

[MS-PWVRSC]:

PowerPoint Web Viewer Rendered Static Content Structure

Intellectual Property Rights Notice for Open Specifications Documentation

- **Technical Documentation.** Microsoft publishes Open Specifications documentation (“this documentation”) for protocols, file formats, data portability, computer languages, and standards support. Additionally, overview documents cover inter-protocol relationships and interactions.
- **Copyrights.** This documentation is covered by Microsoft copyrights. Regardless of any other terms that are contained in the terms of use for the Microsoft website that hosts this documentation, you can make copies of it in order to develop implementations of the technologies that are described in this documentation and can distribute portions of it in your implementations that use these technologies or in your documentation as necessary to properly document the implementation. You can also distribute in your implementation, with or without modification, any schemas, IDLs, or code samples that are included in the documentation. This permission also applies to any documents that are referenced in the Open Specifications documentation.
- **No Trade Secrets.** Microsoft does not claim any trade secret rights in this documentation.
- **Patents.** Microsoft has patents that might cover your implementations of the technologies described in the Open Specifications documentation. Neither this notice nor Microsoft's delivery of this documentation grants any licenses under those patents or any other Microsoft patents. However, a given Open Specifications document might be covered by the Microsoft [Open Specifications Promise](#) or the [Microsoft Community Promise](#). If you would prefer a written license, or if the technologies described in this documentation are not covered by the Open Specifications Promise or Community Promise, as applicable, patent licenses are available by contacting iplg@microsoft.com.
- **Trademarks.** The names of companies and products contained in this documentation might be covered by trademarks or similar intellectual property rights. This notice does not grant any licenses under those rights. For a list of Microsoft trademarks, visit www.microsoft.com/trademarks.
- **Fictitious Names.** The example companies, organizations, products, domain names, email addresses, logos, people, places, and events that are depicted in this documentation are fictitious. No association with any real company, organization, product, domain name, email address, logo, person, place, or event is intended or should be inferred.

Reservation of Rights. All other rights are reserved, and this notice does not grant any rights other than as specifically described above, whether by implication, estoppel, or otherwise.

Tools. The Open Specifications documentation does not require the use of Microsoft programming tools or programming environments in order for you to develop an implementation. If you have access to Microsoft programming tools and environments, you are free to take advantage of them. Certain Open Specifications documents are intended for use in conjunction with publicly available standards specifications and network programming art and, as such, assume that the reader either is familiar with the aforementioned material or has immediate access to it.

Revision Summary

Date	Revision History	Revision Class	Comments
7/13/2009	0.1	Major	Initial Availability
8/28/2009	0.2	Editorial	Revised and edited 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	1.05	Minor	Clarified the meaning of the technical content.
9/27/2010	1.05	None	No changes to the meaning, language, or formatting of the technical content.
11/15/2010	1.05	None	No changes to the meaning, language, or formatting of the technical content.
12/17/2010	1.05	None	No changes to the meaning, language, or formatting of the technical content.
3/18/2011	1.05	None	No changes to the meaning, language, or formatting of the technical content.
6/10/2011	1.05	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	2.1	Minor	Clarified the meaning of the technical content.
10/8/2012	2.1	None	No changes to the meaning, language, or formatting of the technical content.
2/11/2013	2.1	None	No changes to the meaning, language, or formatting of the technical content.
7/30/2013	2.1	None	No changes to the meaning, language, or formatting of the technical content.
11/18/2013	2.1	None	No changes to the meaning, language, or formatting of the technical content.
2/10/2014	2.1	None	No changes to the meaning, language, or formatting of the technical content.
4/30/2014	2.2	Minor	Clarified the meaning of the technical content.
7/31/2014	2.2	None	No changes to the meaning, language, or formatting of the technical content.

Date	Revision History	Revision Class	Comments
10/30/2014	2.2	None	No changes to the meaning, language, or formatting of the technical content.
6/23/2016	2.2	None	No changes to the meaning, language, or formatting of the technical content.

Table of Contents

1	Introduction	6
1.1	Glossary	6
1.2	References	6
1.2.1	Normative References	6
1.2.2	Informative References	7
1.3	Structure Overview (Synopsis)	7
1.4	Relationship to Protocols and Other Structures	7
1.5	Applicability Statement	7
1.6	Versioning and Localization	7
1.7	Vendor-Extensible Fields	7
2	Structures	8
2.1	Global Elements	8
2.1.1	mobilePres	8
2.1.2	pres	8
2.1.3	sld	8
2.2	Global Attributes	8
2.3	Complex Types	9
2.3.1	CT_SlideEntry	9
2.3.2	CT_SlideEntryList	10
2.3.3	CT_CustomShow	10
2.3.4	CT_CustomShowList	11
2.3.5	CT_EmptyType	11
2.3.6	CT_IndexRange	12
2.3.7	CT_DocumentProperties	12
2.3.8	CT_ShowProperties	13
2.3.9	CT_Presentation	13
2.3.10	CT_SlideImage	14
2.3.11	CT_SlideInfo	14
2.3.12	CT_MobilePres	15
2.3.13	CT_Paragraph	16
2.3.14	CT_Placeholder	16
2.3.15	CT_ShapeText	17
2.3.16	CT_SlideText	17
2.3.17	CT_Notes	18
2.3.18	CT_Slide	18
2.3.19	CT_ErrorList	19
2.3.20	CT_Error	19
2.4	Simple Types	19
2.4.1	ST_Alignment	20
2.4.2	ST_PlaceholderType	20
2.4.3	ST_ShapeType	21
2.4.4	ST_SlideId	21
3	Structure Examples	22
3.1	Presentation	22
3.2	Slide	23
4	Security Considerations	24
4.1	Security Considerations for Implementers	24
4.2	Index of Security Parameters	24
5	Appendix A: Full XSD Schema	25
5.1	http://schemas.microsoft.com/server/powerpoint/2009/main Schema	25
5.2	http://schemas.microsoft.com/server/powerpoint/2009/mobile Schema	25

6	Appendix B: Product Behavior	28
7	Change Tracking.....	29
8	Index.....	30

1 Introduction

This document specifies the PowerPoint Web Viewer Rendered Static Content Structure, which is used by a protocol server to send presentation content to a protocol client through the Office Mobile PowerPoint Web Handler Protocol [\[MS-OMPWHP\]](#).

