# **Application Programmer's Interface**

# for

# **ODFPY**

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### 1 Introduction

Unlike other more convenient APIs, OdfPy is essentially an abstraction layer just above the XML format. The main focus has been to prevent the programmer from creating invalid documents. It has checks that raise an exception if the programmer adds an invalid element, adds an attribute unknown to the grammar, forgets to add a required attribute or adds text to an element that doesn't allow it.

It is about 90% feature-complete, but remember 90% of the time software is 90% complete.

### 1.1 About OpenDocument

An OpenDocument file is essentially an XML structure split into four XML files in a zip-file. If you unzip the file, you'll see content.xml, styles.xml, meta.xml and settings.xml. Odfpy handles these as *one* memory structure, which you can use the API to navigate.

From within the XML you can refer to images, and add them to the zip-archive. Finally, OpenDocument keeps track of all this via a META-INF/manifest.xml file (the manifest) containing the official files of the document.

## 2 Creating a document

You start the document by instantiating one of the *OpenDocumentChart*, *OpenDocumentDrawing*, *OpenDocumentImage*, *OpenDocumentPresentation*, *OpenDocumentSpreadsheet* or *OpenDocumentText* classes.

All of these provide properties you can attach elements to:

- meta
- scripts
- fontfacedecls
- settings
- styles
- automaticstyles
- masterstyles
- body

Additionally, the OpenDocumentText class provides the *text* property, which is where you add your text elements. A quick example probably is the best approach to give you an idea.

### 2.1 Example

```
from odf.opendocument import OpenDocumentText
from odf.style import Style, TextProperties
from odf.text import H, P, Span

textdoc = OpenDocumentText()
# Styles
s = textdoc.styles
hlstyle = Style(name="Heading 1", family="paragraph")
hlstyle.addElement(TextProperties(attributes={'fontsize':"24pt",'fontweight':"bo
```

```
ld" }))
s.addElement(h1style)
# An automatic style
boldstyle = Style(name="Bold", family="text")
boldprop = TextProperties(fontweight="bold")
boldstyle.addElement(boldprop)
textdoc.automaticstyles.addElement(boldstyle)
# Text
h=H(outlinelevel=1, stylename=h1style, text="My first text")
textdoc.text.addElement(h)
p = P(text="Hello world. ")
boldpart = Span(stylename=boldstyle, text="This part is bold. ")
p.addElement(boldpart)
p.addText("This is after bold.")
textdoc.text.addElement(p)
textdoc.save("myfirstdocument.odt")
```

You now have your first script-produced document called "myfirstdocument.odt".

## 3 The OpenDocument classes

The OpenDocumentChart, OpenDocumentDrawing, OpenDocumentImage, OpenDocumentPresentation, OpenDocumentSpreadsheet and OpenDocumentText classes derive from the OpenDocument class. These methods are available:

save(filename, addsuffix=False) This method will write to a file what you have constructed. If you provide the argument addsuffix=True, it will add the ".od?" suffix

to the filename autmatically based on the class name.

write(fileobject) Writes the document to a file-like object of the type available from

StringIO.

addPicture(filename, mediatype=None, content=None) Adds a file to the Pictures directory in

the zip archive and adds the new filename to the manifest. If content is not None, then use this as the image rather than open the filename. The return value is the new file name, which you can use for the *href* attribute in the draw.Image class. If mediatype is None, then guess the mediatype from the file name.

addThumbnail(content=None) If content is None, adds a nice 128x128 pixel, but rather bulky

thumbnail to the document. Otherwise the content must be a png image in memory that will then be added to the document.

addObject(object) Adds a subobject to the document. The return value is the folder name

of the object in the document container, which you use for the *href* 

attribute in the draw. Object class.

xml() Generates the full document as an XML file and returns it as a string

in UTF-8 encoding.

OpenDocumentChart is used for pie charts etc. It provides the *chart* property, which is where you add your elements.

OpenDocumentDrawing is used for vector-based drawings. It provides the *drawing* property, which is where you add your elements.

OpenDocumentImage is used for images. It provides the *image* property, which is where you add your elements.

OpenDocumentPresentation provides the *presentation* property, which is where you add your elements.

OpenDocumentSpreadsheet provides the *spreadsheet* property, which is where you add your elements.

OpenDocumentText provides the *text* property, which is where you add your elements.

### 3.1 Loading a document

ODFPY can load a document into memory, which you can then change with the API. Example:

```
from odf.opendocument import load
doc = load("my document.odt")
doc.save("new document.odt")
```

### 3.2 Manipulating the document

There are also methods for manipulating the document. These are methods of the OpenDocument class:

getMediaType() Returns the media type getStyleByName() Returns a style element from the document with that name, otherwise None. Searches both automatic and common styles. createElement(class) Method to create an element. Inconvenient, but follows XML-DOM. Does not allow attributes as arguments, therefore can't check grammar. Creates a text node given the specified string createTextNode(data) Creates a CDATA section node whose value is the specified createCDATASection(data) string. getElementsByType(class) Returns a list of all elements of a given type.

### Example:

Print the style reference from all paragraphs.

```
from odf.opendocument import load
from odf import text
doc = load("my document.odt")
for paragraph in doc.getElementsByType(text.P):
    print paragraph.getAttribute('stylename')
```

### 3.3 Subobjects

Subobjects are a way to embed documents inside documents. Typically these can be charts, formulas or spreadsheets inside a text, presentation or spreadsheet. The way it works in odfpy, is that you create your objects the normal way by the OpenDocument classes. Then you use the addObject() method to join one to the other. Here is an example:

```
from odf import opendocument, chart, text, draw
chartdoc = opendocument.OpenDocumentChart() # Create the subdocument
maindoc = opendocument.OpenDocumentText() # Create the main document
df = draw.Frame(width="6in", height="5in", anchortype="paragraph")
maindoc.text.addElement(df)
# Here we add the subdocument to the main document. We get back a reference
```

```
# to use in the href.
objectloc = maindoc.addObject(chartdoc)
do = draw.Object(href=objectloc)
df.addElement(do)
maindoc.save("mydocument.odt")
```

You can add pictures to both documents. You can even have several levels of subobjects, but OOo makes it impossible to add an object when you edit an embedded subobject, so it is probably not a good idea.

See the subobject.py file in the examples folder for a real example.

### 4 Special attributes

The following attributes take a style. Style class instance:

- applystylename
- citationbodystylename
- citationstylename
- condstylename
- datastylename
- defaultcellstylename
- defaultstylename
- mainentrystylename
- stylename
- textstylename
- visitedstylename

The following attributes take a style.PageLayout instance:

- pagelayoutname
- presentationpagelayoutname

The *masterpagename* attribute takes a style.MasterPage instance.

The *points* attribute can takes either: A string value where each point consists of two coordinates. The coordinates are separated by a comma and the points are separated by white spaces. Or a list of lists where each inner list is a pair of integer coordinates. Example: [(0, 0), (-32, 981)]

### 5 The Element classes

Every element in the OpenDocument XML format is implemented as a Python class that derives from the Element class. The Element class has the following attributes:

nodeType A code representing the type of the node.

parentNode The parent of this node or None if it has not yet been added to the tree.

childNodes A list of child nodes.

firstChild The first child of this element.

lastChild The last child of this element.

previousSibling The node immediately preceding this node.

nextSibling The node immediately following this node.

The Element class has the following methods:

addElement(element, check\_grammar=True) – adds an element as a child to another element. It will check if the element can legally be a child, and raise an exception if not.

addText(text) - adds text to an element

addCDATA(cdata) – adds text, but treats it as CDATA.

setAttribute(attr, value, check\_grammar=True) – adds or sets an attribute.

getAttribute(attr) – gets an attribute by name.

hasChildNodes() – Tells whether this element has any children; text nodes, subelements of any kind.

insertBefore(newchild, refchild) – Inserts the node newchild before the existing child node refchild.

appendChild(newchild) - Adds the node newchild to the end of the list of children.

removeChild(oldchild) – Removes the child node.

getElementsByType(class) – Returns a list of all descendant elements of the given type.

The instantiation of an Element or a derived class is done the normal way you create an instance of a Python class. You must provide the required attributes. This can be done in two ways; as arguments, or as an attribute dictionary.

An example of arguments:

```
from odf.style import Style
hlstyle = Style(name="Heading 1", family="paragraph")
```

An example of attributes dictionary:

```
from odf.style import Style
hlstyle = Style(attributes={'name':'Heading 1', 'family':'paragraph'})
```

And finally, there are two convenient ways to add a text node. As text and cdata:

```
from odf import text
p = text.P(text="Hello World\n")
s = text.Script(cdata="if (y < x) print 'less';", language="JavaScript")</pre>
```

There are so many elements, and some of them have the same name, that we have organised them in modules. To use a module you must first import it as a Python module. To create a paragraph do:

```
from odf import text
p = text.P(text="Hello World\n")
```

### 5.1 anim module

### 5.1.1 anim.Animate

Requires the following attributes: attributename.

Allows the following attributes: accumulate, additive, attributename, by, calcmode, fill, formula, from, keysplines, keytimes, repeatcount, repeatdur, subitem, targetelement, to, values. These elements contain anim.Animate: anim.Iterate, anim.Par, anim.Seq, draw.Page.

The following elements occur in anim. Animate: No element is allowed.

### 5.1.2 anim.Animatecolor

Requires the following attributes: attributename.

Allows the following attributes: accumulate, additive, attributename, by, calcmode, colorinterpolation, colorinterpolationdirection, fill, formula, from, keysplines, keytimes, subitem, targetelement, to, values.

These elements contain anim. Animatecolor: anim. Iterate, anim. Par, anim. Seq, draw. Page.

The following elements occur in anim. Animatecolor: No element is allowed.

### 5.1.3 anim.Animatemotion

Requires the following attributes: attributename.

Allows the following attributes: accumulate, additive, attributename, by, calcmode, fill, formula, from, keysplines, keytimes, origin, path, subitem, targetelement, to, values.

These elements contain anim. Animatemotion: anim. Iterate, anim. Par, anim. Seq, draw. Page.

The following elements occur in anim. Animatemotion: No element is allowed.

### 5.1.4 anim.Animatetransform

Requires the following attributes: attributename, type.

Allows the following attributes: accumulate, additive, attributename, by, fill, formula, from, subitem, targetelement, to, type, values.

These elements contain anim. Animatetransform: *anim.Iterate*, *anim.Par*, *anim.Seq*, *draw.Page*. The following elements occur in anim. Animatetransform: *No element is allowed*.

### 5.1.5 anim.Audio

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: audiolevel, begin, dur, end, groupid, href, id, masterelement, nodetype, presetclass, presetid, presetsubtype, repeatcount, repeatdur.

These elements contain anim. Audio: anim. Iterate, anim. Par, anim. Seq, draw. Page.

The following elements occur in anim. Audio: No element is allowed.

#### 5.1.6 anim.Command

Requires the following attributes: *command*.

Allows the following attributes: begin, command, end, groupid, id, masterelement, nodetype, presetclass, presetid, presetsubtype, subitem, targetelement.

These elements contain anim.Command: anim.Iterate, anim.Par, anim.Seq, draw.Page.

The following elements occur in anim.Command: anim.Param.

### 5.1.7 anim.lterate

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: accelerate, autoreverse, begin, decelerate, dur, end, endsync, fill, filldefault, groupid, id, iterateinterval, iteratetype, masterelement, nodetype, presetclass, presetid, presetsubtype, repeatcount, repeatdur, restart, restartdefault, targetelement.

These elements contain anim.Iterate: anim.Iterate, anim.Par, anim.Seq, draw.Page.

The following elements occur in anim.Iterate: anim.Animate, anim.Animatecolor, anim.Animatemotion, anim.Animatetransform, anim.Audio, anim.Command, anim.Iterate,

anim.Par, anim.Seq, anim.Set, anim.Transitionfilter.

#### 5.1.8 anim.Par

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: accelerate, autoreverse, begin, decelerate, dur, end, endsync, fill, filldefault, groupid, id, masterelement, nodetype, presetclass, presetid, presetsubtype, repeatcount, repeatdur, restart, restartdefault.

These elements contain anim.Par: anim.Iterate, anim.Par, anim.Seq, draw.Page. The following elements occur in anim.Par: anim.Animate, anim.Animatecolor, anim.Animatemotion, anim.Animatetransform, anim.Audio, anim.Command, anim.Iterate, anim.Par, anim.Seq, anim.Set, anim.Transitionfilter.

### 5.1.9 anim.Param

Requires the following attributes: *name*, *value*. Allows the following attributes: *name*, *value*.

These elements contain anim.Param: anim.Command.

The following elements occur in anim. Param: No element is allowed.

### 5.1.10 anim.Seq

Requires the following attributes: No attribute is required.

Allows the following attributes: accelerate, autoreverse, begin, decelerate, dur, end, endsync, fill, filldefault, groupid, id, masterelement, nodetype, presetclass, presetid, presetsubtype, repeatcount, repeatdur, restart, restartdefault.

These elements contain anim.Seq: *anim.Iterate*, *anim.Par*, *anim.Seq*, *draw.Page*. The following elements occur in anim.Seq: *anim.Animate*, *anim.Animatecolor*, *anim.Animatemotion*, *anim.Animatetransform*, *anim.Audio*, *anim.Command*, *anim.Iterate*, *anim.Par*, *anim.Seq*, *anim.Seq*, *anim.Transitionfilter*.

#### 5.1.11 anim.Set

Requires the following attributes: attributename.

Allows the following attributes: accumulate, additive, attributename, fill, subitem, targetelement, to.

These elements contain anim.Set: anim.Iterate, anim.Par, anim.Seq, draw.Page.

The following elements occur in anim. Set: No element is allowed.

### 5.1.12 anim.Transitionfilter

Requires the following attributes: *type*.

Allows the following attributes: accumulate, additive, by, calcmode, direction, fadecolor, fill, formula, from, mode, subitem, subtype, targetelement, to, type, values.

These elements contain anim. Transition filter: anim. Iterate, anim. Par, anim. Seq, draw. Page.

The following elements occur in anim. Transition filter: No element is allowed.

#### 5.2 chart module

### 5.2.1 chart.Axis

Requires the following attributes: dimension.

Allows the following attributes: dimension, name, stylename.

These elements contain chart. Axis: chart. Plot Area.

The following elements occur in chart. Axis: chart. Categories, chart. Grid, chart. Title.

### 5.2.2 chart.Categories

Requires the following attributes: No attribute is required.

Allows the following attributes: *cellrangeaddress*. These elements contain chart.Categories: *chart.Axis*.

The following elements occur in chart. Categories: No element is allowed.

#### 5.2.3 chart.Chart

Requires the following attributes: class.

Allows the following attributes: class, columnmapping, height, rowmapping, stylename, width.

These elements contain chart. Chart: office. Chart.

The following elements occur in chart. Chart: chart. Footer, chart. Legend, chart. Plot Area,

chart.Subtitle, chart.Title, table.Table.

### 5.2.4 chart.DataPoint

Requires the following attributes: No attribute is required.

Allows the following attributes: repeated, stylename.

These elements contain chart. DataPoint: chart. Series.

The following elements occur in chart. DataPoint: No element is allowed.

#### 5.2.5 chart.Domain

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *cellrangeaddress*. These elements contain chart.Domain: *chart.Series*.

The following elements occur in chart. Domain: No element is allowed.

### 5.2.6 chart.ErrorIndicator

Requires the following attributes: No attribute is required.

Allows the following attributes: *stylename*.

These elements contain chart. Error Indicator: chart. Series.

The following elements occur in chart. Error Indicator: No element is allowed.

### 5.2.7 chart.Floor

Requires the following attributes: No attribute is required.

Allows the following attributes: *stylename*, *width*. These elements contain chart.Floor: *chart.PlotArea*.

The following elements occur in chart. Floor: No element is allowed.

#### 5.2.8 chart.Footer

Requires the following attributes: *No attribute is required.*Allows the following attributes: *cellrange, stylename, x, y.* 

These elements contain chart.Footer: *chart.Chart*. The following elements occur in chart.Footer: *text.P*.

#### 5.2.9 chart.Grid

Requires the following attributes: No attribute is required.

Allows the following attributes: *class, stylename*. These elements contain chart.Grid: *chart.Axis*.

The following elements occur in chart.Grid: No element is allowed.

### 5.2.10 chart.Legend

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: legendalign, legendexpansion, legendexpansionaspectratio,

legendposition, stylename, x, y.

These elements contain chart. Legend: chart. Chart.

The following elements occur in chart. Legend: No element is allowed.

#### 5.2.11 chart.MeanValue

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *stylename*.

These elements contain chart. Mean Value: chart. Series.

The following elements occur in chart. Mean Value: No element is allowed.

#### 5.2.12 chart.PlotArea

Requires the following attributes: No attribute is required.

