position.

**overlay:** A boolean ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) attribute[<440>](#Appendix_A_440" \o "Product behavior note 440) that specifies whether to overlay the legend on the chart.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Legend">
2. <xsd:sequence>
3. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="txPr" type="a:CT\_TextBody" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. <xsd:attribute name="pos" type="ST\_SidePos" use="optional" default="r"/>
8. <xsd:attribute name="align" type="ST\_PosAlign" use="optional" default="ctr"/>
9. <xsd:attribute name="overlay" type="xsd:boolean" use="optional" default="0"/>
10. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_NumberColorPosition

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ValueColorEndPosition](#Section_6b29dfeceade47f4a35544a2e66dcda5), [CT\_ValueColorMiddlePosition](#Section_5f5de438bf0141ad8cd990e34e49d186)

A complex type[<441>](#Appendix_A_441" \o "Product behavior note 441) that specifies a color position at a fixed data value, for composing a gradient expressing a range of data values as colors.

*Attributes:*

**val:** A double ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<442>](#Appendix_A_442" \o "Product behavior note 442) that specifies the data value of the color position.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_NumberColorPosition">
2. <xsd:attribute name="val" type="xsd:double" use="required"/>
3. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_NumberFormat

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Axis](#Section_f2235d6d370d49b98a742232ffc8ab76), [CT\_DataLabel](#Section_b35bbd841663401daddfb1cabe61a54f), [CT\_DataLabels](#Section_ab25525c374c46c9997ecee7cc73436e)

A complex type[<443>](#Appendix_A_443" \o "Product behavior note 443) that specifies custom number formatting.

*Attributes:*

**formatCode:** A string ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<444>](#Appendix_A_444" \o "Product behavior note 444) that specifies the custom formatting information.

**sourceLinked:** A **boolean** ([XMLSCHEMA2] section 3.2.2) attribute[<445>](#Appendix_A_445" \o "Product behavior note 445) that specifies the format linked to the source data.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_NumberFormat">
2. <xsd:attribute name="formatCode" type="xsd:string" use="required"/>
3. <xsd:attribute name="sourceLinked" type="xsd:boolean" use="optional"/>
4. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_NumericDimension

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Data](#Section_b895f5cfd6a54fc1b5667b594b2a4e60)

A complex type[<446>](#Appendix_A_446" \o "Product behavior note 446) that specifies numeric dimension data.

*Child Elements:*

**f:** A [CT\_Formula](#Section_174c9b3329d84764a3c87ad71abf4424) element[<447>](#Appendix_A_447" \o "Product behavior note 447) that specifies the data reference.

**nf:** A CT\_Formula element that specifies dimension name reference**.**

**lvl:** A [CT\_NumericLevel](#Section_0639349573ef4826af894e119dc35e42) element[<448>](#Appendix_A_448" \o "Product behavior note 448) that specifies the optional cached data.

**lvl:** A CT\_NumericLevel element[<449>](#Appendix_A_449" \o "Product behavior note 449) that specifies the literal data.

*Attributes:*

**type:** An [ST\_NumericDimensionType](#Section_bef43d72bbb844aaae26107f84b88cfa) attribute[<450>](#Appendix_A_450" \o "Product behavior note 450) that specifies the dimension data type.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_NumericDimension">
2. <xsd:choice minOccurs="1" maxOccurs="1">
3. <xsd:sequence>
4. <xsd:element name="f" type="CT\_Formula" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="nf" type="CT\_Formula" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="lvl" type="CT\_NumericLevel" minOccurs="0" maxOccurs="unbounded"/>
7. </xsd:sequence>
8. <xsd:element name="lvl" type="CT\_NumericLevel" minOccurs="1" maxOccurs="unbounded"/>
9. </xsd:choice>
10. <xsd:attribute name="type" type="ST\_NumericDimensionType" use="required"/>
11. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_NumericLevel

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_NumericDimension](#Section_37fbbd78c3e64f339d0b3fe428ad1c09)

A complex type[<451>](#Appendix_A_451" \o "Product behavior note 451) that specifies one level of dimension data.

*Child Elements:*

**pt:** A [CT\_NumericValue](#Section_e3ae6c9c786a4b7d920d41e9a0f5a045) element[<452>](#Appendix_A_452" \o "Product behavior note 452) that specifies the data values.

*Attributes:*

**ptCount:** An **unsignedInt** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22) attribute[<453>](#Appendix_A_453" \o "Product behavior note 453) that specifies the number of data values.

**formatCode:** A string ([XMLSCHEMA2] section 3.2.1) attribute[<454>](#Appendix_A_454" \o "Product behavior note 454) that specifies any custom formatting information.

**name:** A string ([XMLSCHEMA2] section 3.2.1) attribute that specifies the name of the level of dimension data**.**

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_NumericLevel">
2. <xsd:sequence>
3. <xsd:element name="pt" type="CT\_NumericValue" minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. <xsd:attribute name="ptCount" type="xsd:unsignedInt" use="required"/>
6. <xsd:attribute name="formatCode" type="xsd:string" use="optional"/>
7. <xsd:attribute name="name" type="xsd:string" use="optional"/>
8. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_NumericValue

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_NumericLevel](#Section_0639349573ef4826af894e119dc35e42)

A complex type[<455>](#Appendix_A_455" \o "Product behavior note 455) that specifies a numeric data value.

*Attributes:*

**idx:** An **unsignedInt** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22) attribute[<456>](#Appendix_A_456" \o "Product behavior note 456) that specifies the index of this data value.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_NumericValue">
2. <xsd:simpleContent>
3. <xsd:extension base="xsd:double">
4. <xsd:attribute name="idx" type="xsd:unsignedInt" use="required"/>
5. </xsd:extension>
6. </xsd:simpleContent>
7. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PageMargins

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_PrintSettings](#Section_e6eede7916d54e86a7580210ac19ae64)

A complex type[<457>](#Appendix_A_457" \o "Product behavior note 457) that specifies page margin settings.

*Attributes:*

**l:** A **double** ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) attribute[<458>](#Appendix_A_458" \o "Product behavior note 458) that specifies the left page margin in inches.

**r:** A **double** ([XMLSCHEMA1] section 2.1) attribute[<459>](#Appendix_A_459" \o "Product behavior note 459) that specifies the right page margin in inches.

**t:** A **double** ([XMLSCHEMA1] section 2.1) attribute[<460>](#Appendix_A_460" \o "Product behavior note 460) that specifies the top page margin in inches.

**b:** A **double** ([XMLSCHEMA1] section 2.1) attribute[<461>](#Appendix_A_461" \o "Product behavior note 461) that specifies the bottom page margin in inches.

**header:** A **double** ([XMLSCHEMA1] section 2.1) attribute[<462>](#Appendix_A_462" \o "Product behavior note 462) that specifies the header page margin in inches.

**footer:** A **double** ([XMLSCHEMA1] section 2.1) attribute[<463>](#Appendix_A_463" \o "Product behavior note 463) that specifies the footer page margin in inches.

The following W3C XML Schema ([XMLSCHEMA1] section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PageMargins">
2. <xsd:attribute name="l" type="xsd:double" use="required"/>
3. <xsd:attribute name="r" type="xsd:double" use="required"/>
4. <xsd:attribute name="t" type="xsd:double" use="required"/>
5. <xsd:attribute name="b" type="xsd:double" use="required"/>
6. <xsd:attribute name="header" type="xsd:double" use="required"/>
7. <xsd:attribute name="footer" type="xsd:double" use="required"/>
8. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PageSetup

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_PrintSettings](#Section_e6eede7916d54e86a7580210ac19ae64)

A complex type[<464>](#Appendix_A_464" \o "Product behavior note 464) that specifies page setup settings.

*Attributes:*

**paperSize:** An **unsignedInt** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22) attribute[<465>](#Appendix_A_465" \o "Product behavior note 465) that specifies the paper size as defined by Windows.

**firstPageNumber:** An **unsignedInt** ([XMLSCHEMA2] section 3.3.22) attribute[<466>](#Appendix_A_466" \o "Product behavior note 466) that specifies the page number for the first printed page.

**orientation:** An [ST\_PageOrientation](#Section_620268a17d9545de878d2d249c0f8b1b) attribute[<467>](#Appendix_A_467" \o "Product behavior note 467) that specifies the page orientation.

**blackAndWhite:** A Boolean ([XMLSCHEMA2] section 3.2.2) attribute[<468>](#Appendix_A_468" \o "Product behavior note 468) that specifies whether to print in black and white (true) or in color (false).

**draft:** A Boolean ([XMLSCHEMA2] section 3.2.2) attribute[<469>](#Appendix_A_469" \o "Product behavior note 469) that specifies whether to print without including graphics (true), or print with graphics (false).

**useFirstPageNumber:** A Boolean ([XMLSCHEMA2] section 3.2.2) attribute[<470>](#Appendix_A_470" \o "Product behavior note 470) that specifies whether to use **firstPageNumber** and do not auto number (true), or start auto-numbering on the first page (false).

**horizontalDpi:** An **int** ([XMLSCHEMA2] section 3.3.17) attribute[<471>](#Appendix_A_471" \o "Product behavior note 471) that specifies the horizontal print resolution of the device in dots per inch.

**verticalDpi:** An **int** ([XMLSCHEMA2] section 3.3.17) attribute[<472>](#Appendix_A_472" \o "Product behavior note 472) that specifies the vertical print resolution of the device in dots per inch.

**copies:** An **unsignedInt** ([XMLSCHEMA2] section 3.3.22) attribute[<473>](#Appendix_A_473" \o "Product behavior note 473) that specifies the number of copies.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PageSetup">
2. <xsd:attribute name="paperSize" type="xsd:unsignedInt" use="optional" default="1"/>
3. <xsd:attribute name="firstPageNumber" type="xsd:unsignedInt" use="optional" default="1"/>
4. <xsd:attribute name="orientation" type="ST\_PageOrientation" use="optional" default="default"/>
5. <xsd:attribute name="blackAndWhite" type="xsd:boolean" use="optional" default="false"/>
6. <xsd:attribute name="draft" type="xsd:boolean" use="optional" default="false"/>
7. <xsd:attribute name="useFirstPageNumber" type="xsd:boolean" use="optional" default="false"/>
8. <xsd:attribute name="horizontalDpi" type="xsd:int" use="optional" default="600"/>
9. <xsd:attribute name="verticalDpi" type="xsd:int" use="optional" default="600"/>
10. <xsd:attribute name="copies" type="xsd:unsignedInt" use="optional" default="1"/>
11. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ParentLabelLayout

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_SeriesLayoutProperties](#Section_1ff5c9ad828a4d0cbe7207754eba3588)

A complex type[<474>](#Appendix_A_474" \o "Product behavior note 474) that specifies the layout type for the parent labels.

*Attributes:*

**val:** An [ST\_ParentLabelLayout](#Section_5ec636c663094c6da912d192832a981b) attribute[<475>](#Appendix_A_475" \o "Product behavior note 475) that specifies the layout type for the parent labels.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ParentLabelLayout">
2. <xsd:attribute name="val" type="ST\_ParentLabelLayout" use="required"/>
3. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PercentageColorPosition

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ValueColorEndPosition](#Section_6b29dfeceade47f4a35544a2e66dcda5), [CT\_ValueColorMiddlePosition](#Section_5f5de438bf0141ad8cd990e34e49d186)

A complex type[<476>](#Appendix_A_476" \o "Product behavior note 476) that specifies a color position at a fixed percentage value, for composing a gradient expressing a range of data values as colors.

*Attributes:*

**val:** A double ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute[<477>](#Appendix_A_477" \o "Product behavior note 477) that specifies the percentage value.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PercentageColorPosition">
2. <xsd:attribute name="val" type="xsd:double" use="required"/>
3. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PlotArea

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Chart](#Section_72c0708d9807417594193f867679bb88)

A complex type[<478>](#Appendix_A_478" \o "Product behavior note 478) that specifies the plot area layout and formatting.

*Child Elements:*

**plotAreaRegion:** A [CT\_PlotAreaRegion](#Section_953cac64c127438abfc43e1b17b3f9a4) element[<479>](#Appendix_A_479" \o "Product behavior note 479) that specifies the region of plot area that can contain one or more series.

**axis:** A [CT\_Axis](#Section_f2235d6d370d49b98a742232ffc8ab76) element[<480>](#Appendix_A_480" \o "Product behavior note 480) that specifies the axes used for the plot area.

**spPr:** A **CT\_ShapeProperties** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element[<481>](#Appendix_A_481" \o "Product behavior note 481) that specifies OfficeArt shape properties for the plot area.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<482>](#Appendix_A_482" \o "Product behavior note 482) that specifies an extensibility container.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PlotArea">
2. <xsd:sequence>
3. <xsd:element name="plotAreaRegion" type="CT\_PlotAreaRegion" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="axis" type="CT\_Axis" minOccurs="0" maxOccurs="unbounded"/>
5. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
7. </xsd:sequence>
8. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PlotAreaRegion

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_PlotArea](#Section_3d47df5e721a4c2cab2550ed82b6b6a3)

A complex type[<483>](#Appendix_A_483" \o "Product behavior note 483) that specifies a plot area region. The plot area region contains the series that is plotted within it.

*Child Elements:*

**plotSurface:** A [CT\_PlotSurface](#Section_dd3e294656504cbbb9179e2f598f388e) element[<484>](#Appendix_A_484" \o "Product behavior note 484) that specifies the canvas on which the series is plotted.

**series:** A [CT\_Series](#Section_86df19ea8e9449fc9160377c1b40b985) element[<485>](#Appendix_A_485" \o "Product behavior note 485) that specifies the series for this region of the chart.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<486>](#Appendix_A_486" \o "Product behavior note 486) that specifies an extensibility container.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PlotAreaRegion">
2. <xsd:sequence>
3. <xsd:element name="plotSurface" type="CT\_PlotSurface" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="series" type="CT\_Series" minOccurs="0" maxOccurs="unbounded"/>
5. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PlotSurface

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_PlotAreaRegion](#Section_953cac64c127438abfc43e1b17b3f9a4)

A complex type[<487>](#Appendix_A_487" \o "Product behavior note 487) that specifies the canvas on which the series are plotted.

*Child Elements:*

**spPr:** A **CT\_ShapeProperties** element ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section A.4.1) element[<488>](#Appendix_A_488" \o "Product behavior note 488) that specifies the OfficeArt shape properties for the plot surface.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<489>](#Appendix_A_489" \o "Product behavior note 489) that specifies an extensibility container.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PlotSurface">
2. <xsd:sequence>
3. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PrintSettings

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ChartSpace](#Section_416e664fc6f64ed9914b4eaaa20724dd)

A complex type[<490>](#Appendix_A_490" \o "Product behavior note 490) that specifies print settings.

*Child Elements:*

**headerFooter:** A [CT\_HeaderFooter](#Section_0abe88fdf8154186a8d0d44d4edb1030) element[<491>](#Appendix_A_491" \o "Product behavior note 491) that specifies the header and footer settings.

**pageMargins:** A [CT\_PageMargins](#Section_ce354b1beff14fe293bd43e92444f502) element[<492>](#Appendix_A_492" \o "Product behavior note 492) that specifies the page margins settings.

**pageSetup:** A [CT\_PageSetup](#Section_784462903a6f4d9fbc9ef5f50f6322c0) element[<493>](#Appendix_A_493" \o "Product behavior note 493) that specifies the page setup settings.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PrintSettings">
2. <xsd:sequence>
3. <xsd:element name="headerFooter" type="CT\_HeaderFooter" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="pageMargins" type="CT\_PageMargins" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="pageSetup" type="CT\_PageSetup" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_RegionLabelLayout

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_SeriesLayoutProperties](#Section_1ff5c9ad828a4d0cbe7207754eba3588)

A complex type[<494>](#Appendix_A_494" \o "Product behavior note 494) that specifies the layout type for region labels of a geospatial series.

*Attributes:*

**val:** An [ST\_RegionLabelLayout](#Section_3f2ddd8352924aff87511399fcf4390c) attribute[<495>](#Appendix_A_495" \o "Product behavior note 495) that specifies the layout type for region labels of a geospatial series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_RegionLabelLayout">
2. <xsd:attribute name="val" type="ST\_RegionLabelLayout" use="required"/>
3. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_RelId

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [chart](#Section_820c131dab7c42c182863373e44b6a76)

Defines a relationship identifier.

*Attributes:*

**r:id:** An **ST\_RelationshipId** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 22.8.2.1) attribute used to specify the identifier for this ChartEx part. The type of relationship needed is specified by the parent element.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_RelId">
2. <xsd:attribute ref="r:id" use="required"/>
3. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Series

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_PlotAreaRegion](#Section_953cac64c127438abfc43e1b17b3f9a4)

A complex type[<496>](#Appendix_A_496" \o "Product behavior note 496) that specifies chart series layout and data reference information.

*Child Elements:*

**tx:** A [CT\_Text](#Section_39e5bc48b35f47bfb5ff4c8d790c94cb) element[<497>](#Appendix_A_497" \o "Product behavior note 497) that specifies the series title.

**spPr:** A **CT\_ShapeProperties** element ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section A.4.1) element[<498>](#Appendix_A_498" \o "Product behavior note 498) that specifies the OfficeArt shape properties for the series.

**valueColors:** A [CT\_ValueColors](#Section_8735f7a3365045599c78b7773be85e06) element[<499>](#Appendix_A_499" \o "Product behavior note 499) that specifies the colors used to represent data values as a continuous gradient of colors.

**valueColorPositions:** A [CT\_ValueColorPositions](#Section_f2cae9d3c8f04afca293d3219902efb9) element[<500>](#Appendix_A_500" \o "Product behavior note 500) that specifies the data values associated with colors at specific color stops within a continuous gradient of colors representing data values.

**dataPt:** A [CT\_DataPoint](#Section_d055224543df497b8dc9a107b260b20e) element[<501>](#Appendix_A_501" \o "Product behavior note 501) that specifies the formatting for an individual data point in the series.

**dataLabels:** A [CT\_DataLabels](#Section_ab25525c374c46c9997ecee7cc73436e) element[<502>](#Appendix_A_502" \o "Product behavior note 502) that specifies the formatting for the data labels on this series.

**dataId:** A [CT\_DataId](#Section_ed0f546dab0a48ddb2fbbd39f67b488a) element[<503>](#Appendix_A_503" \o "Product behavior note 503) that specifies the identifier of the data source for this series.

**layoutPr:** A [CT\_SeriesLayoutProperties](#Section_1ff5c9ad828a4d0cbe7207754eba3588) element[<504>](#Appendix_A_504" \o "Product behavior note 504) that specifies the properties of the series layout.

**axisId:** An [ST\_AxisId](#Section_80d24e4ac3a342c08a2060cf964b4341) element[<505>](#Appendix_A_505" \o "Product behavior note 505) that specifies the identifier of an axis for this series.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<506>](#Appendix_A_506" \o "Product behavior note 506) that specifies an extensibility container.

*Attributes:*

**layoutId:** An [ST\_SeriesLayout](#Section_2ea3f228fe394f55b8eccee89596e926) attribute[<507>](#Appendix_A_507" \o "Product behavior note 507) that specifies the layout type of this series.

**hidden:** A **boolean** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) attribute[<508>](#Appendix_A_508" \o "Product behavior note 508) that specifies whether this series is hidden from layout.

**ownerIdx:** An **unsignedInt** ([XMLSCHEMA2] section 3.3.22) attribute[<509>](#Appendix_A_509" \o "Product behavior note 509) that specifies the index of the series that owns this series.

**uniqueId:** A **string** ([XMLSCHEMA2] section 3.2.1) attribute[<510>](#Appendix_A_510" \o "Product behavior note 510) that specifies a unique identifier for the series.

**formatIdx:** An **unsignedInt** ([XMLSCHEMA2] section 3.3.22) attribute[<511>](#Appendix_A_511" \o "Product behavior note 511) that specifies the index of the format to use for default styling of this series.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Series">
2. <xsd:sequence>
3. <xsd:element name="tx" type="CT\_Text" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="valueColors" type="CT\_ValueColors" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="valueColorPositions" type="CT\_ValueColorPositions" minOccurs="0" maxOccurs="1"/>
7. <xsd:element name="dataPt" type="CT\_DataPoint" minOccurs="0" maxOccurs="unbounded"/>
8. <xsd:element name="dataLabels" type="CT\_DataLabels" minOccurs="0" maxOccurs="1"/>
9. <xsd:element name="dataId" type="CT\_DataId" minOccurs="0" maxOccurs="1"/>
10. <xsd:element name="layoutPr" type="CT\_SeriesLayoutProperties" minOccurs="0" maxOccurs="1"/>
11. <xsd:element name="axisId" type="ST\_AxisId" minOccurs="0" maxOccurs="unbounded"/>
12. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
13. </xsd:sequence>
14. <xsd:attribute name="layoutId" type="ST\_SeriesLayout" use="required"/>
15. <xsd:attribute name="hidden" type="xsd:boolean" use="optional" default="0"/>
16. <xsd:attribute name="ownerIdx" type="xsd:unsignedInt" use="optional"/>
17. <xsd:attribute name="uniqueId" type="xsd:string" use="optional"/>
18. <xsd:attribute name="formatIdx" type="xsd:unsignedInt" use="optional"/>
19. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_SeriesElementVisibilities

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_SeriesLayoutProperties](#Section_1ff5c9ad828a4d0cbe7207754eba3588)

A complex type[<512>](#Appendix_A_512" \o "Product behavior note 512) that specifies the visibilities of series sub-elements.

*Attributes:*

**connectorLines:** A **boolean** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) attribute[<513>](#Appendix_A_513" \o "Product behavior note 513) that specifies the visibility of connector lines between data points.

**meanLine:** A **boolean** ([XMLSCHEMA2] section 3.2.2) attribute[<514>](#Appendix_A_514" \o "Product behavior note 514) that specifies the visibility of the line connecting all mean points.

**meanMarker:** A **boolean** ([XMLSCHEMA2] section 3.2.2) attribute[<515>](#Appendix_A_515" \o "Product behavior note 515) that specifies the visibility of markers denoting the mean.

**nonoutliers:** A **boolean** ([XMLSCHEMA2] section 3.2.2) attribute[<516>](#Appendix_A_516" \o "Product behavior note 516) that specifies the visibility of non-outlier data points.

**outliers:** A **boolean** ([XMLSCHEMA2] section 3.2.2) attribute[<517>](#Appendix_A_517" \o "Product behavior note 517) that specifies the visibility of outlier data points.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_SeriesElementVisibilities">
2. <xsd:attribute name="connectorLines" type="xsd:boolean" use="optional"/>
3. <xsd:attribute name="meanLine" type="xsd:boolean" use="optional"/>
4. <xsd:attribute name="meanMarker" type="xsd:boolean" use="optional"/>
5. <xsd:attribute name="nonoutliers" type="xsd:boolean" use="optional"/>
6. <xsd:attribute name="outliers" type="xsd:boolean" use="optional"/>
7. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_SeriesLayoutProperties

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Series](#Section_86df19ea8e9449fc9160377c1b40b985)

A complex type[<518>](#Appendix_A_518" \o "Product behavior note 518) that specifies series layout properties.

*Child Elements:*

**parentLabelLayout:** A [CT\_ParentLabelLayout](#Section_748b67645358450db0d94a07525915fa) element[<519>](#Appendix_A_519" \o "Product behavior note 519) that specifies the layout type for the parent labels.

**regionLabelLayout:** A [CT\_RegionLabelLayout](#Section_0164520ddbce49948c595a6d9d8af63e) element[<520>](#Appendix_A_520" \o "Product behavior note 520) that specifies the layout type for region labels of a geospatial series.

**visibility:** A [CT\_SeriesElementVisibilities](#Section_dd94d472696843729f250fc8fa56ffc8) element[<521>](#Appendix_A_521" \o "Product behavior note 521) that specifies the visibilities of series sub-elements.

**aggregation:** A [CT\_Aggregation](#Section_e112cc820d944532bc7ac1daf8ebac4e) element[<522>](#Appendix_A_522" \o "Product behavior note 522) that specifies the data aggregation properties for the series.

**binning:** A [CT\_Binning](#Section_2e5dfc5ad3b74390bc00188a2fefcb3a) element[<523>](#Appendix_A_523" \o "Product behavior note 523) that specifies the data binning properties for the series.

**geography:** A [CT\_Geography](#Section_5e722ee2d933454f81988490cbf17e77) element[<524>](#Appendix_A_524" \o "Product behavior note 524) that specifies layout properties for a geospatial series.

**statistics:** A [CT\_Statistics](#Section_2f21033a29c64283a9b563d465544799) element[<525>](#Appendix_A_525" \o "Product behavior note 525) that specifies the statistical properties for the series.

**subtotals:** A [CT\_Subtotals](#Section_4fc38c3fc55e44538a0621f92056554e) element[<526>](#Appendix_A_526" \o "Product behavior note 526) that specifies a list of subtotal data points.

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<527>](#Appendix_A_527" \o "Product behavior note 527) that specifies an extensibility container.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_SeriesLayoutProperties">
2. <xsd:sequence>
3. <xsd:element name="parentLabelLayout" type="CT\_ParentLabelLayout" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="regionLabelLayout" type="CT\_RegionLabelLayout" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="visibility" type="CT\_SeriesElementVisibilities" minOccurs="0" maxOccurs="1"/>
6. <xsd:choice minOccurs="0" maxOccurs="1">
7. <xsd:element name="aggregation" type="CT\_Aggregation" minOccurs="0" maxOccurs="1"/>
8. <xsd:element name="binning" type="CT\_Binning" minOccurs="0" maxOccurs="1"/>
9. </xsd:choice>
10. <xsd:element name="geography" type="CT\_Geography" minOccurs="0" maxOccurs="1"/>
11. <xsd:element name="statistics" type="CT\_Statistics" minOccurs="0" maxOccurs="1"/>
12. <xsd:element name="subtotals" type="CT\_Subtotals" minOccurs="0" maxOccurs="1"/>
13. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
14. </xsd:sequence>
15. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Statistics

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_SeriesLayoutProperties](#Section_1ff5c9ad828a4d0cbe7207754eba3588)

A complex type[<528>](#Appendix_A_528" \o "Product behavior note 528) that specifies statistical properties.

*Attributes:*

**quartileMethod:** An [ST\_QuartileMethod](#Section_a1463864276e4cefb772d9b2a046e5a7) attribute[<529>](#Appendix_A_529" \o "Product behavior note 529) that specifies the quartile calculation method.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Statistics">
2. <xsd:attribute name="quartileMethod" type="ST\_QuartileMethod" use="optional"/>
3. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_StringDimension

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Data](#Section_b895f5cfd6a54fc1b5667b594b2a4e60)

A complex type[<530>](#Appendix_A_530" \o "Product behavior note 530) that specifies string dimension data.

*Child Elements:*

**f:** A [CT\_Formula](#Section_174c9b3329d84764a3c87ad71abf4424) element[<531>](#Appendix_A_531" \o "Product behavior note 531) that specifies the data reference.

**nf:** A CT\_Formula element that specifies the dimension name reference**.**

**lvl:** A [CT\_StringLevel](#Section_83fa07e160904757acc88dd35dac0b63) element[<532>](#Appendix_A_532" \o "Product behavior note 532) that specifies the optional cached data.

**lvl:** A CT\_StringLevel element[<533>](#Appendix_A_533" \o "Product behavior note 533) that specifies the literal data.

*Attributes:*

**type:** An [ST\_StringDimensionType](#Section_0bad2d5391bb4c50a5afb38831ee7123) attribute[<534>](#Appendix_A_534" \o "Product behavior note 534) that specifies the dimension data type.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_StringDimension">
2. <xsd:choice minOccurs="1" maxOccurs="1">
3. <xsd:sequence>
4. <xsd:element name="f" type="CT\_Formula" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="nf" type="CT\_Formula" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="lvl" type="CT\_StringLevel" minOccurs="0" maxOccurs="unbounded"/>
7. </xsd:sequence>
8. <xsd:element name="lvl" type="CT\_StringLevel" minOccurs="1" maxOccurs="unbounded"/>
9. </xsd:choice>
10. <xsd:attribute name="type" type="ST\_StringDimensionType" use="required"/>
11. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_StringLevel

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_StringDimension](#Section_ab157fdd8e5a4b428205aaf41384d457)

A complex type[<535>](#Appendix_A_535" \o "Product behavior note 535) that specifies one level of dimension data.

*Child Elements:*

**pt:** A [CT\_StringValue](#Section_50e379c784c24506a36e4ded3d30a5ba) element[<536>](#Appendix_A_536" \o "Product behavior note 536) that specifies the data values.

*Attributes:*

**ptCount:** An **unsignedInt** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22) attribute[<537>](#Appendix_A_537" \o "Product behavior note 537) that specifies the number of data values.

**name:**  A string ([XMLSCHEMA2] section 3.2.1) attribute that specifies the name of the level of dimension data**.**

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_StringLevel">
2. <xsd:sequence>
3. <xsd:element name="pt" type="CT\_StringValue" minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. <xsd:attribute name="ptCount" type="xsd:unsignedInt" use="required"/>
6. <xsd:attribute name="name" type="xsd:string" use="optional"/>
7. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_StringValue

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_StringLevel](#Section_83fa07e160904757acc88dd35dac0b63)

A complex type[<538>](#Appendix_A_538" \o "Product behavior note 538) that specifies a string data value.

*Attributes:*

**idx:** An **unsignedInt** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22) attribute[<539>](#Appendix_A_539" \o "Product behavior note 539) that specifies the index of this data value.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_StringValue">
2. <xsd:simpleContent>
3. <xsd:extension base="xsd:string">
4. <xsd:attribute name="idx" type="xsd:unsignedInt" use="required"/>
5. </xsd:extension>
6. </xsd:simpleContent>
7. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Subtotals

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_SeriesLayoutProperties](#Section_1ff5c9ad828a4d0cbe7207754eba3588)

A complex type[<540>](#Appendix_A_540" \o "Product behavior note 540) that specifies a list of indices of subtotal data points.

*Child Elements:*

**idx:** An **unsignedInt** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22) element[<541>](#Appendix_A_541" \o "Product behavior note 541) that specifies the index of a subtotal data point.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Subtotals">
2. <xsd:sequence>
3. <xsd:element name="idx" type="xsd:unsignedInt" minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Text

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ChartTitle](#Section_deda6fcebc6b4873bf8a2a469fd143aa), [CT\_AxisTitle](#Section_c062d934bee74372b0022dd9d6eb54ca), [CT\_AxisUnitsLabel](#Section_f7d4edc242514150a1976b87b548e1fd), [CT\_Series](#Section_86df19ea8e9449fc9160377c1b40b985)

A complex type[<542>](#Appendix_A_542" \o "Product behavior note 542) that specifies text used on the chart. The text can be represented by data (and the data can itself be represented by a formula), or an OfficeArt TextBody.

*Child Elements:*

**txData:** A [CT\_TextData](#Section_938a605b86fc4f069bf0cd7361eabb48) element[<543>](#Appendix_A_543" \o "Product behavior note 543) that specifies the text.

**rich:** A **CT\_TextBody** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element[<544>](#Appendix_A_544" \o "Product behavior note 544) that specifies literal text and formatting.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Text">
2. <xsd:sequence>
3. <xsd:choice minOccurs="1" maxOccurs="1">
4. <xsd:element name="txData" type="CT\_TextData" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="rich" type="a:CT\_TextBody" minOccurs="1" maxOccurs="1"/>
6. </xsd:choice>
7. </xsd:sequence>
8. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_TextData

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Text](#Section_39e5bc48b35f47bfb5ff4c8d790c94cb)

A complex type[<545>](#Appendix_A_545" \o "Product behavior note 545) that specifies text data.

*Child Elements:*

**f:** A [CT\_Formula](#Section_174c9b3329d84764a3c87ad71abf4424) element[<546>](#Appendix_A_546" \o "Product behavior note 546) that specifies a data reference.

**v:** A string ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) element[<547>](#Appendix_A_547" \o "Product behavior note 547) that specifies the cached text.

**v:** A string ([XMLSCHEMA2] section 3.2.1) element[<548>](#Appendix_A_548" \o "Product behavior note 548) that specifies the literal text.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_TextData">
2. <xsd:choice minOccurs="1" maxOccurs="1">
3. <xsd:sequence>
4. <xsd:element name="f" type="CT\_Formula" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="v" type="xsd:string" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. <xsd:element name="v" type="xsd:string" minOccurs="1" maxOccurs="1"/>
8. </xsd:choice>
9. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_TickLabels

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Axis](#Section_f2235d6d370d49b98a742232ffc8ab76)

A complex type[<549>](#Appendix_A_549" \o "Product behavior note 549) that specifies tick labels, which describe tick marks (see [CT\_TickMarks](#Section_1200f47fcb664c738bd8b7ba2b27849b)[Section\_4daa8c60a65e4cad97d65c92c81f6029](#Section_4daa8c60a65e4cad97d65c92c81f6029)).

*Child Elements:*

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<550>](#Appendix_A_550" \o "Product behavior note 550) that specifies an extensibility container.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_TickLabels">
2. <xsd:sequence>
3. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_TickMarks

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Axis](#Section_f2235d6d370d49b98a742232ffc8ab76)

A complex type[<551>](#Appendix_A_551" \o "Product behavior note 551) that specifies axis tick marks. Tick marks indicate intervals on an axis.

*Child Elements:*

**extLst:** A [CT\_ExtensionList](#Section_5a469220a53e430983124d731a9b615e) element[<552>](#Appendix_A_552" \o "Product behavior note 552) that specifies an extensibility container.

*Attributes:*

**type:** An [ST\_TickMarksType](#Section_c07764299a284c6ba02ada19af70a618) attribute[<553>](#Appendix_A_553" \o "Product behavior note 553) that specifies the layout type for tick marks.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_TickMarks">
2. <xsd:sequence>
3. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
4. </xsd:sequence>
5. <xsd:attribute name="type" type="ST\_TickMarksType" use="optional"/>
6. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ValueAxisScaling

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Axis](#Section_f2235d6d370d49b98a742232ffc8ab76)

A complex type[<554>](#Appendix_A_554" \o "Product behavior note 554) that specifies value axis scaling properties. For example, given a **max** value of 10, and a **min** value of 0, when **majorUnit** is 5 and **minorUnit** is 1, major ticks will be on unit values 0, 5, and 10, and minor ticks will be on unit values 1, 2, 3, 4, 6, 7, 8, and 9.

*Attributes:*

**max:** An [ST\_DoubleOrAutomatic](#Section_7d4f4fcd1ae34d1ca090c0f956d3a490) attribute[<555>](#Appendix_A_555" \o "Product behavior note 555) that specifies the maximum value of the scale.

**min:** An ST\_DoubleOrAutomatic attribute[<556>](#Appendix_A_556" \o "Product behavior note 556) that specifies the minimum value of the scale.

**majorUnit:** An [ST\_ValueAxisUnit](#Section_2278d2aaeeb243508e7fc4e69d1cc1e1) attribute[<557>](#Appendix_A_557" \o "Product behavior note 557) that specifies the unit interval amount for major ticks.

**minorUnit:** An ST\_ValueAxisUnit attribute[<558>](#Appendix_A_558" \o "Product behavior note 558) that specifies the unit interval amount for minor ticks.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ValueAxisScaling">
2. <xsd:attribute name="max" type="ST\_DoubleOrAutomatic" use="optional"/>
3. <xsd:attribute name="min" type="ST\_DoubleOrAutomatic" use="optional"/>
4. <xsd:attribute name="majorUnit" type="ST\_ValueAxisUnit" use="optional"/>
5. <xsd:attribute name="minorUnit" type="ST\_ValueAxisUnit" use="optional"/>
6. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ValueColorEndPosition

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ValueColorPositions](#Section_f2cae9d3c8f04afca293d3219902efb9)

A complex type[<559>](#Appendix_A_559" \o "Product behavior note 559) that specifies the position of either the minimum or maximum stop of a gradient for representing data values as color.

*Child Elements:*

**extremeValue:** A [CT\_ExtremeValueColorPosition](#Section_01eb4218987b473bac3e9205928b5552) element[<560>](#Appendix_A_560" \o "Product behavior note 560) that specifies whether the position is the minimum or maximum stop of the gradient.

**number:** A [CT\_NumberColorPosition](#Section_14784ab5630e405097bd7bea71e58a42) element[<561>](#Appendix_A_561" \o "Product behavior note 561) that specifies that the position’s location on the gradient is determined by a fixed numerical value.

**percent:** A [CT\_PercentageColorPosition](#Section_1fa8040b28c349f494ddbd68aad92735) element[<562>](#Appendix_A_562" \o "Product behavior note 562) that specifies that the position’s location on the gradient is determined by a fixed percent value of the data value range represented by the gradient. The minimum percent value is 0, the maximum is 100.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ValueColorEndPosition">
2. <xsd:choice minOccurs="1" maxOccurs="1">
3. <xsd:element name="extremeValue" type="CT\_ExtremeValueColorPosition"/>
4. <xsd:element name="number" type="CT\_NumberColorPosition"/>
5. <xsd:element name="percent" type="CT\_PercentageColorPosition"/>
6. </xsd:choice>
7. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ValueColorMiddlePosition

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ValueColorPositions](#Section_f2cae9d3c8f04afca293d3219902efb9)

A complex type[<563>](#Appendix_A_563" \o "Product behavior note 563) that specifies the position of the stop of a gradient between the minimum and maximum for representing data values as color.

*Child Elements:*

**number:** A [CT\_NumberColorPosition](#Section_14784ab5630e405097bd7bea71e58a42) element[<564>](#Appendix_A_564" \o "Product behavior note 564) that specifies that the position’s location on the gradient is determined by a fixed numerical value.

**percent:** A [CT\_PercentageColorPosition](#Section_1fa8040b28c349f494ddbd68aad92735) element[<565>](#Appendix_A_565" \o "Product behavior note 565) that specifies that the position’s location on the gradient is determined by a fixed percent value of the data value range represented by the gradient. The minimum percent value is 0, the maximum is 100.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ValueColorMiddlePosition">
2. <xsd:choice minOccurs="1" maxOccurs="1">
3. <xsd:element name="number" type="CT\_NumberColorPosition"/>
4. <xsd:element name="percent" type="CT\_PercentageColorPosition"/>
5. </xsd:choice>
6. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ValueColorPositions

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Series](#Section_86df19ea8e9449fc9160377c1b40b985)

A complex type[<566>](#Appendix_A_566" \o "Product behavior note 566) that specifies the positions of individual stops composing a gradient for representing data values as color.

*Child Elements:*

**min:** A [CT\_ValueColorEndPosition](#Section_6b29dfeceade47f4a35544a2e66dcda5) element[<567>](#Appendix_A_567" \o "Product behavior note 567) that specifies the position of the lowest data value represented by the gradient. If this element is not specified, it is equal to the lowest value of the data value range.

**mid:** A [CT\_ValueColorMiddlePosition](#Section_5f5de438bf0141ad8cd990e34e49d186) element[<568>](#Appendix_A_568" \o "Product behavior note 568) that specifies the position between the lowest and highest data values represented by the gradient. If this element is not specified, it is equal to the midpoint value between the lowest and highest data values represented by the gradient.

**max:** A CT\_ValueColorEndPosition element[<569>](#Appendix_A_569" \o "Product behavior note 569) that specifies the position of the highest data value represented by the gradient. If this element is not specified, it is equal to the highest value of the data value range.

*Attributes:*

**count:** An [ST\_ValueColorPositionCount](#Section_89ae935efc0e480bb09b2d33759c8697) attribute[<570>](#Appendix_A_570" \o "Product behavior note 570) that specifies the number of stops in the gradient. If the value is equal to 2, then the mid element is ignored.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ValueColorPositions">
2. <xsd:sequence>
3. <xsd:element name="min" type="CT\_ValueColorEndPosition" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="mid" type="CT\_ValueColorMiddlePosition" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="max" type="CT\_ValueColorEndPosition" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. <xsd:attribute name="count" type="ST\_ValueColorPositionCount" use="optional" default="2"/>
8. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ValueColors

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Series](#Section_86df19ea8e9449fc9160377c1b40b985)

A complex type[<571>](#Appendix_A_571" \o "Product behavior note 571) that specifies the color of individual stops composing a gradient for representing data values as color.

*Child Elements:*

**minColor:** A **CT\_SolidColorFillProperties** ([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section A.4.1) element[<572>](#Appendix_A_572" \o "Product behavior note 572) that specifies the color of the lowest position of the gradient.

**midColor:** A **CT\_SolidColorFillProperties** ([ISO/IEC29500-4:2016] section A.4.1) element[<573>](#Appendix_A_573" \o "Product behavior note 573) that specifies the color of the position between the lowest and highest positions of the gradient.