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

1.1 Glossary

This document uses the following terms:

horizontal alignment: A formatting setting that specifies how content is positioned within the horizontal space of a cell, object, or page. Content can be aligned along the left or right edge, or distributed evenly across the horizontal space.

horizontal indent: An indent that is used in a cell to adjust cell content horizontally.

notes slide: A slide that contains presentation notes or other information that is not displayed during a slide show. The formatting and content of a notes slide can derive from a notes master slide.

presentation: A collection of slides that are intended to be viewed by an audience.

presentation slide: A slide that contains the content that can be displayed during a slide show. A presentation slide can derive formatting and content from a main master slide or a title master slide.

slide: A frame that contains text, shapes, pictures, or other content. A slide is a digital equivalent to a traditional film slide.

slide show: A delivery of a sequence of presentation slides, typically to an audience.

slide show broadcast: A delivery of a sequence of presentation slides, typically to an audience, as a single session between a protocol server and one or more protocol clients.

Uniform Resource Locator (URL): A string of characters in a standardized format that identifies a document or resource on the World Wide Web. The format is as specified in [\[RFC1738\]](#).

MAY, SHOULD, MUST, SHOULD NOT, MUST NOT: These terms (in all caps) are used as defined in [\[RFC2119\]](#). All statements of optional behavior use either MAY, SHOULD, or SHOULD NOT.

1.2 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](#).

1.2.1 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. We will assist you in finding the relevant information.

[MS-OMPWHP] Microsoft Corporation, "[Office Mobile PowerPoint Web Handler Protocol](#)".

[MS-PWVPDP] Microsoft Corporation, "[PowerPoint Web Viewer Presentation Data Protocol](#)".

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997, <http://www.rfc-editor.org/rfc/rfc2119.txt>

[XMLSCHEMA1] Thompson, H., Beech, D., Maloney, M., and Mendelsohn, N., Eds., "XML Schema Part 1: Structures", W3C Recommendation, May 2001, <http://www.w3.org/TR/2001/REC-xmlschema-1-20010502/>

[XMLSCHEMA2] Biron, P.V., Ed. and Malhotra, A., Ed., "XML Schema Part 2: Datatypes", W3C Recommendation, May 2001, <http://www.w3.org/TR/2001/REC-xmlschema-2-20010502/>

1.2.2 Informative References

None.

1.3 Structure Overview (Synopsis)

A **presentation** consists of **slides**, pictures, and other content. A protocol client can use the Office Mobile PowerPoint Web Handler Protocol [\[MS-OMPWHP\]](#) to request specific pieces of presentation content stored on a protocol server. This structure specifies a set of data types that enable the transfer of such presentation content.

1.4 Relationship to Protocols and Other Structures

This structure is used by the Office Mobile PowerPoint Web Handler Protocol [\[MS-OMPWHP\]](#).

1.5 Applicability Statement

This structure is applicable to the communication described in the Office Mobile PowerPoint Web Handler Protocol [\[MS-OMPWHP\]](#).

1.6 Versioning and Localization

This document covers versioning issues in the following areas:

- **Structure Versions:** This structure specifies the only version of this structure.
- **Localization:** This structure specifies no locale-specific processes or data.

1.7 Vendor-Extensible Fields

None.

2 Structures

2.1 Global Elements

2.1.1 mobilePres

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

A [CT_MobilePres](#) element that specifies information about a presentation.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this element.

```
<xsd:element name="mobilePres" type="CT_MobilePres"/>
```

See section [5.2](#) for the full W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1).

2.1.2 pres

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Reserved. MUST be ignored.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this element.

```
<xsd:element name="pres" type="CT_Presentation"/>
```

See section [5.2](#) for the full W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1).

2.1.3 sld

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

A [CT_Slide](#) element that specifies information about the content of a **presentation slide**.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this element.

```
<xsd:element name="sld" type="CT_Slide"/>
```

See section [5.2](#) for the full W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1).

2.2 Global Attributes

None.

2.3 Complex Types

The following table summarizes the set of common XML Schema complex type definitions defined by this specification. XML Schema complex type definitions that are specific to a particular operation are described with the operation.

Complex type	Description
CT_SlideEntry	A complex type that specifies information about a presentation slide.
CT_SlideEntryList	A complex type that specifies a set of slides as a sequence of CT_SlideEntry elements.
CT_CustomShow	A complex type that specifies a custom show in the presentation.
CT_CustomShowList	A complex type that specifies a set of custom shows as a sequence of CT_CustomShow elements.
CT_EmptyType	A complex type that specifies an empty type. Can be used where no specific element needs to be present.
CT_IndexRange	A complex type that specifies a zero-based index range of a list.
CT_DocumentProperties	A complex type that specifies document-level properties of the presentation.
CT_ShowProperties	A complex type that specifies the presentation slides that will be shown in a slide show .
CT_Presentation	A complex type that specifies information about a presentation.
CT_SlideImage	A complex type that specifies information required to retrieve the image of a presentation slide.
CT_SlideInfo	A complex type that specifies information required to retrieve knowledge about a presentation slide.
CT_MobilePres	A complex type that specifies information about a presentation and information required to retrieve the image and knowledge about a presentation slide.
CT_Paragraph	A complex type that specifies a paragraph with simple format information.
CT_Placeholder	Reserved. MUST be ignored.
CT_ShapeText	Reserved. MUST be ignored.
CT_SlideText	Reserved. MUST be ignored.
CT_Notes	A complex type that specifies the text content of a notes slide .
CT_Slide	A complex type that specifies a presentation slide.

2.3.1 CT_SlideEntry

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT_SlideEntryList](#)

A complex type that specifies information about a presentation slide.