Allows the following attributes: ambientcolor, cellrangeaddress, datasourcehaslabels, distance, focallength, height, lightingmode, projection, shademode, shadowslant, stylename, transform, vpn, vrp, vup, width, x, y.

These elements contain chart.PlotArea: *chart.Chart*.

The following elements occur in chart.PlotArea: chart.Axis, chart.Floor, chart.Series, chart.StockGainMarker, chart.StockLossMarker, chart.StockRangeLine, chart.Wall, dr3d.Light.

### 5.2.13 chart.RegressionCurve

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *stylename*.

These elements contain chart. Regression Curve: chart. Series.

The following elements occur in chart.RegressionCurve: No element is allowed.

### 5.2.14 chart.Series

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: attachedaxis, class, labelcelladdress, stylename,

valuescellrangeaddress.

These elements contain chart. Series: chart. PlotArea.

The following elements occur in chart. Series: chart. DataPoint, chart. Domain, chart. Error Indicator, chart. MeanValue, chart. Regression Curve.

#### 5.2.15 chart.StockGainMarker

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *stylename*.

These elements contain chart. Stock Gain Marker: chart. Plot Area.

The following elements occur in chart. Stock Gain Marker: No element is allowed.

### 5.2.16 chart.StockLossMarker

Requires the following attributes: No attribute is required.

Allows the following attributes: stylename.

These elements contain chart. StockLossMarker: chart. PlotArea.

The following elements occur in chart. StockLossMarker: No element is allowed.

### 5.2.17 chart.StockRangeLine

Requires the following attributes: No attribute is required.

Allows the following attributes: *stylename*.

These elements contain chart. StockRangeLine: chart. PlotArea.

The following elements occur in chart.StockRangeLine: No element is allowed.

### 5.2.18 chart.Subtitle

Requires the following attributes: No attribute is required.

Allows the following attributes: *cellrange*, *stylename*, *x*, *y*.

These elements contain chart. Subtitle: *chart. Chart.* 

The following elements occur in chart. Subtitle: text.P.

### 5.2.19 chart.SymbolImage

Requires the following attributes: href.

Allows the following attributes: href.

These elements contain chart. Symbol Image: style. Chart Properties.

The following elements occur in chart. Symbol Image: No element is allowed.

### 5.2.20 chart.Title

Requires the following attributes: No attribute is required.

Allows the following attributes: *cellrange*, *stylename*, *x*, *y*.

These elements contain chart. Title: chart. Axis, chart. Chart.

The following elements occur in chart. Title: text.P.

#### 5.2.21 chart.Wall

Requires the following attributes: No attribute is required.

Allows the following attributes: *stylename*, *width*.

These elements contain chart. Wall: chart. PlotArea.

The following elements occur in chart. Wall: No element is allowed.

### 5.3 config module

## 5.3.1 config.ConfigItem

Requires the following attributes: name, type.

Allows the following attributes: name, type.

These elements contain config.ConfigItem: config.ConfigItemMapEntry, config.ConfigItemSet.

The following elements occur in config.ConfigItem: No element is allowed.

### 5.3.2 config.ConfigItemMapEntry

Requires the following attributes: No attribute is required.

Allows the following attributes: name.

These elements contain config.ConfigItemMapEntry: config.ConfigItemMapIndexed, config.ConfigItemMapNamed.

The following elements occur in config.ConfigItemMapEntry: config.ConfigItem, config.ConfigItemMapIndexed, config.ConfigItemMapNamed, config.ConfigItemSet.

### 5.3.3 config.ConfigItemMapIndexed

Requires the following attributes: name.

Allows the following attributes: name.

These elements contain config.ConfigItemMapIndexed: *config.ConfigItemMapEntry*, *config.ConfigItemSet*.

The following elements occur in config.ConfigItemMapIndexed: config.ConfigItemMapEntry.

### 5.3.4 config.ConfigItemMapNamed

Requires the following attributes: *name*.

Allows the following attributes: name.

These elements contain config.ConfigItemMapNamed: config.ConfigItemMapEntry, config.ConfigItemSet.

The following elements occur in config.ConfigItemMapNamed: config.ConfigItemMapEntry.

### 5.3.5 config.ConfigItemSet

Requires the following attributes: name.

Allows the following attributes: *name*.

These elements contain config.ConfigItemSet: config.ConfigItemMapEntry, config.ConfigItemSet, office.Settings.

The following elements occur in config.ConfigItemSet: config.ConfigItem, config.ConfigItemMapIndexed, config.ConfigItemMapNamed, config.ConfigItemSet.

#### 5.4 dc module

### 5.4.1 dc.Creator

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain dc.Creator: office.Annotation, office.ChangeInfo, office.Meta.

The following elements occur in dc.Creator: No element is allowed.

#### 5.4.2 dc.Date

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain dc.Date: office.Annotation, office.ChangeInfo, office.Meta.

The following elements occur in dc.Date: No element is allowed.

## 5.4.3 dc.Description

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *No attribute is allowed.* These elements contain dc.Description: *office.Meta.* 

The following elements occur in dc.Description: No element is allowed.

### 5.4.4 dc.Language

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* These elements contain dc.Language: *office.Meta.* 

These elements contain uc.Language. Office.Meta.

The following elements occur in dc.Language: No element is allowed.

### 5.4.5 dc.Subject

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain dc.Subject: office.Meta.

The following elements occur in dc.Subject: No element is allowed.

#### 5.4.6 dc.Title

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain dc. Title: office. Meta.

The following elements occur in dc. Title: No element is allowed.

#### 5.5 dr3d module

#### 5.5.1 dr3d.Cube

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *classnames*, *id*, *layer*, *maxedge*, *minedge*, *stylename*, *transform*, *zindex*.

These elements contain dr3d.Cube: dr3d.Scene.

The following elements occur in dr3d.Cube: No element is allowed.

### 5.5.2 dr3d.Extrude

Requires the following attributes: *d, viewbox.* 

Allows the following attributes: classnames, d, id, layer, stylename, transform, viewbox, zindex.

These elements contain dr3d.Extrude: dr3d.Scene.

The following elements occur in dr3d.Extrude: *No element is allowed.* 

### 5.5.3 dr3d.Light

Requires the following attributes: direction.

Allows the following attributes: diffusecolor, direction, enabled, specular.

These elements contain dr3d.Light: chart.PlotArea, dr3d.Scene.

The following elements occur in dr3d.Light: No element is allowed.

#### 5.5.4 dr3d.Rotate

Requires the following attributes: *d, viewbox*.

Allows the following attributes: classnames, d, id, layer, stylename, transform, viewbox, zindex.

These elements contain dr3d.Rotate: dr3d.Scene.

The following elements occur in dr3d.Rotate: No element is allowed.

#### 5.5.5 dr3d.Scene

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: ambientcolor, anchorpagenumber, anchortype, classnames, distance, endcelladdress, endx, endy, focallength, height, id, layer, lightingmode, projection, shademode, shadowslant, stylename, tablebackground, transform, vpn, vrp, vup, width, x, y, zindex. These elements contain dr3d.Scene: dr3d.Scene, draw.G, draw.Page, draw.TextBox, office.Text, presentation.Notes, style.HandoutMaster, style.MasterPage, table.CoveredTableCell, table.Shapes, table.TableCell, text.A, text.Deletion, text.H, text.IndexBody, text.IndexTitle, text.NoteBody, text.P, text.RubyBase, text.Section, text.Span.

The following elements occur in dr3d.Scene: dr3d.Cube, dr3d.Extrude, dr3d.Light, dr3d.Rotate, dr3d.Scene, dr3d.Sphere.

### 5.5.6 dr3d.Sphere

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: center, classnames, id, layer, size, stylename, transform, zindex.

These elements contain dr3d.Sphere: dr3d.Scene.

The following elements occur in dr3d. Sphere: No element is allowed.

#### 5.6 draw module

### 5.6.1 draw.A

Requires the following attributes: *href*.

Allows the following attributes: actuate, href, name, servermap, show, targetframename, type.

These elements contain draw.A: draw.TextBox, office.Text, table.CoveredTableCell,

table.TableCell, text.A, text.Deletion, text.H, text.IndexBody, text.IndexTitle, text.NoteBody, text.P, text.RubyBase, text.Section, text.Span.

The following elements occur in draw.A: draw.Frame.

## 5.6.2 draw.Applet

Requires the following attributes: No attribute is required.

Allows the following attributes: actuate, archive, code, href, mayscript, object, show, type.

These elements contain draw. Applet: draw. Frame.

The following elements occur in draw. Applet: draw. Param.

#### 5.6.3 draw.AreaCircle

Requires the following attributes: cx, cy, r.

Allows the following attributes: cx, cy, href, name, nohref, r, show, targetframename, type.

These elements contain draw. Area Circle: draw. Image Map.

The following elements occur in draw. Area Circle: office. Event Listeners, svg. Desc.

### 5.6.4 draw.AreaPolygon

Requires the following attributes: height, points, viewbox, width, x, y.

Allows the following attributes: *height, href, name, nohref, points, show, targetframename, type, viewbox, width, x, y.* 

These elements contain draw. Area Polygon: draw. Image Map.

The following elements occur in draw. AreaPolygon: office. EventListeners, svg. Desc.

### 5.6.5 draw.AreaRectangle

Requires the following attributes: height, width, x, y.

Allows the following attributes: *height, href, name, nohref, show, targetframename, type, width, x, y.* 

These elements contain draw. AreaRectangle: draw. ImageMap.

The following elements occur in draw. AreaRectangle: office. EventListeners, svg. Desc.

### 5.6.6 draw.Caption

Requires the following attributes: No attribute is required.

Allows the following attributes: anchorpagenumber, anchortype, captionpointx, captionpointy, classnames, cornerradius, endcelladdress, endx, endy, height, id, layer, name, stylename, tablebackground, textstylename, transform, width, x, y, zindex.

These elements contain draw. Caption: draw. G, draw. Page, draw. TextBox, office. Text, presentation. Notes, style. Handout Master, style. Master Page, table. Covered Table Cell, table. Shapes, table. Table Cell, text. A, text. Deletion, text. H, text. Index Body, text. Index Title, text. Note Body, text. P, text. Ruby Base, text. Section, text. Span.

The following elements occur in draw. Caption: draw. GluePoint, office. EventListeners, text. List, text. P.

### 5.6.7 draw.Circle

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: anchorpagenumber, anchortype, classnames, cx, cy, endangle, endcelladdress, endx, endy, height, id, kind, layer, name, r, startangle, stylename, tablebackground, textstylename, transform, width, x, y, zindex.

These elements contain draw.Circle: draw.G, draw.Page, draw.TextBox, office.Text, presentation.Notes, style.HandoutMaster, style.MasterPage, table.CoveredTableCell, table.Shapes, table.TableCell, text.A, text.Deletion, text.H, text.IndexBody, text.IndexTitle, text.NoteBody, text.P, text.RubyBase, text.Section, text.Span.

The following elements occur in draw.Circle: draw.GluePoint, office.EventListeners, text.List, text.P.

### 5.6.8 draw.Connector

Requires the following attributes: No attribute is required.

Allows the following attributes: anchorpagenumber, anchortype, classnames, endcelladdress, endgluepoint, endshape, endx, endy, id, layer, lineskew, name, startgluepoint, startshape, stylename, tablebackground, textstylename, transform, type, x1, x2, y1, y2, zindex.

These elements contain draw.Connector: draw.G, draw.Page, draw.TextBox, office.Text, presentation.Notes, style.HandoutMaster, style.MasterPage, table.CoveredTableCell, table.Shapes, table.TableCell, text.A, text.Deletion, text.H, text.IndexBody, text.IndexTitle, text.NoteBody, text.P, text.RubyBase, text.Section, text.Span.

The following elements occur in draw. Connector: draw. GluePoint, office. EventListeners, text. List, text. P.

#### 5.6.9 draw.ContourPath

Requires the following attributes: *d, recreateonedit, viewbox.* 

Allows the following attributes: *d, height, recreateonedit, viewbox, width.* 

These elements contain draw.ContourPath: draw.Frame.

The following elements occur in draw. Contour Path: No element is allowed.

### 5.6.10 draw.ContourPolygon

Requires the following attributes: points, recreateonedit, viewbox.

Allows the following attributes: height, points, recreateonedit, viewbox, width.

These elements contain draw. Contour Polygon: draw. Frame.

The following elements occur in draw. Contour Polygon: No element is allowed.

#### 5.6.11 draw.Control

Requires the following attributes: control.

Allows the following attributes: anchorpagenumber, anchortype, classnames, control, endcelladdress, endx, endy, height, id, layer, name, stylename, tablebackground, textstylename, transform, width, x, y, zindex.

These elements contain draw.Control: draw.G, draw.Page, draw.TextBox, office.Text, presentation.Notes, style.HandoutMaster, style.MasterPage, table.CoveredTableCell, table.Shapes, table.TableCell, text.A, text.Deletion, text.H, text.IndexBody, text.IndexTitle, text.NoteBody, text.P, text.RubyBase, text.Section, text.Span.

The following elements occur in draw. Control: draw. GluePoint.

### 5.6.12 draw.CustomShape

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: anchorpagenumber, anchortype, classnames, data, endcelladdress, endx, endy, engine, height, id, layer, name, stylename, tablebackground, textstylename, transform, width, x, y, zindex.

These elements contain draw.CustomShape: draw.G, draw.Page, draw.TextBox, office.Text, presentation.Notes, style.HandoutMaster, style.MasterPage, table.CoveredTableCell, table.Shapes, table.TableCell, text.A, text.Deletion, text.H, text.IndexBody, text.IndexTitle, text.NoteBody, text.P, text.RubyBase, text.Section, text.Span.

The following elements occur in draw. Custom Shape: draw. Enhanced Geometry, draw. Glue Point, office. Event Listeners, text. List, text. P.

### 5.6.13 draw.Ellipse

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: anchorpagenumber, anchortype, classnames, cx, cy, endangle, endcelladdress, endx, endy, height, id, kind, layer, name, rx, ry, startangle, stylename, tablebackground, textstylename, transform, width, x, y, zindex.

These elements contain draw. Ellipse: draw. G, draw. Page, draw. TextBox, office. Text, presentation. Notes, style. Handout Master, style. Master Page, table. Covered Table Cell, table. Shapes, table. Table Cell, text. A, text. Deletion, text. H, text. Index Body, text. Index Title, text. Note Body, text. P, text. Ruby Base, text. Section, text. Span.

The following elements occur in draw. Ellipse: draw. GluePoint, office. EventListeners, text. List, text. P.

## 5.6.14 draw.EnhancedGeometry

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: concentricgradientfillallowed, enhancedpath, extrusion,

extrusionallowed, extrusionbrightness, extrusioncolor, extrusiondepth, extrusiondiffusion, extrusionfirstlightdirection, extrusionfirstlightharsh, extrusionfirstlightlevel, extrusionlightface, extrusionmetal, extrusionnumberoflinesegments, extrusionorigin, extrusionrotationangle, extrusionrotationcenter, extrusionsecondlightdirection, extrusionsecondlightharsh, extrusionsecondlightlevel, extrusionshininess, extrusionskew, extrusionspecularity, extrusionviewpoint, gluepointleavingdirections, gluepoints, gluepointtype, mirrorhorizontal, mirrorvertical, modifiers, pathstretchpointx, pathstretchpointy, projection, shademode, textareas, textpath, textpathallowed, textpathmode, textpathsameletterheights, textpathscale, textrotateangle, type, viewbox.

These elements contain draw. Enhanced Geometry: draw. Custom Shape.

The following elements occur in draw. Enhanced Geometry: draw. Equation, draw. Handle.

### 5.6.15 draw.Equation

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: formula, name.

These elements contain draw. Equation: draw. Enhanced Geometry.

The following elements occur in draw. Equation: No element is allowed.

### 5.6.16 draw.FillImage

Requires the following attributes: *href, name*.

Allows the following attributes: actuate, displayname, height, href, name, show, type, width.

These elements contain draw.FillImage: office.Styles.

The following elements occur in draw. FillImage: No element is allowed.

### 5.6.17 draw.FloatingFrame

Requires the following attributes: *href*.

Allows the following attributes: actuate, framename, href, show, type.

These elements contain draw.FloatingFrame: draw.Frame.

The following elements occur in draw. Floating Frame: No element is allowed.

#### 5.6.18 draw.Frame

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: anchorpagenumber, anchortype, class, classnames, copyof, endcelladdress, endx, endy, height, id, layer, name, placeholder, relheight, relwidth, stylename, tablebackground, textstylename, transform, usertransformed, width, x, y, zindex.