**maxColor:** A **CT\_SolidColorFillProperties** ([ISO/IEC29500-4:2016] section A.4.1) element[<574>](#Appendix_A_574" \o "Product behavior note 574) that specifies the color of the highest position of the gradient.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ValueColors">
2. <xsd:sequence>
3. <xsd:element name="minColor" type="a:CT\_SolidColorFillProperties" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="midColor" type="a:CT\_SolidColorFillProperties" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="maxColor" type="a:CT\_SolidColorFillProperties" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. </xsd:complexType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

#### ST\_AxisId

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Axis](#Section_f2235d6d370d49b98a742232ffc8ab76), [CT\_Series](#Section_86df19ea8e9449fc9160377c1b40b985)

This simple type[<575>](#Appendix_A_575" \o "Product behavior note 575) specifies an axis identifier.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_AxisId">
2. <xsd:restriction base="xsd:unsignedInt"/>
3. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_AxisUnit

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_AxisUnits](#Section_b2d05c3fa2f24c549160bdb3a0a4ea5d)

This simple type[<576>](#Appendix_A_576" \o "Product behavior note 576) specifies the display units for an axis.

| Value | Meaning |
| --- | --- |
| hundreds | The values on the chart shall be divided by 100. |
| thousands | The values on the chart shall be divided by 1,000. |
| tenThousands | The values on the chart shall be divided by 10,000. |
| hundredThousands | The values on the chart shall be divided by 100,000. |
| millions | The values on the chart shall be divided by 1,000,000. |
| tenMillions | The values on the chart shall be divided by 10,000,000. |
| hundredMillions | The values on the chart shall be divided by 100,000,000. |
| billions | The values on the chart shall be divided by 1,000,000,000. |
| trillions | The values on the chart shall be divided by 1,000,000,000,000. |
| percentage | The values on the chart shall be divided by 0.01. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_AxisUnit">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="hundreds"/>
4. <xsd:enumeration value="thousands"/>
5. <xsd:enumeration value="tenThousands"/>
6. <xsd:enumeration value="hundredThousands"/>
7. <xsd:enumeration value="millions"/>
8. <xsd:enumeration value="tenMillions"/>
9. <xsd:enumeration value="hundredMillions"/>
10. <xsd:enumeration value="billions"/>
11. <xsd:enumeration value="trillions"/>
12. <xsd:enumeration value="percentage"/>
13. </xsd:restriction>
14. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_DataId

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_DataId](#Section_ed0f546dab0a48ddb2fbbd39f67b488a), [CT\_Data](#Section_b895f5cfd6a54fc1b5667b594b2a4e60)

This simple type[<577>](#Appendix_A_577" \o "Product behavior note 577) specifies a data identifier. The identifier MUST be unique in a chart's XML file.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_DataId">
2. <xsd:restriction base="xsd:unsignedInt"/>
3. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_DataLabelPos

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_DataLabel](#Section_b35bbd841663401daddfb1cabe61a54f), [CT\_DataLabels](#Section_ab25525c374c46c9997ecee7cc73436e)

This simple type[<578>](#Appendix_A_578" \o "Product behavior note 578) specifies data label position options. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| bestFit | (Best Fit) Specifies that data labels shall be displayed in the best position. |
| b | (Bottom) Specifies that data labels shall be displayed below the data marker. |
| ctr | (Center) Specifies that data labels shall be displayed centered on the data marker. |
| inBase | (Inside Base) Specifies that data labels shall be displayed inside the base of the data marker. |
| inEnd | (Inside End) Specifies that data labels shall be displayed inside the end of the data marker. |
| l | (Left) Specifies that data labels shall be displayed to the left of the data marker. |
| outEnd | (Outside End) Specifies that data labels shall be displayed outside the end of the data marker. |
| r | (Right) Specifies that data labels shall be displayed to the right of the data marker. |
| t | (Top) Specifies that data labels shall be displayed above the data marker. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_DataLabelPos">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="bestFit"/>
4. <xsd:enumeration value="b"/>
5. <xsd:enumeration value="ctr"/>
6. <xsd:enumeration value="inBase"/>
7. <xsd:enumeration value="inEnd"/>
8. <xsd:enumeration value="l"/>
9. <xsd:enumeration value="outEnd"/>
10. <xsd:enumeration value="r"/>
11. <xsd:enumeration value="t"/>
12. </xsd:restriction>
13. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_DoubleOrAutomatic

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ValueAxisScaling](#Section_bd42958defa444009647a0b3cb3d1beb), [CT\_Binning](#Section_2e5dfc5ad3b74390bc00188a2fefcb3a)

This simple type[<579>](#Appendix_A_579" \o "Product behavior note 579) specifies a value as either a double value, or the enumeration "auto" to indicate automatic valuing.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_DoubleOrAutomatic">
2. <xsd:union memberTypes="xsd:double">
3. <xsd:simpleType>
4. <xsd:restriction base="xsd:string">
5. <xsd:enumeration value="auto"/>
6. </xsd:restriction>
7. </xsd:simpleType>
8. </xsd:union>
9. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_EntityType

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_GeoLocationQuery](#Section_7f0cdca3ab8f4c25a1b2753509a66d60), [CT\_GeoLocation](#Section_d96c3ae5e13141fdb863aae9e6661e51), [CT\_GeoDataEntityQuery](#Section_dc8861a499824677ac2aa92aaebdbfd7), [CT\_GeoDataPointQuery](#Section_e5b5c4de54ff425e94875a7b6f5fdfe3), [CT\_GeoDataPointToEntityQuery](#Section_2220029258a641ff85873ede1eb1f3f5), [CT\_GeoChildTypes](#Section_85dd6e4a86cb40f6a2f434daec0c06e4), [CT\_GeoHierarchyEntity](#Section_5ce68a3f5dcc48889d2258b93ed894f1)

This simple type[<580>](#Appendix_A_580" \o "Product behavior note 580) specifies a geographical classification of a geographical entity.

| Value | Meaning |
| --- | --- |
| Address | Specifies that the geographical entity is of type address. |
| AdminDistrict | Specifies that the geographical entity is the first order administrative subdivision of a country or region, such as a state or province. |
| AdminDistrict2 | Specifies that the geographical entity is the second order administrative subdivision of a country or region, such as a county. |
| AdminDistrict3 | Specifies that the geographical entity is the third order administrative subdivision of a country or region. |
| Continent | Specifies that the geographical entity is of type continent. |
| CountryRegion | Specifies that the geographical entity is of type country/region. |
| Locality | Specifies that the geographical entity is of type locality, such as a city or town. |
| Ocean | Specifies that the geographical entity is of type ocean, such as the Atlantic Ocean. |
| Planet | Specifies that the geographical entity is of type planet, such as Earth. |
| PostalCode | Specifies that the geographical entity is of type postal code. |
| Region | Specifies that the geographical entity is of type region. |
| Unsupported | Specifies that the geographical entity is of an unsupported type. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_EntityType">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="Address"/>
4. <xsd:enumeration value="AdminDistrict"/>
5. <xsd:enumeration value="AdminDistrict2"/>
6. <xsd:enumeration value="AdminDistrict3"/>
7. <xsd:enumeration value="Continent"/>
8. <xsd:enumeration value="CountryRegion"/>
9. <xsd:enumeration value="Locality"/>
10. <xsd:enumeration value="Ocean"/>
11. <xsd:enumeration value="Planet"/>
12. <xsd:enumeration value="PostalCode"/>
13. <xsd:enumeration value="Region"/>
14. <xsd:enumeration value="Unsupported"/>
15. </xsd:restriction>
16. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_FormulaDirection

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Formula](#Section_174c9b3329d84764a3c87ad71abf4424)

This simple type[<581>](#Appendix_A_581" \o "Product behavior note 581) specifies data reference orientations, such as for an Excel formula. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| col | The formula is interpreted as producing dimensions column-wise. |
| row | The formula is interpreted as producing dimensions row-wise. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_FormulaDirection">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="col"/>
4. <xsd:enumeration value="row"/>
5. </xsd:restriction>
6. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_GapWidthRatio

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_CategoryAxisScaling](#Section_a630f348bc494045b2aad6b1fb6f22b6)

This simple type[<582>](#Appendix_A_582" \o "Product behavior note 582) specifies the gap width ratio, which is the space between data points as a ratio of gap width over category width.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_GapWidthRatio">
2. <xsd:union>
3. <xsd:simpleType>
4. <xsd:restriction base="xsd:double">
5. <xsd:minInclusive value="0"/>
6. </xsd:restriction>
7. </xsd:simpleType>
8. <xsd:simpleType>
9. <xsd:restriction base="xsd:string">
10. <xsd:enumeration value="auto"/>
11. </xsd:restriction>
12. </xsd:simpleType>
13. </xsd:union>
14. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_GeoMappingLevel

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Geography](#Section_5e722ee2d933454f81988490cbf17e77)

This simple type[<583>](#Appendix_A_583" \o "Product behavior note 583) specifies the level of view for the geospatial series.

| Value | Meaning |
| --- | --- |
| dataOnly | Specifies that only regions which correspond to data points in the geographical category of a geospatial series are in view. |
| postalCode | Specifies that the level of view for the geospatial series is set to the postal code level. |
| county | Specifies that the level of view for the geospatial series is set to the county level. |
| state | Specifies that the level of view for the geospatial series is set to the state or province level. |
| countryRegion | Specifies that the level of view for the geospatial series is set to the country/region level. |
| countryRegionList | Specifies that the level of view for the geospatial series is set to the continent level. |
| world | Specifies that the level of view for the geospatial series is set to the world. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_GeoMappingLevel">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="dataOnly"/>
4. <xsd:enumeration value="postalCode"/>
5. <xsd:enumeration value="county"/>
6. <xsd:enumeration value="state"/>
7. <xsd:enumeration value="countryRegion"/>
8. <xsd:enumeration value="countryRegionList"/>
9. <xsd:enumeration value="world"/>
10. </xsd:restriction>
11. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_GeoProjectionType

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Geography](#Section_5e722ee2d933454f81988490cbf17e77)

This simple type[<584>](#Appendix_A_584" \o "Product behavior note 584) specifies the cartographic map projection for a geospatial series.

| Value | Meaning |
| --- | --- |
| mercator | Specifies a Mercator projection for the geospatial series. |
| miller | Specifies a Miller cylindrical projection for the geospatial series. |
| robinson | Specifies a Robinson projection for the geospatial series. |
| albers | Specifies an Albers equal-area conic projection for the geospatial series. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_GeoProjectionType">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="mercator"/>
4. <xsd:enumeration value="miller"/>
5. <xsd:enumeration value="robinson"/>
6. <xsd:enumeration value="albers"/>
7. </xsd:restriction>
8. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_IntervalClosedSide

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Binning](#Section_2e5dfc5ad3b74390bc00188a2fefcb3a)

This simple type[<585>](#Appendix_A_585" \o "Product behavior note 585) specifies the interval closed side. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| l | The interval is closed on the left side. |
| r | The inerval is closed on the right side. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_IntervalClosedSide">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="l"/>
4. <xsd:enumeration value="r"/>
5. </xsd:restriction>
6. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_NumericDimensionType

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_NumericDimension](#Section_37fbbd78c3e64f339d0b3fe428ad1c09)

This simple type[<586>](#Appendix_A_586" \o "Product behavior note 586) specifies numeric dimension data types. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| val | The dimension is a value. |
| x | The dimension is an x-coordinate. |
| y | The dimension is a y-coordinate. |
| size | The dimension is a size. |
| colorVal | The dimension is a value determining a color. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_NumericDimensionType">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="val"/>
4. <xsd:enumeration value="x"/>
5. <xsd:enumeration value="y"/>
6. <xsd:enumeration value="size"/>
7. <xsd:enumeration value="colorVal"/>
8. </xsd:restriction>
9. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_PageOrientation

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_PageSetup](#Section_784462903a6f4d9fbc9ef5f50f6322c0)

This simple type[<587>](#Appendix_A_587" \o "Product behavior note 587) specifies an enumeration of page orientations. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| default | The orientation is not specified, use the default. |
| portrait | Portrait orientation. |
| landscape | Landscape orientation. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_PageOrientation">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="default"/>
4. <xsd:enumeration value="portrait"/>
5. <xsd:enumeration value="landscape"/>
6. </xsd:restriction>
7. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_ParentLabelLayout

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ParentLabelLayout](#Section_748b67645358450db0d94a07525915fa)

This simple type[<588>](#Appendix_A_588" \o "Product behavior note 588) specifies parent label layout types. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| none | No parent labels are shown. |
| banner | The parent label layout is a banner above the category. |
| overlapping | The parent label is laid out within the category. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_ParentLabelLayout">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="none"/>
4. <xsd:enumeration value="banner"/>
5. <xsd:enumeration value="overlapping"/>
6. </xsd:restriction>
7. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_PosAlign

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ChartTitle](#Section_deda6fcebc6b4873bf8a2a469fd143aa), [CT\_Legend](#Section_9575d5ad48014b29818af611a304654d)

This simple type[<589>](#Appendix_A_589" \o "Product behavior note 589) specifies the side position alignment of a chart element. The side is specified by the [ST\_SidePos](#Section_8d5550e8f4ca435e901b91b316bbcd5c) simple type. Possible values of **ST\_PosAlign** are described in the following table.

| Value | Meaning |
| --- | --- |
| min | The chart element is positioned at the top of the side. |
| ctr | The chart element is positioned at the center of the side. |
| max | The chart element is positioned at the bottom of the side. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_PosAlign">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="min"/>
4. <xsd:enumeration value="ctr"/>
5. <xsd:enumeration value="max"/>
6. </xsd:restriction>
7. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_QuartileMethod

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Statistics](#Section_2f21033a29c64283a9b563d465544799)

This simple type[<590>](#Appendix_A_590" \o "Product behavior note 590) specifies quartile calculation methods. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| inclusive | The quartile calculation includes the median when splitting the dataset into quartiles. |
| exclusive | The qartile calculation excludes the median when splitting the dataset into quartiles. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_QuartileMethod">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="inclusive"/>
4. <xsd:enumeration value="exclusive"/>
5. </xsd:restriction>
6. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_RegionLabelLayout

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_RegionLabelLayout](#Section_0164520ddbce49948c595a6d9d8af63e)

This simple type[<591>](#Appendix_A_591" \o "Product behavior note 591) specifies the layout type for region labels of a geospatial series.

| Value | Meaning |
| --- | --- |
| none | Specifies that no region labels appear in a geospatial series. |
| bestFitOnly | Specifies that region labels only appear if they can fit in their respective containing geometries in a geospatial series. |
| showAll | Specifies that all region labels appear. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_RegionLabelLayout">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="none"/>
4. <xsd:enumeration value="bestFitOnly"/>
5. <xsd:enumeration value="showAll"/>
6. </xsd:restriction>
7. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_SeriesLayout

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_Series](#Section_86df19ea8e9449fc9160377c1b40b985)

This simple type[<592>](#Appendix_A_592" \o "Product behavior note 592) specifies series layout types. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| boxWhisker | The series is laid out as box and whisker. |
| clusteredColumn | The series is laid out as clustered columns. |
| funnel | This series is laid out as a funnel. |
| paretoLine | The series is laid out as pareto lines. |
| regionMap | This series is laid out as a region-based map, also known as a choropleth map. |
| sunburst | The series is laid out as a sunburst. |
| treemap | The series is laid out as a treemap. |
| waterfall | The series is laid out as a waterfall. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_SeriesLayout">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="boxWhisker"/>
4. <xsd:enumeration value="clusteredColumn"/>
5. <xsd:enumeration value="funnel"/>
6. <xsd:enumeration value="paretoLine"/>
7. <xsd:enumeration value="regionMap"/>
8. <xsd:enumeration value="sunburst"/>
9. <xsd:enumeration value="treemap"/>
10. <xsd:enumeration value="waterfall"/>
11. </xsd:restriction>
12. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_SidePos

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ChartTitle](#Section_deda6fcebc6b4873bf8a2a469fd143aa), [CT\_Legend](#Section_9575d5ad48014b29818af611a304654d)

This simple type[<593>](#Appendix_A_593" \o "Product behavior note 593) specifies an enumeration of side positions. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| l | The title or legend is on the left side. |
| t | The title or legend is on the top. |
| r | The title or legend is on the right side. |
| b | The title or legend is on the bottom. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_SidePos">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="l"/>
4. <xsd:enumeration value="t"/>
5. <xsd:enumeration value="r"/>
6. <xsd:enumeration value="b"/>
7. </xsd:restriction>
8. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_StringDimensionType

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_StringDimension](#Section_ab157fdd8e5a4b428205aaf41384d457)

This simple type[<594>](#Appendix_A_594" \o "Product behavior note 594) specifies an enumeration of string dimension data types. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| cat | Specifies the category string dimension data type. |
| colorStr | Specifies the string dimension associated with a color. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_StringDimensionType">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="cat"/>
4. <xsd:enumeration value="colorStr"/>
5. </xsd:restriction>
6. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_TickMarksType

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_TickMarks](#Section_1200f47fcb664c738bd8b7ba2b27849b)

This simple type[<595>](#Appendix_A_595" \o "Product behavior note 595) specifies an enumeration of layout types for tick marks. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| in | The tick marks are inside the plot area. |
| out | The tick marks are outside the plot area. |
| cross | The tick marks cross the axis. |
| none | There are no tick marks. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_TickMarksType">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="in"/>
4. <xsd:enumeration value="out"/>
5. <xsd:enumeration value="cross"/>
6. <xsd:enumeration value="none"/>
7. </xsd:restriction>
8. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_ValueAxisUnit

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ValueAxisScaling](#Section_bd42958defa444009647a0b3cb3d1beb)

This simple type[<596>](#Appendix_A_596" \o "Product behavior note 596) specifies the value axis unit.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_ValueAxisUnit">
2. <xsd:union>
3. <xsd:simpleType>
4. <xsd:restriction base="xsd:double">
5. <xsd:minExclusive value="0"/>
6. </xsd:restriction>
7. </xsd:simpleType>
8. <xsd:simpleType>
9. <xsd:restriction base="xsd:string">
10. <xsd:enumeration value="auto"/>
11. </xsd:restriction>
12. </xsd:simpleType>
13. </xsd:union>
14. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_ValueColorPositionCount

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/chartex

*Referenced by:* [CT\_ValueColorPositions](#Section_f2cae9d3c8f04afca293d3219902efb9)

A simple type[<597>](#Appendix_A_597" \o "Product behavior note 597) that specifies the number of color stops composing a gradient for representing data values as color

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_ValueColorPositionCount">
2. <xsd:restriction base="xsd:int">
3. <xsd:minInclusive value="2"/>
4. <xsd:maxInclusive value="3"/>
5. </xsd:restriction>
6. </xsd:simpleType>

See section [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

## http://schemas.microsoft.com/office/drawing/2014/main

### Elements

#### colId

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/main

A [CT\_Identifier](#Section_e3f3b4edab094eb8817ed89c44535e45) element[<598>](#Appendix_A_598" \o "Product behavior note 598) which is used to distinguish a column uniquely.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="colId" type="CT\_Identifier"/>

See section [5.23](#Section_55a2958e599f46a08812029155d485cb) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### creationId

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/main

A [CT\_CreationId](#Section_7b70d63414694275bc1ff77375d39641) element specifies the creation ID for a given element.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="creationId" type="CT\_CreationId"/>

See section [5.23](#Section_55a2958e599f46a08812029155d485cb) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### cxnDERefs

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/main

A [CT\_ConnectableReferences](#Section_da5bcec755b6423f963445e82cf5f7cf) element that specifies the connected drawing elements for a connector.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="cxnDERefs" type="CT\_ConnectableReferences"/>

See section [5.23](#Section_55a2958e599f46a08812029155d485cb) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### predDERef

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/main

A [CT\_PredecessorDrawingElementReference](#Section_820f48a221854ef6a4eedb38eaca6502) element that specifies the preceding sibling for a drawing element.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="predDERef" type="CT\_PredecessorDrawingElementReference"/>

See section [5.23](#Section_55a2958e599f46a08812029155d485cb) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### rowId

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/main

A [CT\_Identifier](#Section_e3f3b4edab094eb8817ed89c44535e45) element[<599>](#Appendix_A_599" \o "Product behavior note 599) which is used to distinguish a row uniquely.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="rowId" type="CT\_Identifier"/>

See section [5.23](#Section_55a2958e599f46a08812029155d485cb) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_Identifier

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/main

*Referenced by:* [rowId](#Section_0cfb72cdce1f4be9973ef3b95e73d008), [colId](#Section_4ca9b64cf5004d3b8d7867af6b591c26)

A complex type[<600>](#Appendix_A_600" \o "Product behavior note 600) that specifies a unique identifier for a row or column.

*Attributes:*

**val:** An **unsignedInt** ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22) attribute[<601>](#Appendix_A_601" \o "Product behavior note 601) that specifies a unique identifier created by a random number generator.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Identifier">
2. <xsd:attribute name="val" type="xsd:unsignedInt" use="required"/>
3. </xsd:complexType>

See section [5.23](#Section_55a2958e599f46a08812029155d485cb) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_CreationId

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/main

*Referenced by:* [creationId](#Section_f4da5f85bb284ea4859ff1e23801f737)

A complex type that specifies an identifier for a drawing element.

*Attributes:*

**id:** An ST\_Guid ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 22.9.2.4) attribute that is used to identify a drawing element.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_CreationId">
2. <xsd:attribute name="id" type="a:ST\_Guid" use="optional"/>
3. </xsd:complexType>

See section [5.23](#Section_55a2958e599f46a08812029155d485cb) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ConnectableReferences

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/main

*Referenced by:* [cxnDERefs](#Section_27f7d086a2e248c0a64f863b10801897)

Defines a connection by the [creationId](#Section_f4da5f85bb284ea4859ff1e23801f737) of the shapes.

*Attributes:*

**st:** An ST\_Guid ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 22.9.2.4) attribute that specifies the id value of the creationId of the shape for the start of the connection.

**end:** An ST\_Guid ([ISO/IEC29500-1:2016] section 22.9.2.4) attribute that specifies the id value of the creationId of the shape for the end of the connection.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ConnectableReferences">
2. <xsd:attribute name="st" type="a:ST\_Guid" use="optional"/>
3. <xsd:attribute name="end" type="a:ST\_Guid" use="optional"/>
4. </xsd:complexType>

See section [5.23](#Section_55a2958e599f46a08812029155d485cb) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PredecessorDrawingElementReference

*Target namespace:* http://schemas.microsoft.com/office/drawing/2014/main

*Referenced by:* [predDERef](#Section_a29c4682a2ac4d74be6aac1d90ee5ded)

Defines the preceding drawing element by [creationId](#Section_f4da5f85bb284ea4859ff1e23801f737).

*Attributes:*

**pred:** An ST\_Guid ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 22.9.2.4) attribute that specifies the id value of the creationId of the preceding drawing element.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PredecessorDrawingElementReference">
2. <xsd:attribute name="pred" type="a:ST\_Guid" use="optional"/>
3. </xsd:complexType>

See section [5.23](#Section_55a2958e599f46a08812029155d485cb) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

None.

## http://schemas.microsoft.com/office/drawing/2016/SVG/main

### Elements

#### svgBlip

*Target namespace:* http://schemas.microsoft.com/office/drawing/2016/SVG/main

A [CT\_SVGBlip](#Section_68e0150d6a014ba5ac4d5a18d685229b) element that specifies a graphic element in Scalable Vector Graphics (SVG) format.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="svgBlip" type="CT\_SVGBlip"/>

See section [5.24](#Section_cc083f6dbc384ff4b32a5bc97df8addc) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_SVGBlip

*Target namespace:* http://schemas.microsoft.com/office/drawing/2016/SVG/main

*Referenced by:* [svgBlip](#Section_2451f45e5d77466186d10a017fced779)

A complex type[<602>](#Appendix_A_602" \o "Product behavior note 602) that identifies an SVG resource.

*Attributes:*

**r:embed:** An ST\_RelationshipId ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 22.8.2.1) attribute that specifies the identification information for an embedded binary object that resides locally within the file.

**r:link:** An ST\_RelationshipId ([ISO/IEC29500-1:2016] section 22.8.2.1) attribute that specifies the identification information for a binary object. This attribute is used to specify an object that does not reside within this file.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_SVGBlip">
2. <xsd:attributeGroup ref="a:AG\_Blob"/>
3. </xsd:complexType>

See section [5.24](#Section_cc083f6dbc384ff4b32a5bc97df8addc) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

None.

## http://schemas.microsoft.com/office/drawing/2016/11/main

### Elements

#### picAttrSrcUrl

*Target namespace:* http://schemas.microsoft.com/office/drawing/2016/11/main

A [CT\_PictureAttributionSourceURL](#Section_bec18c3c0d6e41208cb58e00fb757e24) element that specifies the page URL of the picture source.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="picAttrSrcUrl" type="CT\_PictureAttributionSourceURL"/>

See section [5.25](#Section_96e8cdeb7774461b957e09b7ec8e2765) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_PictureAttributionSourceURL

*Target namespace:* http://schemas.microsoft.com/office/drawing/2016/11/main

*Referenced by:* [picAttrSrcUrl](#Section_7bbf1bac6d0d48b8ab83ebe03c2a9137), [CT\_Model3D](#Section_fd67669583fa4e928b654503ecbff9cc)

A complex type[<603>](#Appendix_A_603" \o "Product behavior note 603) that defines the page URL of the picture source.

*Attributes:*

**r:id:** An ST\_RelationshipId ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 22.8.2.1) attribute that specifies the relationship identifier to a content part which contains the URL.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureAttributionSourceURL">
2. <xsd:attribute ref="r:id" use="required"/>
3. </xsd:complexType>

See section [5.25](#Section_96e8cdeb7774461b957e09b7ec8e2765) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

None.

## http://schemas.microsoft.com/office/drawing/2016/11/diagram

### Elements

#### autoBuNodeInfoLst

*Target namespace:* http://schemas.microsoft.com/office/drawing/2016/11/diagram

A [CT\_NumberDiagramInfoList](#Section_546bb496c90248358080fbf17902323a) element that specifies auto number information for the diagram.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="autoBuNodeInfoLst" type="CT\_NumberDiagramInfoList"/>

See section [5.26](#Section_8607d4b72dc845e79317808373935e47) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_DiagramAutoBullet

*Target namespace:* http://schemas.microsoft.com/office/drawing/2016/11/diagram

*Referenced by:* [CT\_NumberDiagramInfo](#Section_ef80664cb5544bfd8c9a677faebad1e0)

A complex type that specifies the type of auto number.

*Child Elements:*

**buNone:** A CT\_TextNoBullet[<604>](#Appendix_A_604" \o "Product behavior note 604) ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that represents no auto number.

**buAutoNum:** A CT\_TextAutonumberBullet ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the auto number type to be applied for transition elements.

**buChar:** A CT\_TextCharBullet[<605>](#Appendix_A_605" \o "Product behavior note 605) ([ISO/IEC29500-1:2016] section A.4.1) element specifies that a character be applied to the auto number.

**buBlip:** A CT\_TextBlipBullet[<606>](#Appendix_A_606" \o "Product behavior note 606) ([ISO/IEC29500-1:2016] section A.4.1) element specifies that a picture be applied to the auto number.

*Attributes:*

**prefix:** A string ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute that specifies the prefix for the auto number.

**leadZeros:** A boolean ([XMLSCHEMA2] section 3.2.2) attribute that specifies whether to show leading zeros for Arabic numbers below 10.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_DiagramAutoBullet" o:cname="DiagramAutoBullet" o:cwrap="DiagramAutoBulletMethods">
2. <xsd:group ref="a:EG\_TextBullet" minOccurs="1" maxOccurs="1"/>
3. <xsd:attribute name="prefix" type="xsd:string" o:cname="prefix" use="optional"/>
4. <xsd:attribute name="leadZeros" type="xsd:boolean" o:cname="leadZeros" use="optional"/>
5. </xsd:complexType>

See section [5.26](#Section_8607d4b72dc845e79317808373935e47) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_NumberDiagramInfo

*Target namespace:* http://schemas.microsoft.com/office/drawing/2016/11/diagram

*Referenced by:* [CT\_NumberDiagramInfoList](#Section_546bb496c90248358080fbf17902323a)

A complex type that specifies the properties of auto number for one level of transition element.

*Child Elements:*

**buPr:** A [CT\_DiagramAutoBullet](#Section_3063074bef644415b45a0c884fa641fe) element that specifies the type of auto number.

*Attributes:*

**lvl:** An unsignedInt ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.22) attribute that specifies the level of the transition element.

**ptType:** An [ST\_STorageType](#Section_f8f23dbaada94b26ade4515e6c17ce86) attribute that specifies which transition element to store the auto number.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_NumberDiagramInfo" o:cname="NumberDiagramInfo" o:cwrap="NumberDiagramInfoMethods">
2. <xsd:sequence>
3. <xsd:element name="buPr" type="CT\_DiagramAutoBullet" minOccurs="1" maxOccurs="1" o:cname="bulletProps"/>
4. </xsd:sequence>
5. <xsd:attribute name="lvl" type="xsd:unsignedInt" o:cname="lvl" use="required"/>
6. <xsd:attribute name="ptType" type="ST\_STorageType" o:cname="ptType" use="required"/>
7. </xsd:complexType>

See section [5.26](#Section_8607d4b72dc845e79317808373935e47) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_NumberDiagramInfoList

*Target namespace:* http://schemas.microsoft.com/office/drawing/2016/11/diagram

*Referenced by:* [autoBuNodeInfoLst](#Section_c6ac6c1058f1450ca69dacafffff25fc)

A complex type that holds auto number information for multiple levels of diagram nodes.

*Child Elements:*

**autoBuNodeInfo:** A [CT\_NumberDiagramInfo](#Section_ef80664cb5544bfd8c9a677faebad1e0) element that specifies auto number information for one level of nodes.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_NumberDiagramInfoList" o:cname="NumberDiagramInfoList" o:cwrap="noTemplate">
2. <xsd:sequence>
3. <xsd:element name="autoBuNodeInfo" type="CT\_NumberDiagramInfo" o:cname="autoBulletNodeInfo" minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.26](#Section_8607d4b72dc845e79317808373935e47) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

#### ST\_STorageType

*Target namespace:* http://schemas.microsoft.com/office/drawing/2016/11/diagram

*Referenced by:* [CT\_NumberDiagramInfo](#Section_ef80664cb5544bfd8c9a677faebad1e0)

A simple type that specifies where the auto number is stored.

| Value | Meaning |
| --- | --- |
| sibTrans | Specifies the auto number to be stored in a sibling transition element. |
| parTrans | Specifies the auto number to be stored in a parent transition element. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_STorageType" o:cname="StoreType">
2. <xsd:restriction base="xsd:token">
3. <xsd:enumeration value="sibTrans"/>
4. <xsd:enumeration value="parTrans"/>
5. </xsd:restriction>
6. </xsd:simpleType>

See section [5.26](#Section_8607d4b72dc845e79317808373935e47) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

## http://schemas.microsoft.com/office/drawing/2013/main/command

### Elements

#### cxnSpMkLst

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

A [CT\_ConnectorMonikerList](#Section_84f185a060cc482ca3bc0fe8f77e1ba3) element that specifies a content moniker for a connector.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="cxnSpMkLst" type="CT\_ConnectorMonikerList"/>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### graphicFrameMkLst

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

A [CT\_GraphicFrameMonikerList](#Section_20ab4bd0115d420bacf639a3c1323ca5) element that specifies a content moniker for a graphic frame.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="graphicFrameMkLst" type="CT\_GraphicFrameMonikerList"/>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### grpMkLst

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

A [CT\_GroupShapeMonikerList](#Section_ddc415636e6d4970bae27d41908a38f8) element that specifies a content moniker for a group shape.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="grpMkLst" type="CT\_GroupShapeMonikerList"/>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### inkMkLst

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

A [CT\_InkMonikerList](#Section_fe166a7a908f4a1eb0d08af23a19aa14) element that specifies a content moniker for an ink object.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="inkMkLst" type="CT\_InkMonikerList"/>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### picMkLst

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

A [CT\_PictureMonikerList](#Section_50ab148a565341759079f9f18219d7ca) element that specifies a content moniker for a picture.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="picMkLst" type="CT\_PictureMonikerList"/>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### spMkLst

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

A [CT\_ShapeMonikerList](#Section_e8d68b08a01e413b83509e5e36f4e788) element that specifies a content moniker for a shape.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="spMkLst" type="CT\_ShapeMonikerList"/>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_ChangesData

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [CT\_ShapeChanges](#Section_3503bc8c522e4e8d8b25c181f74b44f5), [CT\_GroupShapeChanges](#Section_2eff3165e83448d7807f5ae381242f74), [CT\_ConnectorChanges](#Section_63fe07b39e504e12b86e07a454b09607), [CT\_PictureChanges](#Section_cdd9245f1c984fd0a82713829e1a69d5), [CT\_InkChanges](#Section_58e1d3cdd7954d7f940fcd7c2fb46707), [CT\_GraphicFrameChanges](#Section_5660e2c27f284243b81955a0124a7520)

A complex type that specifies general information about a change made to the content model by a person.

*Child Elements:*

**extLst:** A CT\_OfficeArtExtensionList ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables new types of data to be stored natively within the framework.

*Attributes:*

**name:** A string ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1) attribute that specifies the display name of the person that made the change.

**userId:** A string ([XMLSCHEMA2] section 3.2.1) attribute that specifies a unique user id for a person**.**

**providerId:** A string ([XMLSCHEMA2] section 3.2.1) attribute that specifies the identity provider that produced the subsequent userId attribute.

**clId:** A string ([XMLSCHEMA2] section 3.2.1) attribute that specifies a unique identifier for the device used by the person to make the change.

**email:** A string ([XMLSCHEMA2] section 3.2.1) attribute that specifies the e-mail address of the person who made the change.

**dt:** A dateTime ([XMLSCHEMA2] section 3.2.7) attribute that specifies the date and time at which the change was made.

**v:** An unsignedInt ([XMLSCHEMA2] section 3.3.22) attribute that specifies a unique identifier for the change made by the person on the device. A change that is more recent than another change SHOULD have a greater v value than the other change.

**id:** An ST\_Guid ([ISO/IEC29500-1:2016] section 22.9.2.4) attribute that specifies a unique identifier for the change made by the person.

**actId:** An int ([XMLSCHEMA2] section 3.3.17) attribute that specifies a unique identifier for the user action that made the change.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ChangesData">
2. <xsd:sequence>
3. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
4. </xsd:sequence>
5. <xsd:attributeGroup ref="AG\_ChangesUser"/>
6. <xsd:attributeGroup ref="AG\_ChangesVersion"/>
7. <xsd:attribute name="actId" type="xsd:int" use="optional"/>
8. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ConnectorChanges

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

A complex type that specifies the metadata that describes edits to a connector.

*Child Elements:*

**chgData:** A [CT\_ChangesData](#Section_cc2097c13ace4222a3534e8ec2a89d31) element that specifies metadata common to content model changes.

**cxnSpMkLst:** A [CT\_ConnectorMonikerList](#Section_84f185a060cc482ca3bc0fe8f77e1ba3) element that specifies a content moniker that identifies the edited connector.

**extLst:** A **CT\_OfficeArtExtensionList** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

*Attributes:*

**chg:** An [ST\_ConnectorChangesBits](#Section_4b4a8fda491a48f3ba7f025bd349583a) attribute that specifies the types of edits made to the connector.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ConnectorChanges">
2. <xsd:sequence>
3. <xsd:element name="chgData" type="CT\_ChangesData" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="cxnSpMkLst" type="CT\_ConnectorMonikerList" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. <xsd:attribute name="chg" type="ST\_ConnectorChangesBits" use="required"/>
8. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ConnectorMoniker

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

A complex type that specifies the content moniker information associated with a connector.

*Attributes:*

**id:** An ST\_DrawingElementId ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.10.21) attribute that specifies the identifier of the shape drawing element.

**creationId:** An ST\_Guid ([ISO/IEC29500-1:2016] section 22.9.2.4) attribute that specifies a unique creation ID of the shape.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ConnectorMoniker">
2. <xsd:attributeGroup ref="AG\_DrawingElementId"/>
3. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ConnectorMonikerList

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [cxnSpMkLst](#Section_3c79b982dfbd4c16b78f10f7905a06bd), [CT\_ConnectorChanges](#Section_63fe07b39e504e12b86e07a454b09607)

A complex type that specifies a list of content monikers that together uniquely identifies a connector in a document. The sequence of child elements MUST be a valid CONNECTORMONIKERLIST as specified in the following ABNF (specified in [[RFC5234]](https://go.microsoft.com/fwlink/?LinkId=123096)) grammar.

CONNECTORMONIKERLIST = DRAWINGMONIKERLIST CONNECTORMONIKER

DRAWINGMONIKERLIST = SLIDEBASEMONIKERLIST ([[MS-PPTX]](%5bMS-PPTX%5d.pdf#Section_efd8bb2dd8884e2eaf25cad476730c9f) section 2.12.3.15)

CONNECTORMONIKER = ac:cxnSpMk (section [2.29.3.3](#Section_bc909e08d4ae49229e34e87a8953dfe2))

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ConnectorMonikerList">
2. <xsd:sequence>
3. <xsd:any minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GraphicFrameMoniker

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

A complex type that specifies the content moniker information associated with a graphic frame.

*Attributes:*

**id:** An ST\_DrawingElementId ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.10.21) attribute that specifies the identifier of the shape drawing element.

**creationId:** An ST\_Guid ([ISO/IEC29500-1:2016] section 22.9.2.4) attribute that specifies a unique creation ID of the shape.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GraphicFrameMoniker">
2. <xsd:attributeGroup ref="AG\_DrawingElementId"/>
3. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GraphicFrameMonikerList

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [graphicFrameMkLst](#Section_12a69ab065dc445eb99a419a9a7a9928), [CT\_GraphicFrameChanges](#Section_5660e2c27f284243b81955a0124a7520)

A complex type that specifies a list of content monikers that together uniquely identifies a graphic frame in a document. The sequence of child elements MUST be a valid GRAPHICFRAMEMONIKERLIST as specified in the following ABNF (specified in [[RFC5234]](https://go.microsoft.com/fwlink/?LinkId=123096)) grammar.

GRAPHICFRAMEMONIKERLIST = DRAWINGMONIKERLIST (section [2.29.3.4](#Section_84f185a060cc482ca3bc0fe8f77e1ba3)) GRAPHICFRAMEMONIKER

GRAPHICFRAMEMONIKER = ac:graphicFrameMk (section [2.29.3.5](#Section_4ad197dbde1149778e2f0719bcb33b69))

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GraphicFrameMonikerList">
2. <xsd:sequence>
3. <xsd:any minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GroupShapeChanges

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

A complex type that specifies the metadata that describes edits to a group shape.

*Child Elements:*

**chgData:** A [CT\_ChangesData](#Section_cc2097c13ace4222a3534e8ec2a89d31) element that specifies metadata common to content model changes.

**grpSpMkLst:** A [CT\_GroupShapeMonikerList](#Section_ddc415636e6d4970bae27d41908a38f8) element that specifies a content moniker that identifies the edited group shape.

**extLst:** A **CT\_OfficeArtExtensionList** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

*Attributes:*

**chg:** An [ST\_GroupShapeChangesBits](#Section_00a1d530424d4e7591eba2c3cc0182a8) attribute that specifies the types of edits made to the group shape.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GroupShapeChanges">
2. <xsd:sequence>
3. <xsd:element name="chgData" type="CT\_ChangesData" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="grpSpMkLst" type="CT\_GroupShapeMonikerList" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. <xsd:attribute name="chg" type="ST\_GroupShapeChangesBits" use="required"/>
8. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GroupShapeMoniker

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

A complex type that specifies the content moniker information associated with a group shape.

*Attributes:*

**id:** An ST\_DrawingElementId ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.10.21) attribute that specifies the identifier of the shape drawing element.

**creationId:** An ST\_Guid ([ISO/IEC29500-1:2016] section 22.9.2.4) attribute that specifies a unique creation ID of the shape.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GroupShapeMoniker">
2. <xsd:attributeGroup ref="AG\_DrawingElementId"/>
3. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GroupShapeMonikerList

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [grpMkLst](#Section_461e4d1fb6d045e7ab4c5d4cba772638), [CT\_GroupShapeChanges](#Section_2eff3165e83448d7807f5ae381242f74)

A complex type that specifies a list of content monikers that together uniquely identifies a group shape in a document. The sequence of child elements MUST be a valid GROUPSHAPEMONIKERLIST as specified in the following ABNF (specified in [[RFC5234]](https://go.microsoft.com/fwlink/?LinkId=123096)) grammar.

GROUPSHAPEMONIKERLIST = DRAWINGMONIKERLIST (section [2.29.3.4](#Section_84f185a060cc482ca3bc0fe8f77e1ba3)) GROUPSHAPEMONIKER

GROUPSHAPEMONIKER = ac:grpMk (section [2.29.3.8](#Section_81d7b931e0314f59925883be6669fd0d))

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GroupShapeMonikerList">
2. <xsd:sequence>
3. <xsd:any minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_InkChanges

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

A complex type that specifies the metadata that describes edits to an ink object.

*Child Elements:*

**chgData:** A [CT\_ChangesData](#Section_cc2097c13ace4222a3534e8ec2a89d31) element that specifies metadata common to content model changes.

**inkMkLst:** A [CT\_InkMonikerList](#Section_fe166a7a908f4a1eb0d08af23a19aa14) element that specifies a content moniker that identifies the edited ink object.

**extLst:** A **CT\_OfficeArtExtensionList** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

*Attributes:*

**chg:** An [ST\_InkChangesBits](#Section_eb6484b06a8e427db2aad2950aaa9936) attribute that specifies the types of edits made to the ink object.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_InkChanges">
2. <xsd:sequence>
3. <xsd:element name="chgData" type="CT\_ChangesData" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="inkMkLst" type="CT\_InkMonikerList" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. <xsd:attribute name="chg" type="ST\_InkChangesBits" use="required"/>
8. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_InkMoniker

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

A complex type that specifies the content moniker information associated with an ink object.

*Attributes:*

**id:** An ST\_DrawingElementId ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.10.21) attribute that specifies the identifier of the shape drawing element.

**creationId:** An ST\_Guid ([ISO/IEC29500-1:2016] section 22.9.2.4) attribute that specifies a unique creation ID of the shape.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_InkMoniker">
2. <xsd:attributeGroup ref="AG\_DrawingElementId"/>
3. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_InkMonikerList

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [inkMkLst](#Section_3f8ebd45044944ac91dfe9151e20fc69), [CT\_InkChanges](#Section_58e1d3cdd7954d7f940fcd7c2fb46707)

A complex type that specifies a list of content monikers that together uniquely identifies an ink object in a document. The sequence of child elements MUST be a valid INKMONIKERLIST as specified in the following ABNF (specified in [[RFC5234]](https://go.microsoft.com/fwlink/?LinkId=123096)) grammar.

INKMONIKERLIST = DRAWINGMONIKERLIST (section [2.29.3.4](#Section_84f185a060cc482ca3bc0fe8f77e1ba3)) INKMONIKER

INKMONIKER = ac:inkMk (section [2.29.3.11](#Section_ad5e142fa07f49419c03034249fe939a))

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_InkMonikerList">
2. <xsd:sequence>
3. <xsd:any minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureChanges

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

A complex type that specifies the metadata that describes edits to a picture.

*Child Elements:*

**chgData:** A [CT\_ChangesData](#Section_cc2097c13ace4222a3534e8ec2a89d31) element that specifies metadata common to content model changes.

**picMkLst:** A [CT\_PictureMonikerList](#Section_50ab148a565341759079f9f18219d7ca) element that specifies a content moniker that identifies the edited picture.

**extLst:** A **CT\_OfficeArtExtensionList** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

*Attributes:*

**chg:** An [ST\_PictureChangesBits](#Section_fd51f8e1f16e46d18316ad6cda1f14c5) attribute that specifies the types of edits made to the picture.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureChanges">
2. <xsd:sequence>
3. <xsd:element name="chgData" type="CT\_ChangesData" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="picMkLst" type="CT\_PictureMonikerList" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. <xsd:attribute name="chg" type="ST\_PictureChangesBits" use="required"/>
8. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureMoniker

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

A complex type that specifies the content moniker information associated with a picture.

*Attributes:*

**id:** An ST\_DrawingElementId ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.10.21) attribute that specifies the identifier of the shape drawing element.

**creationId:** An ST\_Guid ([ISO/IEC29500-1:2016] section 22.9.2.4) attribute that specifies a unique creation ID of the shape.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureMoniker">
2. <xsd:attributeGroup ref="AG\_DrawingElementId"/>
3. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PictureMonikerList

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [picMkLst](#Section_98903e1cebf649d3b6b3a94e89f23907), [CT\_PictureChanges](#Section_cdd9245f1c984fd0a82713829e1a69d5)

A complex type that specifies a list of content monikers that together uniquely identifies a picture in a document. The sequence of child elements MUST be a valid PICTUREMONIKERLIST as specified in the following ABNF (specified in [[RFC5234]](https://go.microsoft.com/fwlink/?LinkId=123096)) grammar.

PICTUREMONIKERLIST = DRAWINGMONIKERLIST (section [2.29.3.4](#Section_84f185a060cc482ca3bc0fe8f77e1ba3)) PICTUREMONIKER

PICTUREMONIKER = ac:picMk (section [2.29.3.14](#Section_f3075a52a8274c77930d76ed9fe7fa60))

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PictureMonikerList">
2. <xsd:sequence>
3. <xsd:any minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ShapeChanges

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

A complex type that specifies the metadata that describes edits to a shape.

*Child Elements:*

**chgData:** A [CT\_ChangesData](#Section_cc2097c13ace4222a3534e8ec2a89d31) element that specifies metadata common to content model changes.

**spMkLst:** A [CT\_ShapeMonikerList](#Section_e8d68b08a01e413b83509e5e36f4e788) element that specifies a content moniker that identifies the edited shape.

**extLst:** A **CT\_OfficeArtExtensionList** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

*Attributes:*

**chg:** An [ST\_ShapeChangesBits](#Section_101b2fa5f95f4624a72e61b090464329) attribute that specifies the types of edits made to a shape.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ShapeChanges">
2. <xsd:sequence>
3. <xsd:element name="chgData" type="CT\_ChangesData" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="spMkLst" type="CT\_ShapeMonikerList" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. <xsd:attribute name="chg" type="ST\_ShapeChangesBits" use="required"/>
8. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ShapeMoniker

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

A complex type that specifies the content moniker information associated with a shape.

*Attributes:*

**id:** An ST\_DrawingElementId ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.10.21) attribute that specifies the identifier of the shape drawing element.