Attributes:

title: An **xsd:string** attribute ([\[XMLSCHEMA2\]](#) section 3.2.1) that specifies the title of the presentation slide.

id: An [ST_SlideId](#) attribute that specifies the unique identifier of the presentation slide.

sldImg: An **xsd:string** attribute ([\[XMLSCHEMA2\]](#) section 3.2.1) that specifies a name that uniquely refers to the image file of the presentation slide.

sldInfo: An **xsd:string** attribute ([\[XMLSCHEMA2\]](#) section 3.2.1) that specifies a name that uniquely refers to detailed information of the presentation slide.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this complex type.

```
<xsd:complexType name="CT_SlideEntry">
  <xsd:attribute name="title" type="xsd:string" use="optional" default=""/>
  <xsd:attribute name="id" type="psv:ST_SlideId" use="required"/>
  <xsd:attribute name="sldImg" type="xsd:string" use="required"/>
  <xsd:attribute name="sldInfo" type="xsd:string" use="required"/>
</xsd:complexType>
```

See section [5.2](#) for the full W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1).

2.3.2 CT_SlideEntryList

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT_Presentation](#)

A complex type that specifies a set of slides as a sequence of [CT_SlideEntry](#) elements.

Child Elements:

sld: An element that specifies a CT_SlideEntry.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this complex type.

```
<xsd:complexType name="CT_SlideEntryList">
  <xsd:sequence>
    <xsd:element name="sld" type="CT_SlideEntry" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
```

See section [5.2](#) for the full W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1).

2.3.3 CT_CustomShow

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT_CustomShowList](#)

A complex type that specifies a custom show in the presentation.

Child Elements:

sld: An [ST_SlideId](#) attribute that specifies the unique identifier of the presentation slide.

Attributes:

name: An **xsd:string** attribute ([\[XMLSCHEMA2\]](#) section 3.2.1) that specifies the name of the custom show.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this complex type.

```
<xsd:complexType name="CT_CustomShow">
  <xsd:sequence>
    <xsd:element name="sld" type="psv:ST_SlideId" minOccurs="1" maxOccurs="unbounded"/>
  </xsd:sequence>
  <xsd:attribute name="name" type="xsd:string" use="required"/>
</xsd:complexType>
```

See section [5.2](#) for the full W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1).

2.3.4 CT_CustomShowList

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT_Presentation](#)

A complex type that specifies a set of custom shows as a sequence of [CT_CustomShow](#) elements.

Child Elements:

custShow: An element that specifies a [CT_CustomShow](#).

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this complex type.

```
<xsd:complexType name="CT_CustomShowList">
  <xsd:sequence>
    <xsd:element name="custShow" type="CT_CustomShow" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
```

See section [5.2](#) for the full W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1).

2.3.5 CT_EmptyType

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT_ShowProperties](#)

A complex type that specifies an empty type. Can be used where no specific element needs to be present.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this complex type.

```
<xsd:complexType name="CT_EmptyType"/>
```

See section [5.2](#) for the full W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1).

2.3.6 CT_IndexRange

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT_ShowProperties](#)

A complex type that specifies a zero-based index range of a list.

Attributes:

st: An **xsd:unsignedInt** attribute ([\[XMLSCHEMA2\]](#) section 3.2.22) that specifies the inclusive start index of the range.

end: An **xsd:unsignedInt** attribute ([\[XMLSCHEMA2\]](#) section 3.2.22) that specifies the non-inclusive end index of the range.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this complex type.

```
<xsd:complexType name="CT_IndexRange">
  <xsd:attribute name="st" type="xsd:unsignedInt" use="required"/>
  <xsd:attribute name="end" type="xsd:unsignedInt" use="required"/>
</xsd:complexType>
```

See section [5.2](#) for the full W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1).

2.3.7 CT_DocumentProperties

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT_Presentation](#)

A complex type that specifies document-level properties of the presentation.

Attributes:

w: An **xsd:unsignedInt** attribute ([\[XMLSCHEMA2\]](#) section 3.3.22) that specifies the width of a presentation in pixels.

h: An **xsd:unsignedInt** attribute ([\[XMLSCHEMA2\]](#) section 3.3.22) that specifies the height of a presentation in pixels.

authr: Reserved. MUST be ignored.

modBy: Reserved. MUST be ignored.

modTm: Reserved. MUST be ignored.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this complex type.

```
<xsd:complexType name="CT_DocumentProperties">
  <xsd:attribute name="w" type="xsd:unsignedInt" use="required"/>
  <xsd:attribute name="h" type="xsd:unsignedInt" use="required"/>
  <xsd:attribute name="authr" type="xsd:string" use="optional" default=""/>
  <xsd:attribute name="modBy" type="xsd:string" use="optional" default=""/>
  <xsd:attribute name="modTm" type="xsd:string" use="optional" default=""/>
</xsd:complexType>
```

See section [5.2](#) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

2.3.8 CT_ShowProperties

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT Presentation](#)

A complex type that specifies the presentation slides that will be shown in a slide show.

Child Elements:

sldAll: A [CT_EmptyType](#) element that specifies that all the slides will be shown.

sldRg: A [CT_IndexRange](#) element that specifies the range of presentation slides that will be shown. The range MUST be contained within the range of the presentation.

custShow: An **xsd:string** ([XMLSCHEMA2] section 3.2.1) that specifies the name of a custom show. Only presentation slides in the corresponding custom show will be shown. All presentation slides within the custom show MUST be within the presentation.

The following W3C XML Schema ([XMLSCHEMA1] section 2.1) fragment specifies the contents of this complex type.

```
<xsd:complexType name="CT_ShowProperties">
  <xsd:choice minOccurs="1" maxOccurs="1">
    <xsd:element name="sldAll" type="CT_EmptyType"/>
    <xsd:element name="sldRg" type="CT_IndexRange"/>
    <xsd:element name="custShow" type="xsd:string"/>
  </xsd:choice>
</xsd:complexType>
```

See section [5.2](#) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

2.3.9 CT_Presentation

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT MobilePres](#), [pres](#)

A complex type that specifies information about a presentation.

Child Elements:

docPr: A [CT_DocumentProperties](#) element that specifies the document level properties of the presentation.

sldLst: A [CT_SlideEntryList](#) element that specifies a list of slide entries.

showLst: A [CT_CustomShowList](#) element that specifies the custom shows present in the presentation.

showPr: A [CT_ShowProperties](#) element that specifies the presentation slides that will be shown. If this element is not present, all the presentation slides will be shown.