These elements contain draw.Frame: draw.A, draw.G, draw.Page, draw.TextBox, office.Image, office.Text, presentation.Notes, style.HandoutMaster, style.MasterPage, table.CoveredTableCell, table.Shapes, table.TableCell, text.A, text.Deletion, text.H, text.IndexBody, text.IndexTitle, text.NoteBody, text.P, text.RubyBase, text.Section, text.Span.

The following elements occur in draw. Frame: draw. Applet, draw. Contour Path, draw. Contour Polygon, draw. Floating Frame, draw. Glue Point, draw. Image, draw. Image Map, draw. Object, draw. Object Ole, draw. Plugin, draw. Text Box, office. Event Listeners, svg. Desc.

#### 5.6.19 draw.G

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: anchorpagenumber, anchortype, classnames, endcelladdress, endx, endy, id, name, stylename, tablebackground, y, zindex.

These elements contain draw.G: draw.G, draw.Page, draw.TextBox, office.Text,

presentation.Notes, style.HandoutMaster, style.MasterPage, table.CoveredTableCell, table.Shapes, table.TableCell, text.A, text.Deletion, text.H, text.IndexBody, text.IndexTitle, text.NoteBody, text.P, text.RubyBase, text.Section, text.Span.

The following elements occur in draw.G: dr3d.Scene, draw.Caption, draw.Circle, draw.Connector, draw.Control, draw.CustomShape, draw.Ellipse, draw.Frame, draw.G, draw.GluePoint, draw.Line, draw.Measure, draw.PageThumbnail, draw.Path, draw.Polygon, draw.Polyline, draw.Rect, draw.RegularPolygon, office.EventListeners.

### 5.6.20 draw.GluePoint

Requires the following attributes: align, id, x, y.

Allows the following attributes: align, id, x, y.

These elements contain draw.GluePoint: draw.Caption, draw.Circle, draw.Connector,

draw.Control, draw.CustomShape, draw.Ellipse, draw.Frame, draw.G, draw.Line, draw.Measure, draw.Path, draw.Polygon, draw.Polyline, draw.Rect, draw.RegularPolygon.

The following elements occur in draw. GluePoint: No element is allowed.

### 5.6.21 draw.Gradient

Requires the following attributes: style.

Allows the following attributes: angle, border, cx, cy, displayname, endcolor, endintensity, name, startcolor, startintensity, style.

These elements contain draw. Gradient: office. Styles.

The following elements occur in draw. Gradient: No element is allowed.

### 5.6.22 draw.Handle

Requires the following attributes: handleposition.

Allows the following attributes: handlemirrorhorizontal, handlemirrorvertical, handlepolar, handleposition, handleradiusrangemaximum, handleradiusrangeminimum, handlerangexmaximum, handlerangeyminimum, handleswitched.

These elements contain draw. Handle: draw. Enhanced Geometry.

The following elements occur in draw. Handle: No element is allowed.

### 5.6.23 draw.Hatch

Requires the following attributes: name, style.

Allows the following attributes: color, displayname, distance, name, rotation, style.

These elements contain draw. Hatch: office. Styles.

The following elements occur in draw. Hatch: No element is allowed.

### 5.6.24 draw.lmage

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: actuate, filtername, href, show, type.

These elements contain draw.Image: draw.Frame.

The following elements occur in draw.Image: office.BinaryData, text.List, text.P.

### 5.6.25 draw.lmageMap

Requires the following attributes: *No attribute is required*. Allows the following attributes: *No attribute is allowed*. These elements contain draw.ImageMap: *draw.Frame*.

The following elements occur in draw.ImageMap: draw.AreaCircle, draw.AreaPolygon, draw.AreaRectangle.

### 5.6.26 draw.Layer

Requires the following attributes: *No attribute is required.* Allows the following attributes: *display, name, protected.* These elements contain draw.Layer: *draw.LayerSet.* 

The following elements occur in draw. Layer: No element is allowed.

### 5.6.27 draw.LayerSet

Requires the following attributes: *No attribute is required.*Allows the following attributes: *No attribute is allowed.*These elements contain draw.LayerSet: *office.MasterStyles.*The following elements occur in draw.LayerSet: *draw.Layer.* 

#### 5.6.28 draw.Line

Requires the following attributes: No attribute is required.

Allows the following attributes: anchorpagenumber, anchortype, classnames, endcelladdress, endx, endy, id, layer, name, stylename, tablebackground, textstylename, transform, x1, x2, y1, y2, zindex. These elements contain draw.Line: draw.G, draw.Page, draw.TextBox, office.Text, presentation.Notes, style.HandoutMaster, style.MasterPage, table.CoveredTableCell, table.Shapes, table.TableCell, text.A, text.Deletion, text.H, text.IndexBody, text.IndexTitle, text.NoteBody, text.P, text.RubyBase, text.Section, text.Span.

The following elements occur in draw.Line: draw.GluePoint, office.EventListeners, text.List, text.P.

#### 5.6.29 draw.Marker

Requires the following attributes: d, name, viewbox.

Allows the following attributes: d, displayname, name, viewbox.

These elements contain draw.Marker: office.Styles.

The following elements occur in draw. Marker: No element is allowed.

### 5.6.30 draw.Measure

Requires the following attributes: x1, x2, y1, y2.

Allows the following attributes: anchorpagenumber, anchortype, classnames, endcelladdress, endx, endy, id, layer, name, stylename, tablebackground, textstylename, transform, x1, x2, y1, y2, zindex. These elements contain draw.Measure: draw.G, draw.Page, draw.TextBox, office.Text, presentation.Notes, style.HandoutMaster, style.MasterPage, table.CoveredTableCell, table.Shapes, table.TableCell, text.A, text.Deletion, text.H, text.IndexBody, text.IndexTitle, text.NoteBody, text.P, text.RubyBase, text.Section, text.Span.

The following elements occur in draw. Measure: draw. GluePoint, office. EventListeners, text. List, text. P.

### 5.6.31 draw.Object

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: actuate, href, notifyonupdateofranges, show, type.

These elements contain draw. Object: draw. Frame.

The following elements occur in draw. Object: math. Math, office. Document.

### 5.6.32 draw.ObjectOle

Requires the following attributes: No attribute is required.

Allows the following attributes: actuate, classid, href, show, type.

These elements contain draw. ObjectOle: draw. Frame.

The following elements occur in draw. ObjectOle: office. Binary Data.

### 5.6.33 draw.Opacity

Requires the following attributes: style.

Allows the following attributes: angle, border, cx, cy, displayname, end, name, start, style.

These elements contain draw. Opacity: office. Styles.

The following elements occur in draw. Opacity: No element is allowed.

### 5.6.34 draw.Page

Requires the following attributes: *masterpagename*.

Allows the following attributes: *id, masterpagename, name, presentationpagelayoutname, stylename, usedatetimename, usefootername, useheadername.* 

These elements contain draw.Page: office.Drawing, office.Presentation.

The following elements occur in draw.Page: anim.Animate, anim.Animatecolor, anim.Animatemotion, anim.Animatetransform, anim.Audio, anim.Command, anim.Iterate, anim.Par, anim.Seq, anim.Set, anim.Transitionfilter, dr3d.Scene, draw.Caption, draw.Circle, draw.Connector, draw.Control, draw.CustomShape, draw.Ellipse, draw.Frame, draw.G, draw.Line, draw.Measure, draw.PageThumbnail, draw.Path, draw.Polygon, draw.Polyline, draw.Rect, draw.RegularPolygon, office.Forms, presentation.Animations, presentation.Notes.

### 5.6.35 draw.PageThumbnail

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: anchorpagenumber, anchortype, class, classnames, endcelladdress, endx, endy, height, id, layer, name, pagenumber, placeholder, stylename, tablebackground, transform, usertransformed, width, x, y, zindex.

These elements contain draw.PageThumbnail: draw.G, draw.Page, draw.TextBox, office.Text, presentation.Notes, style.HandoutMaster, style.MasterPage, table.CoveredTableCell, table.Shapes, table.TableCell, text.A, text.Deletion, text.H, text.IndexBody, text.IndexTitle, text.NoteBody, text.P, text.RubyBase, text.Section, text.Span.

The following elements occur in draw.PageThumbnail: No element is allowed.

#### 5.6.36 draw.Param

Requires the following attributes: No attribute is required.

Allows the following attributes: name, value.

These elements contain draw.Param: draw.Applet, draw.Plugin.

The following elements occur in draw. Param: No element is allowed.

### 5.6.37 draw.Path

Requires the following attributes: *d, viewbox.* 

Allows the following attributes: anchorpagenumber, anchortype, classnames, d, endcelladdress, endx, endy, height, id, layer, name, stylename, tablebackground, textstylename, transform, viewbox, width, x, y, zindex.

These elements contain draw.Path: draw.G, draw.Page, draw.TextBox, office.Text,

presentation.Notes, style.HandoutMaster, style.MasterPage, table.CoveredTableCell, table.Shapes, table.TableCell, text.A, text.Deletion, text.H, text.IndexBody, text.IndexTitle, text.NoteBody, text.P, text.RubyBase, text.Section, text.Span.

The following elements occur in draw.Path: draw.GluePoint, office.EventListeners, text.List, text.P.

### 5.6.38 draw.Plugin

Requires the following attributes: href.

Allows the following attributes: actuate, href, mimetype, show, type.

These elements contain draw.Plugin: draw.Frame.

The following elements occur in draw.Plugin: draw.Param.

### 5.6.39 draw.Polygon

Requires the following attributes: *points, viewbox*.

Allows the following attributes: anchorpagenumber, anchortype, classnames, endcelladdress, endx, endy, height, id, layer, name, points, stylename, tablebackground, textstylename, transform, viewbox, width, x, y, zindex.

These elements contain draw.Polygon: draw.G, draw.Page, draw.TextBox, office.Text, presentation.Notes, style.HandoutMaster, style.MasterPage, table.CoveredTableCell, table.Shapes, table.TableCell, text.A, text.Deletion, text.H, text.IndexBody, text.IndexTitle, text.NoteBody, text.P, text.RubyBase, text.Section, text.Span.

The following elements occur in draw.Polygon: draw.GluePoint, office.EventListeners, text.List, text.P.

### 5.6.40 draw.Polyline

Requires the following attributes: points, viewbox.

Allows the following attributes: anchorpagenumber, anchortype, classnames, endcelladdress, endx, endy, height, id, layer, name, points, stylename, tablebackground, textstylename, transform, viewbox, width, x, y, zindex.

These elements contain draw.Polyline: draw.G, draw.Page, draw.TextBox, office.Text, presentation.Notes, style.HandoutMaster, style.MasterPage, table.CoveredTableCell, table.Shapes, table.TableCell, text.A, text.Deletion, text.H, text.IndexBody, text.IndexTitle, text.NoteBody, text.P, text.RubyBase, text.Section, text.Span.

The following elements occur in draw.Polyline: draw.GluePoint, office.EventListeners, text.List, text.P.

### 5.6.41 draw.Rect

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: anchorpagenumber, anchortype, classnames, cornerradius, endcelladdress, endx, endy, height, id, layer, name, stylename, tablebackground, textstylename, transform, width, x, y, zindex.

These elements contain draw.Rect: draw.G, draw.Page, draw.TextBox, office.Text, presentation.Notes, style.HandoutMaster, style.MasterPage, table.CoveredTableCell, table.Shapes, table.TableCell, text.A, text.Deletion, text.H, text.IndexBody, text.IndexTitle, text.NoteBody, text.P, text.RubyBase, text.Section, text.Span.

The following elements occur in draw.Rect: draw.GluePoint, office.EventListeners, text.List, text.P.

## 5.6.42 draw.RegularPolygon

Requires the following attributes: corners.

Allows the following attributes: anchorpagenumber, anchortype, classnames, concave, corners, endcelladdress, endx, endy, height, id, layer, name, sharpness, stylename, tablebackground, textstylename, transform, width, x, y, zindex.

These elements contain draw.RegularPolygon: draw.G, draw.Page, draw.TextBox, office.Text, presentation.Notes, style.HandoutMaster, style.MasterPage, table.CoveredTableCell, table.Shapes, table.TableCell, text.A, text.Deletion, text.H, text.IndexBody, text.IndexTitle, text.NoteBody, text.P, text.RubyBase, text.Section, text.Span.

The following elements occur in draw.RegularPolygon: *draw.GluePoint*, *office.EventListeners*, *text.List*, *text.P*.

### 5.6.43 draw.StrokeDash

Requires the following attributes: name.

Allows the following attributes: *displayname*, *distance*, *dots1*, *dots1length*, *dots2*, *dots2length*, *name*, *style*.

These elements contain draw. Stroke Dash: office. Styles.

The following elements occur in draw. Stroke Dash: No element is allowed.

#### 5.6.44 draw.TextBox

Requires the following attributes: No attribute is required.

Allows the following attributes: *chainnextname*, *cornerradius*, *maxheight*, *maxwidth*, *minheight*, *minwidth*.

These elements contain draw. TextBox: draw. Frame.

The following elements occur in draw. TextBox: dr3d. Scene, draw. A, draw. Caption, draw. Circle, draw. Connector, draw. Control, draw. CustomShape, draw. Ellipse, draw. Frame, draw. G, draw. Line, draw. Measure, draw. PageThumbnail, draw. Path, draw. Polygon, draw. Polyline, draw. Regular Polygon, table. Table, text. Alphabetical Index, text. Bibliography, text. Change, text. Change End, text. Change Start, text. H, text. Illustration Index, text. List, text. Numbered Paragraph, text. Object Index, text. P, text. Section, text. Table Index, text. Table Of Content, text. User Index.

### 5.7 form module

### 5.7.1 form.Button

Requires the following attributes: id.

Allows the following attributes: bind, buttontype, controlimplementation, defaultbutton, disabled, focusonclick, href, id, imagealign, imagedata, imageposition, label, name, printable, tabindex, tabstop, targetframe, title, toggle, value, xformssubmission.

These elements contain form.Button: form.Form.

The following elements occur in form. Button: form. Properties, office. EventListeners.

#### 5.7.2 form.Checkbox

Requires the following attributes: *id*.

Allows the following attributes: bind, controlimplementation, currentstate, datafield, disabled, id, imagealign, imageposition, istristate, label, name, printable, state, tabindex, tabstop, title, value, visualeffect.

These elements contain form. Checkbox: form. Column, form. Form.

The following elements occur in form. Checkbox: form. Properties, office. Event Listeners.

#### 5.7.3 form.Column

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *controlimplementation, label, name, textstylename*.

These elements contain form.Column: form.Grid.

The following elements occur in form.Column: form.Checkbox, form.Combobox, form.Date, form.FormattedText, form.Listbox, form.Number, form.Text, form.Textarea.

### 5.7.4 form.Combobox

Requires the following attributes: id.

Allows the following attributes: autocomplete, bind, controlimplementation, convertemptytonull, currentvalue, datafield, disabled, dropdown, id, listsource, listsourcetype, maxlength, name, printable, readonly, size, tabindex, tabstop, title, value.

These elements contain form.Combobox: form.Column, form.Form.

The following elements occur in form. Combobox: form. Item, form. Properties, office. EventListeners.

#### 5.7.5 form.ConnectionResource

Requires the following attributes: *href*. Allows the following attributes: *href*.

These elements contain form.ConnectionResource: form.Form, text.DatabaseDisplay, text.DatabaseName, text.DatabaseNext, text.DatabaseRowNumber, text.DatabaseRowSelect. The following elements occur in form.ConnectionResource: No element is allowed.

#### 5.7.6 form.Date

Requires the following attributes: id.

Allows the following attributes: bind, controlimplementation, convertemptytonull, currentvalue, datafield, disabled, id, maxlength, maxvalue, minvalue, name, printable, readonly, tabindex, tabstop, title, value.

These elements contain form. Date: form. Column, form. Form.

The following elements occur in form. Date: form. Properties, office. Event Listeners.

### 5.7.7 form.File

Requires the following attributes: id.

Allows the following attributes: bind, controlimplementation, currentvalue, disabled, id, maxlength, name, printable, readonly, tabindex, tabstop, title, value.

These elements contain form. File: form. Form.

The following elements occur in form. File: form. Properties, office. EventListeners.

#### 5.7.8 form.FixedText

Requires the following attributes: id.

Allows the following attributes: bind, controlimplementation, disabled, for, id, label, multiline, name, printable, title.

These elements contain form. Fixed Text: form. Form.

The following elements occur in form. Fixed Text: form. Properties, office. Event Listeners.

### 5.7.9 form.Form

Requires the following attributes: No attribute is required.

Allows the following attributes: actuate, allowdeletes, allowinserts, allowupdates, applyfilter, command, commandtype, controlimplementation, datasource, detailfields, enctype, escapeprocessing, filter, href, ignoreresult, masterfields, method, name, navigationmode, order, tabcycle, targetframe, type.

These elements contain form. Form: form. Form, office. Forms.