**creationId:** An ST\_Guid ([ISO/IEC29500-1:2016] section 22.9.2.4) attribute that specifies a unique creation ID of the shape.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ShapeMoniker">
2. <xsd:attributeGroup ref="AG\_DrawingElementId"/>
3. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ShapeMonikerList

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [spMkLst](#Section_2f65baaa31ae44e18ba0f3b9251d059b), [CT\_ShapeChanges](#Section_3503bc8c522e4e8d8b25c181f74b44f5)

A complex type that specifies a list of content monikers that together uniquely identifies a shape in a document. The sequence of child elements MUST be a valid SHAPEMONIKERLIST as specified in the following ABNF (specified in [[RFC5234]](https://go.microsoft.com/fwlink/?LinkId=123096)) grammar.

SHAPEMONIKERLIST = DRAWINGMONIKERLIST (section [2.29.3.4](#Section_84f185a060cc482ca3bc0fe8f77e1ba3)) SHAPEMONIKER

SHAPEMONIKER = ac:spMk (section [2.29.3.17](#Section_496f12c8636342cbb75c90b7c2d9c37f))

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ShapeMonikerList">
2. <xsd:sequence>
3. <xsd:any minOccurs="0" maxOccurs="unbounded"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_GraphicFrameChanges

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

A complex type that specifies the metadata about edits to a graphic frame.

*Child Elements:*

**chgData:** A [CT\_ChangesData](#Section_cc2097c13ace4222a3534e8ec2a89d31) element that specifies metadata common to content model changes.

**graphicFrameMkLst:** A [CT\_GraphicFrameMonikerList](#Section_20ab4bd0115d420bacf639a3c1323ca5) element that specifies a content moniker that identifies the edited graphic frame.

**extLst:** A **CT\_OfficeArtExtensionList** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

*Attributes:*

**chg:** An [ST\_GraphicFrameChangesBits](#Section_ab0d23865ef149eca3571db1f9c46744) attribute that specifies the types of edits made to the graphic frame.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_GraphicFrameChanges">
2. <xsd:sequence>
3. <xsd:element name="chgData" type="CT\_ChangesData" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="graphicFrameMkLst" type="CT\_GraphicFrameMonikerList" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. <xsd:attribute name="chg" type="ST\_GraphicFrameChangesBits" use="required"/>
8. </xsd:complexType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

#### ST\_ConnectorChangeBit

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [ST\_ConnectorChangesBits](#Section_4b4a8fda491a48f3ba7f025bd349583a)

A simple type that specifies the types of edits that has been made to a connector. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| add | The connector was added. |
| del | The connector was deleted. |
| mod | The connector was modified. |
| ord | The z-order of the connector was changed. |
| topLvl | The connector became a top-level object on a drawing canvas, e.g. it was part of a group shape that got ungrouped. |
| modVis | The visibility of the connector was modified. |
| replST | The tag value associated with the connector was replaced. |
| delST | The tag value associated with the connector was deleted. |
| replId | The ID of the connector was changed. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_ConnectorChangeBit">
2. <xsd:restriction base="xsd:token">
3. <xsd:enumeration value="add"/>
4. <xsd:enumeration value="del"/>
5. <xsd:enumeration value="mod"/>
6. <xsd:enumeration value="ord"/>
7. <xsd:enumeration value="topLvl"/>
8. <xsd:enumeration value="modVis"/>
9. <xsd:enumeration value="replST"/>
10. <xsd:enumeration value="delST"/>
11. <xsd:enumeration value="replId"/>
12. </xsd:restriction>
13. </xsd:simpleType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_ConnectorChangesBits

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [CT\_ConnectorChanges](#Section_63fe07b39e504e12b86e07a454b09607)

A simple type that specifies a list of **ST\_ConnectorChangeBit** (section [2.29.4.1](#Section_2ef46b2fa0db4a3790bc7a6024b97538)) values. It can be used for describing one or more types of changes on a connector.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_ConnectorChangesBits">
2. <xsd:list itemType="ST\_ConnectorChangeBit"/>
3. </xsd:simpleType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_GroupShapeChangeBit

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [ST\_GroupShapeChangesBits](#Section_00a1d530424d4e7591eba2c3cc0182a8)

A simple type that specifies the types of edits that has been made to a group shape. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| add | The group shape was added. |
| del | The group shape was deleted. |
| mod | The group shape was modified. |
| ord | The z-order of the group shape was changed. |
| topLvl | The group shape became a top-level object on a drawing canvas, e.g. it was part of another group shape that got ungrouped. |
| modVis | The visibility of the group shape was modified. |
| replST | The tag value associated with the group shape was replaced. |
| delST | The tag value associated with the group shape was deleted. |
| replId | The ID of the group shape was changed. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_GroupShapeChangeBit">
2. <xsd:restriction base="xsd:token">
3. <xsd:enumeration value="add"/>
4. <xsd:enumeration value="del"/>
5. <xsd:enumeration value="mod"/>
6. <xsd:enumeration value="ord"/>
7. <xsd:enumeration value="topLvl"/>
8. <xsd:enumeration value="modVis"/>
9. <xsd:enumeration value="replST"/>
10. <xsd:enumeration value="delST"/>
11. <xsd:enumeration value="replId"/>
12. </xsd:restriction>
13. </xsd:simpleType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_GroupShapeChangesBits

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [CT\_GroupShapeChanges](#Section_2eff3165e83448d7807f5ae381242f74)

A simple type that specifies a list of **ST\_GroupShapeChangeBit** (section [2.29.4.3](#Section_c38944fce77947c3a213666a3fce0f25)) values. It can be used for describing one or more types of changes on a group shape.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_GroupShapeChangesBits">
2. <xsd:list itemType="ST\_GroupShapeChangeBit"/>
3. </xsd:simpleType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_InkChangeBit

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [ST\_InkChangesBits](#Section_eb6484b06a8e427db2aad2950aaa9936)

A simple type that specifies the types of edits that have been made to an ink object. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| add | The ink object was added. |
| del | The ink object was deleted. |
| mod | The ink object was modified. |
| ord | The z-order of the ink object was changed. |
| topLvl | The ink object became a top-level object on a drawing canvas; for example, it was part of a group shape that got ungrouped. |
| modVis | The visibility of the ink object was modified. |
| replST | The tag value associated with the ink object was replaced. |
| delST | The tag value associated with the ink object was deleted. |
| replId | The ID of the ink object was changed. |
| reco | New ink was added as a result of an ink analysis. |
| modStrokes | Ink strokes in the object were modified. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_InkChangeBit">
2. <xsd:restriction base="xsd:token">
3. <xsd:enumeration value="add"/>
4. <xsd:enumeration value="del"/>
5. <xsd:enumeration value="mod"/>
6. <xsd:enumeration value="ord"/>
7. <xsd:enumeration value="topLvl"/>
8. <xsd:enumeration value="modVis"/>
9. <xsd:enumeration value="replST"/>
10. <xsd:enumeration value="delST"/>
11. <xsd:enumeration value="replId"/>
12. <xsd:enumeration value="reco"/>
13. <xsd:enumeration value="modStrokes"/>
14. </xsd:restriction>
15. </xsd:simpleType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_InkChangesBits

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [CT\_InkChanges](#Section_58e1d3cdd7954d7f940fcd7c2fb46707)

A simple type that specifies a list of **ST\_InkChangeBit** (section [2.29.4.5](#Section_d484e4a6f2a84893bda8a71b05efdd6a)) values. It can be used for describing one or more types of changes on an ink object.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_InkChangesBits">
2. <xsd:list itemType="ST\_InkChangeBit"/>
3. </xsd:simpleType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_PictureChangeBit

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [ST\_PictureChangesBits](#Section_fd51f8e1f16e46d18316ad6cda1f14c5)

A simple type that specifies the types of edits that have been made to a picture. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| add | The picture was added. |
| del | The picture was deleted. |
| mod | The picture was modified. |
| ord | The z-order of the picture was changed. |
| topLvl | The picture became a top-level object on a drawing canvas; for example, it was part of a group shape that got ungrouped. |
| modVis | The visibility of the picture was modified. |
| replST | The tag value associated with the picture was replaced. |
| delST | The tag value associated with the picture was deleted. |
| replId | The ID of the picture was changed. |
| modCrop | The picture’s crop settings were modified. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_PictureChangeBit">
2. <xsd:restriction base="xsd:token">
3. <xsd:enumeration value="add"/>
4. <xsd:enumeration value="del"/>
5. <xsd:enumeration value="mod"/>
6. <xsd:enumeration value="ord"/>
7. <xsd:enumeration value="topLvl"/>
8. <xsd:enumeration value="modVis"/>
9. <xsd:enumeration value="replST"/>
10. <xsd:enumeration value="delST"/>
11. <xsd:enumeration value="replId"/>
12. <xsd:enumeration value="modCrop"/>
13. </xsd:restriction>
14. </xsd:simpleType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_PictureChangesBits

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [CT\_PictureChanges](#Section_cdd9245f1c984fd0a82713829e1a69d5)

A simple type that specifies a list of **ST\_PictureChangeBit** (section [2.29.4.7](#Section_8aefac90e5f4437f86f39358ecfcf1b7)) values. It can be used for describing one or more types of changes on a picture.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_PictureChangesBits">
2. <xsd:list itemType="ST\_PictureChangeBit"/>
3. </xsd:simpleType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_ShapeChangeBit

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [ST\_ShapeChangesBits](#Section_101b2fa5f95f4624a72e61b090464329)

A simple type that specifies the types of edits that have been made to a shape. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| add | The shape was added. |
| del | The shape was deleted. |
| mod | The shape was modified. |
| ord | The z-order of the shape was changed. |
| topLvl | The shape became a top-level object on a drawing canvas; for example, it was part of a group shape that got modified. |
| modVis | The visibility of the shape was modified. |
| replST | The tag value associated with the shape was replaced. |
| delST | The tag value associated with the shape was deleted. |
| replId | The ID of the shape was changed. |
| modCrop | The crop settings of the picture fill on the shape were modified. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_ShapeChangeBit">
2. <xsd:restriction base="xsd:token">
3. <xsd:enumeration value="add"/>
4. <xsd:enumeration value="del"/>
5. <xsd:enumeration value="mod"/>
6. <xsd:enumeration value="ord"/>
7. <xsd:enumeration value="topLvl"/>
8. <xsd:enumeration value="modVis"/>
9. <xsd:enumeration value="replST"/>
10. <xsd:enumeration value="delST"/>
11. <xsd:enumeration value="replId"/>
12. <xsd:enumeration value="modCrop"/>
13. </xsd:restriction>
14. </xsd:simpleType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_ShapeChangesBits

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [CT\_ShapeChanges](#Section_3503bc8c522e4e8d8b25c181f74b44f5)

A simple type that specifies a list of **ST\_ShapeChangeBit** (section [2.29.4.9](#Section_d17035b13f0e42f6933dafb1b2c07383)) values. It can be used for describing one or more types of changes on a shape.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_ShapeChangesBits">
2. <xsd:list itemType="ST\_ShapeChangeBit"/>
3. </xsd:simpleType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_GraphicFrameChangeBit

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [ST\_GraphicFrameChangesBits](#Section_ab0d23865ef149eca3571db1f9c46744)

A simple type that specifies the types of edits that have been made to a graphic frame. Possible values are described in the following table.

| Value | Meaning |
| --- | --- |
| add | The graphic frame was added. |
| del | The graphic frame was deleted. |
| mod | The graphic frame was modified. |
| ord | The z-order of the graphic frame was changed. |
| topLvl | The graphic frame became a top-level object on a drawing canvas. |
| modVis | The visibility of the graphic frame was modified. |
| replST | The tag value associated with the graphic frame was replaced. |
| delST | The tag value associated with the graphic frame was deleted. |
| replId | The ID of the graphic frame was changed. |
| modGraphic | The content of the graphic frame was modified. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_GraphicFrameChangeBit">
2. <xsd:restriction base="xsd:token">
3. <xsd:enumeration value="add"/>
4. <xsd:enumeration value="del"/>
5. <xsd:enumeration value="mod"/>
6. <xsd:enumeration value="ord"/>
7. <xsd:enumeration value="topLvl"/>
8. <xsd:enumeration value="modVis"/>
9. <xsd:enumeration value="replST"/>
10. <xsd:enumeration value="delST"/>
11. <xsd:enumeration value="replId"/>
12. <xsd:enumeration value="modGraphic"/>
13. </xsd:restriction>
14. </xsd:simpleType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_GraphicFrameChangesBits

*Target namespace:* http://schemas.microsoft.com/office/drawing/2013/main/command

*Referenced by:* [CT\_GraphicFrameChanges](#Section_5660e2c27f284243b81955a0124a7520)

A simple type that specifies a list of **ST\_GraphicFrameChangeBit** (section [2.29.4.11](#Section_7d890f7704314e6daa651c5dbe6b9720)) values. It can be used for describing one or more types of changes on a graphic frame.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_GraphicFrameChangesBits">
2. <xsd:list itemType="ST\_GraphicFrameChangeBit"/>
3. </xsd:simpleType>

See section [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

## http://schemas.microsoft.com/office/drawing/2016/ink

### Elements

None.

### Attributes

None.

### Complex Types

None.

### Simple Types

#### ST\_ExtendedBrushPropertyName

*Target namespace:* http://schemas.microsoft.com/office/drawing/2016/ink

ST\_ExtendedBrushPropertyName extends inkml:brushProperty element ([[InkML]](https://go.microsoft.com/fwlink/?LinkId=156829) section 4.3.2)

The **brushProperty** element provides a mechanism for the storage of named properties of brushes. The **inkEffects**, **anchorX**, **anchorY**, and **scaleFactor** are **ExtendedBrushPropertyName**, which are used to describe the attributes of the ink effect texture applied to the brush.

| Value | Meaning |
| --- | --- |
| inkEffects | The type of effects applied to the ink: pencil, rainbow, galaxy, gold, silver, lava, ocean, rose gold, or bronze (and future pen types yet to be designed).  If none, no ink effect in the brush.  If pencil, use pencil texture for the brush and etc.  The default is none. |
| anchorX | The horizontal offset relative to the left edge of the ink effect texture in High Metric Units.  The default is 0. |
| anchorY | The vertical offset relative to the top edge of the ink effect texture in High Metric Units.  The default is 0. |
| scaleFactor | The zoom factor of the ink effect texture (1.0 = 100%).  The default is 0.5. |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_ExtendedBrushPropertyName">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="inkEffects"/>
4. <xsd:enumeration value="anchorX"/>
5. <xsd:enumeration value="anchorY"/>
6. <xsd:enumeration value="scaleFactor"/>
7. </xsd:restriction>
8. </xsd:simpleType>

See section [5.28](#Section_9fb2d49d08814e7d8b3895373d76302c) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### ST\_InkEffectsType

*Target namespace:* http://schemas.microsoft.com/office/drawing/2016/ink

The ink custom pen effect type.

| Value | Meaning |
| --- | --- |
| none | No effect texture in the ink stroke. |
| pencil | Specifies a preset ink effect texture; pencil. Texture shall be designed to match the figure below.  An example of the pencil effect texture |
| rainbow | Specifies a preset ink effect texture; rainbow. Texture shall be designed to match the figure below.  An example of the rainbow effect texture |
| galaxy | Specifies a preset ink effect texture; galaxy. Texture shall be designed to match the figure below.  An example of the galaxy effect texture |
| gold | Specifies a preset ink effect texture; gold. Texture shall be designed to match the figure below.  An example of the gold effect texture |
| silver | Specifies a preset ink effect texture; silver. Texture shall be designed to match the figure below.  An example of the silver effect texture |
| lava | Specifies a preset ink effect texture; lava. Texture shall be designed to match the figure below.  An example of the lava effect texture |
| ocean | Specifies a preset ink effect texture; ocean. Texture shall be designed to match the figure below.  An example of the ocean effect texture |
| rosegold | Specifies a preset ink effect texture; rosegold. Texture shall be designed to match the figure below.  An example of the rose gold effect texture |
| bronze | Specifies a preset ink effect texture; bronze. Texture shall be designed to match the figure below.  An example of the bronze effect texture |

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_InkEffectsType">
2. <xsd:restriction base="xsd:string">
3. <xsd:enumeration value="none"/>
4. <xsd:enumeration value="pencil"/>
5. <xsd:enumeration value="rainbow"/>
6. <xsd:enumeration value="galaxy"/>
7. <xsd:enumeration value="gold"/>
8. <xsd:enumeration value="silver"/>
9. <xsd:enumeration value="lava"/>
10. <xsd:enumeration value="ocean"/>
11. <xsd:enumeration value="rosegold"/>
12. <xsd:enumeration value="bronze"/>
13. </xsd:restriction>
14. </xsd:simpleType>

See section [5.28](#Section_9fb2d49d08814e7d8b3895373d76302c) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

## http://schemas.microsoft.com/office/drawing/2017/model3d

### Elements

#### model3D

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/model3d

A [CT\_Model3D](#Section_fd67669583fa4e928b654503ecbff9cc) element that specifies data about the inserted [**3D Model**](#gt_5d597177-ab9e-438c-82c6-e0026e15221a).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="model3D" type="CT\_Model3D"/>

See section [5.29](#Section_6c414e62482541009ca188fefc5fb699) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_AmbientLight

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/model3d

*Referenced by:* [CT\_Model3D](#Section_fd67669583fa4e928b654503ecbff9cc)

Represents an omni-directional, fixed-intensity, and fixed-color light source in the [**3D Model**](#gt_5d597177-ab9e-438c-82c6-e0026e15221a).

*Child Elements:*

**clr:** A CT\_Color ([[MS-DOCX]](%5bMS-DOCX%5d.pdf#Section_b839fe1fe1ca4fa68c265954d0abbccd) section 2.6.3.3) element that specifies the color values of the ambient light.

**illuminance:** A CT\_PositiveRatio (section [2.31.3.16](#Section_68b066dc24a444dc82d09fea72d01af1)) element that specifies the total luminous flux on a surface per unit area. The units used are lux (lumen per meter squared).

**extLst:** A CT\_OfficeArtExtensionList ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

*Attributes:*

**enabled:** A boolean ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) attribute that specifies whether the light is on.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_AmbientLight">
2. <xsd:sequence>
3. <xsd:element name="clr" type="a:CT\_Color" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="illuminance" type="CT\_PositiveRatio" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
6. </xsd:sequence>
7. <xsd:attribute name="enabled" type="xsd:boolean" use="optional" default="true"/>
8. </xsd:complexType>

See section [5.29](#Section_6c414e62482541009ca188fefc5fb699) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_DirectionalLight

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/model3d

*Referenced by:* [CT\_Model3D](#Section_fd67669583fa4e928b654503ecbff9cc)

Represents a light which illuminates all surfaces of a [**3D Model**](#gt_5d597177-ab9e-438c-82c6-e0026e15221a) equally from a given direction.

*Child Elements:*

**clr:** A CT\_Color ([[MS-DOCX]](%5bMS-DOCX%5d.pdf#Section_b839fe1fe1ca4fa68c265954d0abbccd) section 2.6.3.3) element that specifies the color values of the directional light.

**illuminance:** A CT\_PositiveRatio (section [2.31.3.16](#Section_68b066dc24a444dc82d09fea72d01af1)) element that specifies the total luminous flux on a surface per unit area. The units used are lux (lumen per meter squared).

**pos:** A CT\_Point3D ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that specifies the position of the light. The output of a directional light is not affected by position. The position is purely for a visual representation of the light for convenience.

**lookAt:** A CT\_Point3D ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the point at which the light is directed to.

**extLst:** A CT\_OfficeArtExtensionList ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

*Attributes:*

**enabled:** A boolean ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) attribute that specifies whether the light is on.

**angularRad:** An [ST\_AngularRadius](#Section_f66c71b6d0f24f90947addf8d482b4a9) attribute that specifies the angular radius of the light. A value of zero implies all light rays are parallel, making the shadow edges sharp. Values greater than zero soften the shadow edges.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_DirectionalLight">
2. <xsd:sequence>
3. <xsd:element name="clr" type="a:CT\_Color" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="illuminance" type="CT\_PositiveRatio" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="pos" type="a:CT\_Point3D" minOccurs="1" maxOccurs="1"/>
6. <xsd:element name="lookAt" type="a:CT\_Point3D" minOccurs="1" maxOccurs="1"/>
7. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
8. </xsd:sequence>
9. <xsd:attribute name="enabled" type="xsd:boolean" use="optional" default="true"/>
10. <xsd:attribute name="angularRad" type="ST\_AngularRadius" use="required"/>
11. </xsd:complexType>

See section [5.29](#Section_6c414e62482541009ca188fefc5fb699) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Model3D

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/model3d

*Referenced by:* [model3D](#Section_beaffdcf492945b99626b4659e71af0b)

Represents the data used to create a [**3D Model**](#gt_5d597177-ab9e-438c-82c6-e0026e15221a).

*Child Elements:*

**spPr:** A CT\_ShapeProperties [[[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1] element that specifies the visual properties that can be applied to a 3D model.

**camera:** A [CT\_Model3DCamera](#Section_d8adec80b4274428bc6207b534110529) element that specifies the camera properties of the 3D Model.

**trans:** A [CT\_Model3DTransform](#Section_01138e0c752b46fabcccf714ab944ef5) element that specifies the transform properties of the 3D Model.

**attrSrcUrl:** A [CT\_PictureAttributionSourceURL](#Section_bec18c3c0d6e41208cb58e00fb757e24) element that specifies the page URL of the 3D Model source.

**raster:** A [CT\_Model3DRaster](#Section_7483ab8d6c9a47f48f70ca15693699aa) element that specifies the relationship ID of a rasterized image of the 3D Model and information about the renderer used to create that image.

**extLst:** A CT\_OfficeArtExtensionList [[ISO/IEC29500-1:2016] section A.4.1] element that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

**objViewport:** A [CT\_ObjectViewport](#Section_c20ace8bea424d0f9f7ee0bbd467152b) element that specifies viewport properties of the 3D Model while in object mode.

**winViewport:** A [CT\_WindowViewport](#Section_a957cf4819274d568d6df8144c2a5e10) element that specifies viewport properties of the 3D Model while in window mode.

**ambientLight:** A [CT\_AmbientLight](#Section_05bb1ea7a5b84ba69ebdc1f294c15a53) element that specifies ambient light properties of the 3D Model.

**ptLight:** A [CT\_PointLight](#Section_13d0a2a7d5174dc1a0d9138cbaa5341f) element that specifies the properties of a point light of the 3D Model.

**spotLight:** A [CT\_SpotLight](#Section_326b7d15b4fe4bcfa8e4d77eea3d7e1e) element that specifies the properties of a spot light of the 3D Model.

**dirLight:** A [CT\_DirectionalLight](#Section_ad8c917cfef1452ab0fbbf95c5e86892) element that specifies the properties of a directional light of the 3D Model.

**unkLight:** A [CT\_UnknownLight](#Section_ccff3fa7bc7944388886facc14a523d6) element that specifies the properties of a yet to be defined light of the 3D Model.

*Attributes:*

**r:embed:** An ST\_RelationshipId ([ISO/IEC29500-1:2016] section 22.8.2.1) attribute that specifies the identification information for an embedded binary object that resides locally within the file.

**r:link:** An ST\_RelationshipId ([ISO/IEC29500-1:2016] section 22.8.2.1) attribute that specifies the identification information for a binary object. This attribute is used to specify an object that does not reside within this file.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Model3D">
2. <xsd:sequence>
3. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="camera" type="CT\_Model3DCamera" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="trans" type="CT\_Model3DTransform" minOccurs="1" maxOccurs="1"/>
6. <xsd:element name="attrSrcUrl" type="a1611:CT\_PictureAttributionSourceURL" minOccurs="0" maxOccurs="1"/>
7. <xsd:element name="raster" type="CT\_Model3DRaster" minOccurs="0" maxOccurs="1"/>
8. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
9. <xsd:choice minOccurs="1" maxOccurs="1">
10. <xsd:element name="objViewport" type="CT\_ObjectViewport"/>
11. <xsd:element name="winViewport" type="CT\_WindowViewport"/>
12. </xsd:choice>
13. <xsd:element name="ambientLight" type="CT\_AmbientLight" minOccurs="0" maxOccurs="1"/>
14. <xsd:choice minOccurs="0" maxOccurs="unbounded">
15. <xsd:element name="ptLight" type="CT\_PointLight"/>
16. <xsd:element name="spotLight" type="CT\_SpotLight"/>
17. <xsd:element name="dirLight" type="CT\_DirectionalLight"/>
18. <xsd:element name="unkLight" type="CT\_UnknownLight"/>
19. </xsd:choice>
20. </xsd:sequence>
21. <xsd:attributeGroup ref="a:AG\_Blob"/>
22. </xsd:complexType>

See section [5.29](#Section_6c414e62482541009ca188fefc5fb699) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Model3DCamera

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/model3d

*Referenced by:* [CT\_Model3D](#Section_fd67669583fa4e928b654503ecbff9cc)

Represents position and orientation of the camera, and the volume of space the camera sees.

*Child Elements:*

**pos:** A CT\_Point3D [[[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1] element that specifies the position of the camera relative to the origin of the [**3D Model**](#gt_5d597177-ab9e-438c-82c6-e0026e15221a).

**up:** A CT\_Vector3D [[ISO/IEC29500-1:2016] section A.4.1] element that specifies the up vector of the camera in world space.

**lookAt:** A CT\_Point3D [[ISO/IEC29500-1:2016] section A.4.1] element that specifies the point at which the camera is aimed in world space.

**orthographic:** A [CT\_OrthographicProjection](#Section_a9856ce7370241e7ba82db4d7f67581f) element that specifies the projection of the camera if it is orthographic.

**perspective:** A [CT\_PerspectiveProjection](#Section_31d9b85f1cdb4ccbb32a18509b955d0e) element that specifies the projection of the camera if it is perspective.

**extLst:** A CT\_OfficeArtExtensionList [[ISO/IEC29500-1:2016] section A.4.1] element that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Model3DCamera">
2. <xsd:sequence>
3. <xsd:element name="pos" type="a:CT\_Point3D" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="up" type="a:CT\_Vector3D" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="lookAt" type="a:CT\_Point3D" minOccurs="1" maxOccurs="1"/>
6. <xsd:choice minOccurs="1" maxOccurs="1">
7. <xsd:element name="orthographic" type="CT\_OrthographicProjection"/>
8. <xsd:element name="perspective" type="CT\_PerspectiveProjection"/>
9. </xsd:choice>
10. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
11. </xsd:sequence>
12. </xsd:complexType>

See section [5.29](#Section_6c414e62482541009ca188fefc5fb699) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Model3DRaster

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/model3d

*Referenced by:* [CT\_Model3D](#Section_fd67669583fa4e928b654503ecbff9cc)

Contains the rasterized image of the [**3D Model**](#gt_5d597177-ab9e-438c-82c6-e0026e15221a) and information about the renderer used to generate it, so that the 3D model can be drawn without loading the 3D viewer.

*Child Elements:*

**blip:** A CT\_Blip [[[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1] element that specifies the relationship ID of a rasterized image of a 3D Model.

*Attributes:*

**rName:** A string [[[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.1] attribute that specifies the name of the renderer at the time the image was last updated.

**rVer:** A string [[XMLSCHEMA2] section 3.2.1] attribute that specifies the version of the renderer at the time the image was last updated.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Model3DRaster">
2. <xsd:sequence>
3. <xsd:element name="blip" type="a:CT\_Blip" minOccurs="0" maxOccurs="1"/>
4. </xsd:sequence>
5. <xsd:attribute name="rName" type="xsd:string" use="required"/>
6. <xsd:attribute name="rVer" type="xsd:string" use="required"/>
7. </xsd:complexType>

See section [5.29](#Section_6c414e62482541009ca188fefc5fb699) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Model3DTransform

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/model3d

*Referenced by:* [CT\_Model3D](#Section_fd67669583fa4e928b654503ecbff9cc)

Contains transform information required to correctly represent the model in 3D space. The transformation happens in the following order: **preTrans**, **scale**, **rotate**, **postTrans**. **preTrans** and **postTrans** are both required to allow for the center of rotation and the origin to be different.

*Child Elements:*

**meterPerModelUnit:** A CT\_PositiveRatio (section [2.31.3.16](#Section_68b066dc24a444dc82d09fea72d01af1)) element that specifies the ratio of meters to units used in the [**3D Model**](#gt_5d597177-ab9e-438c-82c6-e0026e15221a).

**preTrans:** A CT\_Vector3D ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that specifies the first translation that occurs. This is to change the center of rotation of the 3D Model.

**scale:** A [CT\_Scale3D](#Section_acb2db4b8d844936a93d9b02ee15add7) element that specifies the scale of the 3D Model.

**rot:** A [CT\_Rotate3D](#Section_3b5a75a5e907400ebc314cff0d51e6dc) element that specifies the rotation of the model about the center of rotation specified by **preTrans**.

**postTrans:** A CT\_Vector3D ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the second translation that occurs. This is to change the origin of the 3D Model.

**extLst:** A CT\_OfficeArtExtensionList ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Model3DTransform">
2. <xsd:sequence>
3. <xsd:element name="meterPerModelUnit" type="CT\_PositiveRatio" minOccurs="0" maxOccurs="1"/>
4. <xsd:element name="preTrans" type="a:CT\_Vector3D" minOccurs="0" maxOccurs="1"/>
5. <xsd:element name="scale" type="CT\_Scale3D" minOccurs="0" maxOccurs="1"/>
6. <xsd:element name="rot" type="CT\_Rotate3D" minOccurs="0" maxOccurs="1"/>
7. <xsd:element name="postTrans" type="a:CT\_Vector3D" minOccurs="0" maxOccurs="1"/>
8. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
9. </xsd:sequence>
10. </xsd:complexType>

See section [5.29](#Section_6c414e62482541009ca188fefc5fb699) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_ObjectViewport

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/model3d

*Referenced by:* [CT\_Model3D](#Section_fd67669583fa4e928b654503ecbff9cc)

Represents the viewport properties of a [**3D Model**](#gt_5d597177-ab9e-438c-82c6-e0026e15221a) which is set to object mode. In object mode, the size of the frame is updated automatically to fit the visible part of the 3D Model scene. Due to this, frame and projection information are recalculated whenever the model is rotated. In this mode, the viewport center and the graphics frame center are the same.This is the default behavior mode.

*Child Elements:*

**extLst:** A CT\_OfficeArtExtensionList ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

*Attributes:*

**viewportSz:** An ST\_PositiveCoordinate ([ISO/IEC29500-1:2016] section A.4.1) attribute that specifies the size of the square viewport that contains the full field of view. The size of the viewport is used to update the size of the **graphicFrame** to fit the visible portions of the scene. This viewport is centered around the look-at point.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_ObjectViewport">
2. <xsd:sequence>
3. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
4. </xsd:sequence>
5. <xsd:attribute name="viewportSz" type="a:ST\_PositiveCoordinate" use="required"/>
6. </xsd:complexType>

See section [5.29](#Section_6c414e62482541009ca188fefc5fb699) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_OrthographicProjection

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/model3d

*Referenced by:* [CT\_Model3DCamera](#Section_d8adec80b4274428bc6207b534110529)

Represents an orthographic camera projection.

*Child Elements:*

**sz:** A CT\_PositiveRatio (section [2.31.3.16](#Section_68b066dc24a444dc82d09fea72d01af1)) element that specifies the size of one unit object relative to the viewport height.

**extLst:** A CT\_OfficeArtExtensionList ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_OrthographicProjection">
2. <xsd:sequence>
3. <xsd:element name="sz" type="CT\_PositiveRatio" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
5. </xsd:sequence>
6. </xsd:complexType>

See section [5.29](#Section_6c414e62482541009ca188fefc5fb699) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PerspectiveProjection

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/model3d

*Referenced by:* [CT\_Model3DCamera](#Section_d8adec80b4274428bc6207b534110529)

Represents a perspective camera projection.

*Child Elements:*

**extLst:** A CT\_OfficeArtExtensionList ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

*Attributes:*

**fov:** An ST\_FOVAngle ([ISO/IEC29500-1:2016] section A.4.1) attribute that specifies the vertical field of view angle for perspective projection. The range MUST be (0, 180).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PerspectiveProjection">
2. <xsd:sequence>
3. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
4. </xsd:sequence>
5. <xsd:attribute name="fov" type="a:ST\_FOVAngle" use="required"/>
6. </xsd:complexType>

See section [5.29](#Section_6c414e62482541009ca188fefc5fb699) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PointLight

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/model3d

*Referenced by:* [CT\_Model3D](#Section_fd67669583fa4e928b654503ecbff9cc)

Represents an omni-directional point light of the [**3D Model**](#gt_5d597177-ab9e-438c-82c6-e0026e15221a).

*Child Elements:*

**clr:** A CT\_Color ([[MS-DOCX]](%5bMS-DOCX%5d.pdf#Section_b839fe1fe1ca4fa68c265954d0abbccd) section 2.6.3.3) element that specifies the color values of the point light.

**intensity:** A CT\_PositiveRatio (section [2.31.3.16](#Section_68b066dc24a444dc82d09fea72d01af1)) element that specifies the intensity of the point light, represented in Candela.

**pos:** A CT\_Point3D ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that specifies the position of the point light of the 3D Model.

**extLst:** A CT\_OfficeArtExtensionList ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

*Attributes:*

**enabled:** A boolean ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) attribute that specifies whether the light is on or off.

**rad:** An ST\_PositiveCoordinate ([ISO/IEC29500-1:2016] section A.4.1) attribute that specifies the length of the radius of the light in [**English Metric Units (EMUs)**](#gt_264db3a3-b788-42b9-8a78-38ddc62ccd39).

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PointLight">
2. <xsd:sequence>
3. <xsd:element name="clr" type="a:CT\_Color" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="intensity" type="CT\_PositiveRatio" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="pos" type="a:CT\_Point3D" minOccurs="1" maxOccurs="1"/>
6. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
7. </xsd:sequence>
8. <xsd:attribute name="enabled" type="xsd:boolean" use="optional" default="true"/>
9. <xsd:attribute name="rad" type="a:ST\_PositiveCoordinate" use="required"/>
10. </xsd:complexType>

See section [5.29](#Section_6c414e62482541009ca188fefc5fb699) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Rotate3D

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/model3d

*Referenced by:* [CT\_Model3DTransform](#Section_01138e0c752b46fabcccf714ab944ef5)

Represents a 3D Euler-angle rotation.

*Attributes:*

**ax:** An ST\_Angle ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) attribute that specifies a rotation about the x-axis.

**ay:** An ST\_Angle ([ISO/IEC29500-1:2016] section A.4.1) attribute that specifies a rotation about the y-axis.

**az:** An ST\_Angle ([ISO/IEC29500-1:2016] section A.4.1) attribute that specifies a rotation about the z-axis.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Rotate3D">
2. <xsd:attribute name="ax" type="a:ST\_Angle" use="optional" default="0"/>
3. <xsd:attribute name="ay" type="a:ST\_Angle" use="optional" default="0"/>
4. <xsd:attribute name="az" type="a:ST\_Angle" use="optional" default="0"/>
5. </xsd:complexType>

See section [5.29](#Section_6c414e62482541009ca188fefc5fb699) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_Scale3D

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/model3d

*Referenced by:* [CT\_Model3DTransform](#Section_01138e0c752b46fabcccf714ab944ef5)

Represents a 3D scaling transformation.

*Child Elements:*

**sx:** A CT\_Ratio ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that specifies the multiplier to apply to the x-axis.

**sy:** A CT\_Ratio ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the multiplier to apply to the y-axis.

**sz:** A CT\_Ratio ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the multiplier to apply to the z-axis.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Scale3D">
2. <xsd:sequence>
3. <xsd:element name="sx" type="a:CT\_Ratio" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="sy" type="a:CT\_Ratio" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="sz" type="a:CT\_Ratio" minOccurs="1" maxOccurs="1"/>
6. </xsd:sequence>
7. </xsd:complexType>

See section [5.29](#Section_6c414e62482541009ca188fefc5fb699) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_SpotLight

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/model3d

*Referenced by:* [CT\_Model3D](#Section_fd67669583fa4e928b654503ecbff9cc)

Represents a spot light in the CT\_3DModel element.

*Child Elements:*

**clr:** A CT\_Color ([[MS-DOCX]](%5bMS-DOCX%5d.pdf#Section_b839fe1fe1ca4fa68c265954d0abbccd) section 2.6.3.3) element that specifies the color values of the spot light.

**intensity:** A CT\_PositiveRatio (section [2.31.3.16](#Section_68b066dc24a444dc82d09fea72d01af1)) element that specifies the intensity of the spot light, represented in Candela.

**pos:** A CT\_Point3D ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that specifies the position of the spot light in world space.

**lookAt:** A CT\_Point3D ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the position the spot light points to in the world space.

**extLst:** A CT\_OfficeArtExtensionList ([ISO/IEC29500-1:2016] section A.4.1) element that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

*Attributes:*

**enabled:** A boolean ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) attribute that specifies whether the light is on or off.

**rad:** An ST\_PositiveCoordinate ([ISO/IEC29500-1:2016] section A.4.1) attribute that specifies the radius, or distance, of the light, represented in [**EMUs**](#gt_264db3a3-b788-42b9-8a78-38ddc62ccd39).

**spotAng:** An ST\_FOVAngle ([ISO/IEC29500-1:2016] section A.4.1) attribute that specifies the angle of the spot light.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_SpotLight">
2. <xsd:sequence>
3. <xsd:element name="clr" type="a:CT\_Color" minOccurs="1" maxOccurs="1"/>
4. <xsd:element name="intensity" type="CT\_PositiveRatio" minOccurs="1" maxOccurs="1"/>
5. <xsd:element name="pos" type="a:CT\_Point3D" minOccurs="1" maxOccurs="1"/>
6. <xsd:element name="lookAt" type="a:CT\_Point3D" minOccurs="1" maxOccurs="1"/>
7. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
8. </xsd:sequence>
9. <xsd:attribute name="enabled" type="xsd:boolean" use="optional" default="true"/>
10. <xsd:attribute name="rad" type="a:ST\_PositiveCoordinate" use="required"/>
11. <xsd:attribute name="spotAng" type="a:ST\_FOVAngle" use="required"/>
12. </xsd:complexType>

See section [5.29](#Section_6c414e62482541009ca188fefc5fb699) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_UnknownLight

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/model3d

*Referenced by:* [CT\_Model3D](#Section_fd67669583fa4e928b654503ecbff9cc)

The storage representation of an unknown light source for future extension.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_UnknownLight"/>

See section [5.29](#Section_6c414e62482541009ca188fefc5fb699) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_WindowViewport

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/model3d

*Referenced by:* [CT\_Model3D](#Section_fd67669583fa4e928b654503ecbff9cc)

Represents that the model is in window mode. In this mode, the size of the frame is manually modifiable and is preserved. The camera can also be panned, causing the model to potentially be clipped by the edge of the frame. If the camera is panned, the look at point is updated to a point of the model in the center of the frame.

*Child Elements:*

**extLst:** A CT\_OfficeArtExtensionList ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1) element that specifies the extension list in which all future extensions of element type **ext** are defined. The extension list, along with corresponding future extensions, is used to extend the storage capabilities of the DrawingML framework. This enables various new types of data to be stored natively in the framework.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_WindowViewport">
2. <xsd:sequence>
3. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.29](#Section_6c414e62482541009ca188fefc5fb699) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_PositiveRatio

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/model3d

*Referenced by:* [CT\_Model3DTransform](#Section_01138e0c752b46fabcccf714ab944ef5), [CT\_OrthographicProjection](#Section_a9856ce7370241e7ba82db4d7f67581f), [CT\_AmbientLight](#Section_05bb1ea7a5b84ba69ebdc1f294c15a53), [CT\_PointLight](#Section_13d0a2a7d5174dc1a0d9138cbaa5341f), [CT\_SpotLight](#Section_326b7d15b4fe4bcfa8e4d77eea3d7e1e), [CT\_DirectionalLight](#Section_ad8c917cfef1452ab0fbbf95c5e86892)

Represents an absolute scaling factor as a positive rational number.

*Attributes:*

**n:** An unsignedLong ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.3.21) attribute that specifies the numerator of the ratio. This MUST be greater than or equal to 0.

**d:** An unsignedLong ([XMLSCHEMA2] section 3.3.21) attribute that specifies the denominator of the ratio. This MUST be greater than 0.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_PositiveRatio">
2. <xsd:attribute name="n" type="xsd:unsignedLong" use="required"/>
3. <xsd:attribute name="d" type="xsd:unsignedLong" use="required"/>
4. </xsd:complexType>

See section [5.29](#Section_6c414e62482541009ca188fefc5fb699) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

#### ST\_AngularRadius

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/model3d

*Referenced by:* [CT\_DirectionalLight](#Section_ad8c917cfef1452ab0fbbf95c5e86892)

Represents a positive angle with units being 1/60000th of a degree. The range is from [0, 90] degrees.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this simple type.

1. <xsd:simpleType name="ST\_AngularRadius">
2. <xsd:restriction base="a:ST\_Angle">
3. <xsd:minInclusive value="0"/>
4. <xsd:maxInclusive value="5400000"/>
5. </xsd:restriction>
6. </xsd:simpleType>

See section [5.29](#Section_6c414e62482541009ca188fefc5fb699) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

## http://schemas.microsoft.com/office/drawing/2016/12/diagram

### Elements

#### lstStyle

*Target namespace:* http://schemas.microsoft.com/office/drawing/2016/12/diagram

A **CT\_TextListStyle** [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1 element.

*An extension list child element of*: **diagrams** as specified in [ISO/IEC29500-1:2016] section 24.4.2.

This element specifies a list of styles associated with this diagram.

Each style level described in the list maps to each corresponding node level. There are 9 level text property elements allowed, levels 0-8. The levels and attributes are specified in [ISO/IEC29500-1:2016] sections 21.1.2.4.13 through 21.1.2.4.21.

[*Note*: To resolve conflicting paragraph properties the linear hierarchy of paragraph properties SHOULD be examined, starting first with the paragraph property level specified in [ISO/IEC29500-1:2016] section 21.1.2.4.13, followed by the defpPr property specified in [ISO/IEC29500-1:2016] section 21.1.2.2.2. Within the lstStyle property, the lvlpPr takes priority over the defpPr element. The rule here is that properties that are defined at a level closer to the actual text SHOULD take precedence. *end note*]

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="lstStyle" type="a:CT\_TextListStyle"/>

See section [5.30](#Section_e2d5dcbccb9340b9896d46033bc2711c) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### spPr

*Target namespace:* http://schemas.microsoft.com/office/drawing/2016/12/diagram

A **CT\_ShapeProperties** [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.4.1 element.

*An extension list child element of*: **diagrams** as specified in [ISO/IEC29500-1:2016] section 24.4.2.

This element specifies the formatting for this parent diagram element. The attributes are specified in [ISO/IEC29500-1:2016] section 20.5.2.30.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="spPr" type="a:CT\_ShapeProperties"/>

See section [5.30](#Section_e2d5dcbccb9340b9896d46033bc2711c) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

None.

### Simple Types

None.

## http://schemas.microsoft.com/office/drawing/2017/03/chart

### Elements

#### dataDisplayOptions16

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/03/chart

A [CT\_DataDisplayOptions16](#Section_532c066ffb0342d59b4c043a22279986) element that specifies how data is displayed in a chart.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="dataDisplayOptions16" type="CT\_DataDisplayOptions16"/>

See section [5.31](#Section_07ad9d54eb9e4d52831eaa6487b295c2) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_BooleanFalse

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/03/chart

*Referenced by:* [CT\_DataDisplayOptions16](#Section_532c066ffb0342d59b4c043a22279986)

A complex type that specifies a Boolean value that defaults to FALSE.