Attributes:

ver: An **xsd:unsignedInt** attribute ([XMLSCHEMA2] section 3.3.22) that specifies the schema version of the presentation.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this complex type.

```
<xsd:complexType name="CT_Presentation">
  <xsd:sequence>
    <xsd:element name="docPr" type="CT_DocumentProperties" minOccurs="1" maxOccurs="1"/>
    <xsd:element name="sldLst" type="CT_SlideEntryList" minOccurs="1" maxOccurs="1"/>
    <xsd:element name="showLst" type="CT_CustomShowList" minOccurs="0" maxOccurs="1"/>
    <xsd:element name="showPr" type="CT_ShowProperties" minOccurs="0" maxOccurs="1"/>
  </xsd:sequence>
  <xsd:attribute name="ver" type="xsd:unsignedInt" use="required"/>
</xsd:complexType>
```

See section [5.2](#) for the full W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1).

2.3.10 CT_SlideImage

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT_MobilePres](#)

A complex type that specifies information required to retrieve the image of a presentation slide.

Attributes:

url: An **xsd:string** attribute ([\[XMLSCHEMA2\]](#) section 3.2.1) that specifies the relative path to the **URL** which serves presentation slide images. This URL MUST conform to [\[MS-OMPWHP\]](#) section 3.1.4.3.

image: An **xsd:string** attribute ([\[XMLSCHEMA2\]](#) section 3.2.1) that specifies the parameter which defines the presentation slide for which image is requested.

width: An **xsd:string** attribute ([\[XMLSCHEMA2\]](#) section 3.2.1) that specifies the parameter which defines the width of the image requested.

height: An **xsd:string** attribute ([\[XMLSCHEMA2\]](#) section 3.2.1) that specifies the parameter which defines the height of the image requested.

format: An **xsd:string** attribute ([\[XMLSCHEMA2\]](#) section 3.2.1) that specifies the parameter which defines the format of the image requested.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this complex type.

```
<xsd:complexType name="CT_SlideImage">
  <xsd:attribute name="url" type="xsd:string" use="required"/>
  <xsd:attribute name="image" type="xsd:string" use="required"/>
  <xsd:attribute name="width" type="xsd:string" use="required"/>
  <xsd:attribute name="height" type="xsd:string" use="required"/>
  <xsd:attribute name="format" type="xsd:string" use="required"/>
</xsd:complexType>
```

See section [5.2](#) for the full W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1).

2.3.11 CT_SlideInfo

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT_MobilePres](#)

A complex type that specifies information required to retrieve detailed information about a presentation slide.

Attributes:

url: An **xsd:string** attribute ([\[XMLSCHEMA2\]](#) section 3.2.1) that specifies the relative path of the URL which serves information about a presentation slide. This URL MUST conform to [\[MS-OMPWHP\]](#) section 3.1.4.2.

info: An **xsd:string** attribute ([\[XMLSCHEMA2\]](#) section 3.2.1) that specifies the parameter which defines the presentation slide for which information is requested.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this complex type.

```
<xsd:complexType name="CT_SlideInfo">
  <xsd:attribute name="url" type="xsd:string" use="required"/>
  <xsd:attribute name="info" type="xsd:string" use="required"/>
</xsd:complexType>
```

See section [5.2](#) for the full W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1).

2.3.12 CT_MobilePres

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [mobilePres](#)

A complex type that specifies information about a presentation and information required to retrieve the image and knowledge about a presentation slide.

Child Elements:

slideImage: An element that specifies a [CT_SlideImage](#).

slideInfo: An element that specifies a [CT_SlideInfo](#).

pres: An element that specifies a [CT_Presentation](#).

Attributes:

S3StateServiceUrl: An **xsd:string** attribute ([\[XMLSCHEMA2\]](#) section 3.2.1) that specifies the URL that provides information about the state of the presentation. This URL must conform to the PowerPoint Web Viewer Presentation Data Protocol [\[MS-PWVPDP\]](#). This attribute MUST be present in case of a **slide show broadcast** else this attribute MUST be ignored.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this complex type.

```
<xsd:complexType name="CT_MobilePres">
  <xsd:sequence>
    <xsd:element name="slideImage" type="CT_SlideImage" minOccurs="1" maxOccurs="1"/>
    <xsd:element name="slideInfo" type="CT_SlideInfo" minOccurs="1" maxOccurs="1"/>
    <xsd:element name="pres" type="CT_Presentation" minOccurs="1" maxOccurs="1"/>
  </xsd:sequence>
  <xsd:attribute name="S3StateServiceUrl" type="xsd:string" use="optional"/>
</xsd:complexType>
```

See section [5.2](#) for the full W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1).

2.3.13 CT_Paragraph

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT Placeholder](#), [CT ShapeText](#), [CT Notes](#)

A complex type that specifies a paragraph with simple format information.

Child Elements:

t: An **xsd:string** ([XMLSCHEMA2] section 3.2.1) that specifies the concatenation of the text of all the runs of the paragraph.

Attributes:

level: An **xsd:unsignedByte** attribute ([XMLSCHEMA2] section 3.3.24) that specifies level of **horizontal indent**.

buChar: An **xsd:string** attribute ([XMLSCHEMA2] section 3.2.1) that specifies the bullet.

align: An [ST Alignment](#) attribute that specifies the **horizontal alignment** of text.

rtl: An **xsd:boolean** ([XMLSCHEMA2] section 3.2.2) attribute that specifies whether the text goes from right to left.

The following W3C XML Schema ([\[XMLSCHEMA1\] section 2.1](#)) fragment specifies the contents of this complex type.

```
<xsd:complexType name="CT_Paragraph">
  <xsd:sequence>
    <xsd:element name="t" type="xsd:string" minOccurs="1" maxOccurs="1"/>
  </xsd:sequence>
  <xsd:attribute name="level" type="xsd:unsignedByte" use="optional" default="1"/>
  <xsd:attribute name="buChar" type="xsd:string" use="optional" default=""/>
  <xsd:attribute name="align" type="ST_Alignment" use="optional" default="1"/>
  <xsd:attribute name="rtl" type="xsd:boolean" use="optional" default="false"/>
</xsd:complexType>
```

See section [5.2](#) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

2.3.14 CT_Placeholder

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT SlideText](#)

Reserved. MUST be ignored.