The following elements occur in form.Form: form.Button, form.Checkbox, form.Combobox, form.ConnectionResource, form.Date, form.File, form.FixedText, form.Form, form.FormattedText, form.Frame, form.GenericControl, form.Grid, form.Hidden, form.Image, form.ImageFrame, form.Listbox, form.Number, form.Password, form.Properties, form.Radio, form.Text, form.Textarea, form.Time, form.ValueRange, office.EventListeners.

### 5.7.10 form.FormattedText

Requires the following attributes: id.

Allows the following attributes: bind, controlimplementation, convertemptytonull, currentvalue, datafield, disabled, id, maxlength, maxvalue, minvalue, name, printable, readonly, tabindex, tabstop, title, validation, value.

These elements contain form.FormattedText: form.Column, form.Form.

The following elements occur in form.FormattedText: form.Properties, office.EventListeners.

#### **5.7.11** form.Frame

Requires the following attributes: id.

Allows the following attributes: bind, controlimplementation, disabled, for, id, label, name, printable, title.

These elements contain form.Frame: form.Form.

The following elements occur in form. Frame: form. Properties, office. EventListeners.

#### 5.7.12 form.GenericControl

Requires the following attributes: id.

Allows the following attributes: bind, controlimplementation, id, name.

These elements contain form.GenericControl: form.Form.

The following elements occur in form.GenericControl: form.Properties, office.EventListeners.

### 5.7.13 form.Grid

Requires the following attributes: id.

Allows the following attributes: bind, controlimplementation, disabled, id, name, printable, tabindex, tabstop, title.

These elements contain form.Grid: form.Form.

The following elements occur in form. Grid: form. Column, form. Properties, office. EventListeners.

#### 5.7.14 form.Hidden

Requires the following attributes: id.

Allows the following attributes: bind, controlimplementation, id, name, value.

These elements contain form. Hidden: form. Form.

The following elements occur in form. Hidden: form. Properties, office. EventListeners.

### 5.7.15 form.lmage

Requires the following attributes: id.

Allows the following attributes: bind, buttontype, controlimplementation, disabled, href, id,

imagedata, name, printable, tabindex, tabstop, targetframe, title, value.

These elements contain form.Image: form.Form.

The following elements occur in form.Image: form.Properties, office.EventListeners.

### 5.7.16 form.lmageFrame

Requires the following attributes: id.

Allows the following attributes: bind, controlimplementation, datafield, disabled, id, imagedata,

name, printable, readonly, title.

These elements contain form.ImageFrame: form.Form.

The following elements occur in form.ImageFrame: form.Properties, office.EventListeners.

### 5.7.17 form.ltem

Requires the following attributes: No attribute is required.

Allows the following attributes: label.

These elements contain form. Item: form. Combobox.

The following elements occur in form. Item: No element is allowed.

### 5.7.18 form.ListProperty

Requires the following attributes: propertyname.

Allows the following attributes: propertyname, valuetype.

These elements contain form.ListProperty: form.Properties.

The following elements occur in form.ListProperty:

form. List Value form

### 5.7.19 form.ListValue

Requires the following attributes: stringvalue.

Allows the following attributes: stringvalue.

These elements contain form.ListValue: form.ListProperty.

The following elements occur in form.ListValue: No element is allowed.

### 5.7.20 form.Listbox

Requires the following attributes: id.

Allows the following attributes: bind, boundcolumn, controlimplementation, datafield, disabled, dropdown, id, listsource, listsourcetype, multiple, name, printable, size, tabindex, tabstop, title, xformslistsource.

These elements contain form.Listbox: form.Column, form.Form.

The following elements occur in form.Listbox: form.Option, form.Properties, office.EventListeners.

#### 5.7.21 form.Number

Requires the following attributes: id.

Allows the following attributes: bind, controlimplementation, convertemptytonull, currentvalue, datafield, disabled, id, maxlength, maxvalue, minvalue, name, printable, readonly, tabindex,

tabstop, title, value.

These elements contain form. Number: form. Column, form. Form.

The following elements occur in form. Number: form. Properties, office. EventListeners.

### 5.7.22 form.Option

Requires the following attributes: No attribute is required.

Allows the following attributes: currentselected, label, selected, value.

These elements contain form. Option: form. Listbox.

The following elements occur in form. Option: No element is allowed.

#### 5.7.23 form.Password

Requires the following attributes: id.

Allows the following attributes: bind, controlimplementation, convertemptytonull, disabled, echochar, id, maxlength, name, printable, tabindex, tabstop, title, value.

These elements contain form.Password: form.Form.

The following elements occur in form.Password: form.Properties, office.EventListeners.

### 5.7.24 form.Properties

Requires the following attributes: No attribute is required.

Allows the following attributes: *No attribute is allowed*.

These elements contain form.Properties: form.Button, form.Checkbox, form.Combobox, form.Date, form.File, form.FixedText, form.Form, form.FormattedText, form.Frame, form.GenericControl, form.Grid, form.Hidden, form.Image, form.ImageFrame, form.Listbox, form.Number, form.Password, form.Radio, form.Text, form.Textarea, form.Time, form.ValueRange.

The following elements occur in form.Properties: form.ListProperty, form.Property.

### 5.7.25 form.Property

Requires the following attributes: No attribute is required.

Allows the following attributes: *booleanvalue*, *currency*, *datevalue*, *propertyname*, *stringvalue*, *timevalue*, *value*, *valuetype*.

These elements contain form. Property: form. Properties.

The following elements occur in form. Property: No element is allowed.

### 5.7.26 form.Radio

Requires the following attributes: id.

Allows the following attributes: bind, controlimplementation, currentselected, datafield, disabled, id, imagealign, imageposition, label, name, printable, selected, tabindex, tabstop, title, value, visualeffect.

These elements contain form.Radio: form.Form.

The following elements occur in form.Radio: form.Properties, office.EventListeners.

### 5.7.27 form.Text

Requires the following attributes: id.

Allows the following attributes: bind, controlimplementation, convertemptytonull, currentvalue, datafield, disabled, id, maxlength, name, printable, readonly, tabindex, tabstop, title, value.

These elements contain form. Text: form. Column, form. Form.

The following elements occur in form. Text: form. Properties, office. EventListeners.

#### 5.7.28 form.Textarea

Requires the following attributes: id.

Allows the following attributes: bind, controlimplementation, convertemptytonull, currentvalue, datafield, disabled, id, maxlength, name, printable, readonly, tabindex, tabstop, title, value. These elements contain form. Textarea: form. Column, form. Form.

The following elements occur in form. Textarea: form. Properties, office. EventListeners, text. P.

### 5.7.29 form.Time

Requires the following attributes: id.

Allows the following attributes: bind, controlimplementation, convertemptytonull, currentvalue, datafield, disabled, id, maxlength, maxvalue, minvalue, name, printable, readonly, tabindex, tabstop, title, value.

These elements contain form. Time: form. Form.

The following elements occur in form. Time: form. Properties, office. EventListeners.

### 5.7.30 form.ValueRange

Requires the following attributes: id.

Allows the following attributes: bind, controlimplementation, delayforrepeat, disabled, id, maxvalue, minvalue, name, orientation, pagestepsize, printable, stepsize, tabindex, tabstop, title, value.

These elements contain form. ValueRange: form. Form.

The following elements occur in form. ValueRange: form. Properties, office. EventListeners.

#### 5.8 manifest module

The manifest module is used to create the manifest. This is already done automatically by the software library, and there is no need to use this module unless you subclass the OpenDocument classes.

## 5.8.1 manifest.Algorithm

Requires the following attributes: *algorithmname*, *initialisationvector*.

Allows the following attributes: algorithmname, initialisationvector.

These elements contain manifest. Algorithm: manifest. Encryption Data.

The following elements occur in manifest. Algorithm: No element is allowed.

### 5.8.2 manifest.EncryptionData

Requires the following attributes: *checksum*, *checksumtype*.

Allows the following attributes: checksum, checksumtype.

These elements contain manifest. Encryption Data: manifest. File Entry.

The following elements occur in manifest. Encryption Data: *manifest.Algorithm*, *manifest.KeyDerivation*.

### 5.8.3 manifest.FileEntry

Requires the following attributes: *fullpath*, *mediatype*.

Allows the following attributes: *fullpath*, *mediatype*, *size*.

These elements contain manifest. FileEntry: manifest. Manifest.

The following elements occur in manifest. FileEntry: manifest. EncryptionData.

#### 5.8.4 manifest.KeyDerivation

Requires the following attributes: *iterationcount*, *keyderivationname*, *salt*. Allows the following attributes: iterationcount, keyderivationname, salt. These elements contain manifest. Key Derivation: manifest. Encryption Data. The following elements occur in manifest. Key Derivation: No element is allowed.

#### manifest.Manifest 5.8.5

Requires the following attributes: No attribute is required. Allows the following attributes: *No attribute is allowed*.

These elements contain manifest. Manifest: This is a toplevel element. The following elements occur in manifest. Manifest: manifest. FileEntry.

#### 5.9 math module

#### 5.9.1 math.Math

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed*.

These elements contain math.Math: draw.Object.

The following elements occur in math.Math: Any element is allowed.

#### 5.10 meta module

Use the meta module to add information about the document such as title and auther. The library automatically adds a generator string.

#### 5.10.1 meta.AutoReload

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: actuate, delay, href, show, type.

These elements contain meta. AutoReload: office. Meta.

The following elements occur in meta. AutoReload: No element is allowed.

#### 5.10.2 meta.CreationDate

Requires the following attributes: No attribute is required. Allows the following attributes: No attribute is allowed. These elements contain meta. Creation Date: office. Meta.

The following elements occur in meta. Creation Date: No element is allowed.

#### 5.10.3 meta.DateString

Requires the following attributes: *No attribute is required.* Allows the following attributes: No attribute is allowed. These elements contain meta. DateString: office. Annotation.

The following elements occur in meta. DateString: No element is allowed.

#### 5.10.4 meta.DocumentStatistic

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: cellcount, charactercount, drawcount, framecount, imagecount,

nonwhitespacecharactercount, objectcount, oleobjectcount, pagecount, paragraphcount, rowcount, sentencecount, syllablecount, tablecount, wordcount.

These elements contain meta. Document Statistic: office. Meta.

The following elements occur in meta. Document Statistic: No element is allowed.

### 5.10.5 meta.EditingCycles

Requires the following attributes: *No attribute is required*. Allows the following attributes: *No attribute is allowed*. These elements contain meta. Editing Cycles: *office.Meta*.

The following elements occur in meta. Editing Cycles: No element is allowed.

### 5.10.6 meta.EditingDuration

Requires the following attributes: *No attribute is required*. Allows the following attributes: *No attribute is allowed*. These elements contain meta. Editing Duration: *office.Meta*.

The following elements occur in meta. Editing Duration: No element is allowed.

### 5.10.7 meta.Generator

Requires the following attributes: *No attribute is required*. Allows the following attributes: *No attribute is allowed*. These elements contain meta.Generator: *office.Meta*.

The following elements occur in meta. Generator: No element is allowed.

### 5.10.8 meta. Hyperlink Behaviour

Requires the following attributes: *No attribute is required*. Allows the following attributes: *show, targetframename*. These elements contain meta. Hyperlink Behaviour: *office.Meta*.

The following elements occur in meta. Hyperlink Behaviour: No element is allowed.

### 5.10.9 meta.InitialCreator

Requires the following attributes: *No attribute is required*. Allows the following attributes: *No attribute is allowed*. These elements contain meta.InitialCreator: *office.Meta*.

The following elements occur in meta. Initial Creator: No element is allowed.

### 5.10.10 meta.Keyword

Requires the following attributes: *No attribute is required*. Allows the following attributes: *No attribute is allowed*. These elements contain meta. Keyword: *office.Meta*.

The following elements occur in meta. Keyword: No element is allowed.

#### 5.10.11 meta.PrintDate

Requires the following attributes: *No attribute is required*. Allows the following attributes: *No attribute is allowed*. These elements contain meta.PrintDate: *office.Meta*.

The following elements occur in meta. PrintDate: No element is allowed.

### 5.10.12 meta.PrintedBy

Requires the following attributes: *No attribute is required*. Allows the following attributes: *No attribute is allowed*. These elements contain meta.PrintedBy: *office.Meta*.

The following elements occur in meta. Printed By: No element is allowed.

### 5.10.13 meta.Template

Requires the following attributes: *No attribute is required.*Allows the following attributes: *actuate, date, href, title, type.* 

These elements contain meta. Template: office. Meta.

The following elements occur in meta. Template: No element is allowed.

#### 5.10.14 meta.UserDefined

Requires the following attributes: *name*.

Allows the following attributes: name, valuetype.

These elements contain meta. UserDefined: office. Meta.

The following elements occur in meta. UserDefined: No element is allowed.

### 5.11 number module

#### 5.11.1 number.AmPm

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain number. AmPm: number. DateStyle, number. TimeStyle.

The following elements occur in number. AmPm: No element is allowed.

### 5.11.2 number.Boolean

Requires the following attributes: *No attribute is required*. Allows the following attributes: *No attribute is allowed*.

These elements contain number. Boolean: number. Boolean Style.

The following elements occur in number. Boolean: No element is allowed.

## 5.11.3 number.BooleanStyle

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: country, language, name, title, transliterationcountry,

transliterationformat, transliterationlanguage, transliterationstyle, volatile.

These elements contain number. Boolean Style: office. Automatic Styles, office. Styles.

The following elements occur in number.BooleanStyle: number.Boolean, number.Text, style.Map, style.TextProperties.

## 5.11.4 number.CurrencyStyle

Requires the following attributes: name.

Allows the following attributes: automaticorder, country, language, name, title,

transliterationcountry, transliterationformat, transliterationlanguage, transliterationstyle, volatile.

These elements contain number. Currency Style: office. Automatic Styles, office. Styles.

The following elements occur in number. Currency Style: number. Currency Symbol,

number.Number, number.Text, style.Map, style.TextProperties.

### 5.11.5 number.CurrencySymbol

Requires the following attributes: No attribute is required.

Allows the following attributes: country, language.

These elements contain number. Currency Symbol: number. Currency Style.

The following elements occur in number. Currency Symbol: No element is allowed.

### 5.11.6 number.DateStyle

Requires the following attributes: name.

Allows the following attributes: automaticorder, country, formatsource, language, name, title, transliterationcountry, transliterationformat, transliterationlanguage, transliterationstyle, volatile.

These elements contain number. DateStyle: office. AutomaticStyles, office. Styles.

The following elements occur in number.DateStyle: number.AmPm, number.Day, number.DayOfWeek, number.Era, number.Hours, number.Minutes, number.Month, number.Quarter, number.Seconds, number.Text, number.WeekOfYear, number.Year, style.Map,

style.TextProperties.

### 5.11.7 number.Day

Requires the following attributes: No attribute is required.

Allows the following attributes: calendar, style.

These elements contain number. Day: number. DateStyle.

The following elements occur in number. Day: No element is allowed.

### 5.11.8 number.DayOfWeek

Requires the following attributes: No attribute is required.

Allows the following attributes: calendar, style.

These elements contain number.DayOfWeek: number.DateStyle.

The following elements occur in number. DayOfWeek: No element is allowed.

### 5.11.9 number.EmbeddedText

Requires the following attributes: *position*.

Allows the following attributes: *position*.

These elements contain number. Embedded Text: number. Number.

The following elements occur in number. Embedded Text: No element is allowed.

### 5.11.10 number.Era

Requires the following attributes: No attribute is required.

Allows the following attributes: calendar, style.

These elements contain number. Era: number. Date Style.

The following elements occur in number. Era: No element is allowed.

#### 5.11.11 number.Fraction

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: denominatorvalue, grouping, mindenominatordigits,

minintegerdigits, minnumeratordigits.

These elements contain number. Fraction: number. Number Style.

The following elements occur in number. Fraction: No element is allowed.

#### 5.11.12 number.Hours

Requires the following attributes: No attribute is required.

Allows the following attributes: *style*.

These elements contain number. Hours: number. Date Style, number. Time Style.

The following elements occur in number. Hours: No element is allowed.

#### 5.11.13 number.Minutes

Requires the following attributes: No attribute is required.

Allows the following attributes: style.

These elements contain number. Minutes: number. Date Style, number. Time Style.

The following elements occur in number. Minutes: No element is allowed.

### 5.11.14 number.Month

Requires the following attributes: No attribute is required.

Allows the following attributes: calendar, possessiveform, style, textual.

These elements contain number.Month: number.DateStyle.

The following elements occur in number. Month: No element is allowed.

### 5.11.15 number.Number

Requires the following attributes: No attribute is required.

Allows the following attributes: decimalplaces, decimalreplacement, displayfactor, grouping, minintegerdigits.