*Attributes:*

**val:** A boolean ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) attribute that specifies a value of 0, 1, true, or false.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_BooleanFalse">
2. <xsd:attribute name="val" type="xsd:boolean" use="optional" default="false"/>
3. </xsd:complexType>

See section [5.31](#Section_07ad9d54eb9e4d52831eaa6487b295c2) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

#### CT\_DataDisplayOptions16

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/03/chart

*Referenced by:* [dataDisplayOptions16](#Section_70fc727206db4b4899a03c3efb6ad71a)

Specifies how data is displayed in a chart.

*Child Elements:*

**dispNaAsBlank:** A [CT\_BooleanFalse](#Section_9a5419a5c99c4bd98c661b4fc7d24e76) element that specifies whether to treat cells containing #N/A as if they were blank cells for data display purposes.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_DataDisplayOptions16">
2. <xsd:sequence>
3. <xsd:element name="dispNaAsBlank" type="CT\_BooleanFalse" minOccurs="0" maxOccurs="1"/>
4. </xsd:sequence>
5. </xsd:complexType>

See section [5.31](#Section_07ad9d54eb9e4d52831eaa6487b295c2) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

None.

## http://schemas.microsoft.com/office/drawing/2017/decorative

### Elements

#### decorative

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/decorative

A [CT\_Decorative](#Section_1c5cfa5e004248e3ba412cc88fcc0266) element that specifies whether an object is decorative.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this element.

1. <xsd:element name="decorative" type="CT\_Decorative"/>

See section [5.32](#Section_6146d89f9146415b99e239e694b5a980) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Attributes

None.

### Complex Types

#### CT\_Decorative

*Target namespace:* http://schemas.microsoft.com/office/drawing/2017/decorative

*Referenced by:* [decorative](#Section_a71626317b0044b1a1f39b7d653050d8)

Contains a flag that indicates if the object is decorative, which means that the object is not important to the overall meaning of the document. Primarily used in accessibility scenarios.

*Attributes:*

**val:** A boolean ([[XMLSCHEMA2]](https://go.microsoft.com/fwlink/?LinkId=90610) section 3.2.2) attribute that specifies whether an object is decorative.

The following W3C XML Schema ([[XMLSCHEMA1]](https://go.microsoft.com/fwlink/?LinkId=90608) section 2.1) fragment specifies the contents of this complex type.

1. <xsd:complexType name="CT\_Decorative">
2. <xsd:attribute name="val" type="xsd:boolean" use="optional"/>
3. </xsd:complexType>

See section [5.32](#Section_6146d89f9146415b99e239e694b5a980) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

### Simple Types

None.

# Structure Examples

## Chart

### Chart Style

The following code example illustrates the relationship between **CT\_Style** and **CT\_Style** ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section A.5.1), in particular how the **val** (in the example: 102) of the **CT\_Style** MUST be set to 100 plus the **val** (in the example: 2) of the **CT\_Style** ([ISO/IEC29500-1:2016] section A.5.1).

1. <mc:AlternateContent
2. xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006">
3. <mc:Choice
4. xmlns:c14="http://schemas.microsoft.com/office/drawing/2007/8/2/chart"
5. Requires="c14">
6. <c14:style val="102"/>
7. </mc:Choice>
8. <mc:Fallback>
9. <c:style val="2"/>
10. </mc:Fallback>
11. </mc:AlternateContent>

## Content Parts and Ink



Figure 31: Sample ink shape

The following code example represents the Ink content part that describes the example ink shown in the preceding figure. The **brush** definitions specify its size, shape, color, and coordinate space. Traces are gathered into a **traceGroup** hierarchy of **writingRegion**, **paragraph**, **line**, and **inkWord**, with the **inkWord** containing the results of ink recognition that was generated at runtime.

1. <?xml version="1.0" encoding="UTF-8" standalone="yes"?>
2. <inkml:ink xmlns:inkml="http://www.w3.org/2003/InkML">
3. <inkml:definitions>
4. <inkml:context xml:id="ctx0">
5. <inkml:inkSource xml:id="inkSrc0">
6. <inkml:traceFormat>
7. <inkml:channel name="X" type="integer" max="9600" units="cm"/>
8. <inkml:channel name="Y" type="integer" max="7200" units="cm"/>
9. <inkml:channel name="F" type="integer" max="256" units="dev"/>
10. </inkml:traceFormat>
11. <inkml:channelProperties>
12. <inkml:channelProperty channel="X" name="resolution" value="367.8161" units="1/cm"/>
13. <inkml:channelProperty channel="Y" name="resolution" value="440.36697" units="1/cm"/>
14. <inkml:channelProperty channel="F" name="resolution" value="0" units="1/dev"/>
15. </inkml:channelProperties>
16. </inkml:inkSource>
17. <inkml:timestamp xml:id="ts0" timeString="2010-01-10T13:10:12.822"/>
18. </inkml:context>
19. <inkml:brush xml:id="br0">
20. <inkml:brushProperty name="width" value="0.06667" units="cm"/>
21. <inkml:brushProperty name="height" value="0.06667" units="cm"/>
22. <inkml:brushProperty name="color" value="#FF0000"/>
23. <inkml:brushProperty name="fitToCurve" value="1"/>
24. </inkml:brush>
25. </inkml:definitions>
26. <inkml:traceGroup>
27. <inkml:annotationXML>
28. <emma:emma xmlns:emma="http://www.w3.org/2003/04/emma" version="1.0">
29. <emma:interpretation id="{8646EB18-6E67-4FFA-8739-E20C3C1A0F80}" emma:medium="tactile" emma:mode="ink">
30. <msink:context xmlns:msink="http://schemas.microsoft.com/ink/2010/main" type="writingRegion" rotatedBoundingBox="4334,2653 13237,2575 13262,5384 4359,5462"/>
31. </emma:interpretation>
32. </emma:emma>
33. </inkml:annotationXML>
34. <inkml:traceGroup>
35. <inkml:annotationXML>
36. <emma:emma xmlns:emma="http://www.w3.org/2003/04/emma" version="1.0">
37. <emma:interpretation id="{4A0797F9-1386-486A-B2BA-709708E24147}" emma:medium="tactile" emma:mode="ink">
38. <msink:context xmlns:msink="http://schemas.microsoft.com/ink/2010/main" type="paragraph" rotatedBoundingBox="4334,2653 13237,2575 13262,5384 4359,5462" alignmentLevel="1"/>
39. </emma:interpretation>
40. </emma:emma>
41. </inkml:annotationXML>
42. <inkml:traceGroup>
43. <inkml:annotationXML>
44. <emma:emma xmlns:emma="http://www.w3.org/2003/04/emma" version="1.0">
45. <emma:interpretation id="{0430FEDC-2E4E-4A32-91D8-87424D412245}" emma:medium="tactile" emma:mode="ink">
46. <msink:context xmlns:msink="http://schemas.microsoft.com/ink/2010/main" type="line" rotatedBoundingBox="4334,2653 13237,2575 13262,5384 4359,5462"/>
47. </emma:interpretation>
48. </emma:emma>
49. </inkml:annotationXML>
50. <inkml:traceGroup>
51. <inkml:annotationXML>
52. <emma:emma xmlns:emma="http://www.w3.org/2003/04/emma" version="1.0">
53. <emma:interpretation id="{583A8050-3462-4BC6-915B-A797D921D61F}" emma:medium="tactile" emma:mode="ink">
54. <msink:context xmlns:msink="http://schemas.microsoft.com/ink/2010/main" type="inkWord" rotatedBoundingBox="4334,2653 13237,2575 13262,5384 4359,5462"/>
55. </emma:interpretation>
56. <emma:one-of disjunction-type="recognition" id="oneOf0">
57. <emma:interpretation id="interp0" emma:lang="en-US" emma:confidence="1">
58. <emma:literal>hello</emma:literal>
59. </emma:interpretation>
60. <emma:interpretation id="interp1" emma:lang="en-US" emma:confidence="0.5">
61. <emma:literal>hello </emma:literal>
62. </emma:interpretation>
63. <emma:interpretation id="interp2" emma:lang="en-US" emma:confidence="0.5">
64. <emma:literal> hello</emma:literal>
65. </emma:interpretation>
66. <emma:interpretation id="interp3" emma:lang="en-US" emma:confidence="0.5">
67. <emma:literal>he 11 o</emma:literal>
68. </emma:interpretation>
69. <emma:interpretation id="interp4" emma:lang="en-US" emma:confidence="0.5">
70. <emma:literal>he 110</emma:literal>
71. </emma:interpretation>
72. </emma:one-of>
73. </emma:emma>
74. </inkml:annotationXML>
75. <inkml:trace contextRef="#ctx0" brushRef="#br0">-2 0 43,'0'0'14,"0"0"-6,0 0 1,8 23 2,-16 12-3,16 7 3,17 18-4,9 28-7,-9 0 4,8 14 3,-8 10 3,25 18-2,-17 18-1,1-18-1,6 18-2,18 24 0,-16 6-1,-9-1 0,-8 1 0,0-19-1,0-17 0,0-5 0,-8-8-1,0-16 0,8-30 0,-17 5 0,-8-34-1,0-12 1,0-25-1,8 13 0,-8-36 0,9-30 0,-1-17 1,-16-6 0,8-24 1,8 6-1,-16 6 0,16-1 0,9-5-1,-1-17 1,9 0 0,16 4-1,17 2 2,17 5 1,8 12-3,9 12 1,-17 18 0,7 5 0,1 12 1,9 24-1,-17 19 0,0 15 0,-10 32 0,2 22 0,-25 13 0,-1 0 0,1-6 0,-9-13 0,9 1-1,-17-6-1,0-12-7,-8 7-10</inkml:trace>
76. <inkml:trace contextRef="#ctx0" brushRef="#br0">2375 1858 106,'0'0'0,"0"0"4,0 0 4,48 11-1,-15 2 0,26 4-1,-1 7-1,17 5 0,9-11-1,7 5-1,-9-4-1,10 4 0,-17-11-2,0-12 0,0-18-2,-10-11 0,2-13 0,-17-11-1,8 0 1,-25 6 0,1-19 1,-26 14 0,-8-2 1,-25 1-2,0 6 0,-17 5 1,1 18 0,-1-6 0,-8 30 1,8 6-1,-23 24 1,7 6 0,0 16 0,-9 2 0,-17 18 0,1 3 2,1 15 2,-1 10 1,33-5 0,17-12 1,7 0-1,10 0-2,32-1 0,35 1 1,24-17 1,25-1 0,23-12-2,-6-17-1,25-14-3,23-9-4,1-31-6,25-35-9</inkml:trace>
77. <inkml:trace contextRef="#ctx0" brushRef="#br0">4591 295 72,'0'0'4,"0"0"5,0 0-1,0 0 0,-8 6 0,8-6 1,8 24 1,1 23-1,7 7 0,9 22 0,-16 19 0,24 24 0,0 11-2,1-6-1,16 24-1,0 12-1,8-18-1,-1 12-1,1-13 0,-8 2 0,0-19 0,0-36-1,0 2-2,-8-7-5,0-19-7,-9-4-12</inkml:trace>
78. <inkml:trace contextRef="#ctx0" brushRef="#br0">5730 212 81,'0'0'1,"0"0"8,0 0 4,9 42-1,7 18-1,1 10 1,0 19 0,-1 30-1,16 16-2,-7 8 0,25-2-1,0 19-2,9-6-1,7 0-1,9-6-1,7 0-1,-7-7-1,-8-28-2,0-12-5,-9-18-6,9-18-14</inkml:trace>
79. <inkml:trace contextRef="#ctx0" brushRef="#br0">8281 1189 93,'0'0'3,"0"0"5,0 0 2,-25-6-1,0-6-1,25 19-2,-34-7-1,9-19-1,8 31-1,-8-24 0,-41 12-1,16 12 0,-9 12-1,-6 11 1,15 13 1,0 6 0,-8 4 3,-1 8 0,9 11-1,-8 0 0,16 5-1,11 7 0,14 5-1,17 7 0,25-7 0,7-4-1,26 4 0,9 13-2,25-13 0,24-11 0,-1-12 0,2-18 0,0-12 0,-25-11-1,-19-30 0,10-23 0,9-31-1,0-28 0,-17-18 1,-2-13-1,-6-18 1,-34-4 1,-8 5 0,-25 4 2,-16 8 0,-18 24 0,-24-7 1,1 12 0,-18 12 0,0 24-1,0 6-1,-17 12-3,-6 23-5,-36 12-16</inkml:trace>
80. </inkml:traceGroup>
81. </inkml:traceGroup>
82. </inkml:traceGroup>
83. </inkml:traceGroup>
84. </inkml:ink>

The following example shows a Document Part reference to the previous content part as used in a **PresentationML** slide.

1. <mc:AlternateContent xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006">
2. <mc:Choice xmlns:p14="http://schemas.microsoft.com/office/powerpoint/2010/main" Requires="p14">
3. <p:contentPart p14:bwMode="auto" r:id="rId2">
4. <p14:nvContentPartPr>
5. <p14:cNvPr id="8" name="Ink 7"/>
6. <p14:cNvContentPartPr/>
7. <p14:nvPr/>
8. </p14:nvContentPartPr>
9. <p14:xfrm>
10. <a:off x="1561526" y="971040"/>
11. <a:ext cx="3210480" cy="1010160"/>
12. </p14:xfrm>
13. </p:contentPart>
14. </mc:Choice>
15. <mc:Fallback>
16. <p:pic>
17. <p:nvPicPr>
18. <p:cNvPr id="8" name="Ink 7"/>
19. <p:cNvPicPr/>
20. <p:nvPr/>
21. </p:nvPicPr>
22. <p:blipFill>
23. <a:blip r:embed="rId3"/>
24. <a:stretch>
25. <a:fillRect/>
26. </a:stretch>
27. </p:blipFill>
28. <p:spPr>
29. <a:xfrm>
30. <a:off x="1561526" y="971040"/>
31. <a:ext cx="3210480" cy="1010160"/>
32. </a:xfrm>
33. <a:prstGeom prst="rect">
34. <a:avLst/>
35. </a:prstGeom>
36. </p:spPr>
37. </p:pic>
38. </mc:Fallback>
39. </mc:AlternateContent>
40. ...

## Pictures

In the binary large image or picture (BLIP) element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.1.8.13) is an extension list that enables applications to store the original image and processing parameters for corrections and artistic effects applied to a picture. The following code example shows the XML specifying that an artistic effect, sharpen and soften effect, color temperature effect, saturation effect, and brightness and contrast effect are applied to a picture.

The part specified by the relationship **rId2** of the **blip** element is embedded. (This does not apply to linked BLIPs.) This bitmap is the result of performing operations on the original image specified by the related part **rId3** in JPEG XR format. (This does not apply to metafile BLIPs.)

1. <a:blip r:embed="rId2">
2. <a:extLst>
3. <a:ext uri="BEBA8EAE-BF5A-486c-A8C5-ECC9F3942E4B">
4. <a14:imgProps xmlns:a14="http://schemas.microsoft.com/office/drawing/2010/main">
5. <a14:imgLayer r:embed="rId3">
6. <a14:imgEffect>
7. <a14:artisticLineDrawing trans="75000" pencilSize="15"/>
8. </a14:imgEffect>
9. <a14:imgEffect>
10. <a14:sharpenSoften amount="25000"/>
11. </a14:imgEffect>
12. <a14:imgEffect>
13. <a14:colorTemperature colorTemp="7200"/>
14. </a14:imgEffect>
15. <a14:imgEffect>
16. <a14:saturation sat="200000"/>
17. </a14:imgEffect>
18. <a14:imgEffect>
19. <a14:brightnessContrast bright="20000" contrast="-20000"/>
20. </a14:imgEffect>
21. </a14:imgLayer>
22. </a14:imgProps>
23. </a:ext>
24. <a:ext uri="28A0092B-C50C-407e-A947-70E740481C1C">
25. <a14:useLocalDpi xmlns:a14="http://schemas.microsoft.com/office/drawing/2010/main" val="0"/>
26. </a:ext>
27. </a:extLst>
28. </a:blip>

## Diagrams

### Diagram Layout

The **spTree** element is comprised of multiple pieces. The **nvGrpSpPr** element defines non-visual [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) properties that are applied to the entire group. The **grpSpPr** element defines visual shape properties that are applied to the group. The individual shapes and their properties are defined in the **sp** element.

1. <dsp:drawing xmlns:dsp="http://schemas.microsoft.com/office/drawing/2008/diagram"
2. <dsp:spTree>
3. <dsp:nvGrpSpPr>
4. ...
5. </dsp:nvGrpSpPr>
6. <dsp:grpSpPr/>
7. <dsp:sp modelId="{9DA1CD8D-C37F-4B77-84FB-F4D9D8E23A09}">
8. ...
9. </dsp:sp>
10. <dsp:sp modelId="{8B78E849-5558-46E7-8E95-CEE131C38F3A}">
11. ...
12. </dsp:sp>
13. <dsp:sp modelId="{8539B2C2-4636-4F97-BB0D-CD82F4D09B18}">
14. ...
15. </dsp:sp>
16. </dsp:spTree>
17. </dsp:drawing>

### Image Recoloring

The following code example demonstrates the structure of the data model for a **SmartArt** diagram. The **recolorImg** element is set to TRUE and causes the images associated with the **SmartArt** diagram to be recolored according to the assigned color scheme and theme.

1. <dgm:dataModel xmlns:dgm="http://schemas.openxmlformats.org/drawingml/2006/diagram" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main">
2. <dgm:ptLst>
3. ...
4. </dgm:ptLst>
5. ...
6. <dgm:whole/>
7. <dgm:extLst>
8. <a:ext uri="http://schemas.microsoft.com/office/drawing/2008/diagram">
9. <dsp:dataModelExt xmlns:dsp="http://schemas.microsoft.com/office/drawing/2008/diagram" relId="rId6" minVer="http://schemas.openxmlformats.org/drawingml/2006/diagram"/>
10. </a:ext>
11. <a:ext uri="C62137D5-CB1D-491b-B009-E17868A290BF">
12. <dgm14:recolorImg xmlns:dgm14="http://schemas.microsoft.com/office/drawing/2010/diagram" val="1"/>
13. </a:ext>
14. </dgm:extLst>
15. </dgm:dataModel>

## Math

The following code example demonstrates the use of an **AlternateContent** element ([[ISO/IEC29500-3:2015]](https://go.microsoft.com/fwlink/?linkid=861154) section 10.2.1) to wrap an equation and the fallback image of that equation. The following XML shows the contents of a [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) containing an equation that is the letter pi:

1. <p:cSld>
2. <p:spTree>
3. ...
4. <mc:AlternateContent xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006">
5. <mc:Choice xmlns:a14="http://schemas.microsoft.com/office/drawing/2010/main" Requires="a14">
6. <p:sp>
7. ...
8. <p:txBody>
9. ...
10. <a:p>
11. <a14:m>
12. <m:oMathPara xmlns:m="http://schemas.openxmlformats.org/officeDocument/2006/math">
13. <m:oMath xmlns:m="http://schemas.openxmlformats.org/officeDocument/2006/math">
14. <m:r>
15. <a:rPr>
16. <a:latin typeface="Cambria Math"/>
17. </a:rPr>
18. <m:t>𝜋</m:t>
19. </m:r>
20. </m:oMath>
21. </m:oMathPara>
22. </a14:m>
23. </a:p>
24. </p:txBody>
25. </p:sp>
26. </mc:Choice>
27. <mc:Fallback>
28. <p:sp>
29. ...
30. <p:spPr>
31. ...
32. <a:blipFill>
33. <a:blip r:embed="rId2"/>
34. </a:blipFill>
35. </p:spPr>
36. </p:sp>
37. </mc:Fallback>
38. </mc:AlternateContent>
39. </p:spTree>
40. </p:cSld>
41. </p:sld>

## SpreadsheetML Drawing

### Camera Tool

The following code example shows usage of an extended element to specify that a picture is a camera tool and is linked to a cell range. See [2.2.6.1](#Section_2eba4276701d4d5aa5c6363aeb5ddaef) for more information. The following XML shows the contents of a camera tool object specified by a **pic** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.5.2.25).

1. <xdr:pic>
2. <xdr:nvPicPr>
3. <xdr:cNvPr id="1025" name="Picture 1"/>
4. <xdr:cNvPicPr>
5. <a:picLocks noChangeAspect="1" noChangeArrowheads="1"/>
6. <a:extLst>
7. <a:ext uri="84589F7E-364E-4c9e-8A38-B11213B215E9">
8. <a14:cameraTool cellRange="$A$1:$E$12" spid="\_x0000\_s1026"/>
9. </a:ext>
10. </a:extLst>
11. </xdr:cNvPicPr>
12. </xdr:nvPicPr>
13. <xdr:blipFill>
14. …
15. </xdr:blipFill>
16. <xdr:spPr bwMode="auto">
17. …
18. </xdr:spPr>
19. </xdr:pic>

The camera tool properties are specified by the **cameraTool** element as an extension of the **nvPicPr** element ([ISO/IEC29500-1:2016] section 20.5.2.22). The value of the **cellRange** attribute in the **cameraTool** element is in the A1 cell range reference style, not the R1C1 cell range reference style.

### Legacy Object Wrapper

The following code example shows usage of an extended element to specify a legacy VML drawing object. See [2.2.6.2](#Section_5f44dface8e642cb81645c4c2876ebeb) for more information. The following XML shows the contents of a legacy object wrapper specified by an **sp** element ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section 20.5.2.29).

1. <xdr:sp macro="" textlink="">
2. <xdr:nvSpPr>
3. <xdr:cNvPr id="1025" name="Button 1" hidden="1">
4. <a:extLst>
5. <a:ext uri="63B3BB69-23CF-44e3-9099-C40C66FF867C">
6. <a14:compatExt spid="\_x0000\_s1025"/>
7. </a:ext>
8. </a:extLst>
9. </xdr:cNvPr>
10. <xdr:cNvSpPr/>
11. </xdr:nvSpPr>
12. <xdr:spPr>
13. …
14. </xdr:spPr>
15. <xdr:txBody>
16. …
17. </xdr:txBody>
18. </xdr:sp>

The linked legacy object is specified by the **compatExt** element as an extension of the **cNvPr** element ([ISO/IEC29500-1:2016] section 20.5.2.8).

## WordprocessingML Drawing

### Grouped Graphical Objects

The following code example illustrates a **SmartArt** diagram grouped with a picture.

1. <a:graphic xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main">
2. <a:graphicData uri="http://schemas.microsoft.com/office/word/2010/wordprocessingGroup">
3. <wpg:wgp>
4. <wpg:cNvGrpSpPr/>
5. <wpg:grpSpPr>
6. …
7. </wpg:grpSpPr>
8. <pic:pic xmlns:pic="http://schemas.openxmlformats.org/drawingml/2006/picture">
9. <pic:nvPicPr>
10. <pic:cNvPr id="7" name="Picture 7"/>
11. …
12. </pic:nvPicPr>
13. …
14. </pic:pic>
15. <wpg:graphicFrame>
16. <wpg:cNvPr id="6" name="Diagram 6"/>
17. <wpg:cNvFrPr/>
18. …
19. <a:graphic>
20. <a:graphicData uri="http://schemas.openxmlformats.org/drawingml/2006/diagram">
21. <dgm:relIds xmlns:dgm="http://schemas.openxmlformats.org/drawingml/2006/diagram" xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships" r:dm="rId8" r:lo="rId9" r:qs="rId10" r:cs="rId11"/>
22. </a:graphicData>
23. </a:graphic>
24. </wpg:graphicFrame>
25. </wpg:wgp>
26. </a:graphicData>
27. </a:graphic>

### Group and Linked Shapes within a Canvas

The following code example illustrates a [**drawing canvas**](#gt_ee7cf8fb-0720-4e24-93fe-f22c5bc8c20f) that contains a [**shape**](#gt_d0e38aa4-2c71-4a6f-b5e6-75766fa9409e) and a group, which contains a picture and a shape. The two shapes are linked and share a [**text box story**](#gt_3bd61b82-dd99-446f-be3e-e0851904d2cd).

1. <a:graphic xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main">
2. <a:graphicData uri="http://schemas.microsoft.com/office/word/2010/wordprocessingCanvas">
3. <wpc:wpc>
4. <wpc:bg/>
5. <wpc:whole/>
6. <wps:wsp>
7. <wps:cNvPr id="3" name="Text Box 3"/>
8. <wps:cNvSpPr txBox="1"/>
9. <wps:spPr>
10. …
11. </wps:spPr>
12. <wps:style>
13. …
14. </wps:style>
15. <wps:txbx id="1">
16. <w:txbxContent>
17. …
18. </w:txbxContent>
19. </wps:txbx>
20. <wps:bodyPr … >
21. …
22. </wps:bodyPr>
23. </wps:wsp>
24. <wpg:wgp>
25. <wpg:cNvPr id="5" name="Group 5"/>
26. <wpg:cNvGrpSpPr/>
27. <wpg:grpSpPr>
28. </wpg:grpSpPr>
29. <pic:pic xmlns:pic="http://schemas.openxmlformats.org/drawingml/2006/picture">
30. <pic:nvPicPr>
31. <pic:cNvPr id="2" name="Picture 2"/>
32. …
33. </pic:nvPicPr>
34. …
35. </pic:pic>
36. <wps:wsp>
37. <wps:cNvPr id="4" name="Text Box 4"/>
38. <wps:cNvSpPr txBox="1"/>
39. <wps:spPr>
40. …
41. </wps:spPr>
42. <wps:style>
43. …
44. </wps:style>
45. <wps:linkedTxbx id="1" seq="1"/>
46. <wps:bodyPr … >
47. …
48. </wps:bodyPr>
49. </wps:wsp>
50. </wpg:wgp>
51. </wpc:wpc>
52. </a:graphicData>
53. </a:graphic>

# Security

## Security Considerations for Implementers

None.

## Index of Security Fields

None.

# Appendix A: Full XML Schemas

For ease of implementation, this section provides the full XML schemas for the new elements, attributes, complex types, and simple types specified in the preceding sections. Any schema references to namespaces included in [[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) refer specifically to the transitional schemas as described in [[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068).

| Schema name | Prefix | Section |
| --- | --- | --- |
| http://schemas.microsoft.com/office/drawing/2010/main Schema | a14 | [5.1](#Section_869af0ef665b4f28a5960917474ede26) |
| http://schemas.microsoft.com/office/drawing/2013/main/command Schema | ac | [5.27](#Section_f01549ab276f461aa9bec672a5393b1a) |
| http://schemas.microsoft.com/office/thememl/2012/main Schema | None. | [5.17](#Section_de6e746ac9e348ad884a774aac2ad80d) |
| http://schemas.microsoft.com/ink/2010/main Schema | msink | [5.7](#Section_b0e5b36b68a84fd4874ce5e187ba574f) |
| http://schemas.microsoft.com/office/drawing/2016/ink Schema | None. | [5.28](#Section_9fb2d49d08814e7d8b3895373d76302c) |
| http://schemas.microsoft.com/office/drawing/2010/chartDrawing Schema | None. | [5.8](#Section_53d31d113b074ca3ac54e8562713e647) |
| http://schemas.microsoft.com/office/drawing/2012/chart Schema | None. | [5.13](#Section_1c52d95925d345569381cc86c1221029) |
| http://schemas.microsoft.com/office/drawing/2014/chart Schema | None. | [5.20](#Section_40b8f1fcb2664f1f90ecd8ae7bafb140) |
| http://schemas.microsoft.com/office/drawing/2014/chart/ac Schema | None. | [5.21](#Section_5a2048a5711648a995b69c7b8e70ff44) |
| http://schemas.microsoft.com/office/drawing/2017/03/chart Schema | None. | [5.31](#Section_07ad9d54eb9e4d52831eaa6487b295c2) |
| http://schemas.microsoft.com/office/drawing/2007/8/2/chart Schema | None. | [5.10](#Section_070bea842201463caeaacf258492b5b5) |
| http://schemas.microsoft.com/office/drawing/2014/chartex Schema | None. | [5.22](#Section_e2723b0a912042a5bd11c252ccb13c1e) |
| http://schemas.microsoft.com/office/drawing/2014/main Schema | None. | [5.23](#Section_55a2958e599f46a08812029155d485cb) |
| http://schemas.microsoft.com/office/drawing/2012/chartStyle Schema | None. | [5.15](#Section_a7bb9c01d27447eea16a90e26877e8a4) |
| http://schemas.microsoft.com/office/drawing/2010/diagram Schema | None. | [5.16](#Section_6a404d6814de4124b7dbbb48398538ac) |
| http://schemas.microsoft.com/office/drawing/2008/diagram Schema | None. | [5.6](#Section_e1b56dd5305b4b3ba98328df1d4ffc3f) |
| http://schemas.microsoft.com/office/drawing/2012/main Schema | None. | [5.14](#Section_a87e4aa08ba341f1a6a367c2afcca6b3) |
| http://schemas.microsoft.com/office/word/2010/wordprocessingShape Schema | None. | [5.2](#Section_f73ea06d47494611b20b755df087eb21) |
| http://schemas.microsoft.com/office/drawing/2010/picture Schema | None. | [5.12](#Section_81dd13dc144f4099bb1f658ce7b65b6d) |
| http://schemas.microsoft.com/office/word/2010/wordml Schema | None. | [5.3](#Section_20b04a8ab93e4ecd952296d4bb1847c8) |
| http://schemas.microsoft.com/office/word/2010/wordprocessingGroup Schema | None. | [5.4](#Section_fbe733bf85e246f9b5489292b44670ce) |
| http://schemas.microsoft.com/office/word/2010/wordprocessingCanvas Schema | None. | [5.5](#Section_0af4dfe1b07b41eba48b87aadd16b51b) |
| http://schemas.microsoft.com/office/word/2010/wordprocessingDrawing Schema | None. | [5.11](#Section_1a38a99a16ae420d8c7923dc2e922717) |
| http://schemas.microsoft.com/office/word/2012/wordprocessingDrawing Schema | None. | [5.18](#Section_44351d27cd96461b89ae3be25ed82425) |
| http://schemas.microsoft.com/office/excel/2010/spreadsheetDrawing Schema | None. | [5.9](#Section_ec810aeb26c04f32a6a459abb9a0398f) |
| http://schemas.microsoft.com/office/powerpoint/2014/inkAction Schema | iact | [5.19](#Section_eebdf5ecb1ff4953b2bc6febc0df7f1e) |
| http://schemas.microsoft.com/office/drawing/2016/SVG/main Schema | None. | [5.24](#Section_cc083f6dbc384ff4b32a5bc97df8addc) |
| http://schemas.microsoft.com/office/drawing/2016/11/main Schema | None. | [5.25](#Section_96e8cdeb7774461b957e09b7ec8e2765) |
| http://schemas.microsoft.com/office/drawing/2016/11/diagram Schema | None. | [5.26](#Section_8607d4b72dc845e79317808373935e47) |
| http://schemas.microsoft.com/office/drawing/2017/model3d Schema | am3d | [5.29](#Section_6c414e62482541009ca188fefc5fb699) |
| http://schemas.microsoft.com/office/drawing/2016/12/diagram Schema | None. | [5.30](#Section_e2d5dcbccb9340b9896d46033bc2711c) |
|  | None. | [5.32](#Section_6146d89f9146415b99e239e694b5a980) |

## http://schemas.microsoft.com/office/drawing/2010/main Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/drawing/2010/main" elementFormDefault="qualified" xmlns="http://schemas.microsoft.com/office/drawing/2010/main" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns:a14="http://schemas.microsoft.com/office/drawing/2010/main" xmlns:m="http://schemas.openxmlformats.org/officeDocument/2006/math" xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships">
2. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartdocprop.xsd"/>
3. <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships" schemaLocation="orel.xsd"/>
4. <xsd:import schemaLocation="oartsp3dstyles.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
5. <xsd:import schemaLocation="oartsp3dscene.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
6. <xsd:import schemaLocation="oartspeffects.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
7. <xsd:import schemaLocation="oartsplineproperties.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
8. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartbasetypes.xsd"/>
9. <xsd:simpleType name="ST\_LegacySpreadsheetColorIndex">
10. <xsd:restriction base="xsd:int">
11. <xsd:minInclusive value="0"/>
12. <xsd:maxInclusive value="80"/>
13. </xsd:restriction>
14. </xsd:simpleType>
15. <xsd:attribute name="legacySpreadsheetColorIndex" type="ST\_LegacySpreadsheetColorIndex"/>
16. <xsd:complexType name="CT\_TextMath"/>
17. <xsd:element name="m" type="CT\_TextMath"/>
18. <xsd:complexType name="CT\_ContentPartLocking">
19. <xsd:sequence>
20. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
21. </xsd:sequence>
22. <xsd:attributeGroup ref="a:AG\_Locking"/>
23. </xsd:complexType>
24. <xsd:complexType name="CT\_NonVisualInkContentPartProperties">
25. <xsd:sequence>
26. <xsd:element name="cpLocks" type="CT\_ContentPartLocking" minOccurs="0" maxOccurs="1"/>
27. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
28. </xsd:sequence>
29. <xsd:attribute name="isComment" type="xsd:boolean" use="optional" default="true"/>
30. </xsd:complexType>
31. <xsd:complexType name="CT\_CameraTool">
32. <xsd:attribute name="cellRange" type="xsd:string"/>
33. <xsd:attribute name="spid" use="optional" default="0" type="xsd:string"/>
34. </xsd:complexType>
35. <xsd:element name="cameraTool" type="CT\_CameraTool"/>
36. <xsd:complexType name="CT\_CompatExt">
37. <xsd:attribute name="spid" type="xsd:string"/>
38. </xsd:complexType>
39. <xsd:element name="compatExt" type="CT\_CompatExt"/>
40. <xsd:complexType name="CT\_IsGvmlCanvas">
41. <xsd:attribute name="val" type="xsd:boolean" use="required"/>
42. </xsd:complexType>
43. <xsd:complexType name="CT\_GvmlContentPartNonVisual">
44. <xsd:sequence>
45. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
46. <xsd:element name="cNvContentPartPr" type="CT\_NonVisualInkContentPartProperties" minOccurs="0" maxOccurs="1"/>
47. </xsd:sequence>
48. </xsd:complexType>
49. <xsd:complexType name="CT\_GvmlContentPart">
50. <xsd:sequence>
51. <xsd:element name="nvContentPartPr" type="CT\_GvmlContentPartNonVisual" minOccurs="0" maxOccurs="1"/>
52. <xsd:element name="xfrm" type="a:CT\_Transform2D" minOccurs="0" maxOccurs="1"/>
53. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
54. </xsd:sequence>
55. <xsd:attribute name="bwMode" type="a:ST\_BlackWhiteMode" use="optional"/>
56. <xsd:attribute ref="r:id" use="required"/>
57. </xsd:complexType>
58. <xsd:element name="isCanvas" type="CT\_IsGvmlCanvas"/>
59. <xsd:element name="contentPart" type="CT\_GvmlContentPart"/>
60. <xsd:complexType name="CT\_ShadowObscured">
61. <xsd:attribute name="val" type="xsd:boolean" use="optional" default="false"/>
62. </xsd:complexType>
63. <xsd:element name="shadowObscured" type="CT\_ShadowObscured"/>
64. <xsd:element name="hiddenFill" type="a:CT\_FillProperties"/>
65. <xsd:element name="hiddenLine" type="a:CT\_LineProperties"/>
66. <xsd:element name="hiddenEffects" type="a:CT\_EffectProperties"/>
67. <xsd:element name="hiddenScene3d" type="a:CT\_Scene3D"/>
68. <xsd:element name="hiddenSp3d" type="a:CT\_Shape3D"/>
69. <xsd:simpleType name="ST\_ArtisticEffectParam100">
70. <xsd:restriction base="xsd:int">
71. <xsd:minInclusive value="0"/>
72. <xsd:maxInclusive value="100"/>
73. </xsd:restriction>
74. </xsd:simpleType>
75. <xsd:simpleType name="ST\_ArtisticEffectParam10">
76. <xsd:restriction base="xsd:int">
77. <xsd:minInclusive value="0"/>
78. <xsd:maxInclusive value="10"/>
79. </xsd:restriction>
80. </xsd:simpleType>
81. <xsd:simpleType name="ST\_ArtisticEffectParam6">
82. <xsd:restriction base="xsd:int">
83. <xsd:minInclusive value="0"/>
84. <xsd:maxInclusive value="6"/>
85. </xsd:restriction>
86. </xsd:simpleType>
87. <xsd:simpleType name="ST\_ArtisticEffectParam4">
88. <xsd:restriction base="xsd:int">
89. <xsd:minInclusive value="0"/>
90. <xsd:maxInclusive value="4"/>
91. </xsd:restriction>
92. </xsd:simpleType>
93. <xsd:complexType name="CT\_PictureEffectBlur">
94. <xsd:attribute name="radius" type="ST\_ArtisticEffectParam100" use="optional" default="10"/>
95. </xsd:complexType>
96. <xsd:complexType name="CT\_PictureEffectCement">
97. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
98. <xsd:attribute name="crackSpacing" type="ST\_ArtisticEffectParam100" use="optional" default="24"/>
99. </xsd:complexType>
100. <xsd:complexType name="CT\_PictureEffectChalkSketch">
101. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
102. <xsd:attribute name="pressure" type="ST\_ArtisticEffectParam4" use="optional" default="0"/>
103. </xsd:complexType>
104. <xsd:complexType name="CT\_PictureEffectCrisscrossEtching">
105. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="75"/>
106. <xsd:attribute name="pressure" type="ST\_ArtisticEffectParam100" use="optional" default="30"/>
107. </xsd:complexType>
108. <xsd:complexType name="CT\_PictureEffectCutout">
109. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
110. <xsd:attribute name="numberOfShades" type="ST\_ArtisticEffectParam6" use="optional" default="2"/>
111. </xsd:complexType>
112. <xsd:complexType name="CT\_PictureEffectFilmGrain">
113. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
114. <xsd:attribute name="grainSize" type="ST\_ArtisticEffectParam100" use="optional" default="40"/>
115. </xsd:complexType>
116. <xsd:complexType name="CT\_PictureEffectGlass">
117. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
118. <xsd:attribute name="scaling" type="ST\_ArtisticEffectParam100" use="optional" default="34"/>
119. </xsd:complexType>
120. <xsd:complexType name="CT\_PictureEffectGlowDiffused">
121. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
122. <xsd:attribute name="intensity" type="ST\_ArtisticEffectParam10" use="optional" default="5"/>
123. </xsd:complexType>
124. <xsd:complexType name="CT\_PictureEffectGlowEdges">
125. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="15"/>
126. <xsd:attribute name="smoothness" type="ST\_ArtisticEffectParam10" use="optional" default="3"/>
127. </xsd:complexType>
128. <xsd:complexType name="CT\_PictureEffectLightScreen">
129. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
130. <xsd:attribute name="gridSize" type="ST\_ArtisticEffectParam10" use="optional" default="4"/>
131. </xsd:complexType>
132. <xsd:complexType name="CT\_PictureEffectLineDrawing">
133. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="25"/>
134. <xsd:attribute name="pencilSize" type="ST\_ArtisticEffectParam100" use="optional" default="0"/>
135. </xsd:complexType>
136. <xsd:complexType name="CT\_PictureEffectMarker">
137. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
138. <xsd:attribute name="size" type="ST\_ArtisticEffectParam100" use="optional" default="97"/>
139. </xsd:complexType>
140. <xsd:complexType name="CT\_PictureEffectMosiaicBubbles">
141. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
142. <xsd:attribute name="pressure" type="ST\_ArtisticEffectParam100" use="optional" default="14"/>
143. </xsd:complexType>
144. <xsd:complexType name="CT\_PictureEffectPaintBrush">
145. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
146. <xsd:attribute name="brushSize" type="ST\_ArtisticEffectParam10" use="optional" default="2"/>
147. </xsd:complexType>
148. <xsd:complexType name="CT\_PictureEffectPaintStrokes">
149. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
150. <xsd:attribute name="intensity" type="ST\_ArtisticEffectParam10" use="optional" default="5"/>
151. </xsd:complexType>
152. <xsd:complexType name="CT\_PictureEffectPastelsSmooth">
153. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
154. <xsd:attribute name="scaling" type="ST\_ArtisticEffectParam100" use="optional" default="34"/>
155. </xsd:complexType>
156. <xsd:complexType name="CT\_PictureEffectPencilGrayscale">
157. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
158. <xsd:attribute name="pencilSize" type="ST\_ArtisticEffectParam100" use="optional" default="27"/>
159. </xsd:complexType>
160. <xsd:complexType name="CT\_PictureEffectPencilSketch">
161. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
162. <xsd:attribute name="pressure" type="ST\_ArtisticEffectParam100" use="optional" default="22"/>
163. </xsd:complexType>
164. <xsd:complexType name="CT\_PictureEffectPhotocopy">
165. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="30"/>
166. <xsd:attribute name="detail" type="ST\_ArtisticEffectParam10" use="optional" default="3"/>
167. </xsd:complexType>
168. <xsd:complexType name="CT\_PictureEffectPlasticWrap">
169. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
170. <xsd:attribute name="smoothness" type="ST\_ArtisticEffectParam10" use="optional" default="5"/>
171. </xsd:complexType>
172. <xsd:complexType name="CT\_PictureEffectTexturizer">
173. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
174. <xsd:attribute name="scaling" type="ST\_ArtisticEffectParam100" use="optional" default="34"/>
175. </xsd:complexType>
176. <xsd:complexType name="CT\_PictureEffectWatercolorSponge">
177. <xsd:attribute name="trans" type="a:ST\_PositiveFixedPercentage" use="optional" default="0"/>
178. <xsd:attribute name="brushSize" type="ST\_ArtisticEffectParam10" use="optional" default="2"/>
179. </xsd:complexType>
180. <xsd:complexType name="CT\_PictureEffectBackgroundRemovalForegroundMark">
181. <xsd:attribute name="x1" type="a:ST\_PositiveFixedPercentage" use="required"/>
182. <xsd:attribute name="y1" type="a:ST\_PositiveFixedPercentage" use="required"/>
183. <xsd:attribute name="x2" type="a:ST\_PositiveFixedPercentage" use="required"/>
184. <xsd:attribute name="y2" type="a:ST\_PositiveFixedPercentage" use="required"/>
185. </xsd:complexType>
186. <xsd:complexType name="CT\_PictureEffectBackgroundRemovalBackgroundMark">
187. <xsd:attribute name="x1" type="a:ST\_PositiveFixedPercentage" use="required"/>
188. <xsd:attribute name="y1" type="a:ST\_PositiveFixedPercentage" use="required"/>
189. <xsd:attribute name="x2" type="a:ST\_PositiveFixedPercentage" use="required"/>
190. <xsd:attribute name="y2" type="a:ST\_PositiveFixedPercentage" use="required"/>
191. </xsd:complexType>
192. <xsd:complexType name="CT\_PictureEffectBackgroundRemoval">
193. <xsd:sequence>
194. <xsd:element name="foregroundMark" type="CT\_PictureEffectBackgroundRemovalForegroundMark" minOccurs="0" maxOccurs="unbounded"/>
195. <xsd:element name="backgroundMark" type="CT\_PictureEffectBackgroundRemovalBackgroundMark" minOccurs="0" maxOccurs="unbounded"/>
196. </xsd:sequence>
197. <xsd:attribute name="t" type="a:ST\_PositiveFixedPercentage" use="required"/>
198. <xsd:attribute name="b" type="a:ST\_PositiveFixedPercentage" use="required"/>
199. <xsd:attribute name="l" type="a:ST\_PositiveFixedPercentage" use="required"/>
200. <xsd:attribute name="r" type="a:ST\_PositiveFixedPercentage" use="required"/>
201. </xsd:complexType>
202. <xsd:complexType name="CT\_PictureEffectBrightnessContrast">
203. <xsd:attribute name="bright" type="a:ST\_FixedPercentage" use="optional" default="0"/>
204. <xsd:attribute name="contrast" type="a:ST\_FixedPercentage" use="optional" default="0"/>
205. </xsd:complexType>
206. <xsd:simpleType name="ST\_ColorTemperature">
207. <xsd:restriction base="xsd:int">
208. <xsd:minInclusive value="1500"/>
209. <xsd:maxInclusive value="11500"/>
210. </xsd:restriction>
211. </xsd:simpleType>
212. <xsd:complexType name="CT\_PictureEffectColorTemperature">
213. <xsd:attribute name="colorTemp" type="ST\_ColorTemperature" use="optional" default="6500"/>
214. </xsd:complexType>
215. <xsd:simpleType name="ST\_SaturationAmount">
216. <xsd:restriction base="a:ST\_Percentage">
217. <xsd:minInclusive value="0"/>
218. <xsd:maxInclusive value="400000"/>
219. </xsd:restriction>
220. </xsd:simpleType>
221. <xsd:complexType name="CT\_PictureEffectSaturation">
222. <xsd:attribute name="sat" type="ST\_SaturationAmount" use="optional" default="100"/>
223. </xsd:complexType>
224. <xsd:complexType name="CT\_PictureEffectSharpenSoften">
225. <xsd:attribute name="amount" type="a:ST\_FixedPercentage" use="optional" default="0"/>
226. </xsd:complexType>
227. <xsd:complexType name="CT\_PictureEffect">
228. <xsd:choice minOccurs="1" maxOccurs="1">
229. <xsd:element name="artisticBlur" type="CT\_PictureEffectBlur" minOccurs="1" maxOccurs="1"/>
230. <xsd:element name="artisticCement" type="CT\_PictureEffectCement" minOccurs="1" maxOccurs="1"/>
231. <xsd:element name="artisticChalkSketch" type="CT\_PictureEffectChalkSketch" minOccurs="1" maxOccurs="1"/>
232. <xsd:element name="artisticCrisscrossEtching" type="CT\_PictureEffectCrisscrossEtching" minOccurs="1" maxOccurs="1"/>
233. <xsd:element name="artisticCutout" type="CT\_PictureEffectCutout" minOccurs="1" maxOccurs="1"/>
234. <xsd:element name="artisticFilmGrain" type="CT\_PictureEffectFilmGrain" minOccurs="1" maxOccurs="1"/>
235. <xsd:element name="artisticGlass" type="CT\_PictureEffectGlass" minOccurs="1" maxOccurs="1"/>
236. <xsd:element name="artisticGlowDiffused" type="CT\_PictureEffectGlowDiffused" minOccurs="1" maxOccurs="1"/>
237. <xsd:element name="artisticGlowEdges" type="CT\_PictureEffectGlowEdges" minOccurs="1" maxOccurs="1"/>
238. <xsd:element name="artisticLightScreen" type="CT\_PictureEffectLightScreen" minOccurs="1" maxOccurs="1"/>
239. <xsd:element name="artisticLineDrawing" type="CT\_PictureEffectLineDrawing" minOccurs="1" maxOccurs="1"/>
240. <xsd:element name="artisticMarker" type="CT\_PictureEffectMarker" minOccurs="1" maxOccurs="1"/>
241. <xsd:element name="artisticMosiaicBubbles" type="CT\_PictureEffectMosiaicBubbles" minOccurs="1" maxOccurs="1"/>
242. <xsd:element name="artisticPaintStrokes" type="CT\_PictureEffectPaintStrokes" minOccurs="1" maxOccurs="1"/>
243. <xsd:element name="artisticPaintBrush" type="CT\_PictureEffectPaintBrush" minOccurs="1" maxOccurs="1"/>
244. <xsd:element name="artisticPastelsSmooth" type="CT\_PictureEffectPastelsSmooth" minOccurs="1" maxOccurs="1"/>
245. <xsd:element name="artisticPencilGrayscale" type="CT\_PictureEffectPencilGrayscale" minOccurs="1" maxOccurs="1"/>
246. <xsd:element name="artisticPencilSketch" type="CT\_PictureEffectPencilSketch" minOccurs="1" maxOccurs="1"/>
247. <xsd:element name="artisticPhotocopy" type="CT\_PictureEffectPhotocopy" minOccurs="1" maxOccurs="1"/>
248. <xsd:element name="artisticPlasticWrap" type="CT\_PictureEffectPlasticWrap" minOccurs="1" maxOccurs="1"/>
249. <xsd:element name="artisticTexturizer" type="CT\_PictureEffectTexturizer" minOccurs="1" maxOccurs="1"/>
250. <xsd:element name="artisticWatercolorSponge" type="CT\_PictureEffectWatercolorSponge" minOccurs="1" maxOccurs="1"/>
251. <xsd:element name="backgroundRemoval" type="CT\_PictureEffectBackgroundRemoval" minOccurs="1" maxOccurs="1"/>
252. <xsd:element name="brightnessContrast" type="CT\_PictureEffectBrightnessContrast" minOccurs="1" maxOccurs="1"/>
253. <xsd:element name="colorTemperature" type="CT\_PictureEffectColorTemperature" minOccurs="1" maxOccurs="1"/>
254. <xsd:element name="saturation" type="CT\_PictureEffectSaturation" minOccurs="1" maxOccurs="1"/>
255. <xsd:element name="sharpenSoften" type="CT\_PictureEffectSharpenSoften" minOccurs="1" maxOccurs="1"/>
256. </xsd:choice>
257. <xsd:attribute name="visible" type="xsd:boolean" use="optional" default="true"/>
258. </xsd:complexType>
259. <xsd:complexType name="CT\_PictureLayer">
260. <xsd:sequence>
261. <xsd:element name="imgEffect" type="CT\_PictureEffect" minOccurs="0" maxOccurs="unbounded"/>
262. </xsd:sequence>
263. <xsd:attribute ref="r:embed" use="optional" default=""/>
264. </xsd:complexType>
265. <xsd:complexType name="CT\_Photo">
266. <xsd:sequence>
267. <xsd:element name="imgLayer" type="CT\_PictureLayer" minOccurs="1" maxOccurs="1"/>
268. </xsd:sequence>
269. </xsd:complexType>
270. <xsd:element name="imgProps" type="CT\_Photo"/>
271. <xsd:complexType name="CT\_UseLocalDpi">
272. <xsd:attribute name="val" type="xsd:boolean" use="optional" default="true"/>
273. </xsd:complexType>
274. <xsd:element name="useLocalDpi" type="CT\_UseLocalDpi"/>
275. </xsd:schema>