Child Elements:

p: Reserved. MUST be ignored.

Attributes:

type: Reserved. MUST be ignored.

The following W3C XML Schema ([\[XMLSCHEMA1\] section 2.1](#)) fragment specifies the contents of this complex type.

```
<xsd:complexType name="CT_Placeholder">
  <xsd:sequence>
```



```

    <xsd:element name="p" type="CT_Paragraph" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
  <xsd:attribute name="type" type="ST_PlaceholderType" use="required"/>
</xsd:complexType>

```

See section [5.2](#) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

2.3.15 CT_ShapeText

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT_SlideText](#)

Reserved. MUST be ignored.

Child Elements:

p: Reserved. MUST be ignored.

Attributes:

type: Reserved. MUST be ignored.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this complex type.

```

<xsd:complexType name="CT_ShapeText">
  <xsd:sequence>
    <xsd:element name="p" type="CT_Paragraph" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
  <xsd:attribute name="type" type="ST_ShapeType" use="required"/>
</xsd:complexType>

```

See section [5.2](#) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

2.3.16 CT_SlideText

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT_Slide](#)

Reserved. MUST be ignored.

Child Elements:

ph: Reserved. MUST be ignored.

sp: Reserved. MUST be ignored.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this complex type.

```

<xsd:complexType name="CT_SlideText">
  <xsd:sequence>
    <xsd:element name="ph" type="CT_Placeholder" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="sp" type="CT_ShapeText" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>

```

See section [5.2](#) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

2.3.17 CT_Notes

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT Slide](#)

A complex type that specifies the text content of a notes slide.

Child Elements:

p: A [CT Paragraph](#) element that specifies a paragraph of text in the notes slide.

The following W3C XML Schema ([XMLSCHEMA1] section 2.1) fragment specifies the contents of this complex type.

```
<xsd:complexType name="CT_Notes">
  <xsd:sequence>
    <xsd:element name="p" type="CT_Paragraph" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
```

See section [5.2](#) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

2.3.18 CT_Slide

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [sld](#)

A complex type that specifies a presentation slide.

Child Elements:

sldTxt: Reserved. MUST be ignored.

notes: A [CT Notes](#) element that specifies the user notes for the presentation slide.

errLst: A [CT ErrorList](#) element that specifies list of errors.

Attributes:

ver: Reserved. MUST be ignored.

hidden: An **xsd:boolean** attribute ([XMLSCHEMA2] section 3.2.2) that specifies whether the presentation slide is hidden.

The following W3C XML Schema ([XMLSCHEMA1] section 2.1) fragment specifies the contents of this complex type.

```
<xsd:complexType name="CT_Slide">
  <xsd:sequence>
    <xsd:element name="sldTxt" type="CT_SlideText" minOccurs="0" maxOccurs="1"/>
    <xsd:element name="notes" type="CT_Notes" minOccurs="0" maxOccurs="1"/>
    <xsd:element name="errLst" type="psv:CT ErrorList" minOccurs="0" maxOccurs="1"/>
  </xsd:sequence>
  <xsd:attribute name="ver" type="xsd:unsignedInt" use="required"/>
  <xsd:attribute name="hidden" type="xsd:boolean" use="optional" default="false"/>
</xsd:complexType>
```

See section [5.2](#) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

2.3.19 CT_ErrorList

Target namespace:

<http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Powerpoint.Interface.Shared>

Referenced by: [CT_Slide](#)

A complex type that specifies a list of [CT_Error](#) elements.

Child Elements:

err: A CT_Error element.

The following W3C XML Schema ([\[XMLSCHEMA1\] section 2.1](#)) fragment specifies the contents of this complex type.

```
<xsd:complexType name="CT_ErrorList">
  <xsd:sequence>
    <xsd:element name="err" type="CT_Error" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
```

2.3.20 CT_Error

Target namespace:

<http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Powerpoint.Interface.Shared>

Referenced by: [CT_ErrorList](#)

Reserved. MUST be ignored.

Child Elements:

p: MUST be ignored.

Attributes:

id: MUST be ignored.

The following W3C XML Schema ([\[XMLSCHEMA1\] section 2.1](#)) fragment specifies the contents of this complex type.

```
<xsd:complexType name="CT_Error">
  <xsd:sequence>
    <xsd:element name="p" type="xsd:string" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>

  <xsd:attribute name="id" type="unsigned int" use="required"/>
</xsd:complexType>
```

2.4 Simple Types

2.4.1 ST_Alignment

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT Paragraph](#)

This simple type specifies the horizontal alignment of text.

Value	Meaning
l	The text is left aligned.
c	The text is center aligned.
r	The text is right aligned.
j	The text is justified aligned.
d	The text is distributed aligned.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this simple type.

```
<xsd:simpleType name="ST_Alignment">  
  <xsd:restriction base="xsd:token">  
    <xsd:enumeration value="l"/>  
    <xsd:enumeration value="c"/>  
    <xsd:enumeration value="r"/>  
    <xsd:enumeration value="j"/>  
    <xsd:enumeration value="d"/>  
  </xsd:restriction>  
</xsd:simpleType>
```

See section [5.2](#) for the full W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1).

2.4.2 ST_PlaceholderType

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT Placeholder](#)

Reserved. MUST be ignored.

Value	Meaning
t	Reserved. MUST be ignored.
b	Reserved. MUST be ignored.
o	Reserved. MUST be ignored.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this simple type.

```
<xsd:simpleType name="ST_PlaceholderType">  
  <xsd:restriction base="xsd:token">
```

```

    <xsd:enumeration value="t"/>
    <xsd:enumeration value="b"/>
    <xsd:enumeration value="o"/>
  </xsd:restriction>
</xsd:simpleType>

```

See section [5.2](#) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

2.4.3 ST_ShapeType

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/mobile>

Referenced by: [CT_ShapeText](#)

Reserved. MUST be ignored.

Value	Meaning
igx	Reserved. MUST be ignored.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this simple type.

```

<xsd:simpleType name="ST_ShapeType">
  <xsd:restriction base="xsd:token">
    <xsd:enumeration value="igx"/>
  </xsd:restriction>
</xsd:simpleType>

```

See section [5.2](#) for the full W3C XML Schema ([XMLSCHEMA1] section 2.1).