These elements contain number. Number: number. Currency Style, number. Number Style, number. Percentage Style.

The following elements occur in number. Number: number. Embedded Text.

### 5.11.16 number.NumberStyle

Requires the following attributes: name.

Allows the following attributes: *country, language, name, title, transliterationcountry, transliterationformat, transliterationlanguage, transliterationstyle, volatile.* 

These elements contain number. NumberStyle: office. AutomaticStyles, office. Styles.

The following elements occur in number. Number Style: *number.Fraction*, *number.Number*, *number.ScientificNumber*, *number.Text*, *style.Map*, *style.TextProperties*.

### 5.11.17 number.PercentageStyle

Requires the following attributes: name.

Allows the following attributes: *country, language, name, title, transliterationcountry, transliterationformat, transliterationlanguage, transliterationstyle, volatile.* 

These elements contain number. Percentage Style: office. Automatic Styles, office. Styles. The following elements occur in number. Percentage Style: number. Number, number. Text, style. Map, style. Text Properties.

#### 5.11.18 number.Quarter

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: calendar, style.

These elements contain number. Ouarter: number. Date Style.

The following elements occur in number. Quarter: No element is allowed.

#### 5.11.19 number.ScientificNumber

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: decimalplaces, grouping, minexponentdigits, minintegerdigits.

These elements contain number. Scientific Number: number. Number Style.

The following elements occur in number. Scientific Number: No element is allowed.

#### 5.11.20 number. Seconds

Requires the following attributes: No attribute is required.

Allows the following attributes: decimalplaces, style.

These elements contain number. Seconds: number. Date Style, number. Time Style.

The following elements occur in number. Seconds: No element is allowed.

### 5.11.21 number.Text

Requires the following attributes: No attribute is required.

Allows the following attributes: No attribute is allowed.

These elements contain number. Text: number. Boolean Style, number. Currency Style, number. Date Style, number. Number Style, number. Percentage Style, number. Text Style, number. Time Style.

The following elements occur in number. Text: No element is allowed.

### 5.11.22 number.TextContent

Requires the following attributes: No attribute is required.

Allows the following attributes: *No attribute is allowed*.

These elements contain number. TextContent: number. TextStyle.

The following elements occur in number. TextContent: No element is allowed.

### 5.11.23 number.TextStyle

Requires the following attributes: No attribute is required.

Allows the following attributes: country, language, name, title, transliterationcountry,

transliterationformat, transliterationlanguage, transliterationstyle, volatile.

These elements contain number. TextStyle: office. AutomaticStyles, office. Styles.

The following elements occur in number. Text Style: number. Text, number. Text Content, style. Map, style. Text Properties.

### 5.11.24 number.TimeStyle

Requires the following attributes: name.

Allows the following attributes: country, formatsource, language, name, title,

transliterationcountry, transliterationformat, transliterationlanguage, transliterationstyle, truncateonoverflow, volatile.

These elements contain number. TimeStyle: office. AutomaticStyles, office. Styles.

The following elements occur in number. TimeStyle: number. AmPm, number. Hours,

number.Minutes, number.Seconds, number.Text, style.Map, style.TextProperties.

### 5.11.25 number.WeekOfYear

Requires the following attributes: No attribute is required.

Allows the following attributes: *calendar*.

These elements contain number. WeekOfYear: number. DateStyle.

The following elements occur in number. WeekOfYear: No element is allowed.

#### 5.11.26 number. Year

Requires the following attributes: No attribute is required.

Allows the following attributes: calendar, style.

These elements contain number. Year: number. DateStyle.

The following elements occur in number. Year: No element is allowed.

#### 5.12 office module

#### 5.12.1 office.Annotation

Requires the following attributes: No attribute is required.

Allows the following attributes: anchorpagenumber, anchortype, captionpointx, captionpointy, classnames, cornerradius, display, endcelladdress, endx, endy, height, id, layer, name, stylename, tablebackground, textstylename, transform, width, x, y, zindex.

These elements contain office. Annotation: table. Covered Table Cell, table. Table Cell, text. A, text. H, text. P, text. Ruby Base, text. Span.

The following elements occur in office. Annotation: dc. Creator, dc. Date, meta. DateString, text. List, text. P.

### 5.12.2 office.AutomaticStyles

Requires the following attributes: No attribute is required.

Allows the following attributes: *No attribute is allowed.* 

These elements contain office. Automatic Styles: office. Document, office. Document Content, office. Document Styles.

The following elements occur in office. Automatic Styles: number. Boolean Style, number. Currency Style, number. Date Style, number. Number Style, number. Percentage Style, number. Text Style, number. Time Style, style. Page Layout, style. Style, text. List Style.

### 5.12.3 office.BinaryData

Requires the following attributes: No attribute is required.

Allows the following attributes: *No attribute is allowed.* 

These elements contain office.BinaryData: draw.Image, draw.ObjectOle, style.BackgroundImage, text.ListLevelStyleImage.

The following elements occur in office. Binary Data: No element is allowed.

## 5.12.4 office.Body

Requires the following attributes: No attribute is required.

Allows the following attributes: No attribute is allowed.

These elements contain office.Body: office.Document, office.DocumentContent.

The following elements occur in office. Body: office. Chart, office. Drawing, office. Image,

office.Presentation, office.Spreadsheet, office.Text.

## 5.12.5 office.ChangeInfo

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain office. Change Info: table. Cell Content Change, table. Deletion, table. Insertion, table. Movement, text. Deletion, text. Format Change, text. Insertion.

The following elements occur in office. Change Info: dc. Creator, dc. Date, text. P.

#### 5.12.6 office.Chart

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain office. Chart: office. Body.

The following elements occur in office. Chart: chart. Chart, table. Calculation Settings, table. Consolidation, table. Content Validations, table. Data Pilot Tables, table. Database Ranges, table. Data Label Ranges, table. Named Expressions, text. Alphabetical Index AutoMark File, text. Dde Connection Decls, text. Sequence Decls, text. User Field Decls, text. Variable Decls.

#### 5.12.7 office.DdeSource

Requires the following attributes: No attribute is required.

Allows the following attributes: *automaticupdate*, *conversionmode*, *ddeapplication*, *ddeitem*, *ddetopic*, *name*.

These elements contain office.DdeSource: table.DdeLink, table.Table, text.Section.

The following elements occur in office. DdeSource: No element is allowed.

#### 5.12.8 office.Document

Requires the following attributes: *mimetype*.

Allows the following attributes: mimetype, version.

These elements contain office. Document: draw. Object.

The following elements occur in office. Document: office. Automatic Styles, office. Body, office. Font Face Decls, office. Master Styles, office. Meta, office. Scripts, office. Settings, office. Styles.

#### 5.12.9 office.DocumentContent

Requires the following attributes: No attribute is required.

Allows the following attributes: version.

These elements contain office.DocumentContent: This is a toplevel element.

The following elements occur in office.DocumentContent: office.AutomaticStyles, office.Body, office.FontFaceDecls, office.Scripts.

#### 5.12.10 office.DocumentMeta

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: version.

These elements contain office.DocumentMeta: *This is a toplevel element*. The following elements occur in office.DocumentMeta: *office.Meta*.

# 5.12.11 office.DocumentSettings

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: version.

These elements contain office.DocumentSettings: *This is a toplevel element*. The following elements occur in office.DocumentSettings: *office.Settings*.

## 5.12.12 office.DocumentStyles

Requires the following attributes: No attribute is required.

Allows the following attributes: version.

These elements contain office.DocumentStyles: *This is a toplevel element*. The following elements occur in office.DocumentStyles: *office.AutomaticStyles*,

office.FontFaceDecls, office.MasterStyles, office.Styles.

## 5.12.13 office.Drawing

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* These elements contain office.Drawing: *office.Body.* 

The following elements occur in office.Drawing: draw.Page, table.CalculationSettings, table.Consolidation, table.ContentValidations, table.DataPilotTables, table.DatabaseRanges, table.DdeLinks, table.LabelRanges, table.NamedExpressions, text.AlphabeticalIndexAutoMarkFile, text.DdeConnectionDecls, text.SequenceDecls, text.UserFieldDecls, text.VariableDecls.

#### 5.12.14 office.EventListeners

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain office. EventListeners: draw. Area Circle, draw. Area Polygon, draw. Area Rectangle, draw. Caption, draw. Circle, draw. Connector, draw. Custom Shape, draw. Ellipse, draw. Frame, draw. G, draw. Line, draw. Measure, draw. Path, draw. Polygon, draw. Polyline, draw. Regular Polygon, form. Button, form. Checkbox, form. Combobox, form. Date, form. File, form. Fixed Text, form. Form, form. Formatted Text, form. Frame, form. Generic Control, form. Grid, form. Hidden, form. Image, form. Image Frame, form. Listbox, form. Number, form. Password, form. Radio, form. Text, form. Textarea, form. Time, form. Value Range, office. Scripts, table. Content Validation, text. A, text. Execute Macro.

The following elements occur in office. EventListeners: *presentation. EventListener*, *script. EventListener*.

#### 5.12.15 office.FontFaceDecls

Requires the following attributes: No attribute is required.

Allows the following attributes: No attribute is allowed.

 $These \ elements \ contain \ of fice. Font Face Decls: \ \textit{office}. Document, \ \textit{office}. Document Content,$ 

office.DocumentStyles.

The following elements occur in office. Font Face Decls: style. Font Face.

#### 5.12.16 office.Forms

Requires the following attributes: No attribute is required.

Allows the following attributes: applydesignmode, automaticfocus.

These elements contain office. Forms: draw. Page, office. Text, style. Master Page, table. Table.

The following elements occur in office. Forms: form. Form, xforms. Model.

## 5.12.17 office.lmage

Requires the following attributes: *No attribute is required.*Allows the following attributes: *No attribute is allowed.* 

These elements contain office. Image: office. Body.

The following elements occur in office.Image: draw.Frame.

## 5.12.18 office.MasterStyles

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain office. Master Styles: office. Document, office. Document Styles.

The following elements occur in office. Master Styles: draw. Layer Set, style. Handout Master,

style.MasterPage.

#### 5.12.19 office.Meta

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain office. Meta: office. Document, office. Document Meta.

The following elements occur in office.Meta: dc.Creator, dc.Date, dc.Description, dc.Language, dc.Subject, dc.Title, meta.AutoReload, meta.CreationDate, meta.DocumentStatistic, meta.EditingCycles, meta.EditingDuration, meta.Generator, meta.HyperlinkBehaviour, meta.InitialCreator, meta.Keyword, meta.PrintDate, meta.PrintedBy, meta.Template, meta.UserDefined.

#### 5.12.20 office.Presentation

Requires the following attributes: *No attribute is required*. Allows the following attributes: *No attribute is allowed*. These elements contain office.Presentation: *office.Body*.

The following elements occur in office. Presentation: draw. Page, presentation. Date Time Decl, presentation. Footer Decl, presentation. Header Decl, presentation. Settings, table. Calculation Settings, table. Consolidation, table. Content Validations, table. Data Pilot Tables, table. Database Ranges, table. Dde Links, table. Label Ranges, table. Named Expressions, text. Alphabetical Index Auto Mark File, text. Dde Connection Decls, text. Sequence Decls, text. User Field Decls. text. Variable Decls.

# 5.12.21 office.Script

Requires the following attributes: No attribute is required.

Allows the following attributes: *language*.

These elements contain office. Script: office. Scripts.

The following elements occur in office. Script: Any element is allowed.

# 5.12.22 office.Scripts

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain office. Scripts: office. Document, office. Document Content. The following elements occur in office. Scripts: office. Event Listeners, office. Script.

## 5.12.23 office.Settings

Requires the following attributes: No attribute is required.

Allows the following attributes: *No attribute is allowed*.

These elements contain office. Settings: office. Document, office. Document Settings.

The following elements occur in office. Settings: config. ConfigItemSet.

## 5.12.24 office.Spreadsheet

Requires the following attributes: No attribute is required.

Allows the following attributes: *protectionkey, structureprotected*.

These elements contain office. Spreadsheet: office. Body.

The following elements occur in office. Spreadsheet: table. Calculation Settings, table. Consolidation, table. Content Validations, table. DataPilot Tables, table. Database Ranges, table. Dde Links, table. Label Ranges, table. Named Expressions, table. Table, table. Tracked Changes, text. Alphabetical Index Auto Mark File, text. Dde Connection Decls, text. Sequence Decls, text. User Field Decls, text. Variable Decls.

## 5.12.25 office.Styles

Requires the following attributes: No attribute is required.

Allows the following attributes: No attribute is allowed.

These elements contain office. Styles: office. Document, office. Document Styles.

The following elements occur in office. Styles: draw. FillImage, draw. Gradient, draw. Hatch, draw. Marker, draw. Opacity, draw. StrokeDash, number. Boolean Style, number. Currency Style, number. Date Style, number. Number Style, number. Percentage Style, number. Text Style, number. Time Style, style. Default Style, style. Presentation Page Layout, style. Style, svg. Linear gradient, svg. Radial gradient, text. Bibliography Configuration, text. Outline Style. text. Notes Configuration, text. Outline Style.

#### 5.12.26 office.Text

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *global*.

These elements contain office. Text: office. Body.

The following elements occur in office. Text: dr3d. Scene, draw. A, draw. Caption, draw. Circle, draw. Connector, draw. Control, draw. Custom Shape, draw. Ellipse, draw. Frame, draw. G, draw. Line, draw. Measure, draw. Page Thumbnail, draw. Path, draw. Polygon, draw. Polyline, draw. Rect, draw. Regular Polygon, office. Forms, table. Calculation Settings, table. Consolidation, table. Content Validations, table. Data Pilot Tables, table. Database Ranges, table. Dde Links, table. Label Ranges, table. Named Expressions, table. Table, text. Alphabetical Index, text. Alphabetical Index AutoMark File, text. Bibliography, text. Change, text. Change End, text. Change Start, text. Dde Connection Decls, text. H, text. Illustration Index, text. List, text. Numbered Paragraph, text. Object Index, text. P, text. Page Sequence, text. Section, text. Sequence Decls, text. Table Index, text. Table Of Content, text. Tracked Changes, text. User Field Decls, text. User Index, text. Variable Decls.

## 5.13 presentation module

# 5.13.1 presentation.AnimationGroup

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *No attribute is allowed*.

These elements contain presentation. Animation Group: presentation. Animations.

The following elements occur in presentation. Animation Group: presentation. Dim,

presentation. HideShape, presentation. HideText, presentation. Play, presentation. ShowShape, presentation. ShowText.

### 5.13.2 presentation. Animations

Requires the following attributes: No attribute is required.

Allows the following attributes: *No attribute is allowed*.

These elements contain presentation. Animations: draw. Page.

The following elements occur in presentation. Animations: presentation. Animation Group, presentation. Dim, presentation. HideShape, presentation. HideText, presentation. Play, presentation Shape presentation Shape presentation.

presentation. Show Shape, presentation. Show Text.

## 5.13.3 presentation.DateTime

Requires the following attributes: No attribute is required.

Allows the following attributes: *No attribute is allowed.* 

These elements contain presentation. DateTime: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in presentation. Date Time: *No element is allowed.* 

## 5.13.4 presentation.DateTimeDecl

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: datastylename, name, source.

These elements contain presentation. DateTimeDecl: office. Presentation.

The following elements occur in presentation. Date Time Decl: No element is allowed.

## 5.13.5 presentation.Dim

Requires the following attributes: color, shapeid.

Allows the following attributes: *color*, *shapeid*.

These elements contain presentation. Dim: presentation. Animation Group, presentation. Animations.

The following elements occur in presentation. Dim: presentation. Sound.

## 5.13.6 presentation. EventListener

Requires the following attributes: action, eventname.

Allows the following attributes: action, actuate, direction, effect, eventname, href, show, speed, startscale, type, verb.

These elements contain presentation. EventListener: office. EventListeners.

The following elements occur in presentation. EventListener: presentation. Sound.

### 5.13.7 presentation. Footer

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *No attribute is allowed*.

These elements contain presentation. Footer: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in presentation. Footer: No element is allowed.

## 5.13.8 presentation.FooterDecl

Requires the following attributes: No attribute is required.

Allows the following attributes: *name*.

These elements contain presentation. FooterDecl: office. Presentation.

The following elements occur in presentation. Footer Decl: No element is allowed.

### 5.13.9 presentation. Header

Requires the following attributes: No attribute is required.

Allows the following attributes: No attribute is allowed.

These elements contain presentation. Header: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in presentation. Header: No element is allowed.

## 5.13.10 presentation.HeaderDecl

Requires the following attributes: No attribute is required.

Allows the following attributes: *name*.

These elements contain presentation. Header Decl: office. Presentation.

The following elements occur in presentation. Header Decl: No element is allowed.

## 5.13.11 presentation. Hide Shape

Requires the following attributes: shapeid.