## http://schemas.microsoft.com/office/word/2010/wordprocessingShape Schema

1. <xsd:schema elementFormDefault="qualified" targetNamespace="http://schemas.microsoft.com/office/word/2010/wordprocessingShape" xmlns="http://schemas.microsoft.com/office/word/2010/wordprocessingShape" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns:w12="http://schemas.openxmlformats.org/wordprocessingml/2006/main" xmlns:wne="http://schemas.microsoft.com/office/word/2006/wordml" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:rel="http://schemas.openxmlformats.org/officeDocument/2006/relationships">
2. <xsd:import schemaLocation="oartspproperties.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
3. <xsd:import schemaLocation="oartdocprop.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
4. <xsd:import schemaLocation="oartstylesheet.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
5. <xsd:import schemaLocation="orel.xsd" namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships"/>
6. <xsd:import schemaLocation="oartWordShapeTextbox.xsd" namespace="http://schemas.openxmlformats.org/wordprocessingml/2006/main"/>
7. <xsd:import schemaLocation="oartWordNonEcmaShapeTextbox.xsd" namespace="http://schemas.microsoft.com/office/word/2006/wordml"/>
8. <xsd:complexType name="CT\_TextboxInfo">
9. <xsd:sequence>
10. <xsd:element ref="w12:txbxContent" minOccurs="0" maxOccurs="1"/>
11. <xsd:element ref="wne:txbxContent" minOccurs="0" maxOccurs="1"/>
12. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
13. </xsd:sequence>
14. <xsd:attribute name="id" type="xsd:unsignedShort" use="optional" default="0"/>
15. </xsd:complexType>
16. <xsd:complexType name="CT\_LinkedTextboxInformation">
17. <xsd:sequence>
18. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
19. </xsd:sequence>
20. <xsd:attribute name="id" type="xsd:unsignedShort" use="required"/>
21. <xsd:attribute name="seq" type="xsd:unsignedShort" use="required"/>
22. </xsd:complexType>
23. <xsd:complexType name="CT\_WordprocessingShape">
24. <xsd:sequence minOccurs="1" maxOccurs="1">
25. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps" minOccurs="0" maxOccurs="1"/>
26. <xsd:choice minOccurs="1" maxOccurs="1">
27. <xsd:element name="cNvSpPr" type="a:CT\_NonVisualDrawingShapeProps" minOccurs="1" maxOccurs="1"/>
28. <xsd:element name="cNvCnPr" type="a:CT\_NonVisualConnectorProperties" minOccurs="1" maxOccurs="1"/>
29. </xsd:choice>
30. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="1" maxOccurs="1"/>
31. <xsd:element name="style" type="a:CT\_ShapeStyle" minOccurs="0" maxOccurs="1"/>
32. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
33. <xsd:choice minOccurs="0" maxOccurs="1">
34. <xsd:element name="txbx" type="CT\_TextboxInfo" minOccurs="1" maxOccurs="1"/>
35. <xsd:element name="linkedTxbx" type="CT\_LinkedTextboxInformation" minOccurs="1" maxOccurs="1"/>
36. </xsd:choice>
37. <xsd:element name="bodyPr" type="a:CT\_TextBodyProperties" minOccurs="1" maxOccurs="1"/>
38. </xsd:sequence>
39. <xsd:attribute name="normalEastAsianFlow" type="xsd:boolean" use="optional" default="false"/>
40. </xsd:complexType>
41. <xsd:element name="wsp" type="CT\_WordprocessingShape"/>
42. </xsd:schema>

## http://schemas.microsoft.com/office/word/2010/wordml Schema

1. <xsd:schema elementFormDefault="qualified" targetNamespace="http://schemas.microsoft.com/office/word/2010/wordml" xmlns="http://schemas.microsoft.com/office/word/2010/wordml" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns:a14="http://schemas.microsoft.com/office/drawing/2010/main" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships">
2. <xsd:import namespace="http://schemas.microsoft.com/office/drawing/2010/main" schemaLocation="oart14docprop.xsd"/>
3. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartdocprop.xsd"/>
4. <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships" schemaLocation="orel.xsd"/>
5. <xsd:complexType name="CT\_WordContentPartNonVisual">
6. <xsd:sequence>
7. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps" minOccurs="0" maxOccurs="1"/>
8. <xsd:element name="cNvContentPartPr" type="a14:CT\_NonVisualInkContentPartProperties" minOccurs="0" maxOccurs="1"/>
9. </xsd:sequence>
10. </xsd:complexType>
11. <xsd:complexType name="CT\_WordContentPart">
12. <xsd:sequence>
13. <xsd:element name="nvContentPartPr" type="CT\_WordContentPartNonVisual" minOccurs="0" maxOccurs="1"/>
14. <xsd:element name="xfrm" type="a:CT\_Transform2D" minOccurs="0" maxOccurs="1"/>
15. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
16. </xsd:sequence>
17. <xsd:attribute name="bwMode" type="a:ST\_BlackWhiteMode" use="optional"/>
18. <xsd:attribute ref="r:id" use="required"/>
19. </xsd:complexType>
20. <xsd:element name="contentPart" type="CT\_WordContentPart"/>
21. </xsd:schema>

## http://schemas.microsoft.com/office/word/2010/wordprocessingGroup Schema

1. <xsd:schema elementFormDefault="qualified" targetNamespace="http://schemas.microsoft.com/office/word/2010/wordprocessingGroup" xmlns="http://schemas.microsoft.com/office/word/2010/wordprocessingGroup" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wps="http://schemas.microsoft.com/office/word/2010/wordprocessingShape" xmlns:pic="http://schemas.openxmlformats.org/drawingml/2006/picture" xmlns:w14="http://schemas.microsoft.com/office/word/2010/wordml">
2. <xsd:import schemaLocation="oartspproperties.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
3. <xsd:import schemaLocation="oartdocprop.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
4. <xsd:import schemaLocation="oartstylesheet.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
5. <xsd:import schemaLocation="oarte2o.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
6. <xsd:import schemaLocation="oartwordshape.xsd" namespace="http://schemas.microsoft.com/office/word/2010/wordprocessingShape"/>
7. <xsd:import schemaLocation="picturee2o.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/picture"/>
8. <xsd:import schemaLocation="oartwordcontentpart.xsd" namespace="http://schemas.microsoft.com/office/word/2010/wordml"/>
9. <xsd:complexType name="CT\_GraphicFrame">
10. <xsd:sequence>
11. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
12. <xsd:element name="cNvFrPr" type="a:CT\_NonVisualGraphicFrameProperties" minOccurs="1" maxOccurs="1"/>
13. <xsd:element name="xfrm" type="a:CT\_Transform2D" minOccurs="1" maxOccurs="1"/>
14. <xsd:element ref="a:graphic" minOccurs="1" maxOccurs="1"/>
15. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
16. </xsd:sequence>
17. </xsd:complexType>
18. <xsd:complexType name="CT\_WordprocessingGroup">
19. <xsd:sequence minOccurs="1" maxOccurs="1">
20. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps" minOccurs="0" maxOccurs="1"/>
21. <xsd:element name="cNvGrpSpPr" type="a:CT\_NonVisualGroupDrawingShapeProps" minOccurs="1" maxOccurs="1"/>
22. <xsd:element name="grpSpPr" type="a:CT\_GroupShapeProperties" minOccurs="1" maxOccurs="1"/>
23. <xsd:choice minOccurs="0" maxOccurs="unbounded">
24. <xsd:element ref="wps:wsp"/>
25. <xsd:element name="grpSp" type="CT\_WordprocessingGroup"/>
26. <xsd:element name="graphicFrame" type="CT\_GraphicFrame"/>
27. <xsd:element ref="pic:pic"/>
28. <xsd:element ref="w14:contentPart"/>
29. </xsd:choice>
30. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
31. </xsd:sequence>
32. </xsd:complexType>
33. <xsd:element name="wgp" type="CT\_WordprocessingGroup"/>
34. </xsd:schema>

## http://schemas.microsoft.com/office/word/2010/wordprocessingCanvas Schema

1. <xsd:schema elementFormDefault="qualified" targetNamespace="http://schemas.microsoft.com/office/word/2010/wordprocessingCanvas" xmlns="http://schemas.microsoft.com/office/word/2010/wordprocessingCanvas" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns:w14="http://schemas.microsoft.com/office/word/2010/wordml" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wpg="http://schemas.microsoft.com/office/word/2010/wordprocessingGroup" xmlns:wps="http://schemas.microsoft.com/office/word/2010/wordprocessingShape" xmlns:pic="http://schemas.openxmlformats.org/drawingml/2006/picture">
2. <xsd:import schemaLocation="oartdocprop.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
3. <xsd:import schemaLocation="oarte2o.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
4. <xsd:import schemaLocation="oarte2oformat.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
5. <xsd:import schemaLocation="oartspproperties.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
6. <xsd:import schemaLocation="oartstylesheet.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
7. <xsd:import schemaLocation="oartwordgroup.xsd" namespace="http://schemas.microsoft.com/office/word/2010/wordprocessingGroup"/>
8. <xsd:import schemaLocation="oartwordshape.xsd" namespace="http://schemas.microsoft.com/office/word/2010/wordprocessingShape"/>
9. <xsd:import schemaLocation="oartwordcontentpart.xsd" namespace="http://schemas.microsoft.com/office/word/2010/wordml"/>
10. <xsd:import schemaLocation="picturee2o.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/picture"/>
11. <xsd:complexType name="CT\_WordprocessingCanvas">
12. <xsd:sequence minOccurs="1" maxOccurs="1">
13. <xsd:element name="bg" type="a:CT\_BackgroundFormatting" minOccurs="0" maxOccurs="1"/>
14. <xsd:element name="whole" type="a:CT\_WholeE2oFormatting" minOccurs="0" maxOccurs="1"/>
15. <xsd:choice minOccurs="0" maxOccurs="unbounded">
16. <xsd:element ref="wps:wsp"/>
17. <xsd:element ref="pic:pic"/>
18. <xsd:element ref="w14:contentPart"/>
19. <xsd:element ref="wpg:wgp"/>
20. <xsd:element name="graphicFrame" type="wpg:CT\_GraphicFrame"/>
21. </xsd:choice>
22. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
23. </xsd:sequence>
24. </xsd:complexType>
25. <xsd:element name="wpc" type="CT\_WordprocessingCanvas"/>
26. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2008/diagram Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/drawing/2008/diagram" elementFormDefault="qualified" attributeFormDefault="unqualified" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns:d="http://schemas.openxmlformats.org/drawingml/2006/diagram" xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships" xmlns="http://schemas.microsoft.com/office/drawing/2008/diagram">
2. <xsd:import schemaLocation="orel.xsd" namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships"/>
3. <xsd:import schemaLocation="igxelementpropertyset.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/diagram"/>
4. <xsd:import schemaLocation="oartspstyle.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
5. <xsd:import schemaLocation="oartdocprop.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
6. <xsd:import schemaLocation="oarte2o.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
7. <xsd:import schemaLocation="oarttx.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
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" maxOccurs="1"/>
12. </xsd:sequence>
13. </xsd:complexType>
14. <xsd:complexType name="CT\_Shape">
15. <xsd:sequence>
16. <xsd:element name="nvSpPr" type="CT\_ShapeNonVisual" minOccurs="1" maxOccurs="1"/>
17. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="1" maxOccurs="1"/>
18. <xsd:element name="style" type="a:CT\_ShapeStyle" minOccurs="0" maxOccurs="1"/>
19. <xsd:element name="txBody" type="a:CT\_TextBody" minOccurs="0" maxOccurs="1"/>
20. <xsd:element name="txXfrm" type="a:CT\_Transform2D" minOccurs="0" maxOccurs="1"/>
21. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
22. </xsd:sequence>
23. <xsd:attribute name="modelId" type="d:ST\_ModelId" use="required"/>
24. </xsd:complexType>
25. <xsd:complexType name="CT\_GroupShapeNonVisual">
26. <xsd:sequence>
27. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
28. <xsd:element name="cNvGrpSpPr" type="a:CT\_NonVisualGroupDrawingShapeProps" minOccurs="1" maxOccurs="1"/>
29. </xsd:sequence>
30. </xsd:complexType>
31. <xsd:complexType name="CT\_GroupShape">
32. <xsd:sequence>
33. <xsd:element name="nvGrpSpPr" type="CT\_GroupShapeNonVisual" minOccurs="1" maxOccurs="1"/>
34. <xsd:element name="grpSpPr" type="a:CT\_GroupShapeProperties" minOccurs="1" maxOccurs="1"/>
35. <xsd:choice minOccurs="0" maxOccurs="unbounded">
36. <xsd:element name="sp" type="CT\_Shape"/>
37. <xsd:element name="grpSp" type="CT\_GroupShape"/>
38. </xsd:choice>
39. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
40. </xsd:sequence>
41. </xsd:complexType>
42. <xsd:complexType name="CT\_Drawing">
43. <xsd:sequence>
44. <xsd:element name="spTree" type="CT\_GroupShape" minOccurs="1" maxOccurs="1"/>
45. </xsd:sequence>
46. </xsd:complexType>
47. <xsd:element name="drawing" type="CT\_Drawing"/>
48. <xsd:complexType name="CT\_DataModelExtBlock">
49. <xsd:attribute name="relId" type="xsd:string"/>
50. <xsd:attribute name="minVer" type="xsd:anyURI"/>
51. </xsd:complexType>
52. <xsd:element name="dataModelExt" type="CT\_DataModelExtBlock"/>
53. </xsd:schema>

## http://schemas.microsoft.com/ink/2010/main Schema

1. <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" attributeFormDefault="unqualified" elementFormDefault="qualified" targetNamespace="http://schemas.microsoft.com/ink/2010/main" xmlns="http://schemas.microsoft.com/ink/2010/main" xmlns:msink="http://schemas.microsoft.com/ink/2010/main">
2. <xsd:simpleType name="ST\_KnownCtxNodeType">
3. <xsd:restriction base="xsd:string">
4. <xsd:enumeration value="root"/>
5. <xsd:enumeration value="unclassifiedInk"/>
6. <xsd:enumeration value="writingRegion"/>
7. <xsd:enumeration value="analysisHint"/>
8. <xsd:enumeration value="object"/>
9. <xsd:enumeration value="inkDrawing"/>
10. <xsd:enumeration value="image"/>
11. <xsd:enumeration value="paragraph"/>
12. <xsd:enumeration value="line"/>
13. <xsd:enumeration value="inkBullet"/>
14. <xsd:enumeration value="inkWord"/>
15. <xsd:enumeration value="textWord"/>
16. <xsd:enumeration value="customRecognizer"/>
17. <xsd:enumeration value="mathRegion"/>
18. <xsd:enumeration value="mathEquation"/>
19. <xsd:enumeration value="mathStruct"/>
20. <xsd:enumeration value="mathSymbol"/>
21. <xsd:enumeration value="mathIdentifier"/>
22. <xsd:enumeration value="mathOperator"/>
23. <xsd:enumeration value="mathNumber"/>
24. <xsd:enumeration value="nonInkDrawing"/>
25. <xsd:enumeration value="groupNode"/>
26. <xsd:enumeration value="mixedDrawing"/>
27. </xsd:restriction>
28. </xsd:simpleType>
29. <xsd:simpleType name="ST\_Guid">
30. <xsd:restriction base="xsd:token">
31. <xsd:pattern value="\{[0-9A-F]{8}-[0-9A-F]{4}-[0-9A-F]{4}-[0-9A-F]{4}-[0-9A-F]{12}\}"/>
32. </xsd:restriction>
33. </xsd:simpleType>
34. <xsd:simpleType name="ST\_Ref">
35. <xsd:union memberTypes="msink:ST\_Guid xsd:unsignedInt"/>
36. </xsd:simpleType>
37. <xsd:simpleType name="ST\_CtxNodeType">
38. <xsd:union memberTypes="msink:ST\_KnownCtxNodeType msink:ST\_Guid"/>
39. </xsd:simpleType>
40. <xsd:simpleType name="ST\_Dir">
41. <xsd:restriction base="xsd:string">
42. <xsd:enumeration value="to"/>
43. <xsd:enumeration value="from"/>
44. <xsd:enumeration value="with"/>
45. </xsd:restriction>
46. </xsd:simpleType>
47. <xsd:simpleType name="ST\_KnownSemanticType">
48. <xsd:restriction base="xsd:string">
49. <xsd:enumeration value="none"/>
50. <xsd:enumeration value="underline"/>
51. <xsd:enumeration value="strikethrough"/>
52. <xsd:enumeration value="highlight"/>
53. <xsd:enumeration value="scratchOut"/>
54. <xsd:enumeration value="verticalRange"/>
55. <xsd:enumeration value="callout"/>
56. <xsd:enumeration value="enclosure"/>
57. <xsd:enumeration value="comment"/>
58. <xsd:enumeration value="container"/>
59. <xsd:enumeration value="connector"/>
60. </xsd:restriction>
61. </xsd:simpleType>
62. <xsd:simpleType name="ST\_SemanticType">
63. <xsd:union memberTypes="ST\_KnownSemanticType xsd:unsignedInt"/>
64. </xsd:simpleType>
65. <xsd:simpleType name="ST\_Point">
66. <xsd:restriction base="xsd:string">
67. <xsd:pattern value="-?[0-9]+,-?[0-9]+"/>
68. </xsd:restriction>
69. </xsd:simpleType>
70. <xsd:simpleType name="ST\_Points">
71. <xsd:list itemType="msink:ST\_Point"/>
72. </xsd:simpleType>
73. <xsd:complexType name="CT\_Property">
74. <xsd:simpleContent>
75. <xsd:extension base="xsd:hexBinary">
76. <xsd:attribute name="type" type="ST\_Guid"/>
77. </xsd:extension>
78. </xsd:simpleContent>
79. </xsd:complexType>
80. <xsd:complexType name="CT\_CtxLink">
81. <xsd:attribute name="direction" type="ST\_Dir"/>
82. <xsd:attribute name="ref" type="ST\_Ref"/>
83. </xsd:complexType>
84. <xsd:complexType name="CT\_CtxNode">
85. <xsd:sequence>
86. <xsd:element name="property" type="CT\_Property" minOccurs="0" maxOccurs="unbounded"/>
87. <xsd:element name="sourceLink" type="CT\_CtxLink" minOccurs="0" maxOccurs="unbounded"/>
88. <xsd:element name="destinationLink" type="CT\_CtxLink" minOccurs="0" maxOccurs="unbounded"/>
89. </xsd:sequence>
90. <xsd:attribute name="id" type="ST\_Guid" use="optional"/>
91. <xsd:attribute name="type" type="ST\_CtxNodeType" use="required"/>
92. <xsd:attribute name="rotatedBoundingBox" type="ST\_Points" use="optional"/>
93. <xsd:attribute name="alignmentLevel" type="xsd:int" use="optional" default="0"/>
94. <xsd:attribute name="contentType" type="xsd:int" use="optional" default="0"/>
95. <xsd:attribute name="ascender" type="ST\_Points" use="optional" default="0,0"/>
96. <xsd:attribute name="descender" type="ST\_Points" use="optional" default="0,0"/>
97. <xsd:attribute name="baseline" type="ST\_Points" use="optional" default="0,0"/>
98. <xsd:attribute name="midline" type="ST\_Points" use="optional" default="0,0"/>
99. <xsd:attribute name="customRecognizerId" type="ST\_Guid" use="optional"/>
100. <xsd:attribute name="mathML" type="xsd:string" use="optional" default=""/>
101. <xsd:attribute name="mathStruct" type="xsd:string" use="optional" default=""/>
102. <xsd:attribute name="mathSymbol" type="xsd:string" use="optional" default=""/>
103. <xsd:attribute name="beginModifierType" type="xsd:string" use="optional" default=""/>
104. <xsd:attribute name="endModifierType" type="xsd:string" use="optional" default=""/>
105. <xsd:attribute name="rotationAngle" type="xsd:int" use="optional" default="0"/>
106. <xsd:attribute name="hotPoints" type="ST\_Points" use="optional"/>
107. <xsd:attribute name="centroid" type="ST\_Point" use="optional"/>
108. <xsd:attribute name="semanticType" type="ST\_SemanticType" use="optional" default="none"/>
109. <xsd:attribute name="shapeName" type="xsd:string" use="optional" default=""/>
110. <xsd:attribute name="shapeGeometry" type="ST\_Points" use="optional"/>
111. </xsd:complexType>
112. <xsd:element name="context" type="CT\_CtxNode"/>
113. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2010/chartDrawing Schema

1. <xsd:schema elementFormDefault="qualified" targetNamespace="http://schemas.microsoft.com/office/drawing/2010/chartDrawing" xmlns="http://schemas.microsoft.com/office/drawing/2010/chartDrawing" xmlns:xdr="http://schemas.openxmlformats.org/drawingml/2006/spreadsheetDrawing" xmlns:xdr14="http://xldr14SchemaUri" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns:a14="http://schemas.microsoft.com/office/drawing/2010/main" xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
2. <xsd:import namespace="http://schemas.microsoft.com/office/drawing/2010/main" schemaLocation="oart14docprop.xsd"/>
3. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartdocprop.xsd"/>
4. <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships" schemaLocation="orel.xsd"/>
5. <xsd:complexType name="CT\_ApplicationNonVisualDrawingProps">
6. <xsd:attribute name="macro" type="xsd:string" use="optional"/>
7. <xsd:attribute name="fPublished" type="xsd:boolean" use="optional" default="false"/>
8. </xsd:complexType>
9. <xsd:complexType name="CT\_ContentPartNonVisual">
10. <xsd:sequence>
11. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
12. <xsd:element name="cNvContentPartPr" type="a14:CT\_NonVisualInkContentPartProperties" minOccurs="0" maxOccurs="1"/>
13. </xsd:sequence>
14. </xsd:complexType>
15. <xsd:complexType name="CT\_ContentPart">
16. <xsd:sequence>
17. <xsd:element name="nvContentPartPr" type="CT\_ContentPartNonVisual" minOccurs="0" maxOccurs="1"/>
18. <xsd:element name="nvPr" type="CT\_ApplicationNonVisualDrawingProps" minOccurs="0" maxOccurs="1"/>
19. <xsd:element name="xfrm" type="a:CT\_Transform2D" minOccurs="0" maxOccurs="1"/>
20. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
21. </xsd:sequence>
22. <xsd:attribute ref="r:id" use="required"/>
23. <xsd:attribute name="bwMode" type="a:ST\_BlackWhiteMode" use="optional" default="auto"/>
24. </xsd:complexType>
25. <xsd:element name="contentPart" type="CT\_ContentPart"/>
26. </xsd:schema>

## http://schemas.microsoft.com/office/excel/2010/spreadsheetDrawing Schema

1. <xsd:schema elementFormDefault="qualified" targetNamespace="http://schemas.microsoft.com/office/excel/2010/spreadsheetDrawing" xmlns="http://schemas.microsoft.com/office/excel/2010/spreadsheetDrawing" xmlns:xdr="http://schemas.openxmlformats.org/drawingml/2006/spreadsheetDrawing" xmlns:xdr14="http://xldr14SchemaUri" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns:a14="http://schemas.microsoft.com/office/drawing/2010/main" xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
2. <xsd:import namespace="http://schemas.microsoft.com/office/drawing/2010/main" schemaLocation="oart14docprop.xsd"/>
3. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartdocprop.xsd"/>
4. <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships" schemaLocation="orel.xsd"/>
5. <xsd:complexType name="CT\_ApplicationNonVisualDrawingProps">
6. <xsd:attribute name="macro" type="xsd:string" use="optional"/>
7. <xsd:attribute name="fPublished" type="xsd:boolean" use="optional" default="false"/>
8. </xsd:complexType>
9. <xsd:complexType name="CT\_ContentPartNonVisual">
10. <xsd:sequence>
11. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps" minOccurs="1" maxOccurs="1"/>
12. <xsd:element name="cNvContentPartPr" type="a14:CT\_NonVisualInkContentPartProperties" minOccurs="0" maxOccurs="1"/>
13. </xsd:sequence>
14. </xsd:complexType>
15. <xsd:complexType name="CT\_ContentPart">
16. <xsd:sequence>
17. <xsd:element name="nvContentPartPr" type="CT\_ContentPartNonVisual" minOccurs="0" maxOccurs="1"/>
18. <xsd:element name="nvPr" type="CT\_ApplicationNonVisualDrawingProps" minOccurs="0" maxOccurs="1"/>
19. <xsd:element name="xfrm" type="a:CT\_Transform2D" minOccurs="0" maxOccurs="1"/>
20. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
21. </xsd:sequence>
22. <xsd:attribute ref="r:id" use="required"/>
23. <xsd:attribute name="bwMode" type="a:ST\_BlackWhiteMode" use="optional" default="auto"/>
24. </xsd:complexType>
25. <xsd:element name="contentPart" type="CT\_ContentPart"/>
26. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2007/8/2/chart Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/drawing/2007/8/2/chart" elementFormDefault="qualified" attributeFormDefault="unqualified" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns="http://schemas.microsoft.com/office/drawing/2007/8/2/chart" blockDefault="#all" xmlns:cdr="http://schemas.openxmlformats.org/drawingml/2006/chartDrawing" xmlns:c="http://schemas.openxmlformats.org/drawingml/2006/chart">
2. <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships" schemaLocation="orel.xsd"/>
3. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartspproperties.xsd"/>
4. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oarttx.xsd"/>
5. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartstylesheet.xsd"/>
6. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/chartDrawing" schemaLocation="ChartDrawing.xsd"/>
7. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/chart" schemaLocation="Chart.xsd"/>
8. <xsd:complexType name="CT\_BooleanTrue">
9. <xsd:attribute name="val" type="xsd:boolean" use="optional" default="true"/>
10. </xsd:complexType>
11. <xsd:complexType name="CT\_BooleanFalse">
12. <xsd:attribute name="val" type="xsd:boolean" use="optional" default="false"/>
13. </xsd:complexType>
14. <xsd:complexType name="CT\_InvertSolidFillFmt">
15. <xsd:sequence>
16. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="1" maxOccurs="1"/>
17. </xsd:sequence>
18. </xsd:complexType>
19. <xsd:complexType name="CT\_PivotOptions">
20. <xsd:sequence>
21. <xsd:element name="dropZoneFilter" type="CT\_BooleanFalse" minOccurs="0" maxOccurs="1"/>
22. <xsd:element name="dropZoneCategories" type="CT\_BooleanFalse" minOccurs="0" maxOccurs="1"/>
23. <xsd:element name="dropZoneData" type="CT\_BooleanFalse" minOccurs="0" maxOccurs="1"/>
24. <xsd:element name="dropZoneSeries" type="CT\_BooleanFalse" minOccurs="0" maxOccurs="1"/>
25. <xsd:element name="dropZonesVisible" type="CT\_BooleanFalse" minOccurs="0" maxOccurs="1"/>
26. </xsd:sequence>
27. </xsd:complexType>
28. <xsd:simpleType name="ST\_Style">
29. <xsd:restriction base="xsd:unsignedByte">
30. <xsd:minInclusive value="101"/>
31. <xsd:maxInclusive value="148"/>
32. </xsd:restriction>
33. </xsd:simpleType>
34. <xsd:complexType name="CT\_Style">
35. <xsd:attribute name="val" type="ST\_Style" use="required"/>
36. </xsd:complexType>
37. <xsd:element name="pivotOptions" type="CT\_PivotOptions"/>
38. <xsd:element name="invertSolidFillFmt" type="CT\_InvertSolidFillFmt"/>
39. <xsd:element name="style" type="CT\_Style"/>
40. </xsd:schema>

## http://schemas.microsoft.com/office/word/2010/wordprocessingDrawing Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/word/2010/wordprocessingDrawing" elementFormDefault="qualified" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns="http://schemas.microsoft.com/office/word/2010/wordprocessingDrawing">
2. <xsd:import schemaLocation="oarte2o.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
3. <xsd:import schemaLocation="oartdocprop.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
4. <xsd:simpleType name="ST\_SizeRelFromH">
5. <xsd:restriction base="xsd:token">
6. <xsd:enumeration value="margin"/>
7. <xsd:enumeration value="page"/>
8. <xsd:enumeration value="leftMargin"/>
9. <xsd:enumeration value="rightMargin"/>
10. <xsd:enumeration value="insideMargin"/>
11. <xsd:enumeration value="outsideMargin"/>
12. </xsd:restriction>
13. </xsd:simpleType>
14. <xsd:simpleType name="ST\_SizeRelFromV">
15. <xsd:restriction base="xsd:token">
16. <xsd:enumeration value="margin"/>
17. <xsd:enumeration value="page"/>
18. <xsd:enumeration value="topMargin"/>
19. <xsd:enumeration value="bottomMargin"/>
20. <xsd:enumeration value="insideMargin"/>
21. <xsd:enumeration value="outsideMargin"/>
22. </xsd:restriction>
23. </xsd:simpleType>
24. <xsd:complexType name="CT\_SizeRelH">
25. <xsd:sequence>
26. <xsd:element name="pctWidth" type="a:ST\_PositivePercentage" minOccurs="1" maxOccurs="1"/>
27. </xsd:sequence>
28. <xsd:attribute name="relativeFrom" type="ST\_SizeRelFromH" use="required"/>
29. </xsd:complexType>
30. <xsd:complexType name="CT\_SizeRelV">
31. <xsd:sequence>
32. <xsd:element name="pctHeight" type="a:ST\_PositivePercentage" minOccurs="1" maxOccurs="1"/>
33. </xsd:sequence>
34. <xsd:attribute name="relativeFrom" type="ST\_SizeRelFromV" use="required"/>
35. </xsd:complexType>
36. <xsd:element name="pctPosHOffset" type="a:ST\_Percentage"/>
37. <xsd:element name="pctPosVOffset" type="a:ST\_Percentage"/>
38. <xsd:element name="sizeRelH" type="CT\_SizeRelH"/>
39. <xsd:element name="sizeRelV" type="CT\_SizeRelV"/>
40. <xsd:simpleType name="ST\_EditId">
41. <xsd:restriction base="xsd:hexBinary">
42. <xsd:length value="4"/>
43. </xsd:restriction>
44. </xsd:simpleType>
45. <xsd:attribute name="anchorId" type="ST\_EditId"/>
46. <xsd:attribute name="editId" type="ST\_EditId"/>
47. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2010/picture Schema