2.4.4 ST_SlideId

Target namespace: <http://schemas.microsoft.com/server/powerpoint/2009/main>

Referenced by: [CT_SlideEntry](#), [CT_CustomShow](#)

Corresponds to a PowerPoint slide identifier.

The following W3C XML Schema ([\[XMLSCHEMA1\]](#) section 2.1) fragment specifies the contents of this simple type.

```

<xsd:simpleType name="ST_SlideId">
  <xsd:restriction base="xsd:unsignedInt">
    <xsd:minInclusive value="256"/>
    <xsd:maxExclusive value="2147483648"/>
  </xsd:restriction>
</xsd:simpleType>

```

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

3 Structure Examples

The following sections provide structure examples of the different data types of the PowerPoint Web Viewer Rendered Static Content Structure. These examples are illustrative of the preceding specification and they do not cover all possible structure usage scenarios. They are not intended to replace the preceding specification but rather to clarify and enhance it.

3.1 Presentation

This sample [CT_MobilePres](#) specifies a presentation.

```
<?xml version="1.0" encoding="utf-8"?>
<p:mobilePres xmlns:p="http://schemas.microsoft.com/server/powerpoint/2009/mobile">
  <p:slideImage
    url="/MobileSlideImage.ashx?presentationId=d%3DH%253Asptestamd%252F%252FDocuments%
    252FDemo%252Epptx%26z%3D79AF7428%2D11BC%2D4D49%2DA0D8%2D4AC7DBA09A951"
    image="imageId" width="width" height="height" format="format" />
  <p:slideInfo
    url="/MobileSlideInfo.ashx?presentationId=d%3DH%253Asptestamd%252F%252FDocuments%2
    52FDemo%252Epptx%26z%3D79AF7428%2D11BC%2D4D49%2DA0D8%2D4AC7DBA09A951" info="infoId"
    />
  <p:pres xmlns:p="http://schemas.microsoft.com/server/powerpoint/2009/mobile"
    ver="0">
    <p:docPr w="640" h="480" />
    <p:sldLst>
      <p:sld title="Selling a Product or Service" id="264" sldImg="img264.png"
        sldInfo="264.sldInfo.xml" />
      <p:sld title="Introduction" id="257" sldImg="img257.png"
        sldInfo="257.sldInfo.xml" />
      <p:sld title="Business opportunities" id="258" sldImg="img258.png"
        sldInfo="258.sldInfo.xml" />
      <p:sld title="Products and services " id="259" sldImg="img259.png"
        sldInfo="259.sldInfo.xml" />
      <p:sld title="Key Goals" id="262" sldImg="img262.png"
        sldInfo="262.sldInfo.xml" />
      <p:sld title="Cast comparison" id="260" sldImg="img260.png"
        sldInfo="260.sldInfo.xml" />
      <p:sld title="Next steps" id="263" sldImg="img263.png"
        sldInfo="263.sldInfo.xml" />
      <p:sld title="Conclusion" id="265" sldImg="img265.png"
        sldInfo="265.sldInfo.xml" />
    </p:sldLst>
    <p:showLst>
      <p:custShow name="Custom Show 1">
        <p:sld>264</p:sld>
        <p:sld>259</p:sld>
        <p:sld>263</p:sld>
      </p:custShow>
    </p:showLst>
    <p:showPr>
      <p:sldRg st="3" end="6" />
    </p:showPr>
  </p:pres>
</p:mobilePres>
```

The contained **slideImage** and **slideInfo** elements specify information how to retrieve the presentation slide images and the detailed information about a presentation slide respectively.

The **w** and **h** attributes specify the width and height of the presentation are 640 pixels and 480 pixels.

The contained **sldLst** element specifies a list of 8 [CT_SlideEntry](#) elements, each of which specifies an individual presentation slide.

The contained **custShow** element specifies a custom show "Custom Show 1" having 3 presentation slides.

3.2 Slide

This sample CT_Slide specifies a presentation slide.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<p:sld xmlns:p="http://schemas.microsoft.com/server/powerpoint/2009/mobile"
ver="0">
  <p:sldTxt>
    <p:ph type="t">
      <p:p>
        <p:t>Selling a Product or Service</p:t>
      </p:p>
    </p:ph>
  </p:sldTxt>
  <p:notes>
    <p:p buChar="•">
      <p:t>Total time: 30 minutes</p:t>
    </p:p>
    <p:p buChar="•">
      <p:t>Concentrate on Business opportunities</p:t>
    </p:p>
    <p:p level="2" buChar="•">
      <p:t>Spend 5 minutes on intro</p:t>
    </p:p>
    <p:p>
      <p:t/>
    </p:p>
    <p:p>
      <p:t/>
    </p:p>
    <p:p>
      <p:t>Text for test</p:t>
    </p:p>
    <p:p>
      <p:t/>
    </p:p>
    <p:p>
      <p:t/>
    </p:p>
  </p:notes>
</p:sld>
```

The contained **notes** element specifies the text content of the notes slide.

4 Security Considerations

4.1 Security Considerations for Implementers

None.

4.2 Index of Security Parameters

None.

5 Appendix A: Full XSD Schema

5.1 <http://schemas.microsoft.com/server/powerpoint/2009/main> Schema

```
<xsd:schema elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/server/powerpoint/2009/main"
xmlns="http://schemas.microsoft.com/server/powerpoint/2009/main"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <xsd:simpleType name="ST_SlideId">
    <xsd:restriction base="xsd:unsignedInt">
      <xsd:minInclusive value="256"/>
      <xsd:maxExclusive value="2147483648"/>
    </xsd:restriction>
  </xsd:simpleType>
</xsd:schema>
```

5.2 <http://schemas.microsoft.com/server/powerpoint/2009/mobile> Schema