Allows the following attributes: delay, direction, effect, pathid, shapeid, speed, startscale.

These elements contain presentation. Hide Shape: presentation. Animation Group,

presentation. Animations.

The following elements occur in presentation. Hide Shape: presentation. Sound.

## 5.13.12 presentation. HideText

Requires the following attributes: shapeid.

Allows the following attributes: delay, direction, effect, pathid, shapeid, speed, startscale.

These elements contain presentation. Hide Text: presentation. Animation Group,

presentation. Animations.

The following elements occur in presentation. Hide Text: presentation. Sound.

## 5.13.13 presentation. Notes

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *pagelayoutname*, *stylename*, *usedatetimename*, *usefootername*, *useheadername*.

These elements contain presentation. Notes: draw. Page, style. Master Page.

The following elements occur in presentation. Notes: dr3d. Scene, draw. Caption, draw. Circle, draw. Connector, draw. Control, draw. Custom Shape, draw. Ellipse, draw. Frame, draw. G, draw. Line, draw. Measure, draw. Page Thumbnail, draw. Path, draw. Polygon, draw. Polyline, draw. Regular Polygon.

# 5.13.14 presentation.Placeholder

Requires the following attributes: height, object, width, x, y.

Allows the following attributes: *height, object, width, x, y.* 

These elements contain presentation. Placeholder: *style.PresentationPageLayout*. The following elements occur in presentation. Placeholder: *No element is allowed*.

## 5.13.15 presentation.Play

Requires the following attributes: shapeid.

Allows the following attributes: *shapeid*, *speed*.

These elements contain presentation. Play: presentation. Animation Group, presentation. Animations.

The following elements occur in presentation. Play: No element is allowed.

## 5.13.16 presentation. Settings

Requires the following attributes: No attribute is required.

Allows the following attributes: animations, endless, forcemanual, fullscreen, mouseaspen, mousevisible, pause, show, showlogo, startpage, startwithnavigator, stayontop, transitiononclick.

These elements contain presentation. Settings: office. Presentation.

The following elements occur in presentation. Settings: presentation. Show.

## 5.13.17 presentation. Show

Requires the following attributes: name, pages.

Allows the following attributes: name, pages.

These elements contain presentation. Show: presentation. Settings.

The following elements occur in presentation. Show: No element is allowed.

## 5.13.18 presentation. Show Shape

Requires the following attributes: shapeid.

Allows the following attributes: delay, direction, effect, pathid, shapeid, speed, startscale.

These elements contain presentation. Show Shape: presentation. Animation Group,

presentation. Animations.

The following elements occur in presentation. Show Shape: presentation. Sound.

## 5.13.19 presentation.ShowText

Requires the following attributes: shapeid.

Allows the following attributes: *delay, direction, effect, pathid, shapeid, speed, startscale.* 

These elements contain presentation. Show Text: presentation. Animation Group,

presentation. Animations.

The following elements occur in presentation. Show Text: presentation. Sound.

# 5.13.20 presentation. Sound

Requires the following attributes: *href*.

Allows the following attributes: actuate, href, playfull, show, type.

These elements contain presentation. Sound: presentation. Dim, presentation. EventListener, presentation. HideShape, presentation. HideText, presentation. ShowShape, presentation. ShowText, style. DrawingPageProperties.

The following elements occur in presentation. Sound: No element is allowed.

# 5.14 script module

# 5.14.1 script.EventListener

Requires the following attributes: eventname, language.

Allows the following attributes: actuate, eventname, href, language, macroname, type.

These elements contain script. EventListener: office. EventListeners.

The following elements occur in script. EventListener: No element is allowed.

## 5.15 style module

## 5.15.1 style.BackgroundImage

Requires the following attributes: No attribute is required.

Allows the following attributes: actuate, filtername, href, opacity, position, repeat, show, type.

These elements contain style.BackgroundImage: style.GraphicProperties,

style.HeaderFooterProperties, style.PageLayoutProperties, style.ParagraphProperties,

 $style. Section Properties, \ style. Table Cell Properties, \ style. Table Properties,$ 

style.TableRowProperties.

The following elements occur in style.BackgroundImage: office.BinaryData.

## 5.15.2 style.ChartProperties

Requires the following attributes: No attribute is required.

Allows the following attributes: connectbars, datalabelnumber, datalabelsymbol, datalabeltext, deep, direction, displaylabel, errorcategory, errorlowerindicator, errorlowerlimit, errormargin, errorpercentage, errorupperindicator, errorupperlimit, gapwidth, interpolation, intervalmajor, intervalminor, japanesecandlestick, labelarrangement, linebreak, lines, linkdatastyletosource, logarithmic, maximum, meanvalue, minimum, origin, overlap, percentage, pieoffset, regressiontype, rotationangle, scaletext, seriessource, solidtype, splineorder, splineresolution, stacked, symbolheight, symboltype, symbolwidth, textoverlap, threedimensional, tickmarksmajorinner, tickmarksmajorouter, tickmarksminorinner, tickmarksminorouter, vertical, visible.

These elements contain style. ChartProperties: style. DefaultStyle, style. Style.

The following elements occur in style. Chart Properties: chart. Symbol Image.

## 5.15.3 style.Column

Requires the following attributes: relwidth.

Allows the following attributes: endindent, relwidth, spaceafter, spacebefore, startindent.

These elements contain style. Column: style. Columns.

The following elements occur in style. Column: No element is allowed.

# 5.15.4 style.ColumnSep

Requires the following attributes: width.

Allows the following attributes: *color*, *height*, *style*, *verticalalign*, *width*.

These elements contain style. ColumnSep: style. Columns.

The following elements occur in style. ColumnSep: No element is allowed.

# 5.15.5 style.Columns

Requires the following attributes: columncount.

Allows the following attributes: columncount, columngap.

These elements contain style. Columns: style. Graphic Properties, style. Page Layout Properties, style. Section Properties.

The following elements occur in style. Columns: style. Column, style. ColumnSep.

## 5.15.6 style.DefaultStyle

Requires the following attributes: No attribute is required.

Allows the following attributes: family.

These elements contain style. Default Style: office. Styles.

The following elements occur in style. Default Style: style. Chart Properties,

style.DrawingPageProperties, style.GraphicProperties, style.ParagraphProperties,

style. Ruby Properties, style. Section Properties, style. Table Cell Properties,

 $style. Table Column Properties, \ style. Table Properties, \ style. Table Row Properties,$ 

style.TextProperties.

## 5.15.7 style.DrawingPageProperties

Requires the following attributes: No attribute is required.

Allows the following attributes: backgroundobjectsvisible, backgroundsize, backgroundvisible, direction, displaydatetime, displayfooter, displayheader, displaypagenumber, duration, fadecolor, fill, fillcolor, fillgradientname, fillhatchname, fillhatchsolid, fillimageheight, fillimagename, fillimagerefpoint, fillimagerefpointx, fillimagerefpointy, fillimagewidth, fillrule, gradientstepcount, opacity, opacityname, repeat, secondaryfillcolor, subtype, tilerepeatoffset, transitionspeed, transitionstyle, transitiontype, type, visibility.

These elements contain style.DrawingPageProperties: *style.DefaultStyle*, *style.Style*. The following elements occur in style.DrawingPageProperties: *presentation.Sound*.

## 5.15.8 style.DropCap

Requires the following attributes: *No attribute is required*.
Allows the following attributes: *distance, length, lines, stylename*.
These elements contain style.DropCap: *style.ParagraphProperties*.
The following elements occur in style.DropCap: *No element is allowed*.

# 5.15.9 style.FontFace

Requires the following attributes: name.

Allows the following attributes: accentheight, alphabetic, ascent, bbox, capheight, descent, fontadornments, fontcharset, fontfamily, fontfamilygeneric, fontpitch, fontsize, fontstretch, fontstyle, fontvariant, fontweight, hanging, ideographic, mathematical, name, overlineposition, overlinethickness, panosel, slope, stemh, stemv, strikethroughposition, strikethroughthickness, underlineposition, underlinethickness, unicoderange, unitsperem, valphabetic, vhanging, videographic, vmathematical, widths, xheight.

These elements contain style.FontFace: office.FontFaceDecls.

The following elements occur in style.FontFace: svg.DefinitionSrc, svg.FontFaceSrc.

# 5.15.10 style.Footer

Requires the following attributes: *No attribute is required.* Allows the following attributes: *display, dynamicspacing.* These elements contain style.Footer: *style.MasterPage.* 

The following elements occur in style.Footer: style.RegionCenter, style.RegionLeft, style.RegionRight, table.Table, text.AlphabeticalIndex, text.AlphabeticalIndexAutoMarkFile, text.Bibliography, text.Change, text.ChangeEnd, text.ChangeStart, text.DdeConnectionDecls, text.H, text.IllustrationIndex, text.IndexTitle, text.List, text.ObjectIndex, text.P, text.Section, text.SequenceDecls, text.TableIndex, text.TableOfContent, text.UserFieldDecls, text.UserIndex,

## 5.15.11 style.FooterLeft

Requires the following attributes: *No attribute is required.* Allows the following attributes: *display, dynamicspacing.* These elements contain style.FooterLeft: *style.MasterPage.* 

The following elements occur in style.FooterLeft: style.RegionCenter, style.RegionLeft, style.RegionRight, table.Table, text.AlphabeticalIndex, text.AlphabeticalIndexAutoMarkFile, text.Bibliography, text.Change, text.ChangeEnd, text.ChangeStart, text.DdeConnectionDecls, text.H, text.IllustrationIndex, text.IndexTitle, text.List, text.ObjectIndex, text.P, text.Section, text.SequenceDecls, text.TableIndex, text.TableOfContent, text.UserFieldDecls, text.UserIndex, text.VariableDecls.

# 5.15.12 style.FooterStyle

Requires the following attributes: *No attribute is required*.

Allows the following attributes: *No attribute is allowed*.

These elements contain style.FooterStyle: *style.PageLayout*.

The following elements occur in style. FooterStyle: style. HeaderFooterProperties.

# 5.15.13 style.FootnoteSep

Requires the following attributes: No attribute is required.

Allows the following attributes: adjustment, color, distanceaftersep, distancebeforesep, linestyle, relwidth, width.

These elements contain style.FootnoteSep: *style.PageLayoutProperties*. The following elements occur in style.FootnoteSep: *No element is allowed*.

# 5.15.14 style.GraphicProperties

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *ambientcolor*, *anchorpagenumber*, *anchortype*, *animation*, animationdelay, animationdirection, animationrepeat, animationstartinside, animationsteps, animationstopinside, autogrowheight, autogrowwidth, backfaceculling, backgroundcolor, backscale, blue, border, borderbottom, borderleft, borderlinewidth, borderlinewidthbottom, borderlinewidthleft, borderlinewidthright, borderlinewidthtop, borderright, bordertop, captionangle, captionangletype, captionescape, captionescapedirection, captionfitlinelength, captiongap, captionlinelength, captiontype, clip, closeback, closefront, colorinversion, colormode, contrast, decimalplaces, depth, diffusecolor, edgerounding, edgeroundingmode, editable, emissivecolor, endangle, endguide, endlinespacinghorizontal, endlinespacingvertical, fill, fillcolor, fillgradientname, fillhatchname, fillhatchsolid, fillimageheight, fillimagename, fillimagerefpoint, fillimagerefpointx, fillimagerefpointy, fillimagewidth, fillrule, fittocontour, fittosize, flowwithtext, framedisplayborder, framedisplayscrollbar, framemarginhorizontal, framemarginvertical, gamma, gradientstepcount, green, guidedistance, guideoverhang, height, horizontalpos, horizontalrel, horizontalsegments, imageopacity, lightingmode, linedistance, luminance, margin, marginbottom, marginleft, marginright, margintop, markerend, markerendcenter, markerendwidth, markerstart, markerstartcenter, markerstartwidth, maxheight, maxwidth, measurealign, measureverticalalign, minheight, minwidth, mirror, normalsdirection, normalskind, numberwrappedparagraphs, oledrawaspect, opacity, opacityname, overflowbehavior, padding, paddingbottom, paddingleft, paddingright, paddingtop, parallel, placing, printcontent, protect, red, relheight, relwidth, repeat, runthrough, secondaryfillcolor, shadow, shadow, shadow, shadowcolor, shadowoffsetx,

shadowoffsety, shadowopacity, shininess, showunit, specularcolor, startguide, startlinespacinghorizontal, startlinespacingvertical, stroke, strokecolor, strokedash, strokedashnames, strokelinejoin, strokeopacity, strokewidth, symbolcolor, textareahorizontalalign, textareaverticalalign, texturefilter, texturegenerationmodex, texturegenerationmodey, texturekind, texturemode, tilerepeatoffset, unit, verticalpos, verticalrel, verticalsegments, visibleareaheight, visiblearealeft, visibleareatop, visibleareawidth, width, wrap, wrapcontour, wrapcontourmode, wrapdynamictreshold, wrapinfluenceonposition, wrapoption, x, y.

These elements contain style. Graphic Properties: style. Default Style, style. Style.

The following elements occur in style. Graphic Properties: style. Background Image, style. Columns, text. List Style.

## 5.15.15 style.HandoutMaster

Requires the following attributes: pagelayoutname.

Allows the following attributes: pagelayoutname, presentationpagelayoutname, stylename, usedatetimename, usefootername, useheadername.

These elements contain style. Handout Master: office. Master Styles.

The following elements occur in style. Handout Master: dr3d. Scene, draw. Caption, draw. Circle, draw. Connector, draw. Control, draw. Custom Shape, draw. Ellipse, draw. Frame, draw. G, draw. Line, draw. Measure, draw. Page Thumbnail, draw. Path, draw. Polygon, draw. Polyline, draw. Regular Polygon.

## 5.15.16 style.Header

Requires the following attributes: *No attribute is required.* Allows the following attributes: *display, dynamicspacing.* These elements contain style.Header: *style.MasterPage.* 

The following elements occur in style. Header: style. RegionCenter, style. RegionLeft, style. RegionRight, table. Table, text. AlphabeticalIndex, text. AlphabeticalIndexAutoMarkFile, text. Bibliography, text. Change, text. ChangeEnd, text. ChangeStart, text. DdeConnectionDecls, text. H, text. IllustrationIndex, text. IndexTitle, text. List, text. ObjectIndex, text. P, text. Section, text. SequenceDecls, text. TableIndex, text. TableOfContent, text. UserFieldDecls, text. UserIndex, text. VariableDecls.

## 5.15.17 style.HeaderFooterProperties

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: backgroundcolor, border, borderbottom, borderleft, borderlinewidth, borderlinewidthbottom, borderlinewidthleft, borderlinewidthright, borderlinewidthtop, borderright, bordertop, height, margin, marginbottom, marginleft, marginright, margintop, minheight, padding, paddingbottom, paddingleft, paddingright, paddingtop, shadow.

These elements contain style. HeaderFooterProperties: *style.FooterStyle*, *style.HeaderStyle*. The following elements occur in style. HeaderFooterProperties: *style.BackgroundImage*.

# 5.15.18 style.HeaderLeft

Requires the following attributes: *No attribute is required*. Allows the following attributes: *display, dynamicspacing*. These elements contain style.HeaderLeft: *style.MasterPage*.

The following elements occur in style. Header Left: style. Region Center, style. Region Left, style. Region Right, table. Table, text. Alphabetical Index, text. Alphabetical Index Auto Mark File,

text.Bibliography, text.Change, text.ChangeEnd, text.ChangeStart, text.DdeConnectionDecls, text.H, text.IllustrationIndex, text.IndexTitle, text.List, text.ObjectIndex, text.P, text.Section, text.SequenceDecls, text.TableIndex, text.TableOfContent, text.UserFieldDecls, text.UserIndex, text.VariableDecls.

## 5.15.19 style.HeaderStyle

Requires the following attributes: *No attribute is required.*Allows the following attributes: *No attribute is allowed.*These elements contain style.HeaderStyle: *style.PageLayout.* 

The following elements occur in style. Header Style: style. Header Footer Properties.

## 5.15.20 style.ListLevelProperties

Requires the following attributes: No attribute is required.

Allows the following attributes: *fontname*, *height*, *minlabeldistance*, *minlabelwidth*, *spacebefore*, *textalign*, *verticalpos*, *verticalrel*, *width*.

These elements contain style.ListLevelProperties: text.ListLevelStyleBullet, text.ListLevelStyleImage, text.ListLevelStyleNumber, text.OutlineLevelStyle.

The following elements occur in style.ListLevelProperties: No element is allowed.

## 5.15.21 style.Map

Requires the following attributes: applystylename, condition.

Allows the following attributes: applystylename, basecelladdress, condition.