1. <xsd:schema elementFormDefault="qualified" targetNamespace="http://schemas.microsoft.com/office/drawing/2010/picture" xmlns="http://schemas.microsoft.com/office/drawing/2010/picture" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
2. <xsd:import schemaLocation="oartbasetypes.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
3. <xsd:import schemaLocation="oartspstyle.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
4. <xsd:element name="style" type="a:CT\_ShapeStyle"/>
5. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList"/>
6. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2012/chart Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/drawing/2012/chart" elementFormDefault="qualified" attributeFormDefault="unqualified" xmlns="http://schemas.microsoft.com/office/drawing/2012/chart" xmlns:c="http://schemas.openxmlformats.org/drawingml/2006/chart" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns:xsd="http://www.w3.org/2001/XMLSchema" blockDefault="#all">
2. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/chart" schemaLocation="chart.xsd"/>
3. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartspproperties.xsd"/>
4. <xsd:element name="pivotSource" type="c:CT\_PivotSource"/>
5. <xsd:element name="numFmt" type="c:CT\_NumFmt"/>
6. <xsd:element name="spPr" type="a:CT\_ShapeProperties"/>
7. <xsd:element name="layout" type="c:CT\_Layout"/>
8. <xsd:element name="fullRef" type="CT\_FullRef"/>
9. <xsd:complexType name="CT\_FullRef">
10. <xsd:sequence>
11. <xsd:element name="sqref" type="xsd:string" minOccurs="1" maxOccurs="1"/>
12. </xsd:sequence>
13. </xsd:complexType>
14. <xsd:complexType name="CT\_LevelRef">
15. <xsd:sequence>
16. <xsd:element name="sqref" type="xsd:string" minOccurs="1" maxOccurs="1"/>
17. </xsd:sequence>
18. </xsd:complexType>
19. <xsd:element name="levelRef" type="CT\_LevelRef"/>
20. <xsd:complexType name="CT\_FormulaRef">
21. <xsd:sequence>
22. <xsd:element name="sqref" type="xsd:string" minOccurs="1" maxOccurs="1"/>
23. </xsd:sequence>
24. </xsd:complexType>
25. <xsd:element name="formulaRef" type="CT\_FormulaRef"/>
26. <xsd:complexType name="CT\_FilteredSeriesTitle">
27. <xsd:sequence>
28. <xsd:element name="tx" type="c:CT\_Tx" minOccurs="1" maxOccurs="1"/>
29. </xsd:sequence>
30. </xsd:complexType>
31. <xsd:element name="filteredSeriesTitle" type="CT\_FilteredSeriesTitle"/>
32. <xsd:complexType name="CT\_FilteredCategoryTitle">
33. <xsd:sequence>
34. <xsd:element name="cat" type="c:CT\_AxDataSource" minOccurs="1" maxOccurs="1"/>
35. </xsd:sequence>
36. </xsd:complexType>
37. <xsd:element name="filteredCategoryTitle" type="CT\_FilteredCategoryTitle"/>
38. <xsd:complexType name="CT\_FilteredBarSer">
39. <xsd:sequence>
40. <xsd:element name="ser" type="c:CT\_BarSer" minOccurs="1" maxOccurs="1"/>
41. </xsd:sequence>
42. </xsd:complexType>
43. <xsd:complexType name="CT\_FilteredLineSer">
44. <xsd:sequence>
45. <xsd:element name="ser" type="c:CT\_LineSer" minOccurs="1" maxOccurs="1"/>
46. </xsd:sequence>
47. </xsd:complexType>
48. <xsd:complexType name="CT\_FilteredScatterSer">
49. <xsd:sequence>
50. <xsd:element name="ser" type="c:CT\_ScatterSer" minOccurs="1" maxOccurs="1"/>
51. </xsd:sequence>
52. </xsd:complexType>
53. <xsd:complexType name="CT\_FilteredAreaSer">
54. <xsd:sequence>
55. <xsd:element name="ser" type="c:CT\_AreaSer" minOccurs="1" maxOccurs="1"/>
56. </xsd:sequence>
57. </xsd:complexType>
58. <xsd:complexType name="CT\_FilteredPieSer">
59. <xsd:sequence>
60. <xsd:element name="ser" type="c:CT\_PieSer" minOccurs="1" maxOccurs="1"/>
61. </xsd:sequence>
62. </xsd:complexType>
63. <xsd:complexType name="CT\_FilteredBubbleSer">
64. <xsd:sequence>
65. <xsd:element name="ser" type="c:CT\_BubbleSer" minOccurs="1" maxOccurs="1"/>
66. </xsd:sequence>
67. </xsd:complexType>
68. <xsd:complexType name="CT\_FilteredRadarSer">
69. <xsd:sequence>
70. <xsd:element name="ser" type="c:CT\_RadarSer" minOccurs="1" maxOccurs="1"/>
71. </xsd:sequence>
72. </xsd:complexType>
73. <xsd:complexType name="CT\_FilteredSurfaceSer">
74. <xsd:sequence>
75. <xsd:element name="ser" type="c:CT\_SurfaceSer" minOccurs="1" maxOccurs="1"/>
76. </xsd:sequence>
77. </xsd:complexType>
78. <xsd:element name="filteredAreaSeries" type="CT\_FilteredAreaSer"/>
79. <xsd:element name="filteredBarSeries" type="CT\_FilteredBarSer"/>
80. <xsd:element name="filteredBubbleSeries" type="CT\_FilteredBubbleSer"/>
81. <xsd:element name="filteredLineSeries" type="CT\_FilteredLineSer"/>
82. <xsd:element name="filteredPieSeries" type="CT\_FilteredPieSer"/>
83. <xsd:element name="filteredRadarSeries" type="CT\_FilteredRadarSer"/>
84. <xsd:element name="filteredScatterSeries" type="CT\_FilteredScatterSer"/>
85. <xsd:element name="filteredSurfaceSeries" type="CT\_FilteredSurfaceSer"/>
86. <xsd:complexType name="CT\_SeriesDataLabelsRange">
87. <xsd:sequence>
88. <xsd:element name="f" type="xsd:string" minOccurs="1" maxOccurs="1"/>
89. <xsd:element name="dlblRangeCache" type="c:CT\_StrData" minOccurs="0" maxOccurs="1"/>
90. </xsd:sequence>
91. </xsd:complexType>
92. <xsd:element name="datalabelsRange" type="CT\_SeriesDataLabelsRange"/>
93. <xsd:complexType name="CT\_CategoryFilterException">
94. <xsd:sequence>
95. <xsd:element name="sqref" type="xsd:string" minOccurs="1" maxOccurs="1"/>
96. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
97. <xsd:element name="explosion" type="c:CT\_UnsignedInt" minOccurs="0" maxOccurs="1"/>
98. <xsd:element name="invertIfNegative" type="c:CT\_Boolean" minOccurs="0" maxOccurs="1"/>
99. <xsd:element name="bubble3D" type="c:CT\_Boolean" minOccurs="0" maxOccurs="1"/>
100. <xsd:element name="marker" type="c:CT\_Marker" minOccurs="0" maxOccurs="1"/>
101. <xsd:element name="dLbl" type="c:CT\_DLbl" minOccurs="0" maxOccurs="1"/>
102. </xsd:sequence>
103. </xsd:complexType>
104. <xsd:complexType name="CT\_CategoryFilterExceptions">
105. <xsd:sequence>
106. <xsd:element name="categoryFilterException" type="CT\_CategoryFilterException" minOccurs="1" maxOccurs="unbounded"/>
107. </xsd:sequence>
108. </xsd:complexType>
109. <xsd:element name="categoryFilterExceptions" type="CT\_CategoryFilterExceptions"/>
110. <xsd:complexType name="CT\_DataLabelFieldTableEntry">
111. <xsd:sequence>
112. <xsd:element name="txfldGUID" type="xsd:string" minOccurs="1" maxOccurs="1"/>
113. <xsd:element name="f" type="xsd:string" minOccurs="1" maxOccurs="1"/>
114. <xsd:element name="dlblFieldTableCache" type="c:CT\_StrData" minOccurs="0" maxOccurs="1"/>
115. </xsd:sequence>
116. </xsd:complexType>
117. <xsd:complexType name="CT\_DataLabelFieldTable">
118. <xsd:sequence>
119. <xsd:element name="dlblFTEntry" type="CT\_DataLabelFieldTableEntry" minOccurs="0" maxOccurs="unbounded"/>
120. </xsd:sequence>
121. </xsd:complexType>
122. <xsd:element name="dlblFieldTable" type="CT\_DataLabelFieldTable"/>
123. <xsd:element name="xForSave" type="c:CT\_Boolean"/>
124. <xsd:element name="showDataLabelsRange" type="c:CT\_Boolean"/>
125. <xsd:element name="tx" type="c:CT\_Tx"/>
126. <xsd:element name="showLeaderLines" type="c:CT\_Boolean"/>
127. <xsd:element name="leaderLines" type="c:CT\_ChartLines"/>
128. <xsd:element name="autoCat" type="c:CT\_Boolean"/>
129. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2012/main Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/drawing/2012/main" elementFormDefault="qualified" xmlns="http://schemas.microsoft.com/office/drawing/2012/main" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main">
2. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartbasetypes.xsd"/>
3. <xsd:simpleType name="ST\_TargetScreenSz">
4. <xsd:restriction base="xsd:token">
5. <xsd:enumeration value="544x376"/>
6. <xsd:enumeration value="640x480"/>
7. <xsd:enumeration value="720x512"/>
8. <xsd:enumeration value="800x600"/>
9. <xsd:enumeration value="1024x768"/>
10. <xsd:enumeration value="1152x882"/>
11. <xsd:enumeration value="1152x900"/>
12. <xsd:enumeration value="1280x1024"/>
13. <xsd:enumeration value="1600x1200"/>
14. <xsd:enumeration value="1800x1440"/>
15. <xsd:enumeration value="1920x1200"/>
16. </xsd:restriction>
17. </xsd:simpleType>
18. <xsd:complexType name="CT\_BackgroundPr">
19. <xsd:attribute name="bwMode" type="a:ST\_BlackWhiteMode"/>
20. <xsd:attribute name="bwPure" type="a:ST\_BlackWhiteMode"/>
21. <xsd:attribute name="bwNormal" type="a:ST\_BlackWhiteMode"/>
22. <xsd:attribute name="targetScreenSize" type="ST\_TargetScreenSz"/>
23. </xsd:complexType>
24. <xsd:element name="backgroundPr" type="CT\_BackgroundPr"/>
25. <xsd:complexType name="CT\_NonVisualGroupProps">
26. <xsd:attribute name="isLegacyGroup" type="xsd:boolean"/>
27. </xsd:complexType>
28. <xsd:element name="nonVisualGroupProps" type="CT\_NonVisualGroupProps"/>
29. <xsd:complexType name="CT\_ObjectPr">
30. <xsd:attribute name="objectId" type="xsd:string"/>
31. <xsd:attribute name="isActiveX" type="xsd:boolean"/>
32. <xsd:attribute name="linkType" type="xsd:string"/>
33. </xsd:complexType>
34. <xsd:element name="objectPr" type="CT\_ObjectPr"/>
35. <xsd:complexType name="CT\_SignatureLine">
36. <xsd:attribute name="isSignatureLine" type="xsd:boolean"/>
37. <xsd:attribute name="id" type="a:ST\_Guid"/>
38. <xsd:attribute name="provId" type="a:ST\_Guid"/>
39. <xsd:attribute name="signingInstructionsSet" type="xsd:boolean"/>
40. <xsd:attribute name="allowComments" type="xsd:boolean"/>
41. <xsd:attribute name="showSignDate" type="xsd:boolean"/>
42. <xsd:attribute name="suggestedSigner" type="xsd:string"/>
43. <xsd:attribute name="suggestedSigner2" type="xsd:string"/>
44. <xsd:attribute name="suggestedSignerEmail" type="xsd:string"/>
45. <xsd:attribute name="signingInstructions" type="xsd:string"/>
46. <xsd:attribute name="addlXml" type="xsd:string"/>
47. <xsd:attribute name="sigProvUrl" type="xsd:string"/>
48. </xsd:complexType>
49. <xsd:element name="signatureLine" type="CT\_SignatureLine"/>
50. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2012/chartStyle Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/drawing/2012/chartStyle" elementFormDefault="qualified" attributeFormDefault="unqualified" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns="http://schemas.microsoft.com/office/drawing/2012/chartStyle">
2. <xsd:import schemaLocation="oartbasetypes.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
3. <xsd:import schemaLocation="oartspstyle.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
4. <xsd:import schemaLocation="oarttx.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
5. <xsd:simpleType name="ST\_ColorStyleMethodEnum">
6. <xsd:restriction base="xsd:token">
7. <xsd:enumeration value="cycle"/>
8. <xsd:enumeration value="withinLinear"/>
9. <xsd:enumeration value="acrossLinear"/>
10. <xsd:enumeration value="withinLinearReversed"/>
11. <xsd:enumeration value="acrossLinearReversed"/>
12. </xsd:restriction>
13. </xsd:simpleType>
14. <xsd:simpleType name="ST\_ColorStyleMethod">
15. <xsd:union memberTypes="ST\_ColorStyleMethodEnum xsd:string"/>
16. </xsd:simpleType>
17. <xsd:complexType name="CT\_ColorStyleVariation">
18. <xsd:sequence>
19. <xsd:group ref="a:EG\_ColorTransform" minOccurs="0" maxOccurs="unbounded"/>
20. </xsd:sequence>
21. </xsd:complexType>
22. <xsd:simpleType name="ST\_StyleReferenceModifierEnum">
23. <xsd:restriction base="xsd:token">
24. <xsd:enumeration value="ignoreCSTransforms"/>
25. </xsd:restriction>
26. </xsd:simpleType>
27. <xsd:simpleType name="ST\_StyleReferenceModifier">
28. <xsd:union memberTypes="ST\_StyleReferenceModifierEnum xsd:string"/>
29. </xsd:simpleType>
30. <xsd:simpleType name="ST\_StyleReferenceModifierList">
31. <xsd:list itemType="ST\_StyleReferenceModifier"/>
32. </xsd:simpleType>
33. <xsd:complexType name="CT\_ColorStyle">
34. <xsd:sequence>
35. <xsd:group ref="a:EG\_ColorChoice" minOccurs="1" maxOccurs="unbounded"/>
36. <xsd:element name="variation" type="CT\_ColorStyleVariation" minOccurs="0" maxOccurs="unbounded"/>
37. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
38. </xsd:sequence>
39. <xsd:attribute name="meth" type="ST\_ColorStyleMethod" use="required"/>
40. <xsd:attribute name="id" type="xsd:unsignedInt" use="optional"/>
41. </xsd:complexType>
42. <xsd:element name="colorStyle" type="CT\_ColorStyle"/>
43. <xsd:simpleType name="ST\_StyleColorEnum">
44. <xsd:restriction base="xsd:token">
45. <xsd:enumeration value="auto"/>
46. </xsd:restriction>
47. </xsd:simpleType>
48. <xsd:simpleType name="ST\_StyleColorVal">
49. <xsd:union memberTypes="xsd:unsignedInt ST\_StyleColorEnum xsd:string"/>
50. </xsd:simpleType>
51. <xsd:complexType name="CT\_StyleColor">
52. <xsd:sequence>
53. <xsd:group ref="a:EG\_ColorTransform" minOccurs="0" maxOccurs="unbounded"/>
54. </xsd:sequence>
55. <xsd:attribute name="val" type="ST\_StyleColorVal"/>
56. </xsd:complexType>
57. <xsd:complexType name="CT\_StyleReference">
58. <xsd:sequence>
59. <xsd:group ref="a:EG\_ColorChoice" minOccurs="0" maxOccurs="1"/>
60. <xsd:element name="styleClr" type="CT\_StyleColor" minOccurs="0" maxOccurs="1"/>
61. </xsd:sequence>
62. <xsd:attribute name="idx" type="a:ST\_StyleMatrixColumnIndex" use="required"/>
63. <xsd:attribute name="mods" type="ST\_StyleReferenceModifierList" use="optional"/>
64. </xsd:complexType>
65. <xsd:complexType name="CT\_FontReference">
66. <xsd:sequence>
67. <xsd:group ref="a:EG\_ColorChoice" minOccurs="0" maxOccurs="1"/>
68. <xsd:element name="styleClr" type="CT\_StyleColor" minOccurs="0" maxOccurs="1"/>
69. </xsd:sequence>
70. <xsd:attribute name="idx" type="a:ST\_FontCollectionIndex" use="required"/>
71. <xsd:attribute name="mods" type="ST\_StyleReferenceModifierList" use="optional"/>
72. </xsd:complexType>
73. <xsd:simpleType name="ST\_StyleEntryModifierEnum">
74. <xsd:restriction base="xsd:token">
75. <xsd:enumeration value="allowNoFillOverride"/>
76. <xsd:enumeration value="allowNoLineOverride"/>
77. </xsd:restriction>
78. </xsd:simpleType>
79. <xsd:simpleType name="ST\_StyleEntryModifier">
80. <xsd:union memberTypes="ST\_StyleEntryModifierEnum xsd:string"/>
81. </xsd:simpleType>
82. <xsd:simpleType name="ST\_StyleEntryModifierList">
83. <xsd:list itemType="ST\_StyleEntryModifier"/>
84. </xsd:simpleType>
85. <xsd:simpleType name="ST\_MarkerStyle">
86. <xsd:restriction base="xsd:token">
87. <xsd:enumeration value="circle"/>
88. <xsd:enumeration value="dash"/>
89. <xsd:enumeration value="diamond"/>
90. <xsd:enumeration value="dot"/>
91. <xsd:enumeration value="plus"/>
92. <xsd:enumeration value="square"/>
93. <xsd:enumeration value="star"/>
94. <xsd:enumeration value="triangle"/>
95. <xsd:enumeration value="x"/>
96. </xsd:restriction>
97. </xsd:simpleType>
98. <xsd:simpleType name="ST\_MarkerSize">
99. <xsd:restriction base="xsd:unsignedByte">
100. <xsd:minInclusive value="2"/>
101. <xsd:maxInclusive value="72"/>
102. </xsd:restriction>
103. </xsd:simpleType>
104. <xsd:complexType name="CT\_MarkerLayout">
105. <xsd:attribute name="symbol" type="ST\_MarkerStyle" use="optional"/>
106. <xsd:attribute name="size" type="ST\_MarkerSize" use="optional"/>
107. </xsd:complexType>
108. <xsd:complexType name="CT\_StyleEntry">
109. <xsd:sequence>
110. <xsd:element name="lnRef" type="CT\_StyleReference" minOccurs="1" maxOccurs="1"/>
111. <xsd:element name="lineWidthScale" type="xsd:double" minOccurs="0" maxOccurs="1" default="1.0"/>
112. <xsd:element name="fillRef" type="CT\_StyleReference" minOccurs="1" maxOccurs="1"/>
113. <xsd:element name="effectRef" type="CT\_StyleReference" minOccurs="1" maxOccurs="1"/>
114. <xsd:element name="fontRef" type="CT\_FontReference" minOccurs="1" maxOccurs="1"/>
115. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
116. <xsd:element name="defRPr" type="a:CT\_TextCharacterProperties" minOccurs="0" maxOccurs="1"/>
117. <xsd:element name="bodyPr" type="a:CT\_TextBodyProperties" minOccurs="0" maxOccurs="1"/>
118. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
119. </xsd:sequence>
120. <xsd:attribute name="mods" type="ST\_StyleEntryModifierList" use="optional"/>
121. </xsd:complexType>
122. <xsd:complexType name="CT\_ChartStyle">
123. <xsd:sequence>
124. <xsd:element name="axisTitle" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
125. <xsd:element name="categoryAxis" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
126. <xsd:element name="chartArea" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
127. <xsd:element name="dataLabel" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
128. <xsd:element name="dataLabelCallout" type="CT\_StyleEntry" minOccurs="0" maxOccurs="1"/>
129. <xsd:element name="dataPoint" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
130. <xsd:element name="dataPoint3D" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
131. <xsd:element name="dataPointLine" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
132. <xsd:element name="dataPointMarker" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
133. <xsd:element name="dataPointMarkerLayout" type="CT\_MarkerLayout" minOccurs="0" maxOccurs="1"/>
134. <xsd:element name="dataPointWireframe" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
135. <xsd:element name="dataTable" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
136. <xsd:element name="downBar" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
137. <xsd:element name="dropLine" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
138. <xsd:element name="errorBar" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
139. <xsd:element name="floor" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
140. <xsd:element name="gridlineMajor" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
141. <xsd:element name="gridlineMinor" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
142. <xsd:element name="hiLoLine" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
143. <xsd:element name="leaderLine" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
144. <xsd:element name="legend" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
145. <xsd:element name="plotArea" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
146. <xsd:element name="plotArea3D" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
147. <xsd:element name="seriesAxis" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
148. <xsd:element name="seriesLine" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
149. <xsd:element name="title" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
150. <xsd:element name="trendline" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
151. <xsd:element name="trendlineLabel" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
152. <xsd:element name="upBar" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
153. <xsd:element name="valueAxis" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
154. <xsd:element name="wall" type="CT\_StyleEntry" minOccurs="1" maxOccurs="1"/>
155. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
156. </xsd:sequence>
157. <xsd:attribute name="id" type="xsd:unsignedInt" use="optional"/>
158. </xsd:complexType>
159. <xsd:element name="chartStyle" type="CT\_ChartStyle"/>
160. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2010/diagram Schema

1. <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:o="http://oxsdSchemaUri" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns="http://schemas.microsoft.com/office/drawing/2010/diagram" targetNamespace="http://schemas.microsoft.com/office/drawing/2010/diagram" elementFormDefault="qualified" attributeFormDefault="unqualified">
2. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartbasetypes.xsd"/>
3. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartdocprop.xsd"/>
4. <xsd:element name="cNvPr" type="a:CT\_NonVisualDrawingProps"/>
5. <xsd:complexType name="CT\_Boolean">
6. <xsd:attribute name="val" type="xsd:boolean" use="optional" default="false"/>
7. </xsd:complexType>
8. <xsd:element name="recolorImg" type="CT\_Boolean"/>
9. </xsd:schema>

## http://schemas.microsoft.com/office/thememl/2012/main Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/thememl/2012/main" elementFormDefault="qualified" xmlns="http://schemas.microsoft.com/office/thememl/2012/main" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main">
2. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartbasetypes.xsd"/>
3. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartbasestylesheet.xsd"/>
4. <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships" schemaLocation="orel.xsd"/>
5. <xsd:complexType name="CT\_ThemeFamily">
6. <xsd:sequence>
7. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
8. </xsd:sequence>
9. <xsd:attribute name="name" type="xsd:string" use="required"/>
10. <xsd:attribute name="id" type="a:ST\_Guid" use="required"/>
11. <xsd:attribute name="vid" type="a:ST\_Guid" use="required"/>
12. </xsd:complexType>
13. <xsd:element name="themeFamily" type="CT\_ThemeFamily"/>
14. <xsd:attribute name="id" type="a:ST\_Guid"/>
15. </xsd:schema>

## http://schemas.microsoft.com/office/word/2012/wordprocessingDrawing Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/word/2012/wordprocessingDrawing" elementFormDefault="qualified" xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns="http://schemas.microsoft.com/office/word/2012/wordprocessingDrawing" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main">
2. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartbasetypes.xsd"/>
3. <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships" schemaLocation="orel.xsd"/>
4. <xsd:complexType name="CT\_WebVideoPr">
5. <xsd:attribute name="embeddedHtml" type="xsd:string" use="optional" default=""/>
6. <xsd:attribute name="h" type="xsd:unsignedInt" use="optional" default="0"/>
7. <xsd:attribute name="w" type="xsd:unsignedInt" use="optional" default="0"/>
8. </xsd:complexType>
9. <xsd:element name="webVideoPr" type="CT\_WebVideoPr"/>
10. </xsd:schema>