```
<xsd:schema elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/server/powerpoint/2009/mobile"
xmlns="http://schemas.microsoft.com/server/powerpoint/2009/mobile"
xmlns:psv="http://schemas.microsoft.com/server/powerpoint/2009/main"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <xsd:import namespace="http://schemas.microsoft.com/server/powerpoint/2009/main"
schemaLocation="pptservercommon.xsd"/>
  <xsd:simpleType name="ST_Alignment">
    <xsd:restriction base="xsd:token">
      <xsd:enumeration value="l"/>
      <xsd:enumeration value="c"/>
      <xsd:enumeration value="r"/>
      <xsd:enumeration value="j"/>
      <xsd:enumeration value="d"/>
    </xsd:restriction>
  </xsd:simpleType>
  <xsd:simpleType name="ST_PlaceholderType">
    <xsd:restriction base="xsd:token">
      <xsd:enumeration value="t"/>
      <xsd:enumeration value="b"/>
      <xsd:enumeration value="o"/>
    </xsd:restriction>
  </xsd:simpleType>
  <xsd:simpleType name="ST_ShapeType">
    <xsd:restriction base="xsd:token">
      <xsd:enumeration value="igx"/>
    </xsd:restriction>
  </xsd:simpleType>
  <xsd:complexType name="CT_SlideEntry">
    <xsd:attribute name="title" type="xsd:string" use="optional" default=""/>
    <xsd:attribute name="id" type="psv:ST_SlideId" use="required"/>
    <xsd:attribute name="sldImg" type="xsd:string" use="required"/>
    <xsd:attribute name="sldInfo" type="xsd:string" use="required"/>
  </xsd:complexType>
  <xsd:complexType name="CT_SlideEntryList">
    <xsd:sequence>
      <xsd:element name="sld" type="CT_SlideEntry" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:complexType name="CT_CustomShow">
    <xsd:sequence>
      <xsd:element name="sld" type="psv:ST_SlideId" minOccurs="1" maxOccurs="unbounded"/>
    </xsd:sequence>
    <xsd:attribute name="name" type="xsd:string" use="required"/>
  </xsd:complexType>
  <xsd:complexType name="CT_CustomShowList">
    <xsd:sequence>
```

```

        <xsd:element name="custShow" type="CT_CustomShow" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="CT_EmptyType"/>
<xsd:complexType name="CT_IndexRange">
    <xsd:attribute name="st" type="xsd:unsignedInt" use="required"/>
    <xsd:attribute name="end" type="xsd:unsignedInt" use="required"/>
</xsd:complexType>
<xsd:complexType name="CT_DocumentProperties">
    <xsd:attribute name="w" type="xsd:unsignedInt" use="required"/>
    <xsd:attribute name="h" type="xsd:unsignedInt" use="required"/>
    <xsd:attribute name="authr" type="xsd:string" use="optional" default=""/>
    <xsd:attribute name="modBy" type="xsd:string" use="optional" default=""/>
    <xsd:attribute name="modTm" type="xsd:string" use="optional" default=""/>
</xsd:complexType>
<xsd:complexType name="CT_ShowProperties">
    <xsd:choice minOccurs="1" maxOccurs="1">
        <xsd:element name="sldAll" type="CT_EmptyType"/>
        <xsd:element name="sldRg" type="CT_IndexRange"/>
        <xsd:element name="custShow" type="xsd:string"/>
    </xsd:choice>
</xsd:complexType>
<xsd:complexType name="CT_Presentation">
    <xsd:sequence>
        <xsd:element name="docPr" type="CT_DocumentProperties" minOccurs="1" maxOccurs="1"/>
        <xsd:element name="sldLst" type="CT_SlideEntryList" minOccurs="1" maxOccurs="1"/>
        <xsd:element name="showLst" type="CT_CustomShowList" minOccurs="0" maxOccurs="1"/>
        <xsd:element name="showPr" type="CT_ShowProperties" minOccurs="0" maxOccurs="1"/>
    </xsd:sequence>
    <xsd:attribute name="ver" type="xsd:unsignedInt" use="required"/>
</xsd:complexType>
<xsd:complexType name="CT_SlideImage">
    <xsd:attribute name="url" type="xsd:string" use="required"/>
    <xsd:attribute name="image" type="xsd:string" use="required"/>
    <xsd:attribute name="width" type="xsd:string" use="required"/>
    <xsd:attribute name="height" type="xsd:string" use="required"/>
    <xsd:attribute name="format" type="xsd:string" use="required"/>
</xsd:complexType>
<xsd:complexType name="CT_SlideInfo">
    <xsd:attribute name="url" type="xsd:string" use="required"/>
    <xsd:attribute name="info" type="xsd:string" use="required"/>
</xsd:complexType>
<xsd:complexType name="CT_MobilePres">
    <xsd:sequence>
        <xsd:element name="slideImage" type="CT_SlideImage" minOccurs="1" maxOccurs="1"/>
        <xsd:element name="slideInfo" type="CT_SlideInfo" minOccurs="1" maxOccurs="1"/>
        <xsd:element name="pres" type="CT_Presentation" minOccurs="1" maxOccurs="1"/>
    </xsd:sequence>
    <xsd:attribute name="S3StateServiceUrl" type="xsd:string" use="optional"/>
</xsd:complexType>
<xsd:complexType name="CT_Paragraph">
    <xsd:sequence>
        <xsd:element name="t" type="xsd:string" minOccurs="1" maxOccurs="1"/>
    </xsd:sequence>
    <xsd:attribute name="level" type="xsd:unsignedByte" use="optional" default="1"/>
    <xsd:attribute name="buChar" type="xsd:string" use="optional" default=""/>
    <xsd:attribute name="align" type="ST_Alignment" use="optional" default="1"/>
    <xsd:attribute name="rtl" type="xsd:boolean" use="optional" default="false"/>
</xsd:complexType>
<xsd:complexType name="CT_Placeholder">
    <xsd:sequence>
        <xsd:element name="p" type="CT_Paragraph" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
    <xsd:attribute name="type" type="ST_PlaceholderType" use="required"/>
</xsd:complexType>
<xsd:complexType name="CT_ShapeText">
    <xsd:sequence>
        <xsd:element name="p" type="CT_Paragraph" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>

```