These elements contain style.Map: number.BooleanStyle, number.CurrencyStyle, number.DateStyle, number.NumberStyle, number.PercentageStyle, number.TextStyle, number.TimeStyle, style.Style.

The following elements occur in style. Map: No element is allowed.

# 5.15.22 style.MasterPage

Requires the following attributes: name, pagelayoutname.

Allows the following attributes: displayname, name, nextstylename, pagelayoutname, stylename.

These elements contain style. Master Page: office. Master Styles.

The following elements occur in style.MasterPage: dr3d.Scene, draw.Caption, draw.Circle, draw.Connector, draw.Control, draw.CustomShape, draw.Ellipse, draw.Frame, draw.G, draw.Line, draw.Measure, draw.PageThumbnail, draw.Path, draw.Polygon, draw.Polyline, draw.Rect, draw.RegularPolygon, office.Forms, presentation.Notes, style.Footer, style.FooterLeft, style.Header, style.HeaderLeft, style.Style.

# 5.15.23 style.PageLayout

Requires the following attributes: *name*.

Allows the following attributes: name, pageusage.

These elements contain style.PageLayout: office.AutomaticStyles.

The following elements occur in style.PageLayout: style.FooterStyle, style.HeaderStyle, style.PageLayoutProperties.

# 5.15.24 style.PageLayoutProperties

Requires the following attributes: No attribute is required.

Allows the following attributes: name, pageusage.

These elements contain style.PageLayoutProperties: *style.PageLayout*. The following elements occur in style.PageLayoutProperties: *style.BackgroundImage*, *style.Columns*, *style.FootnoteSep*.

## 5.15.25 style.ParagraphProperties

Requires the following attributes: No attribute is required.

Allows the following attributes: autotextindent, backgroundcolor, backgroundtransparency, border, borderbottom, borderleft, borderlinewidth, borderlinewidthbottom, borderlinewidthleft, borderlinewidthright, borderlinewidthtop, borderright, bordertop, breakafter, breakbefore, fontindependentlinespacing, hyphenationkeep, hyphenationladdercount, justifysingleword, keeptogether, keepwithnext, linebreak, lineheight, lineheightatleast, linenumber, linespacing, margin, marginbottom, marginleft, marginright, margintop, numberlines, orphans, padding, paddingbottom, paddingleft, paddingright, paddingtop, pagenumber, punctuationwrap, registertrue, shadow, snaptolayoutgrid, tabstopdistance, textalign, textalignlast, textautospace, textindent, verticalalign, widows, writingmode, writingmodeautomatic.

These elements contain style.ParagraphProperties: style.DefaultStyle, style.Style. The following elements occur in style.ParagraphProperties: style.BackgroundImage, style.DropCap, style.TabStops.

## 5.15.26 style.PresentationPageLayout

Requires the following attributes: name.

Allows the following attributes: displayname, name.

These elements contain style.PresentationPageLayout: office.Styles.

The following elements occur in style.PresentationPageLayout: presentation.Placeholder.

# 5.15.27 style.RegionCenter

Requires the following attributes: No attribute is required.

Allows the following attributes: *No attribute is allowed.* 

These elements contain style.RegionCenter: *style.Footer*, *style.FooterLeft*, *style.Header*, *style.HeaderLeft*.

The following elements occur in style.RegionCenter: text.P.

# 5.15.28 style.RegionLeft

Requires the following attributes: No attribute is required.

Allows the following attributes: No attribute is allowed.

These elements contain style.RegionLeft: *style.Footer*, *style.FooterLeft*, *style.Header*, *style.HeaderLeft*.

The following elements occur in style.RegionLeft: *text.P*.

# 5.15.29 style.RegionRight

Requires the following attributes: No attribute is required.

Allows the following attributes: *No attribute is allowed.* 

These elements contain style.RegionRight: *style.Footer*, *style.FooterLeft*, *style.Header*, *style.HeaderLeft*.

The following elements occur in style.RegionRight: text.P.

## 5.15.30 style.RubyProperties

Requires the following attributes: *No attribute is required.* Allows the following attributes: *rubyalign, rubyposition.* 

These elements contain style.RubyProperties: *style.DefaultStyle*, *style.Style*. The following elements occur in style.RubyProperties: *No element is allowed*.

## 5.15.31 style.SectionProperties

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *dontbalancetextcolumns*, *protect*, *writingmode*. These elements contain style.SectionProperties: *style.DefaultStyle*, *style.Style*.

The following elements occur in style. Section Properties: style. Background Image, style. Columns, text. Notes Configuration.

## 5.15.32 style.Style

Requires the following attributes: name.

Allows the following attributes: autoupdate, class, datastylename, defaultoutlinelevel, displayname, family, liststylename, masterpagename, name, nextstylename, parentstylename.

These elements contain style. Style: office. Automatic Styles, office. Styles, style. Master Page.

The following elements occur in style. Style: style. ChartProperties, style. DrawingPageProperties, style. GraphicProperties, style. Map, style. ParagraphProperties, style. RubyProperties, style. SectionProperties, style. TableCellProperties, style. TableColumnProperties, style. TableProperties, style. TableProperties, style. TextProperties.

## 5.15.33 style.TabStop

Requires the following attributes: *position*.

Allows the following attributes: char, leadercolor, leaderstyle, leadertext, leadertextstyle,

leadertype, leaderwidth, position, type.

These elements contain style. TabStop: style. TabStops.

The following elements occur in style. TabStop: No element is allowed.

## 5.15.34 style.TabStops

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain style. TabStops: *style.ParagraphProperties*. The following elements occur in style. TabStops: *style.TabStop*.

# 5.15.35 style.TableCellProperties

Requires the following attributes: No attribute is required.

Allows the following attributes: backgroundcolor, border, borderbottom, borderleft, borderlinewidth, borderlinewidthbottom, borderlinewidthleft, borderlinewidthright, borderlinewidthtop, borderright, bordertop, cellprotect, decimalplaces, diagonalbltr, diagonalbltrwidths, diagonaltlbr, diagonaltlbrwidths, direction, glyphorientationvertical, padding, paddingbottom, paddingleft, paddingright, paddingtop, printcontent, repeatcontent, rotationalign, rotationangle, shadow, shrinktofit, textalignsource, verticalalign, wrapoption.

These elements contain style. Table Cell Properties: style. Default Style, style. Style.

The following elements occur in style. Table Cell Properties: style. Background Image.

#### 5.15.36 style.TableColumnProperties

Requires the following attributes: No attribute is required.

Allows the following attributes: breakafter, breakbefore, columnwidth, relcolumnwidth, useoptimalcolumnwidth.

These elements contain style. Table Column Properties: style. Default Style, style. Style. The following elements occur in style. Table Column Properties: No element is allowed.

#### style.TableProperties 5.15.37

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: align, backgroundcolor, bordermodel, breakafter, breakbefore, display, keepwithnext, margin, marginbottom, marginleft, marginright, margintop, maybreakbetweenrows, pagenumber, relwidth, shadow, width, writingmode. These elements contain style. Table Properties: style. Default Style, style. Style. The following elements occur in style. Table Properties: style. Background Image.

#### 5.15.38 style.TableRowProperties

Requires the following attributes: No attribute is required.

Allows the following attributes: backgroundcolor, breakafter, breakbefore, keeptogether, minrowheight, rowheight, useoptimalrowheight.

These elements contain style. Table Row Properties: style. Default Style, style. Style. The following elements occur in style. Table Row Properties: style. Background Image.

#### style.TextProperties 5.15.39

Requires the following attributes: No attribute is required.

Allows the following attributes: backgroundcolor, color, condition, country, countryasian, countrycomplex, display, fontcharset, fontfamily, fontfamilyasian, fontfamilycomplex, fontfamilygeneric, fontfamilygenericasian, fontfamilygenericcomplex, fontname, fontpitch, fontpitchasian, fontpitchcomplex, fontrelief, fontsize, fontsizeasian, fontsizecomplex, fontsizerel, fontsizerelasian, fontsizerelcomplex, fontstyle, fontstyleasian, fontstylecomplex, fontstylename, fontstylenameasian, fontstylenamecomplex, fontwariant, fontweight, fontweightasian, fontweightcomplex, hyphenate, hyphenationpushcharcount, hyphenationremaincharcount, language, languageasian, languagecomplex, letterkerning, letterspacing, scripttype, textblinking, textcombine, textcombineendchar, textcombinestartchar, textemphasize, textlinethroughcolor, textlinethroughmode, textlinethroughstyle, textlinethroughtext, textlinethroughtextstyle, textlinethroughtype, textlinethroughwidth, textoutline, textposition, textrotationangle, textrotationscale, textscale, textshadow, texttransform, textunderlinecolor, textunderlinemode, textunderlinestyle, textunderlinetype, textunderlinewidth, usewindowfontcolor. These elements contain style. TextProperties: number. Boolean Style, number. Currency Style, number.DateStyle, number.NumberStyle, number.PercentageStyle, number.TextStyle, number.TimeStyle, style.DefaultStyle, style.Style, text.ListLevelStyleBullet,

text.ListLevelStyleNumber, text.OutlineLevelStyle.

The following elements occur in style. TextProperties: No element is allowed.

#### 5.16 svg module

#### 5.16.1 svg.DefinitionSrc

Requires the following attributes: *href*.

Allows the following attributes: actuate, href, type.

These elements contain svg.DefinitionSrc: style.FontFace.

The following elements occur in svg.DefinitionSrc: No element is allowed.

## 5.16.2 svg.Desc

Requires the following attributes: No attribute is required.

Allows the following attributes: *No attribute is allowed*.

These elements contain svg.Desc: draw.AreaCircle, draw.AreaPolygon, draw.AreaRectangle,

draw.Frame.

The following elements occur in svg.Desc: No element is allowed.

## 5.16.3 svg.FontFaceFormat

Requires the following attributes: No attribute is required.

Allows the following attributes: *string*.

These elements contain svg.FontFaceFormat: svg.FontFaceUri.

The following elements occur in svg.FontFaceFormat: No element is allowed.

## 5.16.4 svg.FontFaceName

Requires the following attributes: No attribute is required.

Allows the following attributes: *name*.

These elements contain svg.FontFaceName: svg.FontFaceSrc.

The following elements occur in svg.FontFaceName: No element is allowed.

# 5.16.5 svg.FontFaceSrc

Requires the following attributes: No attribute is required.

Allows the following attributes: No attribute is allowed.

These elements contain svg.FontFaceSrc: style.FontFace.

The following elements occur in svg.FontFaceSrc: svg.FontFaceName, svg.FontFaceUri.

# 5.16.6 svg.FontFaceUri

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: actuate, href, type.

These elements contain svg.FontFaceUri: svg.FontFaceSrc.

The following elements occur in svg.FontFaceUri: svg.FontFaceFormat.

# 5.16.7 svg.Lineargradient

Requires the following attributes: *name*.

Allows the following attributes: displayname, gradienttransform, gradientunits, name,

spreadmethod, x1, x2, y1, y2.

These elements contain svg.Lineargradient: office.Styles.

The following elements occur in svg.Lineargradient: svg.Stop.

# 5.16.8 svg.Radialgradient

Requires the following attributes: *name*.

Allows the following attributes: *cx*, *cy*, *displayname*, *fx*, *fy*, *gradienttransform*, *gradientunits*, *name*, *r*, *spreadmethod*.

These elements contain svg.Radialgradient: office.Styles.

The following elements occur in svg.Radialgradient: svg.Stop.

## 5.16.9 svg.Stop

Requires the following attributes: offset.

Allows the following attributes: offset, stopcolor, stopopacity.

These elements contain svg.Stop: svg.Lineargradient, svg.Radialgradient.

The following elements occur in svg.Stop: No element is allowed.

#### 5.17 table module

## 5.17.1 table.Body

Requires the following attributes: *stylename*. Allows the following attributes: *stylename*.

These elements contain table. Body: table. Table Template.

The following elements occur in table. Body: No element is allowed.

## 5.17.2 table.CalculationSettings

Requires the following attributes: No attribute is required.

Allows the following attributes: automaticfindlabels, casesensitive, nullyear, precisionasshown, searchcriteriamustapplytowholecell, useregularexpressions.

These elements contain table. Calculation Settings: office. Chart, office. Drawing, office. Presentation, office. Spreadsheet, office. Text.

The following elements occur in table. Calculation Settings: table. Iteration, table. Null Date.

#### 5.17.3 table.CellAddress

Requires the following attributes: column, row, table.

Allows the following attributes: column, row, table.

These elements contain table. CellAddress: table. CellContentChange, table. CellContentDeletion.

The following elements occur in table. Cell Address: No element is allowed.

# 5.17.4 table.CellContentChange

Requires the following attributes: id.

Allows the following attributes: acceptancestate, id, rejectingchangeid.

These elements contain table. CellContentChange: table. TrackedChanges.

 $The following \ elements \ occur \ in \ table. Cell Content Change: \ \textit{office. Change Info}, \ table. Cell Address,$ 

table.Deletions, table.Dependencies, table.Previous.

#### 5.17.5 table.CellContentDeletion

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *id*.

These elements contain table. CellContentDeletion: table. Deletions.

The following elements occur in table. Cell Content Deletion: table. Cell Address,

table.ChangeTrackTableCell.

# 5.17.6 table.CellRangeSource

Requires the following attributes: href, lastcolumnspanned, lastrowspanned, name.

Allows the following attributes: actuate, filtername, filteroptions, href, lastcolumnspanned, lastrowspanned, name, refreshdelay, type.

These elements contain table. CellRangeSource: table. CoveredTableCell, table. TableCell.

The following elements occur in table. CellRangeSource: No element is allowed.

## 5.17.7 table.ChangeDeletion

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: id.

These elements contain table. Change Deletion: table. Deletions.

The following elements occur in table. Change Deletion: *No element is allowed.* 

## 5.17.8 table.ChangeTrackTableCell

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: booleanvalue, celladdress, currency, datevalue, formula, matrixcovered, numbermatrixcolumnsspanned, numbermatrixrowsspanned, stringvalue, timevalue, value, valuetype.

These elements contain table. Change Track Table Cell: *table. Cell Content Deletion*, *table. Previous*. The following elements occur in table. Change Track Table Cell: *text. P*.

#### 5.17.9 table.Consolidation

Requires the following attributes: function, sourcecellrangeaddresses, targetcelladdress.

Allows the following attributes: function, linktosourcedata, sourcecellrangeaddresses, targetcelladdress, uselabels.

These elements contain table. Consolidation: office. Chart, office. Drawing, office. Presentation, office. Spreadsheet, office. Text.

The following elements occur in table. Consolidation: *No element is allowed.* 

#### 5.17.10 table.ContentValidation

Requires the following attributes: *name*.

Allows the following attributes: allowemptycell, basecelladdress, condition, displaylist, name.

These elements contain table. Content Validation: table. Content Validations.

The following elements occur in table. Content Validation: office. Event Listeners, table. Error Macro, table. Error Message, table. Help Message.

#### 5.17.11 table.ContentValidations

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *No attribute is allowed*.

These elements contain table. Content Validations: office. Chart, office. Drawing, office. Presentation, office. Spreadsheet, office. Text.

The following elements occur in table. Content Validations: table. Content Validation.

#### 5.17.12 table.CoveredTableCell

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: booleanvalue, contentvalidationname, currency, datevalue, formula, numbercolumnsrepeated, protect, stringvalue, stylename, timevalue, value, valuetype.

These elements contain table. Covered Table Cell: table. Table Row.

The following elements occur in table.CoveredTableCell: dr3d.Scene, draw.A, draw.Caption,

draw.Circle, draw.Connector, draw.Control, draw.CustomShape, draw.Ellipse, draw.Frame, draw.G, draw.Line, draw.Measure, draw.PageThumbnail, draw.Path, draw.Polygon, draw.Polyline, draw.Rect, draw.RegularPolygon, office.Annotation, table.CellRangeSource, table.Detective, table.Table, text.AlphabeticalIndex, text.Bibliography, text.Change, text.ChangeEnd, text.ChangeStart, text.H, text.IllustrationIndex, text.List, text.NumberedParagraph, text.ObjectIndex, text.P, text.Section, text.TableIndex, text.TableOfContent, text.UserIndex.

#### 5.17.13 table.CutOffs

Requires the following attributes: *No attribute is required*. Allows the following attributes: *No attribute is allowed*. These elements contain table.CutOffs: *table.Deletion*.

The following elements occur in table. CutOffs: table. Insertion CutOff, table. Movement CutOff.

## 5.17.14 table.DataPilotDisplayInfo

Requires the following attributes: No attribute is required.

Allows the following attributes: datafield, displaymembermode, enabled, membercount.

These elements contain table. DataPilotDisplayInfo: table. DataPilotLevel.

The following elements occur in table. DataPilotDisplayInfo: No element is allowed.

#### 5.17.15 table.DataPilotField

Requires the following attributes: sourcefieldname.