## http://schemas.microsoft.com/office/powerpoint/2014/inkAction Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/powerpoint/2014/inkAction" elementFormDefault="qualified" xmlns="http://schemas.microsoft.com/office/powerpoint/2014/inkAction" xmlns:iact="http://schemas.microsoft.com/office/powerpoint/2014/inkAction" xmlns:inkml="http://www.w3.org/2003/InkML" xmlns:xml="http://www.w3.org/XML/1998/namespace" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
2. <xsd:import id="inkml" namespace="http://www.w3.org/2003/InkML" schemaLocation="inkml.xsd"/>
3. <xsd:simpleType name="ST\_DataNameReserved">
4. <xsd:restriction base="xsd:string">
5. <xsd:enumeration value="stroke"/>
6. <xsd:enumeration value="path"/>
7. <xsd:enumeration value="target"/>
8. </xsd:restriction>
9. </xsd:simpleType>
10. <xsd:simpleType name="ST\_DataNameUser">
11. <xsd:restriction base="xsd:string"/>
12. </xsd:simpleType>
13. <xsd:simpleType name="ST\_DataName">
14. <xsd:union memberTypes="ST\_DataNameReserved ST\_DataNameUser"/>
15. </xsd:simpleType>
16. <xsd:simpleType name="ST\_PropertyNameReserved">
17. <xsd:restriction base="xsd:string">
18. <xsd:enumeration value="dataType"/>
19. <xsd:enumeration value="style"/>
20. </xsd:restriction>
21. </xsd:simpleType>
22. <xsd:simpleType name="ST\_PropertyNameUser">
23. <xsd:restriction base="xsd:string"/>
24. </xsd:simpleType>
25. <xsd:simpleType name="ST\_PropertyName">
26. <xsd:union memberTypes="ST\_PropertyNameReserved ST\_PropertyNameUser"/>
27. </xsd:simpleType>
28. <xsd:simpleType name="ST\_PropertyValueReserved">
29. <xsd:restriction base="xsd:string">
30. <xsd:enumeration value="ink"/>
31. <xsd:enumeration value="pointEraser"/>
32. <xsd:enumeration value="strokeEraser"/>
33. <xsd:enumeration value="instant"/>
34. </xsd:restriction>
35. </xsd:simpleType>
36. <xsd:simpleType name="ST\_PropertyValueUser">
37. <xsd:restriction base="xsd:string"/>
38. </xsd:simpleType>
39. <xsd:simpleType name="ST\_PropertyValue">
40. <xsd:union memberTypes="ST\_PropertyValueReserved ST\_PropertyValueUser"/>
41. </xsd:simpleType>
42. <xsd:simpleType name="ST\_ActionTypeReserved">
43. <xsd:restriction base="xsd:string">
44. <xsd:enumeration value="add"/>
45. <xsd:enumeration value="remove"/>
46. <xsd:enumeration value="transform"/>
47. </xsd:restriction>
48. </xsd:simpleType>
49. <xsd:simpleType name="ST\_ActionTypeUser">
50. <xsd:restriction base="xsd:string"/>
51. </xsd:simpleType>
52. <xsd:simpleType name="ST\_ActionType">
53. <xsd:union memberTypes="ST\_ActionTypeReserved ST\_ActionTypeUser"/>
54. </xsd:simpleType>
55. <xsd:complexType name="CT\_ActionData">
56. <xsd:sequence>
57. <xsd:element name="transform" type="inkml:CT\_Matrix" minOccurs="0" maxOccurs="1"/>
58. <xsd:choice minOccurs="0" maxOccurs="unbounded">
59. <xsd:element ref="inkml:trace"/>
60. <xsd:element ref="inkml:traceView"/>
61. </xsd:choice>
62. </xsd:sequence>
63. <xsd:attribute ref="xml:id" use="optional" default=""/>
64. <xsd:attribute name="name" type="ST\_DataName" use="optional" default="stroke"/>
65. <xsd:attribute name="ref" type="xsd:anyURI" use="optional" default=""/>
66. </xsd:complexType>
67. <xsd:complexType name="CT\_ActionDataGroup">
68. <xsd:sequence>
69. <xsd:element name="actionData" type="CT\_ActionData" minOccurs="1" maxOccurs="unbounded"/>
70. </xsd:sequence>
71. <xsd:attribute ref="xml:id" use="optional" default=""/>
72. <xsd:attribute name="name" type="ST\_DataName" use="optional" default="stroke"/>
73. </xsd:complexType>
74. <xsd:complexType name="CT\_ActionProperty">
75. <xsd:attribute name="name" type="ST\_PropertyName" use="required"/>
76. <xsd:attribute name="value" type="ST\_PropertyValue" use="optional" default="ink"/>
77. </xsd:complexType>
78. <xsd:complexType name="CT\_Action">
79. <xsd:sequence>
80. <xsd:element name="property" type="CT\_ActionProperty" minOccurs="0" maxOccurs="unbounded"/>
81. <xsd:choice minOccurs="0" maxOccurs="unbounded">
82. <xsd:element name="actionData" type="CT\_ActionData"/>
83. <xsd:element name="actionDataGroup" type="CT\_ActionDataGroup"/>
84. </xsd:choice>
85. </xsd:sequence>
86. <xsd:attribute ref="xml:id" use="optional" default=""/>
87. <xsd:attribute name="type" type="ST\_ActionType" use="required"/>
88. <xsd:attribute name="startTime" type="xsd:decimal" use="required"/>
89. </xsd:complexType>
90. <xsd:complexType name="CT\_ActionGroup">
91. <xsd:sequence>
92. <xsd:element name="action" type="CT\_Action" minOccurs="1" maxOccurs="unbounded"/>
93. </xsd:sequence>
94. <xsd:attribute ref="xml:id" use="optional" default=""/>
95. <xsd:attribute name="type" type="ST\_ActionType" use="required"/>
96. <xsd:attribute name="startTime" type="xsd:decimal" use="required"/>
97. </xsd:complexType>
98. <xsd:complexType name="CT\_Actions">
99. <xsd:sequence>
100. <xsd:element ref="inkml:definitions" minOccurs="0" maxOccurs="1"/>
101. <xsd:choice minOccurs="0" maxOccurs="unbounded">
102. <xsd:element name="actionGroup" type="CT\_ActionGroup"/>
103. <xsd:element name="action" type="CT\_Action"/>
104. </xsd:choice>
105. </xsd:sequence>
106. <xsd:attribute ref="xml:id" use="optional" default=""/>
107. <xsd:attribute name="lengthUnit" type="inkml:ST\_StandardLengthUnits" use="required"/>
108. <xsd:attribute name="timeUnit" type="inkml:ST\_StandardTimeUnits" use="required"/>
109. </xsd:complexType>
110. <xsd:element name="actions" type="CT\_Actions"/>
111. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2014/chart Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/drawing/2014/chart" elementFormDefault="qualified" attributeFormDefault="unqualified" xmlns="http://schemas.microsoft.com/office/drawing/2014/chart" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:c="http://schemas.openxmlformats.org/drawingml/2006/chart" xmlns:blockDefault="#all">
2. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/chart" schemaLocation="chart.xsd"/>
3. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartspproperties.xsd"/>
4. <xsd:complexType name="CT\_ChartUniqueID">
5. <xsd:attribute name="val" type="xsd:string" use="required"/>
6. </xsd:complexType>
7. <xsd:complexType name="CT\_ChartDataPointUniqueIDMapEntry">
8. <xsd:sequence>
9. <xsd:element name="ptidx" type="xsd:unsignedInt" minOccurs="1" maxOccurs="1"/>
10. <xsd:element name="uniqueID" type="CT\_ChartUniqueID" minOccurs="1" maxOccurs="1"/>
11. </xsd:sequence>
12. </xsd:complexType>
13. <xsd:complexType name="CT\_ChartDataPointUniqueIDMap">
14. <xsd:sequence>
15. <xsd:element name="ptentry" type="CT\_ChartDataPointUniqueIDMapEntry" minOccurs="0" maxOccurs="unbounded"/>
16. </xsd:sequence>
17. </xsd:complexType>
18. <xsd:element name="datapointuniqueidmap" type="CT\_ChartDataPointUniqueIDMap"/>
19. <xsd:complexType name="CT\_BooleanFalse">
20. <xsd:attribute name="val" type="xsd:boolean" use="optional" default="false"/>
21. </xsd:complexType>
22. <xsd:element name="spPr" type="a:CT\_ShapeProperties"/>
23. <xsd:element name="explosion" type="c:CT\_UnsignedInt"/>
24. <xsd:element name="invertIfNegative" type="c:CT\_Boolean"/>
25. <xsd:element name="bubble3D" type="c:CT\_Boolean"/>
26. <xsd:element name="marker" type="c:CT\_Marker"/>
27. <xsd:element name="dLbl" type="c:CT\_DLbl"/>
28. <xsd:complexType name="CT\_CategoryFilterException">
29. <xsd:sequence>
30. <xsd:element name="uniqueId" type="CT\_ChartUniqueID" minOccurs="1" maxOccurs="1"/>
31. <xsd:element ref="spPr" minOccurs="0" maxOccurs="1"/>
32. <xsd:element ref="explosion" minOccurs="0" maxOccurs="1"/>
33. <xsd:element ref="invertIfNegative" minOccurs="0" maxOccurs="1"/>
34. <xsd:element ref="bubble3D" minOccurs="0" maxOccurs="1"/>
35. <xsd:element ref="marker" minOccurs="0" maxOccurs="1"/>
36. <xsd:element ref="dLbl" minOccurs="0" maxOccurs="1"/>
37. </xsd:sequence>
38. </xsd:complexType>
39. <xsd:complexType name="CT\_CategoryFilterExceptions">
40. <xsd:sequence>
41. <xsd:element name="categoryFilterException" type="CT\_CategoryFilterException" minOccurs="1" maxOccurs="unbounded"/>
42. </xsd:sequence>
43. </xsd:complexType>
44. <xsd:element name="categoryFilterExceptions" type="CT\_CategoryFilterExceptions"/>
45. <xsd:complexType name="CT\_NumFilteredLiteralCache">
46. <xsd:sequence>
47. <xsd:element name="numCache" type="c:CT\_NumData" minOccurs="1" maxOccurs="1"/>
48. </xsd:sequence>
49. </xsd:complexType>
50. <xsd:complexType name="CT\_StrFilteredLiteralCache">
51. <xsd:sequence>
52. <xsd:element name="strCache" type="c:CT\_StrData" minOccurs="1" maxOccurs="1"/>
53. </xsd:sequence>
54. </xsd:complexType>
55. <xsd:complexType name="CT\_MultiLvlStrFilteredLiteralCache">
56. <xsd:sequence>
57. <xsd:element name="multiLvlStrCache" type="c:CT\_MultiLvlStrData" minOccurs="1" maxOccurs="1"/>
58. </xsd:sequence>
59. </xsd:complexType>
60. <xsd:complexType name="CT\_LiteralDataChart">
61. <xsd:attribute name="val" type="xsd:boolean" use="required"/>
62. </xsd:complexType>
63. <xsd:complexType name="CT\_PivotOptions16">
64. <xsd:sequence>
65. <xsd:element name="showExpandCollapseFieldButtons" type="CT\_BooleanFalse" minOccurs="0" maxOccurs="1"/>
66. </xsd:sequence>
67. </xsd:complexType>
68. <xsd:element name="pivotOptions16" type="CT\_PivotOptions16"/>
69. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2014/chart/ac Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/drawing/2014/chart/ac" elementFormDefault="qualified" attributeFormDefault="unqualified" xmlns="http://schemas.microsoft.com/office/drawing/2014/chart/ac" xmlns:c="http://schemas.openxmlformats.org/drawingml/2006/chart" xmlns:xsd="http://www.w3.org/2001/XMLSchema" blockDefault="#all">
2. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/chart" schemaLocation="chart.xsd"/>
3. <xsd:element name="multiLvlStrLit" type="c:CT\_MultiLvlStrData"/>
4. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2014/chartex Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/drawing/2014/chartex" elementFormDefault="qualified" attributeFormDefault="unqualified" xmlns="http://schemas.microsoft.com/office/drawing/2014/chartex" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
2. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartspproperties.xsd"/>
3. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oarttx.xsd"/>
4. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartspeffects.xsd"/>
5. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartstylesheet.xsd"/>
6. <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships" schemaLocation="orel.xsd"/>
7. <xsd:complexType name="CT\_Extension">
8. <xsd:sequence>
9. <xsd:any processContents="lax"/>
10. </xsd:sequence>
11. <xsd:attribute name="uri" type="xsd:token"/>
12. </xsd:complexType>
13. <xsd:complexType name="CT\_ExtensionList">
14. <xsd:sequence>
15. <xsd:element name="ext" type="CT\_Extension" minOccurs="0" maxOccurs="unbounded"/>
16. </xsd:sequence>
17. </xsd:complexType>
18. <xsd:simpleType name="ST\_DoubleOrAutomatic">
19. <xsd:union memberTypes="xsd:double">
20. <xsd:simpleType>
21. <xsd:restriction base="xsd:string">
22. <xsd:enumeration value="auto"/>
23. </xsd:restriction>
24. </xsd:simpleType>
25. </xsd:union>
26. </xsd:simpleType>
27. <xsd:complexType name="CT\_NumberFormat">
28. <xsd:attribute name="formatCode" type="xsd:string" use="required"/>
29. <xsd:attribute name="sourceLinked" type="xsd:boolean" use="optional"/>
30. </xsd:complexType>
31. <xsd:complexType name="CT\_RelId">
32. <xsd:attribute ref="r:id" use="required"/>
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34. <xsd:complexType name="CT\_ValueColors">
35. <xsd:sequence>
36. <xsd:element name="minColor" type="a:CT\_SolidColorFillProperties" minOccurs="0" maxOccurs="1"/>
37. <xsd:element name="midColor" type="a:CT\_SolidColorFillProperties" minOccurs="0" maxOccurs="1"/>
38. <xsd:element name="maxColor" type="a:CT\_SolidColorFillProperties" minOccurs="0" maxOccurs="1"/>
39. </xsd:sequence>
40. </xsd:complexType>
41. <xsd:complexType name="CT\_ExternalData">
42. <xsd:attribute ref="r:id" use="required"/>
43. <xsd:attribute name="autoUpdate" type="xsd:boolean" use="optional"/>
44. </xsd:complexType>
45. <xsd:simpleType name="ST\_FormulaDirection">
46. <xsd:restriction base="xsd:string">
47. <xsd:enumeration value="col"/>
48. <xsd:enumeration value="row"/>
49. </xsd:restriction>
50. </xsd:simpleType>
51. <xsd:complexType name="CT\_Formula">
52. <xsd:simpleContent>
53. <xsd:extension base="xsd:string">
54. <xsd:attribute name="dir" type="ST\_FormulaDirection" use="optional" default="col"/>
55. </xsd:extension>
56. </xsd:simpleContent>
57. </xsd:complexType>
58. <xsd:simpleType name="ST\_DataId">
59. <xsd:restriction base="xsd:unsignedInt"/>
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61. <xsd:complexType name="CT\_DataId">
62. <xsd:attribute name="val" type="ST\_DataId" use="required"/>
63. </xsd:complexType>
64. <xsd:complexType name="CT\_StringValue">
65. <xsd:simpleContent>
66. <xsd:extension base="xsd:string">
67. <xsd:attribute name="idx" type="xsd:unsignedInt" use="required"/>
68. </xsd:extension>
69. </xsd:simpleContent>
70. </xsd:complexType>
71. <xsd:complexType name="CT\_StringLevel">
72. <xsd:sequence>
73. <xsd:element name="pt" type="CT\_StringValue" minOccurs="0" maxOccurs="unbounded"/>
74. </xsd:sequence>
75. <xsd:attribute name="ptCount" type="xsd:unsignedInt" use="required"/>
76. <xsd:attribute name="name" type="xsd:string" use="optional"/>
77. </xsd:complexType>
78. <xsd:simpleType name="ST\_StringDimensionType">
79. <xsd:restriction base="xsd:string">
80. <xsd:enumeration value="cat"/>
81. <xsd:enumeration value="colorStr"/>
82. </xsd:restriction>
83. </xsd:simpleType>
84. <xsd:complexType name="CT\_StringDimension">
85. <xsd:choice minOccurs="1" maxOccurs="1">
86. <xsd:sequence>
87. <xsd:element name="f" type="CT\_Formula" minOccurs="1" maxOccurs="1"/>
88. <xsd:element name="nf" type="CT\_Formula" minOccurs="0" maxOccurs="1"/>
89. <xsd:element name="lvl" type="CT\_StringLevel" minOccurs="0" maxOccurs="unbounded"/>
90. </xsd:sequence>
91. <xsd:element name="lvl" type="CT\_StringLevel" minOccurs="1" maxOccurs="unbounded"/>
92. </xsd:choice>
93. <xsd:attribute name="type" type="ST\_StringDimensionType" use="required"/>
94. </xsd:complexType>
95. <xsd:complexType name="CT\_NumericValue">
96. <xsd:simpleContent>
97. <xsd:extension base="xsd:double">
98. <xsd:attribute name="idx" type="xsd:unsignedInt" use="required"/>
99. </xsd:extension>
100. </xsd:simpleContent>
101. </xsd:complexType>
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103. <xsd:sequence>
104. <xsd:element name="pt" type="CT\_NumericValue" minOccurs="0" maxOccurs="unbounded"/>
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107. <xsd:attribute name="formatCode" type="xsd:string" use="optional"/>
108. <xsd:attribute name="name" type="xsd:string" use="optional"/>
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110. <xsd:simpleType name="ST\_NumericDimensionType">
111. <xsd:restriction base="xsd:string">
112. <xsd:enumeration value="val"/>
113. <xsd:enumeration value="x"/>
114. <xsd:enumeration value="y"/>
115. <xsd:enumeration value="size"/>
116. <xsd:enumeration value="colorVal"/>
117. </xsd:restriction>
118. </xsd:simpleType>
119. <xsd:complexType name="CT\_NumericDimension">
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122. <xsd:element name="f" type="CT\_Formula" minOccurs="1" maxOccurs="1"/>
123. <xsd:element name="nf" type="CT\_Formula" minOccurs="0" maxOccurs="1"/>
124. <xsd:element name="lvl" type="CT\_NumericLevel" minOccurs="0" maxOccurs="unbounded"/>
125. </xsd:sequence>
126. <xsd:element name="lvl" type="CT\_NumericLevel" minOccurs="1" maxOccurs="unbounded"/>
127. </xsd:choice>
128. <xsd:attribute name="type" type="ST\_NumericDimensionType" use="required"/>
129. </xsd:complexType>
130. <xsd:complexType name="CT\_Data">
131. <xsd:sequence>
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133. <xsd:element name="numDim" type="CT\_NumericDimension" minOccurs="1" maxOccurs="1"/>
134. <xsd:element name="strDim" type="CT\_StringDimension" minOccurs="1" maxOccurs="1"/>
135. </xsd:choice>
136. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
137. </xsd:sequence>
138. <xsd:attribute name="id" type="ST\_DataId" use="required"/>
139. </xsd:complexType>
140. <xsd:complexType name="CT\_ChartData">
141. <xsd:sequence>
142. <xsd:element name="externalData" type="CT\_ExternalData" minOccurs="0" maxOccurs="1"/>
143. <xsd:element name="data" type="CT\_Data" minOccurs="1" maxOccurs="unbounded"/>
144. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
145. </xsd:sequence>
146. </xsd:complexType>
147. <xsd:complexType name="CT\_TextData">
148. <xsd:choice minOccurs="1" maxOccurs="1">
149. <xsd:sequence>
150. <xsd:element name="f" type="CT\_Formula" minOccurs="1" maxOccurs="1"/>
151. <xsd:element name="v" type="xsd:string" minOccurs="0" maxOccurs="1"/>
152. </xsd:sequence>
153. <xsd:element name="v" type="xsd:string" minOccurs="1" maxOccurs="1"/>
154. </xsd:choice>
155. </xsd:complexType>
156. <xsd:complexType name="CT\_Text">
157. <xsd:sequence>
158. <xsd:choice minOccurs="1" maxOccurs="1">
159. <xsd:element name="txData" type="CT\_TextData" minOccurs="1" maxOccurs="1"/>
160. <xsd:element name="rich" type="a:CT\_TextBody" minOccurs="1" maxOccurs="1"/>
161. </xsd:choice>
162. </xsd:sequence>
163. </xsd:complexType>
164. <xsd:simpleType name="ST\_SidePos">
165. <xsd:restriction base="xsd:string">
166. <xsd:enumeration value="l"/>
167. <xsd:enumeration value="t"/>
168. <xsd:enumeration value="r"/>
169. <xsd:enumeration value="b"/>
170. </xsd:restriction>
171. </xsd:simpleType>
172. <xsd:simpleType name="ST\_PosAlign">
173. <xsd:restriction base="xsd:string">
174. <xsd:enumeration value="min"/>
175. <xsd:enumeration value="ctr"/>
176. <xsd:enumeration value="max"/>
177. </xsd:restriction>
178. </xsd:simpleType>
179. <xsd:complexType name="CT\_ChartTitle">
180. <xsd:sequence>
181. <xsd:element name="tx" type="CT\_Text" minOccurs="0" maxOccurs="1"/>
182. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
183. <xsd:element name="txPr" type="a:CT\_TextBody" minOccurs="0" maxOccurs="1"/>
184. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
185. </xsd:sequence>
186. <xsd:attribute name="pos" type="ST\_SidePos" use="optional" default="t"/>
187. <xsd:attribute name="align" type="ST\_PosAlign" use="optional" default="ctr"/>
188. <xsd:attribute name="overlay" type="xsd:boolean" use="optional" default="0"/>
189. </xsd:complexType>
190. <xsd:simpleType name="ST\_AxisId">
191. <xsd:restriction base="xsd:unsignedInt"/>
192. </xsd:simpleType>
193. <xsd:simpleType name="ST\_GapWidthRatio">
194. <xsd:union>
195. <xsd:simpleType>
196. <xsd:restriction base="xsd:double">
197. <xsd:minInclusive value="0"/>
198. </xsd:restriction>
199. </xsd:simpleType>
200. <xsd:simpleType>
201. <xsd:restriction base="xsd:string">
202. <xsd:enumeration value="auto"/>
203. </xsd:restriction>
204. </xsd:simpleType>
205. </xsd:union>
206. </xsd:simpleType>
207. <xsd:complexType name="CT\_CategoryAxisScaling">
208. <xsd:attribute name="gapWidth" type="ST\_GapWidthRatio" use="optional"/>
209. </xsd:complexType>
210. <xsd:simpleType name="ST\_ValueAxisUnit">
211. <xsd:union>
212. <xsd:simpleType>
213. <xsd:restriction base="xsd:double">
214. <xsd:minExclusive value="0"/>
215. </xsd:restriction>
216. </xsd:simpleType>
217. <xsd:simpleType>
218. <xsd:restriction base="xsd:string">
219. <xsd:enumeration value="auto"/>
220. </xsd:restriction>
221. </xsd:simpleType>
222. </xsd:union>
223. </xsd:simpleType>
224. <xsd:complexType name="CT\_ValueAxisScaling">
225. <xsd:attribute name="max" type="ST\_DoubleOrAutomatic" use="optional"/>
226. <xsd:attribute name="min" type="ST\_DoubleOrAutomatic" use="optional"/>
227. <xsd:attribute name="majorUnit" type="ST\_ValueAxisUnit" use="optional"/>
228. <xsd:attribute name="minorUnit" type="ST\_ValueAxisUnit" use="optional"/>
229. </xsd:complexType>
230. <xsd:complexType name="CT\_AxisTitle">
231. <xsd:sequence>
232. <xsd:element name="tx" type="CT\_Text" minOccurs="0" maxOccurs="1"/>
233. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
234. <xsd:element name="txPr" type="a:CT\_TextBody" minOccurs="0" maxOccurs="1"/>
235. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
236. </xsd:sequence>
237. </xsd:complexType>
238. <xsd:complexType name="CT\_AxisUnitsLabel">
239. <xsd:sequence>
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241. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
242. <xsd:element name="txPr" type="a:CT\_TextBody" minOccurs="0" maxOccurs="1"/>
243. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
244. </xsd:sequence>
245. </xsd:complexType>
246. <xsd:simpleType name="ST\_AxisUnit">
247. <xsd:restriction base="xsd:string">
248. <xsd:enumeration value="hundreds"/>
249. <xsd:enumeration value="thousands"/>
250. <xsd:enumeration value="tenThousands"/>
251. <xsd:enumeration value="hundredThousands"/>
252. <xsd:enumeration value="millions"/>
253. <xsd:enumeration value="tenMillions"/>
254. <xsd:enumeration value="hundredMillions"/>
255. <xsd:enumeration value="billions"/>
256. <xsd:enumeration value="trillions"/>
257. <xsd:enumeration value="percentage"/>
258. </xsd:restriction>
259. </xsd:simpleType>
260. <xsd:complexType name="CT\_AxisUnits">
261. <xsd:sequence>
262. <xsd:element name="unitsLabel" type="CT\_AxisUnitsLabel" minOccurs="0" maxOccurs="1"/>
263. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
264. </xsd:sequence>
265. <xsd:attribute name="unit" type="ST\_AxisUnit" use="optional"/>
266. </xsd:complexType>
267. <xsd:complexType name="CT\_Gridlines">
268. <xsd:sequence>
269. <xsd:element name="spPr" type="a:CT\_ShapeProperties" 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\_TickMarksType">
274. <xsd:restriction base="xsd:string">
275. <xsd:enumeration value="in"/>
276. <xsd:enumeration value="out"/>
277. <xsd:enumeration value="cross"/>
278. <xsd:enumeration value="none"/>
279. </xsd:restriction>
280. </xsd:simpleType>
281. <xsd:complexType name="CT\_TickMarks">
282. <xsd:sequence>
283. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
284. </xsd:sequence>
285. <xsd:attribute name="type" type="ST\_TickMarksType" use="optional"/>
286. </xsd:complexType>
287. <xsd:complexType name="CT\_TickLabels">
288. <xsd:sequence>
289. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
290. </xsd:sequence>
291. </xsd:complexType>
292. <xsd:complexType name="CT\_Axis">
293. <xsd:sequence>
294. <xsd:choice minOccurs="1" maxOccurs="1">
295. <xsd:element name="catScaling" type="CT\_CategoryAxisScaling"/>
296. <xsd:element name="valScaling" type="CT\_ValueAxisScaling"/>
297. </xsd:choice>
298. <xsd:element name="title" type="CT\_AxisTitle" minOccurs="0" maxOccurs="1"/>
299. <xsd:element name="units" type="CT\_AxisUnits" minOccurs="0" maxOccurs="1"/>
300. <xsd:element name="majorGridlines" type="CT\_Gridlines" minOccurs="0" maxOccurs="1"/>
301. <xsd:element name="minorGridlines" type="CT\_Gridlines" minOccurs="0" maxOccurs="1"/>
302. <xsd:element name="majorTickMarks" type="CT\_TickMarks" minOccurs="0" maxOccurs="1"/>
303. <xsd:element name="minorTickMarks" type="CT\_TickMarks" minOccurs="0" maxOccurs="1"/>
304. <xsd:element name="tickLabels" type="CT\_TickLabels" minOccurs="0" maxOccurs="1"/>
305. <xsd:element name="numFmt" type="CT\_NumberFormat" minOccurs="0" maxOccurs="1"/>
306. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
307. <xsd:element name="txPr" type="a:CT\_TextBody" minOccurs="0" maxOccurs="1"/>
308. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
309. </xsd:sequence>
310. <xsd:attribute name="id" type="ST\_AxisId" use="required"/>
311. <xsd:attribute name="hidden" type="xsd:boolean" use="optional" default="0"/>
312. </xsd:complexType>
313. <xsd:simpleType name="ST\_SeriesLayout">
314. <xsd:restriction base="xsd:string">
315. <xsd:enumeration value="boxWhisker"/>
316. <xsd:enumeration value="clusteredColumn"/>
317. <xsd:enumeration value="funnel"/>
318. <xsd:enumeration value="paretoLine"/>
319. <xsd:enumeration value="regionMap"/>
320. <xsd:enumeration value="sunburst"/>
321. <xsd:enumeration value="treemap"/>
322. <xsd:enumeration value="waterfall"/>
323. </xsd:restriction>
324. </xsd:simpleType>
325. <xsd:simpleType name="ST\_ParentLabelLayout">
326. <xsd:restriction base="xsd:string">
327. <xsd:enumeration value="none"/>
328. <xsd:enumeration value="banner"/>
329. <xsd:enumeration value="overlapping"/>
330. </xsd:restriction>
331. </xsd:simpleType>
332. <xsd:complexType name="CT\_ParentLabelLayout">
333. <xsd:attribute name="val" type="ST\_ParentLabelLayout" use="required"/>
334. </xsd:complexType>
335. <xsd:simpleType name="ST\_RegionLabelLayout">
336. <xsd:restriction base="xsd:string">
337. <xsd:enumeration value="none"/>
338. <xsd:enumeration value="bestFitOnly"/>
339. <xsd:enumeration value="showAll"/>
340. </xsd:restriction>
341. </xsd:simpleType>
342. <xsd:complexType name="CT\_RegionLabelLayout">
343. <xsd:attribute name="val" type="ST\_RegionLabelLayout" use="required"/>
344. </xsd:complexType>
345. <xsd:complexType name="CT\_SeriesElementVisibilities">
346. <xsd:attribute name="connectorLines" type="xsd:boolean" use="optional"/>
347. <xsd:attribute name="meanLine" type="xsd:boolean" use="optional"/>
348. <xsd:attribute name="meanMarker" type="xsd:boolean" use="optional"/>
349. <xsd:attribute name="nonoutliers" type="xsd:boolean" use="optional"/>
350. <xsd:attribute name="outliers" type="xsd:boolean" use="optional"/>
351. </xsd:complexType>
352. <xsd:simpleType name="ST\_IntervalClosedSide">
353. <xsd:restriction base="xsd:string">
354. <xsd:enumeration value="l"/>
355. <xsd:enumeration value="r"/>
356. </xsd:restriction>
357. </xsd:simpleType>
358. <xsd:complexType name="CT\_Aggregation"/>
359. <xsd:complexType name="CT\_Binning">
360. <xsd:choice minOccurs="0" maxOccurs="1">
361. <xsd:element name="binSize" type="xsd:double"/>
362. <xsd:element name="binCount" type="xsd:unsignedInt"/>
363. </xsd:choice>
364. <xsd:attribute name="intervalClosed" type="ST\_IntervalClosedSide" use="optional"/>
365. <xsd:attribute name="underflow" type="ST\_DoubleOrAutomatic" use="optional"/>
366. <xsd:attribute name="overflow" type="ST\_DoubleOrAutomatic" use="optional"/>
367. </xsd:complexType>
368. <xsd:simpleType name="ST\_EntityType">
369. <xsd:restriction base="xsd:string">
370. <xsd:enumeration value="Address"/>
371. <xsd:enumeration value="AdminDistrict"/>
372. <xsd:enumeration value="AdminDistrict2"/>
373. <xsd:enumeration value="AdminDistrict3"/>
374. <xsd:enumeration value="Continent"/>
375. <xsd:enumeration value="CountryRegion"/>
376. <xsd:enumeration value="Locality"/>
377. <xsd:enumeration value="Ocean"/>
378. <xsd:enumeration value="Planet"/>
379. <xsd:enumeration value="PostalCode"/>
380. <xsd:enumeration value="Region"/>
381. <xsd:enumeration value="Unsupported"/>
382. </xsd:restriction>
383. </xsd:simpleType>
384. <xsd:complexType name="CT\_GeoLocationQuery">
385. <xsd:attribute name="countryRegion" type="xsd:string" use="optional"/>
386. <xsd:attribute name="adminDistrict1" type="xsd:string" use="optional"/>
387. <xsd:attribute name="adminDistrict2" type="xsd:string" use="optional"/>
388. <xsd:attribute name="postalCode" type="xsd:string" use="optional"/>
389. <xsd:attribute name="entityType" type="ST\_EntityType" use="required"/>
390. </xsd:complexType>
391. <xsd:complexType name="CT\_Address">
392. <xsd:attribute name="address1" type="xsd:string" use="optional"/>
393. <xsd:attribute name="countryRegion" type="xsd:string" use="optional"/>
394. <xsd:attribute name="adminDistrict1" type="xsd:string" use="optional"/>
395. <xsd:attribute name="adminDistrict2" type="xsd:string" use="optional"/>
396. <xsd:attribute name="postalCode" type="xsd:string" use="optional"/>
397. <xsd:attribute name="locality" type="xsd:string" use="optional"/>
398. <xsd:attribute name="isoCountryCode" type="xsd:string" use="optional"/>
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400. <xsd:complexType name="CT\_GeoLocation">
401. <xsd:sequence>
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403. </xsd:sequence>
404. <xsd:attribute name="latitude" type="xsd:double" use="optional"/>
405. <xsd:attribute name="longitude" type="xsd:double" use="optional"/>
406. <xsd:attribute name="entityName" type="xsd:string" use="required"/>
407. <xsd:attribute name="entityType" type="ST\_EntityType" use="required"/>
408. </xsd:complexType>
409. <xsd:complexType name="CT\_GeoLocations">
410. <xsd:sequence>
411. <xsd:element name="geoLocation" type="CT\_GeoLocation" minOccurs="0" maxOccurs="1"/>
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413. </xsd:complexType>
414. <xsd:complexType name="CT\_GeoLocationQueryResult">
415. <xsd:sequence>
416. <xsd:element name="geoLocationQuery" type="CT\_GeoLocationQuery" minOccurs="0" maxOccurs="1"/>
417. <xsd:element name="geoLocations" type="CT\_GeoLocations" minOccurs="0" maxOccurs="1"/>
418. </xsd:sequence>
419. </xsd:complexType>
420. <xsd:complexType name="CT\_GeoLocationQueryResults">
421. <xsd:sequence>
422. <xsd:element name="geoLocationQueryResult" type="CT\_GeoLocationQueryResult" minOccurs="0" maxOccurs="unbounded"/>
423. </xsd:sequence>
424. </xsd:complexType>
425. <xsd:complexType name="CT\_GeoPolygon">
426. <xsd:attribute name="polygonId" type="xsd:string" use="required"/>
427. <xsd:attribute name="numPoints" type="xsd:integer" use="required"/>
428. <xsd:attribute name="pcaRings" type="xsd:string" use="required"/>
429. </xsd:complexType>
430. <xsd:complexType name="CT\_GeoPolygons">
431. <xsd:sequence>
432. <xsd:element name="geoPolygon" type="CT\_GeoPolygon" minOccurs="0" maxOccurs="unbounded"/>
433. </xsd:sequence>
434. </xsd:complexType>
435. <xsd:complexType name="CT\_Copyrights">
436. <xsd:sequence>
437. <xsd:element name="copyright" type="xsd:string" minOccurs="0" maxOccurs="unbounded"/>
438. </xsd:sequence>
439. </xsd:complexType>
440. <xsd:complexType name="CT\_GeoData">
441. <xsd:sequence>
442. <xsd:element name="geoPolygons" type="CT\_GeoPolygons" minOccurs="0" maxOccurs="1"/>
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444. </xsd:sequence>
445. <xsd:attribute name="entityName" type="xsd:string" use="required"/>
446. <xsd:attribute name="entityId" type="xsd:string" use="required"/>
447. <xsd:attribute name="east" type="xsd:double" use="required"/>
448. <xsd:attribute name="west" type="xsd:double" use="required"/>
449. <xsd:attribute name="north" type="xsd:double" use="required"/>
450. <xsd:attribute name="south" type="xsd:double" use="required"/>
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452. <xsd:complexType name="CT\_GeoDataEntityQuery">
453. <xsd:attribute name="entityType" type="ST\_EntityType" use="required"/>
454. <xsd:attribute name="entityId" type="xsd:string" use="required"/>
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456. <xsd:complexType name="CT\_GeoDataEntityQueryResult">
457. <xsd:sequence>
458. <xsd:element name="geoDataEntityQuery" type="CT\_GeoDataEntityQuery" minOccurs="0" maxOccurs="1"/>
459. <xsd:element name="geoData" type="CT\_GeoData" minOccurs="0" maxOccurs="1"/>
460. </xsd:sequence>
461. </xsd:complexType>
462. <xsd:complexType name="CT\_GeoDataEntityQueryResults">
463. <xsd:sequence>
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465. </xsd:sequence>
466. </xsd:complexType>
467. <xsd:complexType name="CT\_GeoDataPointQuery">
468. <xsd:attribute name="entityType" type="ST\_EntityType" use="required"/>
469. <xsd:attribute name="latitude" type="xsd:double" use="required"/>
470. <xsd:attribute name="longitude" type="xsd:double" use="required"/>
471. </xsd:complexType>
472. <xsd:complexType name="CT\_GeoDataPointToEntityQuery">
473. <xsd:attribute name="entityType" type="ST\_EntityType" use="required"/>
474. <xsd:attribute name="entityId" type="xsd:string" use="required"/>
475. </xsd:complexType>
476. <xsd:complexType name="CT\_GeoDataPointToEntityQueryResult">
477. <xsd:sequence>
478. <xsd:element name="geoDataPointQuery" type="CT\_GeoDataPointQuery" minOccurs="0" maxOccurs="1"/>
479. <xsd:element name="geoDataPointToEntityQuery" type="CT\_GeoDataPointToEntityQuery" minOccurs="0" maxOccurs="1"/>
480. </xsd:sequence>
481. </xsd:complexType>
482. <xsd:complexType name="CT\_GeoDataPointToEntityQueryResults">
483. <xsd:sequence>
484. <xsd:element name="geoDataPointToEntityQueryResult" type="CT\_GeoDataPointToEntityQueryResult" minOccurs="0" maxOccurs="unbounded"/>
485. </xsd:sequence>
486. </xsd:complexType>
487. <xsd:complexType name="CT\_GeoChildTypes">
488. <xsd:sequence>
489. <xsd:element name="entityType" type="ST\_EntityType" minOccurs="0" maxOccurs="unbounded"/>
490. </xsd:sequence>
491. </xsd:complexType>
492. <xsd:complexType name="CT\_GeoChildEntitiesQuery">
493. <xsd:sequence>
494. <xsd:element name="geoChildTypes" type="CT\_GeoChildTypes" minOccurs="0" maxOccurs="1"/>
495. </xsd:sequence>
496. <xsd:attribute name="entityId" type="xsd:string" use="required"/>
497. </xsd:complexType>
498. <xsd:complexType name="CT\_GeoHierarchyEntity">
499. <xsd:attribute name="entityName" type="xsd:string" use="required"/>
500. <xsd:attribute name="entityId" type="xsd:string" use="required"/>
501. <xsd:attribute name="entityType" type="ST\_EntityType" use="required"/>
502. </xsd:complexType>
503. <xsd:complexType name="CT\_GeoChildEntities">
504. <xsd:sequence>
505. <xsd:element name="geoHierarchyEntity" type="CT\_GeoHierarchyEntity " minOccurs="0" maxOccurs="unbounded"/>
506. </xsd:sequence>
507. </xsd:complexType>
508. <xsd:complexType name="CT\_GeoChildEntitiesQueryResult">
509. <xsd:sequence>
510. <xsd:element name="geoChildEntitiesQuery" type="CT\_GeoChildEntitiesQuery" minOccurs="0" maxOccurs="1"/>
511. <xsd:element name="geoChildEntities" type="CT\_GeoChildEntities" minOccurs="0" maxOccurs="1"/>
512. </xsd:sequence>
513. </xsd:complexType>
514. <xsd:complexType name="CT\_GeoChildEntitiesQueryResults">
515. <xsd:sequence>
516. <xsd:element name="geoChildEntitiesQueryResult" type="CT\_GeoChildEntitiesQueryResult" minOccurs="0" maxOccurs="unbounded"/>
517. </xsd:sequence>
518. </xsd:complexType>
519. <xsd:complexType name="CT\_Clear">
520. <xsd:sequence>
521. <xsd:element name="geoLocationQueryResults" type="CT\_GeoLocationQueryResults" minOccurs="0" maxOccurs="1"/>
522. <xsd:element name="geoDataEntityQueryResults" type="CT\_GeoDataEntityQueryResults" minOccurs="0" maxOccurs="1"/>
523. <xsd:element name="geoDataPointToEntityQueryResults" type="CT\_GeoDataPointToEntityQueryResults" minOccurs="0" maxOccurs="1"/>
524. <xsd:element name="geoChildEntitiesQueryResults" type="CT\_GeoChildEntitiesQueryResults" minOccurs="0" maxOccurs="1"/>
525. </xsd:sequence>
526. </xsd:complexType>
527. <xsd:complexType name="CT\_GeoCache">
528. <xsd:choice minOccurs="1" maxOccurs="unbounded">
529. <xsd:element name="binary" type="xsd:base64Binary" minOccurs="0" maxOccurs="1"/>
530. <xsd:element name="clear" type="CT\_Clear" minOccurs="0" maxOccurs="1"/>
531. </xsd:choice>
532. <xsd:attribute name="provider" type="xsd:string" use="required"/>
533. </xsd:complexType>
534. <xsd:simpleType name="ST\_GeoProjectionType">
535. <xsd:restriction base="xsd:string">
536. <xsd:enumeration value="mercator"/>
537. <xsd:enumeration value="miller"/>
538. <xsd:enumeration value="robinson"/>
539. <xsd:enumeration value="albers"/>
540. </xsd:restriction>
541. </xsd:simpleType>
542. <xsd:simpleType name="ST\_GeoMappingLevel">
543. <xsd:restriction base="xsd:string">
544. <xsd:enumeration value="dataOnly"/>
545. <xsd:enumeration value="postalCode"/>
546. <xsd:enumeration value="county"/>
547. <xsd:enumeration value="state"/>
548. <xsd:enumeration value="countryRegion"/>
549. <xsd:enumeration value="countryRegionList"/>
550. <xsd:enumeration value="world"/>
551. </xsd:restriction>
552. </xsd:simpleType>
553. <xsd:complexType name="CT\_Geography">
554. <xsd:sequence>
555. <xsd:element name="geoCache" type="CT\_GeoCache" minOccurs="0" maxOccurs="1"/>
556. </xsd:sequence>
557. <xsd:attribute name="projectionType" type="ST\_GeoProjectionType" use="optional"/>
558. <xsd:attribute name="viewedRegionType" type="ST\_GeoMappingLevel" use="optional"/>
559. <xsd:attribute name="cultureLanguage" type="xsd:language" use="required"/>
560. <xsd:attribute name="cultureRegion" type="xsd:string" use="required"/>
561. <xsd:attribute name="attribution" type="xsd:string" use="required"/>
562. </xsd:complexType>
563. <xsd:simpleType name="ST\_QuartileMethod">
564. <xsd:restriction base="xsd:string">
565. <xsd:enumeration value="inclusive"/>
566. <xsd:enumeration value="exclusive"/>
567. </xsd:restriction>
568. </xsd:simpleType>
569. <xsd:complexType name="CT\_Statistics">
570. <xsd:attribute name="quartileMethod" type="ST\_QuartileMethod" use="optional"/>
571. </xsd:complexType>
572. <xsd:complexType name="CT\_Subtotals">
573. <xsd:sequence>
574. <xsd:element name="idx" type="xsd:unsignedInt" minOccurs="0" maxOccurs="unbounded"/>
575. </xsd:sequence>
576. </xsd:complexType>
577. <xsd:complexType name="CT\_SeriesLayoutProperties">
578. <xsd:sequence>
579. <xsd:element name="parentLabelLayout" type="CT\_ParentLabelLayout" minOccurs="0" maxOccurs="1"/>
580. <xsd:element name="regionLabelLayout" type="CT\_RegionLabelLayout" minOccurs="0" maxOccurs="1"/>
581. <xsd:element name="visibility" type="CT\_SeriesElementVisibilities" minOccurs="0" maxOccurs="1"/>
582. <xsd:choice minOccurs="0" maxOccurs="1">
583. <xsd:element name="aggregation" type="CT\_Aggregation" minOccurs="0" maxOccurs="1"/>
584. <xsd:element name="binning" type="CT\_Binning" minOccurs="0" maxOccurs="1"/>
585. </xsd:choice>
586. <xsd:element name="geography" type="CT\_Geography" minOccurs="0" maxOccurs="1"/>
587. <xsd:element name="statistics" type="CT\_Statistics" minOccurs="0" maxOccurs="1"/>
588. <xsd:element name="subtotals" type="CT\_Subtotals" minOccurs="0" maxOccurs="1"/>
589. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
590. </xsd:sequence>
591. </xsd:complexType>
592. <xsd:complexType name="CT\_DataPoint">
593. <xsd:sequence>
594. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
595. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
596. </xsd:sequence>
597. <xsd:attribute name="idx" type="xsd:unsignedInt" use="required"/>
598. </xsd:complexType>
599. <xsd:simpleType name="ST\_DataLabelPos">
600. <xsd:restriction base="xsd:string">
601. <xsd:enumeration value="bestFit"/>
602. <xsd:enumeration value="b"/>
603. <xsd:enumeration value="ctr"/>
604. <xsd:enumeration value="inBase"/>
605. <xsd:enumeration value="inEnd"/>
606. <xsd:enumeration value="l"/>
607. <xsd:enumeration value="outEnd"/>
608. <xsd:enumeration value="r"/>
609. <xsd:enumeration value="t"/>
610. </xsd:restriction>
611. </xsd:simpleType>
612. <xsd:simpleType name="ST\_ValueColorPositionCount">
613. <xsd:restriction base="xsd:int">
614. <xsd:minInclusive value="2"/>
615. <xsd:maxInclusive value="3"/>
616. </xsd:restriction>
617. </xsd:simpleType>
618. <xsd:complexType name="CT\_ExtremeValueColorPosition"/>
619. <xsd:complexType name="CT\_NumberColorPosition">
620. <xsd:attribute name="val" type="xsd:double" use="required"/>
621. </xsd:complexType>
622. <xsd:complexType name="CT\_PercentageColorPosition">
623. <xsd:attribute name="val" type="xsd:double" use="required"/>
624. </xsd:complexType>
625. <xsd:complexType name="CT\_ValueColorEndPosition">
626. <xsd:choice minOccurs="1" maxOccurs="1">
627. <xsd:element name="extremeValue" type="CT\_ExtremeValueColorPosition"/>
628. <xsd:element name="number" type="CT\_NumberColorPosition"/>
629. <xsd:element name="percent" type="CT\_PercentageColorPosition"/>
630. </xsd:choice>
631. </xsd:complexType>
632. <xsd:complexType name="CT\_ValueColorMiddlePosition">
633. <xsd:choice minOccurs="1" maxOccurs="1">
634. <xsd:element name="number" type="CT\_NumberColorPosition"/>
635. <xsd:element name="percent" type="CT\_PercentageColorPosition"/>
636. </xsd:choice>
637. </xsd:complexType>
638. <xsd:complexType name="CT\_ValueColorPositions">
639. <xsd:sequence>
640. <xsd:element name="min" type="CT\_ValueColorEndPosition" minOccurs="0" maxOccurs="1"/>
641. <xsd:element name="mid" type="CT\_ValueColorMiddlePosition" minOccurs="0" maxOccurs="1"/>
642. <xsd:element name="max" type="CT\_ValueColorEndPosition" minOccurs="0" maxOccurs="1"/>
643. </xsd:sequence>
644. <xsd:attribute name="count" type="ST\_ValueColorPositionCount" use="optional" default="2"/>
645. </xsd:complexType>
646. <xsd:complexType name="CT\_DataLabelVisibilities">
647. <xsd:attribute name="seriesName" type="xsd:boolean" use="optional"/>
648. <xsd:attribute name="categoryName" type="xsd:boolean" use="optional"/>
649. <xsd:attribute name="value" type="xsd:boolean" use="optional"/>
650. </xsd:complexType>
651. <xsd:complexType name="CT\_DataLabel">
652. <xsd:sequence>
653. <xsd:element name="numFmt" type="CT\_NumberFormat" minOccurs="0" maxOccurs="1"/>
654. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
655. <xsd:element name="txPr" type="a:CT\_TextBody" minOccurs="0" maxOccurs="1"/>
656. <xsd:element name="visibility" type="CT\_DataLabelVisibilities" minOccurs="0" maxOccurs="1"/>
657. <xsd:element name="separator" type="xsd:string" minOccurs="0" maxOccurs="1"/>
658. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
659. </xsd:sequence>
660. <xsd:attribute name="idx" type="xsd:unsignedInt" use="required"/>
661. <xsd:attribute name="pos" type="ST\_DataLabelPos" use="optional"/>
662. </xsd:complexType>
663. <xsd:complexType name="CT\_DataLabelHidden">
664. <xsd:attribute name="idx" type="xsd:unsignedInt" use="required"/>
665. </xsd:complexType>
666. <xsd:complexType name="CT\_DataLabels">
667. <xsd:sequence>
668. <xsd:element name="numFmt" type="CT\_NumberFormat" minOccurs="0" maxOccurs="1"/>
669. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
670. <xsd:element name="txPr" type="a:CT\_TextBody" minOccurs="0" maxOccurs="1"/>
671. <xsd:element name="visibility" type="CT\_DataLabelVisibilities" minOccurs="0" maxOccurs="1"/>
672. <xsd:element name="separator" type="xsd:string" minOccurs="0" maxOccurs="1"/>
673. <xsd:element name="dataLabel" type="CT\_DataLabel" minOccurs="0" maxOccurs="unbounded"/>
674. <xsd:element name="dataLabelHidden" type="CT\_DataLabelHidden" minOccurs="0" maxOccurs="unbounded"/>
675. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
676. </xsd:sequence>
677. <xsd:attribute name="pos" type="ST\_DataLabelPos" use="optional"/>
678. </xsd:complexType>
679. <xsd:complexType name="CT\_Series">
680. <xsd:sequence>
681. <xsd:element name="tx" type="CT\_Text" minOccurs="0" maxOccurs="1"/>
682. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
683. <xsd:element name="valueColors" type="CT\_ValueColors" minOccurs="0" maxOccurs="1"/>
684. <xsd:element name="valueColorPositions" type="CT\_ValueColorPositions" minOccurs="0" maxOccurs="1"/>
685. <xsd:element name="dataPt" type="CT\_DataPoint" minOccurs="0" maxOccurs="unbounded"/>
686. <xsd:element name="dataLabels" type="CT\_DataLabels" minOccurs="0" maxOccurs="1"/>
687. <xsd:element name="dataId" type="CT\_DataId" minOccurs="0" maxOccurs="1"/>
688. <xsd:element name="layoutPr" type="CT\_SeriesLayoutProperties" minOccurs="0" maxOccurs="1"/>
689. <xsd:element name="axisId" type="ST\_AxisId" minOccurs="0" maxOccurs="unbounded"/>
690. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
691. </xsd:sequence>
692. <xsd:attribute name="layoutId" type="ST\_SeriesLayout" use="required"/>
693. <xsd:attribute name="hidden" type="xsd:boolean" use="optional" default="0"/>
694. <xsd:attribute name="ownerIdx" type="xsd:unsignedInt" use="optional"/>
695. <xsd:attribute name="uniqueId" type="xsd:string" use="optional"/>
696. <xsd:attribute name="formatIdx" type="xsd:unsignedInt" use="optional"/>
697. </xsd:complexType>
698. <xsd:complexType name="CT\_Legend">
699. <xsd:sequence>
700. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
701. <xsd:element name="txPr" type="a:CT\_TextBody" minOccurs="0" maxOccurs="1"/>
702. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
703. </xsd:sequence>
704. <xsd:attribute name="pos" type="ST\_SidePos" use="optional" default="r"/>
705. <xsd:attribute name="align" type="ST\_PosAlign" use="optional" default="ctr"/>
706. <xsd:attribute name="overlay" type="xsd:boolean" use="optional" default="0"/>
707. </xsd:complexType>
708. <xsd:complexType name="CT\_PlotSurface">
709. <xsd:sequence>
710. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
711. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
712. </xsd:sequence>
713. </xsd:complexType>
714. <xsd:complexType name="CT\_PlotAreaRegion">
715. <xsd:sequence>
716. <xsd:element name="plotSurface" type="CT\_PlotSurface" minOccurs="0" maxOccurs="1"/>
717. <xsd:element name="series" type="CT\_Series" minOccurs="0" maxOccurs="unbounded"/>
718. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
719. </xsd:sequence>
720. </xsd:complexType>
721. <xsd:complexType name="CT\_PlotArea">
722. <xsd:sequence>
723. <xsd:element name="plotAreaRegion" type="CT\_PlotAreaRegion" minOccurs="1" maxOccurs="1"/>
724. <xsd:element name="axis" type="CT\_Axis" minOccurs="0" maxOccurs="unbounded"/>
725. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
726. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
727. </xsd:sequence>
728. </xsd:complexType>
729. <xsd:complexType name="CT\_Chart">
730. <xsd:sequence>
731. <xsd:element name="title" type="CT\_ChartTitle" minOccurs="0" maxOccurs="1"/>
732. <xsd:element name="plotArea" type="CT\_PlotArea" minOccurs="1" maxOccurs="1"/>
733. <xsd:element name="legend" type="CT\_Legend" minOccurs="0" maxOccurs="1"/>
734. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
735. </xsd:sequence>
736. </xsd:complexType>
737. <xsd:complexType name="CT\_FormatOverride">
738. <xsd:sequence>
739. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
740. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
741. </xsd:sequence>
742. <xsd:attribute name="idx" type="xsd:unsignedInt" use="required"/>
743. </xsd:complexType>
744. <xsd:complexType name="CT\_FormatOverrides">
745. <xsd:sequence>
746. <xsd:element name="fmtOvr" type="CT\_FormatOverride" minOccurs="0" maxOccurs="unbounded"/>
747. </xsd:sequence>
748. </xsd:complexType>
749. <xsd:complexType name="CT\_HeaderFooter">
750. <xsd:sequence>
751. <xsd:element name="oddHeader" type="xsd:string" minOccurs="0" maxOccurs="1"/>
752. <xsd:element name="oddFooter" type="xsd:string" minOccurs="0" maxOccurs="1"/>
753. <xsd:element name="evenHeader" type="xsd:string" minOccurs="0" maxOccurs="1"/>
754. <xsd:element name="evenFooter" type="xsd:string" minOccurs="0" maxOccurs="1"/>
755. <xsd:element name="firstHeader" type="xsd:string" minOccurs="0" maxOccurs="1"/>
756. <xsd:element name="firstFooter" type="xsd:string" minOccurs="0" maxOccurs="1"/>
757. </xsd:sequence>
758. <xsd:attribute name="alignWithMargins" type="xsd:boolean" use="optional" default="true"/>
759. <xsd:attribute name="differentOddEven" type="xsd:boolean" use="optional" default="false"/>
760. <xsd:attribute name="differentFirst" type="xsd:boolean" use="optional" default="false"/>
761. </xsd:complexType>
762. <xsd:complexType name="CT\_PageMargins">
763. <xsd:attribute name="l" type="xsd:double" use="required"/>
764. <xsd:attribute name="r" type="xsd:double" use="required"/>
765. <xsd:attribute name="t" type="xsd:double" use="required"/>
766. <xsd:attribute name="b" type="xsd:double" use="required"/>
767. <xsd:attribute name="header" type="xsd:double" use="required"/>
768. <xsd:attribute name="footer" type="xsd:double" use="required"/>
769. </xsd:complexType>
770. <xsd:simpleType name="ST\_PageOrientation">
771. <xsd:restriction base="xsd:string">
772. <xsd:enumeration value="default"/>
773. <xsd:enumeration value="portrait"/>
774. <xsd:enumeration value="landscape"/>
775. </xsd:restriction>
776. </xsd:simpleType>
777. <xsd:complexType name="CT\_PageSetup">
778. <xsd:attribute name="paperSize" type="xsd:unsignedInt" use="optional" default="1"/>
779. <xsd:attribute name="firstPageNumber" type="xsd:unsignedInt" use="optional" default="1"/>
780. <xsd:attribute name="orientation" type="ST\_PageOrientation" use="optional" default="default"/>
781. <xsd:attribute name="blackAndWhite" type="xsd:boolean" use="optional" default="false"/>
782. <xsd:attribute name="draft" type="xsd:boolean" use="optional" default="false"/>
783. <xsd:attribute name="useFirstPageNumber" type="xsd:boolean" use="optional" default="false"/>
784. <xsd:attribute name="horizontalDpi" type="xsd:int" use="optional" default="600"/>
785. <xsd:attribute name="verticalDpi" type="xsd:int" use="optional" default="600"/>
786. <xsd:attribute name="copies" type="xsd:unsignedInt" use="optional" default="1"/>
787. </xsd:complexType>
788. <xsd:complexType name="CT\_PrintSettings">
789. <xsd:sequence>
790. <xsd:element name="headerFooter" type="CT\_HeaderFooter" minOccurs="0" maxOccurs="1"/>
791. <xsd:element name="pageMargins" type="CT\_PageMargins" minOccurs="0" maxOccurs="1"/>
792. <xsd:element name="pageSetup" type="CT\_PageSetup" minOccurs="0" maxOccurs="1"/>
793. </xsd:sequence>
794. </xsd:complexType>
795. <xsd:complexType name="CT\_ChartSpace">
796. <xsd:sequence>
797. <xsd:element name="chartData" type="CT\_ChartData" minOccurs="1" maxOccurs="1"/>
798. <xsd:element name="chart" type="CT\_Chart" minOccurs="1" maxOccurs="1"/>
799. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="0" maxOccurs="1"/>
800. <xsd:element name="txPr" type="a:CT\_TextBody" minOccurs="0" maxOccurs="1"/>
801. <xsd:element name="clrMapOvr" type="a:CT\_ColorMapping" minOccurs="0" maxOccurs="1"/>
802. <xsd:element name="fmtOvrs" type="CT\_FormatOverrides" minOccurs="0" maxOccurs="1"/>
803. <xsd:element name="printSettings" type="CT\_PrintSettings" minOccurs="0" maxOccurs="1"/>
804. <xsd:element name="extLst" type="CT\_ExtensionList" minOccurs="0" maxOccurs="1"/>
805. </xsd:sequence>
806. </xsd:complexType>
807. <xsd:element name="chartSpace" type="CT\_ChartSpace"/>
808. <xsd:element name="chart" type="CT\_RelId"/>
809. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2014/main Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/drawing/2014/main" xmlns="http://schemas.microsoft.com/office/drawing/2014/main" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" elementFormDefault="qualified" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
2. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartbasetypes.xsd"/>
3. <xsd:complexType name="CT\_CreationId">
4. <xsd:attribute name="id" type="a:ST\_Guid" use="optional"/>
5. </xsd:complexType>
6. <xsd:complexType name="CT\_PredecessorDrawingElementReference">
7. <xsd:attribute name="pred" type="a:ST\_Guid" use="optional"/>
8. </xsd:complexType>
9. <xsd:complexType name="CT\_ConnectableReferences">
10. <xsd:attribute name="st" type="a:ST\_Guid" use="optional"/>
11. <xsd:attribute name="end" type="a:ST\_Guid" use="optional"/>
12. </xsd:complexType>
13. <xsd:element name="creationId" type="CT\_CreationId"/>
14. <xsd:element name="predDERef" type="CT\_PredecessorDrawingElementReference"/>
15. <xsd:element name="cxnDERefs" type="CT\_ConnectableReferences"/>
16. <xsd:complexType name="CT\_Identifier">
17. <xsd:attribute name="val" type="xsd:unsignedInt" use="required"/>
18. </xsd:complexType>
19. <xsd:element name="rowId" type="CT\_Identifier"/>
20. <xsd:element name="colId" type="CT\_Identifier"/>
21. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2016/SVG/main Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/drawing/2016/SVG/main" elementFormDefault="qualified" xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns="http://schemas.microsoft.com/office/drawing/2016/SVG/main" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main">
2. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartbasetypes.xsd"/>
3. <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships" schemaLocation="orel.xsd"/>
4. <xsd:complexType name="CT\_SVGBlip">
5. <xsd:attributeGroup ref="a:AG\_Blob"/>
6. </xsd:complexType>
7. <xsd:element name="svgBlip" type="CT\_SVGBlip"/>
8. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2016/11/main Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/drawing/2016/11/main" elementFormDefault="qualified" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns="http://schemas.microsoft.com/office/drawing/2016/11/main">
2. <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships" schemaLocation="orel.xsd"/>
3. <xsd:complexType name="CT\_PictureAttributionSourceURL">
4. <xsd:attribute ref="r:id" use="required"/>
5. </xsd:complexType>
6. <xsd:element name="picAttrSrcUrl" type="CT\_PictureAttributionSourceURL"/>
7. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2016/11/diagram Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/drawing/2016/11/diagram" xmlns="http://schemas.microsoft.com/office/drawing/2016/11/diagram" xmlns:dgm="http://schemas.openxmlformats.org/drawingml/2006/diagram" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:o="http://oxsdSchemaUri" elementFormDefault="qualified" attributeFormDefault="unqualified">
2. <xsd:import schemaLocation="igxtypes.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/diagram"/>
3. <xsd:import schemaLocation="oarttxbullet.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
4. <xsd:simpleType name="ST\_STorageType" o:cname="StoreType">
5. <xsd:restriction base="xsd:token">
6. <xsd:enumeration value="sibTrans"/>
7. <xsd:enumeration value="parTrans"/>
8. </xsd:restriction>
9. </xsd:simpleType>
10. <xsd:complexType name="CT\_DiagramAutoBullet" o:cname="DiagramAutoBullet" o:cwrap="DiagramAutoBulletMethods">
11. <xsd:group ref="a:EG\_TextBullet" minOccurs="1" maxOccurs="1"/>
12. <xsd:attribute name="prefix" type="xsd:string" o:cname="prefix" use="optional"/>
13. <xsd:attribute name="leadZeros" type="xsd:boolean" o:cname="leadZeros" use="optional"/>
14. </xsd:complexType>
15. <xsd:complexType name="CT\_NumberDiagramInfo" o:cname="NumberDiagramInfo" o:cwrap="NumberDiagramInfoMethods">
16. <xsd:sequence>
17. <xsd:element name="buPr" type="CT\_DiagramAutoBullet" minOccurs="1" maxOccurs="1" o:cname="bulletProps"/>
18. </xsd:sequence>
19. <xsd:attribute name="lvl" type="xsd:unsignedInt" o:cname="lvl" use="required"/>
20. <xsd:attribute name="ptType" type="ST\_STorageType" o:cname="ptType" use="required"/>
21. </xsd:complexType>
22. <xsd:complexType name="CT\_NumberDiagramInfoList" o:cname="NumberDiagramInfoList" o:cwrap="noTemplate">
23. <xsd:sequence>
24. <xsd:element name="autoBuNodeInfo" type="CT\_NumberDiagramInfo" o:cname="autoBulletNodeInfo" minOccurs="0" maxOccurs="unbounded"/>
25. </xsd:sequence>
26. </xsd:complexType>
27. <xsd:element name="autoBuNodeInfoLst" type="CT\_NumberDiagramInfoList"/>
28. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2013/main/command Schema

1. <xsd:schema elementFormDefault="qualified" targetNamespace="http://schemas.microsoft.com/office/drawing/2013/main/command" xmlns="http://schemas.microsoft.com/office/drawing/2013/main/command" xmlns:ac="http://schemas.microsoft.com/office/drawing/2013/main/command" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:inkml="http://www.w3.org/2003/InkML">
2. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartbasetypes.xsd"/>
3. <xsd:attributeGroup name="AG\_DrawingElementId">
4. <xsd:attribute name="id" type="a:ST\_DrawingElementId" use="required"/>
5. <xsd:attribute name="creationId" type="a:ST\_Guid" use="optional"/>
6. </xsd:attributeGroup>
7. <xsd:complexType name="CT\_ShapeMoniker">
8. <xsd:attributeGroup ref="AG\_DrawingElementId"/>
9. </xsd:complexType>
10. <xsd:complexType name="CT\_GroupShapeMoniker">
11. <xsd:attributeGroup ref="AG\_DrawingElementId"/>
12. </xsd:complexType>
13. <xsd:complexType name="CT\_GraphicFrameMoniker">
14. <xsd:attributeGroup ref="AG\_DrawingElementId"/>
15. </xsd:complexType>
16. <xsd:complexType name="CT\_ConnectorMoniker">
17. <xsd:attributeGroup ref="AG\_DrawingElementId"/>
18. </xsd:complexType>
19. <xsd:complexType name="CT\_PictureMoniker">
20. <xsd:attributeGroup ref="AG\_DrawingElementId"/>
21. </xsd:complexType>
22. <xsd:complexType name="CT\_InkMoniker">
23. <xsd:attributeGroup ref="AG\_DrawingElementId"/>
24. </xsd:complexType>
25. <xsd:complexType name="CT\_ShapeMonikerList">
26. <xsd:sequence>
27. <xsd:any minOccurs="0" maxOccurs="unbounded"/>
28. </xsd:sequence>
29. </xsd:complexType>
30. <xsd:element name="spMkLst" type="CT\_ShapeMonikerList"/>
31. <xsd:complexType name="CT\_GroupShapeMonikerList">
32. <xsd:sequence>
33. <xsd:any minOccurs="0" maxOccurs="unbounded"/>
34. </xsd:sequence>
35. </xsd:complexType>
36. <xsd:element name="grpMkLst" type="CT\_GroupShapeMonikerList"/>
37. <xsd:complexType name="CT\_GraphicFrameMonikerList">
38. <xsd:sequence>
39. <xsd:any minOccurs="0" maxOccurs="unbounded"/>
40. </xsd:sequence>
41. </xsd:complexType>
42. <xsd:element name="graphicFrameMkLst" type="CT\_GraphicFrameMonikerList"/>
43. <xsd:complexType name="CT\_ConnectorMonikerList">
44. <xsd:sequence>
45. <xsd:any minOccurs="0" maxOccurs="unbounded"/>
46. </xsd:sequence>
47. </xsd:complexType>
48. <xsd:element name="cxnSpMkLst" type="CT\_ConnectorMonikerList"/>
49. <xsd:complexType name="CT\_PictureMonikerList">
50. <xsd:sequence>
51. <xsd:any minOccurs="0" maxOccurs="unbounded"/>
52. </xsd:sequence>
53. </xsd:complexType>
54. <xsd:element name="picMkLst" type="CT\_PictureMonikerList"/>
55. <xsd:complexType name="CT\_InkMonikerList">
56. <xsd:sequence>
57. <xsd:any minOccurs="0" maxOccurs="unbounded"/>
58. </xsd:sequence>
59. </xsd:complexType>
60. <xsd:element name="inkMkLst" type="CT\_InkMonikerList"/>
61. <xsd:attributeGroup name="AG\_ChangesUser">
62. <xsd:attribute name="name" type="xsd:string" use="optional"/>
63. <xsd:attribute name="userId" type="xsd:string" use="optional"/>
64. <xsd:attribute name="providerId" type="xsd:string" use="optional"/>
65. <xsd:attribute name="clId" type="xsd:string" use="optional"/>
66. <xsd:attribute name="email" type="xsd:string" use="optional"/>
67. </xsd:attributeGroup>
68. <xsd:attributeGroup name="AG\_ChangesVersion">
69. <xsd:attribute name="dt" type="xsd:dateTime" use="optional"/>
70. <xsd:attribute name="v" type="xsd:unsignedInt" use="optional"/>
71. <xsd:attribute name="id" type="a:ST\_Guid" use="optional"/>
72. </xsd:attributeGroup>
73. <xsd:complexType name="CT\_ChangesData">
74. <xsd:sequence>
75. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
76. </xsd:sequence>
77. <xsd:attributeGroup ref="AG\_ChangesUser"/>
78. <xsd:attributeGroup ref="AG\_ChangesVersion"/>
79. <xsd:attribute name="actId" type="xsd:int" use="optional"/>
80. </xsd:complexType>
81. <xsd:simpleType name="ST\_ShapeChangeBit">
82. <xsd:restriction base="xsd:token">
83. <xsd:enumeration value="add"/>
84. <xsd:enumeration value="del"/>
85. <xsd:enumeration value="mod"/>
86. <xsd:enumeration value="ord"/>
87. <xsd:enumeration value="topLvl"/>
88. <xsd:enumeration value="modVis"/>
89. <xsd:enumeration value="replST"/>
90. <xsd:enumeration value="delST"/>
91. <xsd:enumeration value="replId"/>
92. <xsd:enumeration value="modCrop"/>
93. </xsd:restriction>
94. </xsd:simpleType>
95. <xsd:simpleType name="ST\_ShapeChangesBits">
96. <xsd:list itemType="ST\_ShapeChangeBit"/>
97. </xsd:simpleType>
98. <xsd:complexType name="CT\_ShapeChanges">
99. <xsd:sequence>
100. <xsd:element name="chgData" type="CT\_ChangesData" minOccurs="0" maxOccurs="1"/>
101. <xsd:element name="spMkLst" type="CT\_ShapeMonikerList" minOccurs="1" maxOccurs="1"/>
102. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
103. </xsd:sequence>
104. <xsd:attribute name="chg" type="ST\_ShapeChangesBits" use="required"/>
105. </xsd:complexType>
106. <xsd:simpleType name="ST\_GroupShapeChangeBit">
107. <xsd:restriction base="xsd:token">
108. <xsd:enumeration value="add"/>
109. <xsd:enumeration value="del"/>
110. <xsd:enumeration value="mod"/>
111. <xsd:enumeration value="ord"/>
112. <xsd:enumeration value="topLvl"/>
113. <xsd:enumeration value="modVis"/>
114. <xsd:enumeration value="replST"/>
115. <xsd:enumeration value="delST"/>
116. <xsd:enumeration value="replId"/>
117. </xsd:restriction>
118. </xsd:simpleType>
119. <xsd:simpleType name="ST\_GroupShapeChangesBits">
120. <xsd:list itemType="ST\_GroupShapeChangeBit"/>
121. </xsd:simpleType>
122. <xsd:complexType name="CT\_GroupShapeChanges">
123. <xsd:sequence>
124. <xsd:element name="chgData" type="CT\_ChangesData" minOccurs="0" maxOccurs="1"/>
125. <xsd:element name="grpSpMkLst" type="CT\_GroupShapeMonikerList" minOccurs="1" maxOccurs="1"/>
126. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
127. </xsd:sequence>
128. <xsd:attribute name="chg" type="ST\_GroupShapeChangesBits" use="required"/>
129. </xsd:complexType>
130. <xsd:simpleType name="ST\_ConnectorChangeBit">
131. <xsd:restriction base="xsd:token">
132. <xsd:enumeration value="add"/>
133. <xsd:enumeration value="del"/>
134. <xsd:enumeration value="mod"/>
135. <xsd:enumeration value="ord"/>
136. <xsd:enumeration value="topLvl"/>
137. <xsd:enumeration value="modVis"/>
138. <xsd:enumeration value="replST"/>
139. <xsd:enumeration value="delST"/>
140. <xsd:enumeration value="replId"/>
141. </xsd:restriction>
142. </xsd:simpleType>
143. <xsd:simpleType name="ST\_ConnectorChangesBits">
144. <xsd:list itemType="ST\_ConnectorChangeBit"/>
145. </xsd:simpleType>
146. <xsd:complexType name="CT\_ConnectorChanges">
147. <xsd:sequence>
148. <xsd:element name="chgData" type="CT\_ChangesData" minOccurs="0" maxOccurs="1"/>
149. <xsd:element name="cxnSpMkLst" type="CT\_ConnectorMonikerList" minOccurs="1" maxOccurs="1"/>
150. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
151. </xsd:sequence>
152. <xsd:attribute name="chg" type="ST\_ConnectorChangesBits" use="required"/>
153. </xsd:complexType>
154. <xsd:simpleType name="ST\_PictureChangeBit">
155. <xsd:restriction base="xsd:token">
156. <xsd:enumeration value="add"/>
157. <xsd:enumeration value="del"/>
158. <xsd:enumeration value="mod"/>
159. <xsd:enumeration value="ord"/>
160. <xsd:enumeration value="topLvl"/>
161. <xsd:enumeration value="modVis"/>
162. <xsd:enumeration value="replST"/>
163. <xsd:enumeration value="delST"/>
164. <xsd:enumeration value="replId"/>
165. <xsd:enumeration value="modCrop"/>
166. </xsd:restriction>
167. </xsd:simpleType>
168. <xsd:simpleType name="ST\_PictureChangesBits">
169. <xsd:list itemType="ST\_PictureChangeBit"/>
170. </xsd:simpleType>
171. <xsd:complexType name="CT\_PictureChanges">
172. <xsd:sequence>
173. <xsd:element name="chgData" type="CT\_ChangesData" minOccurs="0" maxOccurs="1"/>
174. <xsd:element name="picMkLst" type="CT\_PictureMonikerList" minOccurs="1" maxOccurs="1"/>
175. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
176. </xsd:sequence>
177. <xsd:attribute name="chg" type="ST\_PictureChangesBits" use="required"/>
178. </xsd:complexType>
179. <xsd:simpleType name="ST\_InkChangeBit">
180. <xsd:restriction base="xsd:token">
181. <xsd:enumeration value="add"/>
182. <xsd:enumeration value="del"/>
183. <xsd:enumeration value="mod"/>
184. <xsd:enumeration value="ord"/>
185. <xsd:enumeration value="topLvl"/>
186. <xsd:enumeration value="modVis"/>
187. <xsd:enumeration value="replST"/>
188. <xsd:enumeration value="delST"/>
189. <xsd:enumeration value="replId"/>
190. <xsd:enumeration value="reco"/>
191. <xsd:enumeration value="modStrokes"/>
192. </xsd:restriction>
193. </xsd:simpleType>
194. <xsd:simpleType name="ST\_InkChangesBits">
195. <xsd:list itemType="ST\_InkChangeBit"/>
196. </xsd:simpleType>
197. <xsd:complexType name="CT\_InkChanges">
198. <xsd:sequence>
199. <xsd:element name="chgData" type="CT\_ChangesData" minOccurs="0" maxOccurs="1"/>
200. <xsd:element name="inkMkLst" type="CT\_InkMonikerList" minOccurs="1" maxOccurs="1"/>
201. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
202. </xsd:sequence>
203. <xsd:attribute name="chg" type="ST\_InkChangesBits" use="required"/>
204. </xsd:complexType>
205. <xsd:simpleType name="ST\_GraphicFrameChangeBit">
206. <xsd:restriction base="xsd:token">
207. <xsd:enumeration value="add"/>
208. <xsd:enumeration value="del"/>
209. <xsd:enumeration value="mod"/>
210. <xsd:enumeration value="ord"/>
211. <xsd:enumeration value="topLvl"/>
212. <xsd:enumeration value="modVis"/>
213. <xsd:enumeration value="replST"/>
214. <xsd:enumeration value="delST"/>
215. <xsd:enumeration value="replId"/>
216. <xsd:enumeration value="modGraphic"/>
217. </xsd:restriction>
218. </xsd:simpleType>
219. <xsd:simpleType name="ST\_GraphicFrameChangesBits">
220. <xsd:list itemType="ST\_GraphicFrameChangeBit"/>
221. </xsd:simpleType>
222. <xsd:complexType name="CT\_GraphicFrameChanges">
223. <xsd:sequence>
224. <xsd:element name="chgData" type="CT\_ChangesData" minOccurs="0" maxOccurs="1"/>
225. <xsd:element name="graphicFrameMkLst" type="CT\_GraphicFrameMonikerList" minOccurs="1" maxOccurs="1"/>
226. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
227. </xsd:sequence>
228. <xsd:attribute name="chg" type="ST\_GraphicFrameChangesBits" use="required"/>
229. </xsd:complexType>
230. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2016/ink Schema