```

    <xsd:attribute name="type" type="ST_ShapeType" use="required"/>
  </xsd:complexType>
  <xsd:complexType name="CT_SlideText">
    <xsd:sequence>
      <xsd:element name="ph" type="CT_Placeholder" minOccurs="0" maxOccurs="unbounded"/>
      <xsd:element name="sp" type="CT_ShapeText" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:complexType name="CT_Notes">
    <xsd:sequence>
      <xsd:element name="p" type="CT_Paragraph" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:complexType name="CT_Slide">
    <xsd:sequence>
      <xsd:element name="sldTtxt" type="CT_SlideText" minOccurs="0" maxOccurs="1"/>
      <xsd:element name="notes" type="CT_Notes" minOccurs="0" maxOccurs="1"/>
      <xsd:element name="errLst" type="psv:CT_ErrorList" minOccurs="0" maxOccurs="1"/>
    </xsd:sequence>
    <xsd:attribute name="ver" type="xsd:unsignedInt" use="required"/>
    <xsd:attribute name="hidden" type="xsd:boolean" use="optional" default="false"/>
  </xsd:complexType>
  <xsd:element name="mobilePres" type="CT_MobilePres"/>
  <xsd:element name="pres" type="CT_Presentation"/>
  <xsd:element name="sld" type="CT_Slide"/>
</xsd:schema>

```

6 Appendix B: Product Behavior

The information in this specification is applicable to the following Microsoft products or supplemental software. References to product versions include released service packs.

- Microsoft FAST Search Server 2010
- Microsoft PowerPoint Mobile 2010
- Microsoft PowerPoint Online

Exceptions, if any, are noted below. If a service pack or Quick Fix Engineering (QFE) number appears with the product version, behavior changed in that service pack or QFE. The new behavior also applies to subsequent service packs of the product 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.

7 Change Tracking

No table of changes is available. The document is either new or has had no changes since its last release.

8 Index

A

[Applicability](#) 7

C

[Change tracking](#) 29

Complex types

[CT_CustomShow](#) 10

[CT_CustomShowList](#) 11

[CT_DocumentProperties](#) 12

[CT_EmptyType](#) 11

[CT_Error](#) 19

[CT_ErrorList](#) 19

[CT_IndexRange](#) 12

[CT_MobilePres](#) 15

[CT_Notes](#) 18

[CT_Paragraph](#) 16

[CT_Placeholder](#) 16

[CT_Presentation](#) 13

[CT_ShapeText](#) 17

[CT_ShowProperties](#) 13

[CT_Slide](#) 18

[CT_SlideEntry](#) 9

[CT_SlideEntryList](#) 10

[CT_SlideImage](#) 14

[CT_SlideInfo](#) 14

[CT_SlideText](#) 17

[Complex types structure](#) 9

[CT_CustomShow complex type](#) 10

[CT_CustomShowList complex type](#) 11

[CT_DocumentProperties complex type](#) 12

[CT_EmptyType complex type](#) 11

[CT_Error complex type](#) 19

[CT_ErrorList complex type](#) 19

[CT_IndexRange complex type](#) 12

[CT_MobilePres complex type](#) 15

[CT_Notes complex type](#) 18

[CT_Paragraph complex type](#) 16

[CT_Placeholder complex type](#) 16

[CT_Presentation complex type](#) 13

[CT_ShapeText complex type](#) 17

[CT_ShowProperties complex type](#) 13

[CT_Slide complex type](#) 18

[CT_SlideEntry complex type](#) 9

[CT_SlideEntryList complex type](#) 10

[CT_SlideImage complex type](#) 14

[CT_SlideInfo complex type](#) 14

[CT_SlideText complex type](#) 17

D

Details

[complex type structure](#) 9

[global attributes structure](#) 8

[mobilePres element](#) 8

[pres element](#) 8

[sld element](#) 8

E

Elements

[mobilePres](#) 8

[pres](#) 8

[sld](#) 8

[Example overview](#) 22

[Examples](#) 22

[Presentation](#) 22

[Slide](#) 23

F

[Fields - vendor-extensible](#) 7

G

[Global attributes structure](#) 8

[Glossary](#) 6

I

[Implementer - security considerations](#) 24

[Index of security parameters](#) 24

[Informative references](#) 7

[Introduction](#) 6

L

[Localization](#) 7

M

[mobilePres element](#) 8

N

[Normative references](#) 6

O

[Overview \(synopsis\)](#) 7

P

[Parameters - security index](#) 24

[pres element](#) 8

[Presentation example](#) 22

[Product behavior](#) 28

R

[References](#) 6

[informative](#) 7

[normative](#) 6

[Relationship to protocols and other structures](#) 7

S

Security

[implementer considerations](#) 24

[parameter index](#) 24

Simple types

[ST_Alignment](#) 20

[ST_PlaceholderType](#) ([section 2.4.2](#) 20, [section 2.4.3](#) 21)
[ST_ShapeType](#) 21
[sld element](#) 8
[Slide example](#) 23
[ST_Alignment simple type](#) 20
[ST_PlaceholderType simple type](#) ([section 2.4.2](#) 20, [section 2.4.3](#) 21)
[ST_ShapeType simple type](#) 21
Structures
[complex types](#) 9
[CT_CustomShow complex type](#) 10
[CT_CustomShowList complex type](#) 11
[CT_DocumentProperties complex type](#) 12
[CT_EmptyType complex type](#) 11
[CT_Error complex type](#) 19
[CT_ErrorList complex type](#) 19
[CT_IndexRange complex type](#) 12
[CT_MobilePres complex type](#) 15
[CT_Notes complex type](#) 18
[CT_Paragraph complex type](#) 16
[CT_Placeholder complex type](#) 16
[CT_Presentation complex type](#) 13
[CT_ShapeText complex type](#) 17
[CT_ShowProperties complex type](#) 13
[CT_Slide complex type](#) 18
[CT_SlideEntry complex type](#) 9
[CT_SlideEntryList complex type](#) 10
[CT_SlideImage complex type](#) 14
[CT_SlideInfo complex type](#) 14
[CT_SlideText complex type](#) 17
[global attributes](#) 8
[ST_Alignment simple type](#) 20
[ST_PlaceholderType simple type](#) ([section 2.4.2](#) 20, [section 2.4.3](#) 21)
[ST_ShapeType simple type](#) 21
Structures/
/ST_SlideId simple type
Simple types/
/ST_SlideId 21

T

[Tracking changes](#) 29
Types
[complex](#) 9

V

[Vendor-extensible fields](#) 7
[Versioning](#) 7