1. <xsd:schema elementFormDefault="qualified" targetNamespace="http://schemas.microsoft.com/office/drawing/2016/ink" xmlns="http://schemas.microsoft.com/office/drawing/2016/ink" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
2. <xsd:simpleType name="ST\_ExtendedBrushPropertyName">
3. <xsd:restriction base="xsd:string">
4. <xsd:enumeration value="inkEffects"/>
5. <xsd:enumeration value="anchorX"/>
6. <xsd:enumeration value="anchorY"/>
7. <xsd:enumeration value="scaleFactor"/>
8. </xsd:restriction>
9. </xsd:simpleType>
10. <xsd:simpleType name="ST\_InkEffectsType">
11. <xsd:restriction base="xsd:string">
12. <xsd:enumeration value="none"/>
13. <xsd:enumeration value="pencil"/>
14. <xsd:enumeration value="rainbow"/>
15. <xsd:enumeration value="galaxy"/>
16. <xsd:enumeration value="gold"/>
17. <xsd:enumeration value="silver"/>
18. <xsd:enumeration value="lava"/>
19. <xsd:enumeration value="ocean"/>
20. <xsd:enumeration value="rosegold"/>
21. <xsd:enumeration value="bronze"/>
22. </xsd:restriction>
23. </xsd:simpleType>
24. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2017/model3d Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/drawing/2017/model3d" elementFormDefault="qualified" attributeFormDefault="unqualified" xmlns="http://schemas.microsoft.com/office/drawing/2017/model3d" xmlns:a1611="http://schemas.microsoft.com/office/drawing/2016/11/main" xmlns:am3d="http://schemas.microsoft.com/office/drawing/2017/model3d" xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
2. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartbasetypes.xsd"/>
3. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartspproperties.xsd"/>
4. <xsd:import namespace="http://schemas.microsoft.com/office/drawing/2016/11/main" schemaLocation="oart16BlipExtensions.xsd"/>
5. <xsd:import namespace="http://schemas.openxmlformats.org/officeDocument/2006/relationships" schemaLocation="orel.xsd"/>
6. <xsd:complexType name="CT\_PositiveRatio">
7. <xsd:attribute name="n" type="xsd:unsignedLong" use="required"/>
8. <xsd:attribute name="d" type="xsd:unsignedLong" use="required"/>
9. </xsd:complexType>
10. <xsd:complexType name="CT\_Rotate3D">
11. <xsd:attribute name="ax" type="a:ST\_Angle" use="optional" default="0"/>
12. <xsd:attribute name="ay" type="a:ST\_Angle" use="optional" default="0"/>
13. <xsd:attribute name="az" type="a:ST\_Angle" use="optional" default="0"/>
14. </xsd:complexType>
15. <xsd:complexType name="CT\_Scale3D">
16. <xsd:sequence>
17. <xsd:element name="sx" type="a:CT\_Ratio" minOccurs="1" maxOccurs="1"/>
18. <xsd:element name="sy" type="a:CT\_Ratio" minOccurs="1" maxOccurs="1"/>
19. <xsd:element name="sz" type="a:CT\_Ratio" minOccurs="1" maxOccurs="1"/>
20. </xsd:sequence>
21. </xsd:complexType>
22. <xsd:complexType name="CT\_Model3DTransform">
23. <xsd:sequence>
24. <xsd:element name="meterPerModelUnit" type="CT\_PositiveRatio" minOccurs="0" maxOccurs="1"/>
25. <xsd:element name="preTrans" type="a:CT\_Vector3D" minOccurs="0" maxOccurs="1"/>
26. <xsd:element name="scale" type="CT\_Scale3D" minOccurs="0" maxOccurs="1"/>
27. <xsd:element name="rot" type="CT\_Rotate3D" minOccurs="0" maxOccurs="1"/>
28. <xsd:element name="postTrans" type="a:CT\_Vector3D" minOccurs="0" maxOccurs="1"/>
29. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
30. </xsd:sequence>
31. </xsd:complexType>
32. <xsd:complexType name="CT\_OrthographicProjection">
33. <xsd:sequence>
34. <xsd:element name="sz" type="CT\_PositiveRatio" minOccurs="1" maxOccurs="1"/>
35. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
36. </xsd:sequence>
37. </xsd:complexType>
38. <xsd:complexType name="CT\_PerspectiveProjection">
39. <xsd:sequence>
40. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
41. </xsd:sequence>
42. <xsd:attribute name="fov" type="a:ST\_FOVAngle" use="required"/>
43. </xsd:complexType>
44. <xsd:complexType name="CT\_Model3DCamera">
45. <xsd:sequence>
46. <xsd:element name="pos" type="a:CT\_Point3D" minOccurs="1" maxOccurs="1"/>
47. <xsd:element name="up" type="a:CT\_Vector3D" minOccurs="1" maxOccurs="1"/>
48. <xsd:element name="lookAt" type="a:CT\_Point3D" minOccurs="1" maxOccurs="1"/>
49. <xsd:choice minOccurs="1" maxOccurs="1">
50. <xsd:element name="orthographic" type="CT\_OrthographicProjection"/>
51. <xsd:element name="perspective" type="CT\_PerspectiveProjection"/>
52. </xsd:choice>
53. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
54. </xsd:sequence>
55. </xsd:complexType>
56. <xsd:complexType name="CT\_Model3DRaster">
57. <xsd:sequence>
58. <xsd:element name="blip" type="a:CT\_Blip" minOccurs="0" maxOccurs="1"/>
59. </xsd:sequence>
60. <xsd:attribute name="rName" type="xsd:string" use="required"/>
61. <xsd:attribute name="rVer" type="xsd:string" use="required"/>
62. </xsd:complexType>
63. <xsd:complexType name="CT\_ObjectViewport">
64. <xsd:sequence>
65. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
66. </xsd:sequence>
67. <xsd:attribute name="viewportSz" type="a:ST\_PositiveCoordinate" use="required"/>
68. </xsd:complexType>
69. <xsd:complexType name="CT\_WindowViewport">
70. <xsd:sequence>
71. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
72. </xsd:sequence>
73. </xsd:complexType>
74. <xsd:complexType name="CT\_AmbientLight">
75. <xsd:sequence>
76. <xsd:element name="clr" type="a:CT\_Color" minOccurs="1" maxOccurs="1"/>
77. <xsd:element name="illuminance" type="CT\_PositiveRatio" minOccurs="1" maxOccurs="1"/>
78. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
79. </xsd:sequence>
80. <xsd:attribute name="enabled" type="xsd:boolean" use="optional" default="true"/>
81. </xsd:complexType>
82. <xsd:complexType name="CT\_PointLight">
83. <xsd:sequence>
84. <xsd:element name="clr" type="a:CT\_Color" minOccurs="1" maxOccurs="1"/>
85. <xsd:element name="intensity" type="CT\_PositiveRatio" minOccurs="1" maxOccurs="1"/>
86. <xsd:element name="pos" type="a:CT\_Point3D" minOccurs="1" maxOccurs="1"/>
87. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
88. </xsd:sequence>
89. <xsd:attribute name="enabled" type="xsd:boolean" use="optional" default="true"/>
90. <xsd:attribute name="rad" type="a:ST\_PositiveCoordinate" use="required"/>
91. </xsd:complexType>
92. <xsd:complexType name="CT\_SpotLight">
93. <xsd:sequence>
94. <xsd:element name="clr" type="a:CT\_Color" minOccurs="1" maxOccurs="1"/>
95. <xsd:element name="intensity" type="CT\_PositiveRatio" minOccurs="1" maxOccurs="1"/>
96. <xsd:element name="pos" type="a:CT\_Point3D" minOccurs="1" maxOccurs="1"/>
97. <xsd:element name="lookAt" type="a:CT\_Point3D" minOccurs="1" maxOccurs="1"/>
98. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
99. </xsd:sequence>
100. <xsd:attribute name="enabled" type="xsd:boolean" use="optional" default="true"/>
101. <xsd:attribute name="rad" type="a:ST\_PositiveCoordinate" use="required"/>
102. <xsd:attribute name="spotAng" type="a:ST\_FOVAngle" use="required"/>
103. </xsd:complexType>
104. <xsd:simpleType name="ST\_AngularRadius">
105. <xsd:restriction base="a:ST\_Angle">
106. <xsd:minInclusive value="0"/>
107. <xsd:maxInclusive value="5400000"/>
108. </xsd:restriction>
109. </xsd:simpleType>
110. <xsd:complexType name="CT\_DirectionalLight">
111. <xsd:sequence>
112. <xsd:element name="clr" type="a:CT\_Color" minOccurs="1" maxOccurs="1"/>
113. <xsd:element name="illuminance" type="CT\_PositiveRatio" minOccurs="1" maxOccurs="1"/>
114. <xsd:element name="pos" type="a:CT\_Point3D" minOccurs="1" maxOccurs="1"/>
115. <xsd:element name="lookAt" type="a:CT\_Point3D" minOccurs="1" maxOccurs="1"/>
116. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
117. </xsd:sequence>
118. <xsd:attribute name="enabled" type="xsd:boolean" use="optional" default="true"/>
119. <xsd:attribute name="angularRad" type="ST\_AngularRadius" use="required"/>
120. </xsd:complexType>
121. <xsd:complexType name="CT\_UnknownLight"/>
122. <xsd:complexType name="CT\_Model3D">
123. <xsd:sequence>
124. <xsd:element name="spPr" type="a:CT\_ShapeProperties" minOccurs="1" maxOccurs="1"/>
125. <xsd:element name="camera" type="CT\_Model3DCamera" minOccurs="1" maxOccurs="1"/>
126. <xsd:element name="trans" type="CT\_Model3DTransform" minOccurs="1" maxOccurs="1"/>
127. <xsd:element name="attrSrcUrl" type="a1611:CT\_PictureAttributionSourceURL" minOccurs="0" maxOccurs="1"/>
128. <xsd:element name="raster" type="CT\_Model3DRaster" minOccurs="0" maxOccurs="1"/>
129. <xsd:element name="extLst" type="a:CT\_OfficeArtExtensionList" minOccurs="0" maxOccurs="1"/>
130. <xsd:choice minOccurs="1" maxOccurs="1">
131. <xsd:element name="objViewport" type="CT\_ObjectViewport"/>
132. <xsd:element name="winViewport" type="CT\_WindowViewport"/>
133. </xsd:choice>
134. <xsd:element name="ambientLight" type="CT\_AmbientLight" minOccurs="0" maxOccurs="1"/>
135. <xsd:choice minOccurs="0" maxOccurs="unbounded">
136. <xsd:element name="ptLight" type="CT\_PointLight"/>
137. <xsd:element name="spotLight" type="CT\_SpotLight"/>
138. <xsd:element name="dirLight" type="CT\_DirectionalLight"/>
139. <xsd:element name="unkLight" type="CT\_UnknownLight"/>
140. </xsd:choice>
141. </xsd:sequence>
142. <xsd:attributeGroup ref="a:AG\_Blob"/>
143. </xsd:complexType>
144. <xsd:element name="model3D" type="CT\_Model3D"/>
145. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2016/12/diagram Schema

1. <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" targetNamespace="http://schemas.microsoft.com/office/drawing/2016/12/diagram" xmlns="http://schemas.microsoft.com/office/drawing/2016/12/diagram" elementFormDefault="qualified" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" xmlns:o="http://oxsdSchemaUri">
2. <xsd:import schemaLocation="oartspproperties.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
3. <xsd:import schemaLocation="oarttx.xsd" namespace="http://schemas.openxmlformats.org/drawingml/2006/main"/>
4. <xsd:element name="spPr" type="a:CT\_ShapeProperties"/>
5. <xsd:element name="lstStyle" type="a:CT\_TextListStyle"/>
6. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2017/03/chart Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/drawing/2017/03/chart" elementFormDefault="qualified" attributeFormDefault="qualified" xmlns="http://schemas.microsoft.com/office/drawing/2017/03/chart" xmlns:c="http://schemas.openxmlformats.org/drawingml/2006/chart" xmlns:xsd="http://www.w3.org/2001/XMLSchema" blockDefault="#all">
2. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/chart" schemaLocation="chart.xsd"/>
3. <xsd:complexType name="CT\_BooleanFalse">
4. <xsd:attribute name="val" type="xsd:boolean" use="optional" default="false"/>
5. </xsd:complexType>
6. <xsd:complexType name="CT\_DataDisplayOptions16">
7. <xsd:sequence>
8. <xsd:element name="dispNaAsBlank" type="CT\_BooleanFalse" minOccurs="0" maxOccurs="1"/>
9. </xsd:sequence>
10. </xsd:complexType>
11. <xsd:element name="dataDisplayOptions16" type="CT\_DataDisplayOptions16"/>
12. </xsd:schema>

## http://schemas.microsoft.com/office/drawing/2017/decorative Schema

1. <xsd:schema targetNamespace="http://schemas.microsoft.com/office/drawing/2017/decorative" xmlns="http://schemas.microsoft.com/office/drawing/2017/decorative" xmlns:a="http://schemas.openxmlformats.org/drawingml/2006/main" elementFormDefault="qualified" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
2. <xsd:import namespace="http://schemas.openxmlformats.org/drawingml/2006/main" schemaLocation="oartbasetypes.xsd"/>
3. <xsd:complexType name="CT\_Decorative">
4. <xsd:attribute name="val" type="xsd:boolean" use="optional"/>
5. </xsd:complexType>
6. <xsd:element name="decorative" type="CT\_Decorative"/>
7. </xsd:schema>

# Appendix B: Product Behavior

The information in this specification is applicable to the following Microsoft products or supplemental software. References to product versions include updates to those products.

* The 2007 Microsoft Office system
* Microsoft Office 2010 suites
* Microsoft Office 2013
* Microsoft Office Online
* Microsoft Office 2016

Exceptions, if any, are noted in this section. If an update version, service pack or Knowledge Base (KB) number appears with a product name, the behavior changed in that update. The new behavior also applies to subsequent updates unless otherwise specified. If a product edition appears with the product version, behavior is different in that product edition.

Unless otherwise specified, any statement of optional behavior in this specification that is prescribed using the terms "SHOULD" or "SHOULD NOT" implies product behavior in accordance with the SHOULD or SHOULD NOT prescription. Unless otherwise specified, the term "MAY" implies that the product does not follow the prescription.

[<1> Section 2.1.1](#Appendix_A_Target_1): This part is available only in Office 2013.

[<2> Section 2.1.2](#Appendix_A_Target_2): This part is available only in Office 2013.

[<3> Section 2.1.3](#Appendix_A_Target_3): The Diagram Layout extension is also present in Microsoft Office 2007 Service Pack 2 (SP2).

[<4> Section 2.2.1](#Appendix_A_Target_4): This extension is available only in Office 2013.

[<5> Section 2.2.1](#Appendix_A_Target_5): This extension is available only in Office 2013.

[<6> Section 2.2.1](#Appendix_A_Target_6): This extension is available only in Office 2013.

[<7> Section 2.2.1](#Appendix_A_Target_7): This extension is available only in Office 2013.

[<8> Section 2.2.1](#Appendix_A_Target_8): This extension is available in Office 2013 and Office 2016.

[<9> Section 2.2.1](#Appendix_A_Target_9): This extension is available only in Office 2013.

[<10> Section 2.2.1](#Appendix_A_Target_10): This extension is available only in Office 2016.

[<11> Section 2.2.1.1](#Appendix_A_Target_11): This extension is available only in Office 2013.

[<12> Section 2.2.1.1](#Appendix_A_Target_12): This extension is available only in Office 2013.

[<13> Section 2.2.1.1](#Appendix_A_Target_13): This extension is available only in Office 2013.

[<14> Section 2.2.1.1](#Appendix_A_Target_14): This extension is available only in Office 2013.

[<15> Section 2.2.1.1](#Appendix_A_Target_15): This extension is available only in Office 2013.

[<16> Section 2.2.1.1](#Appendix_A_Target_16): This extension is available only in Office 2013.

[<17> Section 2.2.1.1](#Appendix_A_Target_17): This extension is available only in Office 2013.

[<18> Section 2.2.1.1](#Appendix_A_Target_18): This extension is available only in Office 2013.

[<19> Section 2.2.1.1](#Appendix_A_Target_19): This extension is available only in Office 2013.

[<20> Section 2.2.1.1](#Appendix_A_Target_20): This extension is available only in Office 2013.

[<21> Section 2.2.1.1](#Appendix_A_Target_21): This extension is available only in Office 2013.

[<22> Section 2.2.1.1](#Appendix_A_Target_22): This extension is available only in Office 2013.

[<23> Section 2.2.1.1](#Appendix_A_Target_23): This extension is available only in Office 2013.

[<24> Section 2.2.1.1](#Appendix_A_Target_24): This extension is available only in Office 2013.

[<25> Section 2.2.1.1](#Appendix_A_Target_25): This extension is available only in Office 2013.

[<26> Section 2.2.1.1](#Appendix_A_Target_26): This extension is available only in Office 2013.

[<27> Section 2.2.1.1](#Appendix_A_Target_27): This extension is available only in Office 2013.

[<28> Section 2.2.1.1](#Appendix_A_Target_28): This extension is available only in Office 2013.

[<29> Section 2.2.1.1](#Appendix_A_Target_29): This extension is available only in Office 2013.

[<30> Section 2.2.1.1](#Appendix_A_Target_30): This extension is available only in Office 2013.

[<31> Section 2.2.1.1](#Appendix_A_Target_31): This extension is available only in Office 2013.

[<32> Section 2.2.1.1](#Appendix_A_Target_32): This extension is available only in Office 2013.

[<33> Section 2.2.1.2](#Appendix_A_Target_33): This extension is available only in Office 2013.

[<34> Section 2.2.1.3](#Appendix_A_Target_34): This extension is available only in Office 2013.

[<35> Section 2.2.4.3](#Appendix_A_Target_35): This extension is available in Office 2010, Office 2013 and Office 2016.

[<36> Section 2.2.7.1](#Appendix_A_Target_36): This integration is available only in Office 2013.

[<37> Section 2.2.7.2](#Appendix_A_Target_37): This integration is available only in Office 2013.

[<38> Section 2.2.9.1](#Appendix_A_Target_38): This integration is available only in Office 2013.

[<39> Section 2.2.9.2](#Appendix_A_Target_39): This integration is available only in Office 2013.

[<40> Section 2.2.10](#Appendix_A_Target_40): This extension is available only in Office Online.

[<41> Section 2.2.10](#Appendix_A_Target_41): This extension is available only in Office Online.

[<42> Section 2.3.1.2](#Appendix_A_Target_42): Microsoft Excel 2010 does not delete this shape when loading.

[<43> Section 2.5.3.1](#Appendix_A_Target_43): Office 2010 requires that the **macro** attribute follow the same grammar as name references ([[ISO/IEC29500-1:2016]](https://go.microsoft.com/fwlink/?linkid=861065) section M.2.16.6), with a minimum length of zero characters and a maximum length of 256 characters.

[<44> Section 2.6.1.1](#Appendix_A_Target_44): This element is available only in Office 2013.

[<45> Section 2.6.1.2](#Appendix_A_Target_45): This element is available only in Office 2013.

[<46> Section 2.6.1.3](#Appendix_A_Target_46): This element is available only in Office 2013.

[<47> Section 2.6.1.4](#Appendix_A_Target_47): This element is available only in Office 2013.

[<48> Section 2.6.1.5](#Appendix_A_Target_48): This element is available only in Office 2013.

[<49> Section 2.6.1.6](#Appendix_A_Target_49): This element is available only in Office 2013.

[<50> Section 2.6.1.7](#Appendix_A_Target_50): This element is available only in Office 2013.

[<51> Section 2.6.1.8](#Appendix_A_Target_51): This element is available only in Office 2013.

[<52> Section 2.6.1.9](#Appendix_A_Target_52): This element is available only in Office 2013.

[<53> Section 2.6.1.10](#Appendix_A_Target_53): This element is available only in Office 2013.

[<54> Section 2.6.1.11](#Appendix_A_Target_54): This element is available only in Office 2013.

[<55> Section 2.6.1.12](#Appendix_A_Target_55): This element is available only in Office 2013.

[<56> Section 2.6.1.13](#Appendix_A_Target_56): This element is available only in Office 2013.

[<57> Section 2.6.1.14](#Appendix_A_Target_57): This element is available only in Office 2013.

[<58> Section 2.6.1.16](#Appendix_A_Target_58): This element is available only in Office 2013.

[<59> Section 2.6.1.17](#Appendix_A_Target_59): This element is available only in Office 2013.

[<60> Section 2.6.1.18](#Appendix_A_Target_60): This element is available only in Office 2013.

[<61> Section 2.6.1.19](#Appendix_A_Target_61): This element is available only in Office 2013.

[<62> Section 2.6.1.20](#Appendix_A_Target_62): This element is available only in Office 2013.

[<63> Section 2.6.1.21](#Appendix_A_Target_63): This element is available only in Office 2013.

[<64> Section 2.6.1.22](#Appendix_A_Target_64): This element is available only in Office 2013.

[<65> Section 2.6.1.23](#Appendix_A_Target_65): This element is available only in Office 2013.

[<66> Section 2.6.1.24](#Appendix_A_Target_66): This element is available only in Office 2013.

[<67> Section 2.6.1.25](#Appendix_A_Target_67): This element is available only in Office 2013.

[<68> Section 2.6.1.26](#Appendix_A_Target_68): This element is available only in Office 2013.

[<69> Section 2.6.3.1](#Appendix_A_Target_69): This complex type is available only in Office 2013.

[<70> Section 2.6.3.2](#Appendix_A_Target_70): This type is available only in Office 2013.

[<71> Section 2.6.3.3](#Appendix_A_Target_71): This complex type is available only in Office 2013.

[<72> Section 2.6.3.4](#Appendix_A_Target_72): This complex type is available only in Office 2013.

[<73> Section 2.6.3.5](#Appendix_A_Target_73): This type is available only in Office 2013.

[<74> Section 2.6.3.6](#Appendix_A_Target_74): This type is available only in Office 2013.

[<75> Section 2.6.3.7](#Appendix_A_Target_75): This type is available only in Office 2013.

[<76> Section 2.6.3.8](#Appendix_A_Target_76): This type is available only in Office 2013.

[<77> Section 2.6.3.9](#Appendix_A_Target_77): This type is available only in Office 2013.

[<78> Section 2.6.3.10](#Appendix_A_Target_78): This type is available only in Office 2013.

[<79> Section 2.6.3.11](#Appendix_A_Target_79): This type is available only in Office 2013.

[<80> Section 2.6.3.12](#Appendix_A_Target_80): This type is available only in Office 2013.

[<81> Section 2.6.3.13](#Appendix_A_Target_81): This type is available only in Office 2013.

[<82> Section 2.6.3.14](#Appendix_A_Target_82): This type is available only in Office 2013.

[<83> Section 2.6.3.15](#Appendix_A_Target_83): This complex type is available only in Office 2013.

[<84> Section 2.6.3.16](#Appendix_A_Target_84): This complex type is available only in Office 2013.

[<85> Section 2.6.3.17](#Appendix_A_Target_85): This complex type is available only in Office 2013.

[<86> Section 2.6.3.18](#Appendix_A_Target_86): This complex type is available only in Office 2013.

[<87> Section 2.7.3.5](#Appendix_A_Target_87): Microsoft Office Excel 2007 does not ignore the **CT\_Style** element([[ISO/IEC29500-4:2016]](https://go.microsoft.com/fwlink/?linkid=861068) section A.5.1).

[<88> Section 2.8.1.1](#Appendix_A_Target_88): This element is available only in Office 2013.

[<89> Section 2.8.1.2](#Appendix_A_Target_89): This element is available only in Office 2013.

[<90> Section 2.8.3.1](#Appendix_A_Target_90): This type is available only in Office 2013.

[<91> Section 2.8.3.2](#Appendix_A_Target_91): This type is available only in Office 2013.

[<92> Section 2.8.3.3](#Appendix_A_Target_92): This type is available only in Office 2013.

[<93> Section 2.8.3.4](#Appendix_A_Target_93): This type is available only in Office 2013.

[<94> Section 2.8.3.5](#Appendix_A_Target_94): This type is available only in Office 2013.

[<95> Section 2.8.3.6](#Appendix_A_Target_95): This type is available only in Office 2013.

[<96> Section 2.8.3.7](#Appendix_A_Target_96): This type is available only in Office 2013.

[<97> Section 2.8.3.8](#Appendix_A_Target_97): This type is available only in Office 2013.

[<98> Section 2.8.4.1](#Appendix_A_Target_98): This type is available only in Office 2013.

[<99> Section 2.8.4.2](#Appendix_A_Target_99): This type is available only in Office 2013.

[<100> Section 2.8.4.3](#Appendix_A_Target_100): This type is available only in Office 2013.

[<101> Section 2.8.4.4](#Appendix_A_Target_101): This type is available only in Office 2013.

[<102> Section 2.8.4.5](#Appendix_A_Target_102): This type is available only in Office 2013.

[<103> Section 2.8.4.6](#Appendix_A_Target_103): This type is available only in Office 2013.

[<104> Section 2.8.4.7](#Appendix_A_Target_104): This type is available only in Office 2013.

[<105> Section 2.8.4.8](#Appendix_A_Target_105): This type is available only in Office 2013.

[<106> Section 2.8.4.9](#Appendix_A_Target_106): This type is available only in Office 2013.

[<107> Section 2.8.4.10](#Appendix_A_Target_107): This type is available only in Office 2013.

[<108> Section 2.8.4.11](#Appendix_A_Target_108): This type is available only in Office 2013.

[<109> Section 2.8.4.12](#Appendix_A_Target_109): This type is available only in Office 2013.

[<110> Section 2.9.1.1](#Appendix_A_Target_110): **CT\_NonVisualDrawingProps** ([ISO/IEC29500-1:2016] section A.4.1) contains attributes **id** and **hidden**, which are ignored by Office 2010 for diagram shapes.

[<111> Section 2.12.1.1](#Appendix_A_Target_111): This element is available only in Office 2013.

[<112> Section 2.12.1.2](#Appendix_A_Target_112): This element is available only in Office 2013.

[<113> Section 2.12.1.3](#Appendix_A_Target_113): This element is available only in Office 2013.

[<114> Section 2.12.1.4](#Appendix_A_Target_114): This element is available only in Office 2013.

[<115> Section 2.12.3.1](#Appendix_A_Target_115): This type is available only in Office 2013.

[<116> Section 2.12.3.2](#Appendix_A_Target_116): This type is available only in Office 2013.

[<117> Section 2.12.3.3](#Appendix_A_Target_117): This type is available only in Office 2013.

[<118> Section 2.12.3.4](#Appendix_A_Target_118): This type is available only in Office 2013.

[<119> Section 2.12.4.1](#Appendix_A_Target_119): This type is available only in Office 2013.

[<120> Section 2.13.3.3](#Appendix_A_Target_120): In Microsoft Word 2010 a **CT\_WordprocessingShape** that is directly contained by a **wpc** element and does not have a **cNvPr** child element.

[<121> Section 2.13.3.3](#Appendix_A_Target_121): In Word 2010, the **spPr** element is required to have either a **custGeom** element ([ISO/IEC29500-1:2016] section 20.1.9.8) or a **prstGeom** element ([ISO/IEC29500-1:2016] section 20.1.9.18) as a child element.

[<122> Section 2.16.3.2](#Appendix_A_Target_122): In Microsoft Word 2010, an instantiation of the **scene3D** element ([ISO/IEC29500-1:2016] section 20.1.4.1.26) in an outer group takes precedence over **scene3D** instantiated in any inner shapes or groups.

[<123> Section 2.16.3.2](#Appendix_A_Target_123): Word 2010 does not support this child element on a **CT\_WordprocessingGroup** if the group contains a **CT\_WordprocessingCanvas** as an ancestor.

[<124> Section 2.17.3.1](#Appendix_A_Target_124): Word 2010 does not support this child element on a **CT\_WordprocessingCanvas**.

[<125> Section 2.18.3.1](#Appendix_A_Target_125): Word 2010 supports only positive values for this element.

[<126> Section 2.18.3.2](#Appendix_A_Target_126): Word 2010 supports only positive values for this element.

[<127> Section 2.20.3.1](#Appendix_A_Target_127): Office 2010 requires that the **macro** attribute follow the same grammar as name references ([ISO/IEC29500-1:2016] section M.2.16.6), with a minimum length of zero characters and a maximum length of 256 characters.

[<128> Section 2.21.1.1](#Appendix_A_Target_128): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<129> Section 2.21.3.1](#Appendix_A_Target_129): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<130> Section 2.21.3.1](#Appendix_A_Target_130): This element is available only in February 10, 2015 update for PowerPoint 2013.

[<131> Section 2.21.3.1](#Appendix_A_Target_131): This element is available only in February 10, 2015 update for PowerPoint 2013.

[<132> Section 2.21.3.1](#Appendix_A_Target_132): This element is available only in February 10, 2015 update for PowerPoint 2013.

[<133> Section 2.21.3.1](#Appendix_A_Target_133): This attribute is available only in February 10, 2015 update for PowerPoint 2013.

[<134> Section 2.21.3.1](#Appendix_A_Target_134): This attribute is available only in February 10, 2015 update for PowerPoint 2013.

[<135> Section 2.21.3.1](#Appendix_A_Target_135): This attribute is available only in February 10, 2015 update for PowerPoint 2013.

[<136> Section 2.21.3.2](#Appendix_A_Target_136): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<137> Section 2.21.3.2](#Appendix_A_Target_137): This element is available only in February 10, 2015 update for PowerPoint 2013.

[<138> Section 2.21.3.2](#Appendix_A_Target_138): This element is available only in February 10, 2015 update for PowerPoint 2013.

[<139> Section 2.21.3.2](#Appendix_A_Target_139): This element is available only in February 10, 2015 update for PowerPoint 2013.

[<140> Section 2.21.3.2](#Appendix_A_Target_140): This attribute is available only in February 10, 2015 update for PowerPoint 2013.

[<141> Section 2.21.3.2](#Appendix_A_Target_141): This attribute is available only in February 10, 2015 update for PowerPoint 2013.

[<142> Section 2.21.3.2](#Appendix_A_Target_142): This attribute is available only in February 10, 2015 update for PowerPoint 2013.

[<143> Section 2.21.3.3](#Appendix_A_Target_143): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<144> Section 2.21.3.3](#Appendix_A_Target_144): This element is available only in February 10, 2015 update for PowerPoint 2013.

[<145> Section 2.21.3.3](#Appendix_A_Target_145): This attribute is available only in February 10, 2015 update for PowerPoint 2013.

[<146> Section 2.21.3.3](#Appendix_A_Target_146): This attribute is available only in February 10, 2015 update for PowerPoint 2013.

[<147> Section 2.21.3.4](#Appendix_A_Target_147): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<148> Section 2.21.3.4](#Appendix_A_Target_148): This element is available only in February 10, 2015 update for PowerPoint 2013.

[<149> Section 2.21.3.4](#Appendix_A_Target_149): This attribute is available only in February 10, 2015 update for PowerPoint 2013.

[<150> Section 2.21.3.4](#Appendix_A_Target_150): This attribute is available only in February 10, 2015 update for PowerPoint 2013.

[<151> Section 2.21.3.5](#Appendix_A_Target_151): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<152> Section 2.21.3.5](#Appendix_A_Target_152): This attribute is available only in February 10, 2015 update for PowerPoint 2013.

[<153> Section 2.21.3.5](#Appendix_A_Target_153): This attribute is available only in February 10, 2015 update for PowerPoint 2013.

[<154> Section 2.21.3.6](#Appendix_A_Target_154): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<155> Section 2.21.3.6](#Appendix_A_Target_155): This element is available only in February 10, 2015 update for PowerPoint 2013.

[<156> Section 2.21.3.6](#Appendix_A_Target_156): This element is available only in February 10, 2015 update for PowerPoint 2013.

[<157> Section 2.21.3.6](#Appendix_A_Target_157): This element is available only in February 10, 2015 update for PowerPoint 2013.

[<158> Section 2.21.3.6](#Appendix_A_Target_158): This attribute is available only in February 10, 2015 update for PowerPoint 2013.

[<159> Section 2.21.3.6](#Appendix_A_Target_159): This attribute is available only in February 10, 2015 update for PowerPoint 2013.

[<160> Section 2.21.3.6](#Appendix_A_Target_160): This attribute is available only in February 10, 2015 update for PowerPoint 2013.

[<161> Section 2.21.4.1](#Appendix_A_Target_161): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<162> Section 2.21.4.2](#Appendix_A_Target_162): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<163> Section 2.21.4.3](#Appendix_A_Target_163): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<164> Section 2.21.4.4](#Appendix_A_Target_164): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<165> Section 2.21.4.5](#Appendix_A_Target_165): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<166> Section 2.21.4.6](#Appendix_A_Target_166): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<167> Section 2.21.4.7](#Appendix_A_Target_167): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<168> Section 2.21.4.8](#Appendix_A_Target_168): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<169> Section 2.21.4.9](#Appendix_A_Target_169): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<170> Section 2.21.4.10](#Appendix_A_Target_170): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<171> Section 2.21.4.11](#Appendix_A_Target_171): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<172> Section 2.21.4.12](#Appendix_A_Target_172): This type is available only in February 10, 2015 update for PowerPoint 2013.

[<173> Section 2.22.1.1](#Appendix_A_Target_173): This element is available only in Office 2016.

[<174> Section 2.22.1.2](#Appendix_A_Target_174): This element is available only in Office 2016.

[<175> Section 2.22.1.3](#Appendix_A_Target_175): This element is available only in Office 2016.

[<176> Section 2.22.1.4](#Appendix_A_Target_176): This element is available only in Office 2016.

[<177> Section 2.22.1.5](#Appendix_A_Target_177): This element is available only in Office 2016.

[<178> Section 2.22.1.6](#Appendix_A_Target_178): This element is available only in Office 2016.

[<179> Section 2.22.1.7](#Appendix_A_Target_179): This element is available only in Office 2016.

[<180> Section 2.22.1.8](#Appendix_A_Target_180): This element is available only in Office 2016.

[<181> Section 2.22.1.9](#Appendix_A_Target_181): This element is available only in Office 2016.

[<182> Section 2.22.3.1](#Appendix_A_Target_182): This complex type is available only in Office 2016.

[<183> Section 2.22.3.1](#Appendix_A_Target_183): This attribute is available only in Office 2016.

[<184> Section 2.22.3.2](#Appendix_A_Target_184): This complex type is available only in Office 2016.

[<185> Section 2.22.3.2](#Appendix_A_Target_185): This element is available only in Office 2016.

[<186> Section 2.22.3.2](#Appendix_A_Target_186): This element is available only in Office 2016.

[<187> Section 2.22.3.2](#Appendix_A_Target_187): This element is available only in Office 2016.

[<188> Section 2.22.3.2](#Appendix_A_Target_188): This element is available only in Office 2016.

[<189> Section 2.22.3.2](#Appendix_A_Target_189): This element is available only in Office 2016.

[<190> Section 2.22.3.2](#Appendix_A_Target_190): This element is available only in Office 2016.

[<191> Section 2.22.3.2](#Appendix_A_Target_191): This element is available only in Office 2016.

[<192> Section 2.22.3.3](#Appendix_A_Target_192): This complex type is available only in Office 2016.

[<193> Section 2.22.3.3](#Appendix_A_Target_193): This element is available only in Office 2016.

[<194> Section 2.22.3.4](#Appendix_A_Target_194): This complex type is available only in Office 2016.

[<195> Section 2.22.3.4](#Appendix_A_Target_195): This element is available only in Office 2016.

[<196> Section 2.22.3.5](#Appendix_A_Target_196): This complex type is available only in Office 2016.

[<197> Section 2.22.3.5](#Appendix_A_Target_197): This element is available only in Office 2016.

[<198> Section 2.22.3.5](#Appendix_A_Target_198): This element is available only in Office 2016.

[<199> Section 2.22.3.6](#Appendix_A_Target_199): This complex type is available only in Office 2016.

[<200> Section 2.22.3.6](#Appendix_A_Target_200): This attribute is available only in Office 2016.

[<201> Section 2.22.3.7](#Appendix_A_Target_201): This complex type is available only in Office 2016.

[<202> Section 2.22.3.7](#Appendix_A_Target_202): In Office 2016, when a chart with this flag is loaded, a temporary embedded Microsoft Excel 2016 workbook is created to store the literal data and create a substitute connection with Excel 2016.

[<203> Section 2.22.3.7](#Appendix_A_Target_203): This attribute is available only in Office 2016.

[<204> Section 2.22.3.8](#Appendix_A_Target_204): This complex type is available only in Office 2016.

[<205> Section 2.22.3.8](#Appendix_A_Target_205): This element is available only in Office 2016.

[<206> Section 2.22.3.9](#Appendix_A_Target_206): This complex type is available only in Office 2016.

[<207> Section 2.22.3.9](#Appendix_A_Target_207): This element is available only in Office 2016.

[<208> Section 2.22.3.10](#Appendix_A_Target_208): This complex type is available only in Office 2016.

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# Change Tracking

This section identifies changes that were made to this document since the last release. Changes are classified as Major, Minor, or None.

The revision class **Major** means that the technical content in the document was significantly revised. Major changes affect protocol interoperability or implementation. Examples of major changes are:

* A document revision that incorporates changes to interoperability requirements.
* A document revision that captures changes to protocol functionality.

The revision class **Minor** means that the meaning of the technical content was clarified. Minor changes do not affect protocol interoperability or implementation. Examples of minor changes are updates to clarify ambiguity at the sentence, paragraph, or table level.

The revision class **None** means that no new technical changes were introduced. Minor editorial and formatting changes may have been made, but the relevant technical content is identical to the last released version.

The changes made to this document are listed in the following table. For more information, please contact [dochelp@microsoft.com](mailto:dochelp@microsoft.com).

| Section | Description | Revision class |
| --- | --- | --- |
| [2.1.4](#Section_096dacae0d2c4861bc4dc8e4c6405ad3) Ink Content Part | Moved the product behavior note for id attribute of emma:interpretation element to it definition section. | Minor |
| [2.34.2](#Section_d9b5faf0c0154ec0a741bef311417148) Attributes | Added new section for attributes. | Major |
| [2.34.3](#Section_971aaecf93e34448871db1c20904d1df) Complex Types | Added new section for complex types. | Major |
| [2.34.3.1](#Section_1c5cfa5e004248e3ba412cc88fcc0266) CT\_Decorative | Added new section for this complex type. | Major |
| [2.34.4](#Section_67733182bdc342f7a3696690d5be32e3) Simple Types | Added new section for simple types. | Major |

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