Allows the following attributes: function, isdatalayoutfield, orientation, selectedpage, sourcefieldname, usedhierarchy.

These elements contain table. DataPilotField: table. DataPilotTable.

The following elements occur in table. DataPilotField: table. DataPilotFieldReference, table. DataPilotGroups, table. DataPilotLevel.

#### 5.17.16 table.DataPilotFieldReference

Requires the following attributes: *fieldname*, *type*.

Allows the following attributes: fieldname, membername, membertype, type.

These elements contain table. DataPilotFieldReference: table. DataPilotField.

The following elements occur in table. DataPilotFieldReference: No element is allowed.

## 5.17.17 table.DataPilotGroup

Requires the following attributes: *name*.

Allows the following attributes: *name*.

These elements contain table. DataPilotGroup: table. DataPilotGroups.

The following elements occur in table. DataPilotGroup: table. DataPilotGroupMember.

# 5.17.18 table.DataPilotGroupMember

Requires the following attributes: name.

Allows the following attributes: name.

These elements contain table. DataPilotGroupMember: table. DataPilotGroup.

The following elements occur in table. DataPilotGroupMember: No element is allowed.

## 5.17.19 table.DataPilotGroups

Requires the following attributes: groupedby, sourcefieldname, step.

Allows the following attributes: dateend, datestart, end, groupedby, sourcefieldname, start, step.

These elements contain table. DataPilotGroups: table. DataPilotField.

The following elements occur in table. DataPilotGroups: table. DataPilotGroup.

## 5.17.20 table.DataPilotLayoutInfo

Requires the following attributes: addemptylines, layoutmode.

Allows the following attributes: addemptylines, layoutmode.

These elements contain table. DataPilotLayoutInfo: table. DataPilotLevel.

The following elements occur in table. DataPilotLayoutInfo: No element is allowed.

#### 5.17.21 table.DataPilotLevel

Requires the following attributes: No attribute is required.

Allows the following attributes: showempty.

These elements contain table. DataPilotLevel: table. DataPilotField.

The following elements occur in table.DataPilotLevel: table.DataPilotDisplayInfo, table.DataPilotLayoutInfo, table.DataPilotMembers, table.DataPilotSortInfo,

table.DataPilotSubtotals.

### 5.17.22 table.DataPilotMember

Requires the following attributes: name.

Allows the following attributes: display, name, showdetails.

These elements contain table. DataPilotMember: table. DataPilotMembers.

The following elements occur in table. DataPilotMember: No element is allowed.

#### 5.17.23 table.DataPilotMembers

Requires the following attributes: No attribute is required.

Allows the following attributes: *No attribute is allowed.* 

These elements contain table. DataPilotMembers: table. DataPilotLevel.

The following elements occur in table. DataPilotMembers: table. DataPilotMember.

#### 5.17.24 table.DataPilotSortInfo

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: datafield, order, sortmode.

These elements contain table. DataPilotSortInfo: table. DataPilotLevel.

The following elements occur in table. DataPilotSortInfo: No element is allowed.

### 5.17.25 table.DataPilotSubtotal

Requires the following attributes: function.

Allows the following attributes: function.

These elements contain table. DataPilotSubtotal: table. DataPilotSubtotals.

The following elements occur in table. DataPilotSubtotal: No element is allowed.

#### 5.17.26 table.DataPilotSubtotals

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *No attribute is allowed*.

These elements contain table. DataPilotSubtotals: table. DataPilotLevel.

The following elements occur in table. DataPilotSubtotals: table. DataPilotSubtotal.

#### 5.17.27 table.DataPilotTable

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: applicationdata, buttons, drilldownondoubleclick, grandtotal,

identifycategories, ignoreemptyrows, name, showfilterbutton, targetrangeaddress.

These elements contain table. DataPilotTable: table. DataPilotTables.

The following elements occur in table. DataPilotTable: table. DataPilotField,

 $table.Database Source Query,\ table.Database Source Sql,\ table.Database Source Table,$ 

table.SourceCellRange, table.SourceService.

#### 5.17.28 table.DataPilotTables

Requires the following attributes: No attribute is required.

Allows the following attributes: No attribute is allowed.

These elements contain table. DataPilotTables: office. Chart, office. Drawing, office. Presentation,

office.Spreadsheet, office.Text.

The following elements occur in table. DataPilotTables: table. DataPilotTable.

## 5.17.29 table.DatabaseRange

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *containsheader, displayfilterbuttons, haspersistentdata, isselection, name, onupdatekeepsize, onupdatekeepstyles, orientation, refreshdelay, targetrangeaddress.* 

These elements contain table. Database Range: table. Database Ranges.

The following elements occur in table. DatabaseRange: table. DatabaseSourceQuery,

table.DatabaseSourceSql, table.DatabaseSourceTable, table.Filter, table.Sort, table.SubtotalRules.

## 5.17.30 table.DatabaseRanges

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *No attribute is allowed*.

These elements contain table. Database Ranges: office. Chart, office. Drawing, office. Presentation,

office.Spreadsheet, office.Text.

The following elements occur in table. Database Ranges: table. Database Range.

# 5.17.31 table.DatabaseSourceQuery

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: databasename, queryname.

These elements contain table. Database Source Query: table. DataPilotTable, table. Database Range.

The following elements occur in table. Database Source Query: No element is allowed.

# 5.17.32 table.DatabaseSourceSql

Requires the following attributes: databasename, sqlstatement.

Allows the following attributes: databasename, parsesqlstatement, sqlstatement.

These elements contain table. Database Source Sql: table. Data Pilot Table, table. Database Range.

The following elements occur in table. Database Source Sql: No element is allowed.

#### 5.17.33 table.DatabaseSourceTable

Requires the following attributes: databasename, databasetablename.

Allows the following attributes: databasename, databasetablename.

These elements contain table. Database Source Table: table. DataPilot Table, table. Database Range.

The following elements occur in table. Database Source Table: No element is allowed.

#### 5.17.34 table.DdeLink

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* These elements contain table.DdeLink: *table.DdeLinks.* 

The following elements occur in table. DdeLink: office. DdeSource, table. Table.

#### 5.17.35 table.DdeLinks

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain table. DdeLinks: office. Chart, office. Drawing, office. Presentation,

office.Spreadsheet, office.Text.

The following elements occur in table. DdeLinks: table. DdeLink.

### 5.17.36 table.Deletion

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: acceptancestate, id, multideletionspanned, position,

rejectingchangeid, table, type.

These elements contain table. Deletion: table. Tracked Changes.

The following elements occur in table. Deletion: office. Change Info, table. Cut Offs, table. Deletions, table. Dependencies.

#### 5.17.37 table.Deletions

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *No attribute is allowed*.

These elements contain table. Deletions: table. Cell Content Change, table. Deletion, table. Insertion, table. Movement.

The following elements occur in table. Deletions: table. CellContentDeletion, table. Change Deletion.

## 5.17.38 table.Dependencies

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

Thows the following attributes. We difficult is allowed.

These elements contain table. Dependencies: table. CellContentChange, table. Deletion,

table.Insertion, table.Movement.

The following elements occur in table. Dependencies: table. Dependency.

### 5.17.39 table.Dependency

Requires the following attributes: No attribute is required.

Allows the following attributes: *id*.

These elements contain table. Dependency: table. Dependencies.

The following elements occur in table. Dependency: No element is allowed.

#### 5.17.40 table.Detective

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain table. Detective: table. Covered Table Cell, table. Table Cell.

The following elements occur in table. Detective: table. Highlighted Range, table. Operation.

#### 5.17.41 table.ErrorMacro

Requires the following attributes: No attribute is required.

Allows the following attributes: execute.

These elements contain table. Error Macro: table. Content Validation.

The following elements occur in table. Error Macro: No element is allowed.

## 5.17.42 table.ErrorMessage

Requires the following attributes: *No attribute is required.* Allows the following attributes: *display, messagetype, title.* 

These elements contain table. Error Message: table. Content Validation.

The following elements occur in table. Error Message: text. P.

#### 5.17.43 table.EvenColumns

Requires the following attributes: *stylename*. Allows the following attributes: *stylename*.

These elements contain table. Even Columns: table. Table Template.

The following elements occur in table. Even Columns: No element is allowed.

#### 5.17.44 table.EvenRows

Requires the following attributes: *stylename*. Allows the following attributes: *stylename*.

These elements contain table. Even Rows: table. Table Template.

The following elements occur in table. Even Rows: No element is allowed.

#### 5.17.45 table.Filter

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *conditionsource*, *conditionsourcerangeaddress*, *displayduplicates*, *targetrangeaddress*.

These elements contain table. Filter: table. Database Range, table. Source Cell Range.

The following elements occur in table. Filter: table. FilterAnd, table. FilterCondition, table. FilterOr.

#### 5.17.46 table.FilterAnd

Requires the following attributes: No attribute is required.

Allows the following attributes: No attribute is allowed.

These elements contain table. Filter And: table. Filter, table. Filter Or.

The following elements occur in table. Filter And: table. Filter Condition, table. Filter Or.

#### 5.17.47 table.FilterCondition

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: casesensitive, datatype, fieldnumber, operator, value.

These elements contain table. Filter Condition: table. Filter, table. FilterAnd, table. FilterOr.

The following elements occur in table. Filter Condition: No element is allowed.

#### 5.17.48 table.FilterOr

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed*.

These elements contain table. Filter Or: table. Filter, table. Filter And.

The following elements occur in table. FilterOr: table. FilterAnd, table. FilterCondition.

#### 5.17.49 table.FirstColumn

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *stylename*.

These elements contain table. First Column: table. Table Template.

The following elements occur in table. First Column: No element is allowed.

#### 5.17.50 table.FirstRow

Requires the following attributes: *stylename*. Allows the following attributes: *stylename*.

These elements contain table. First Row: table. Table Template.

The following elements occur in table. FirstRow: No element is allowed.

#### 5.17.51 table.HelpMessage

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: display, title.

These elements contain table. HelpMessage: table. Content Validation.

The following elements occur in table. HelpMessage: text.P.

#### 5.17.52 table.HighlightedRange

Requires the following attributes: No attribute is required.

Allows the following attributes: *cellrangeaddress*, *containserror*, *direction*, *markedinvalid*.

These elements contain table. Highlighted Range: table. Detective.

The following elements occur in table. Highlighted Range: No element is allowed.

#### 5.17.53 table.Insertion

Requires the following attributes: id, position, type.

Allows the following attributes: acceptancestate, count, id, position, rejecting changeid, table, type.

These elements contain table. Insertion: table. Tracked Changes.

The following elements occur in table. Insertion: office. Change Info, table. Deletions,

table.Dependencies.

#### 5.17.54 table.InsertionCutOff

Requires the following attributes: id, position.

Allows the following attributes: id, position.

These elements contain table. Insertion CutOff: table. CutOffs.

The following elements occur in table. Insertion CutOff: No element is allowed.

#### 5.17.55 table.Iteration

Requires the following attributes: No attribute is required.

Allows the following attributes: *maximumdifference*, *status*, *steps*. These elements contain table.Iteration: *table*.CalculationSettings.

The following elements occur in table. Iteration: No element is allowed.

### 5.17.56 table.LabelRange

Requires the following attributes: *datacellrangeaddress, labelcellrangeaddress, orientation*. Allows the following attributes: *datacellrangeaddress, labelcellrangeaddress, orientation*.

These elements contain table.LabelRange: table.LabelRanges.

The following elements occur in table. Label Range: No element is allowed.

## 5.17.57 table.LabelRanges

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: No attribute is allowed.

These elements contain table.LabelRanges: office.Chart, office.Drawing, office.Presentation,

office.Spreadsheet, office.Text.

The following elements occur in table. Label Ranges: table. Label Range.

#### 5.17.58 table.LastColumn

Requires the following attributes: No attribute is required.

Allows the following attributes: *stylename*.

These elements contain table.LastColumn: table.TableTemplate.

The following elements occur in table.LastColumn: No element is allowed.

#### 5.17.59 table.LastRow

Requires the following attributes: stylename.

Allows the following attributes: stylename.

These elements contain table.LastRow: table.TableTemplate.

The following elements occur in table.LastRow: No element is allowed.

#### 5.17.60 table.Movement

Requires the following attributes: id.

Allows the following attributes: acceptancestate, id, rejecting change id.

These elements contain table. Movement: table. Tracked Changes.

The following elements occur in table. Movement: office. Change Info, table. Deletions,

table.Dependencies, table.SourceRangeAddress, table.TargetRangeAddress.

### 5.17.61 table.MovementCutOff

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: endposition, position, startposition.

These elements contain table. Movement CutOff: table. CutOffs.

The following elements occur in table. Movement CutOff: No element is allowed.

# 5.17.62 table.NamedExpression

Requires the following attributes: expression, name.

Allows the following attributes: basecelladdress, expression, name.

These elements contain table. Named Expression: table. Named Expressions.

The following elements occur in table. Named Expression: No element is allowed.

## 5.17.63 table.NamedExpressions

Requires the following attributes: No attribute is required.

Allows the following attributes: No attribute is allowed.

These elements contain table. Named Expressions: office. Chart, office. Drawing, office. Presentation,

office.Spreadsheet, office.Text.

The following elements occur in table. Named Expressions: table. Named Expression,

table.NamedRange.

## 5.17.64 table.NamedRange

Requires the following attributes: No attribute is required.

Allows the following attributes: basecelladdress, cellrangeaddress, name, rangeusableas.

These elements contain table. Named Range: table. Named Expressions.

The following elements occur in table. Named Range: No element is allowed.

#### 5.17.65 table.NullDate

Requires the following attributes: No attribute is required.

Allows the following attributes: datevaluetype, valuetype.

These elements contain table. NullDate: table. Calculation Settings.

The following elements occur in table. NullDate: No element is allowed.

#### 5.17.66 table.OddColumns

Requires the following attributes: stylename.

Allows the following attributes: *stylename*.

These elements contain table.OddColumns: table.TableTemplate.

The following elements occur in table. OddColumns: No element is allowed.

#### 5.17.67 table.OddRows

Requires the following attributes: *stylename*.

Allows the following attributes: *stylename*.

These elements contain table.OddRows: table.TableTemplate.

The following elements occur in table. OddRows: No element is allowed.

### 5.17.68 table.Operation

Requires the following attributes: index, name.

Allows the following attributes: *index*, *name*.

These elements contain table. Operation: table. Detective.

The following elements occur in table. Operation: No element is allowed.

#### 5.17.69 table.Previous

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: id.

These elements contain table. Previous: table. CellContentChange.

The following elements occur in table. Previous: table. Change Track Table Cell.

### 5.17.70 table.Scenario

Requires the following attributes: isactive, scenarioranges.

Allows the following attributes: bordercolor, comment, copyback, copyformulas, copystyles,

displayborder, isactive, protected, scenarioranges. These elements contain table. Scenario: table. Table.

The following elements occur in table. Scenario: No element is allowed.

## 5.17.71 table.Shapes

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain table. Shapes: table. Table.

The following elements occur in table. Shapes: dr3d. Scene, draw. Caption, draw. Circle, draw. Connector, draw. Control, draw. Custom Shape, draw. Ellipse, draw. Frame, draw. G, draw. Line, draw. Measure, draw. Page Thumbnail, draw. Path, draw. Polygon, draw. Polyline, draw. Rect, draw. Regular Polygon.

#### 5.17.72 table.Sort

Requires the following attributes: No attribute is required.

Allows the following attributes: algorithm, bindstylestocontent, casesensitive, country, language, targetrangeaddress.

These elements contain table. Sort: *table.DatabaseRange*. The following elements occur in table. Sort: *table.SortBy*.

## 5.17.73 table.SortBy

Requires the following attributes: fieldnumber.

Allows the following attributes: datatype, fieldnumber, order.

These elements contain table. SortBy: table. Sort.

The following elements occur in table. SortBy: No element is allowed.

## 5.17.74 table.SortGroups

Requires the following attributes: No attribute is required.

Allows the following attributes: datatype, order.

These elements contain table. Sort Groups: table. Subtotal Rules.

The following elements occur in table. Sort Groups: No element is allowed.

# 5.17.75 table.SourceCellRange

Requires the following attributes: *cellrangeaddress*. Allows the following attributes: *cellrangeaddress*.

These elements contain table. Source CellRange: *table.DataPilotTable*. The following elements occur in table. Source CellRange: *table.Filter*.

# 5.17.76 table.SourceRangeAddress

Requires the following attributes: No attribute is required.

Allows the following attributes: *column, endcolumn, endrow, endtable, row, startcolumn, startrow, starttable, table.* 

These elements contain table. Source Range Address: table. Movement.

The following elements occur in table. SourceRangeAddress: No element is allowed.

#### 5.17.77 table.SourceService

Requires the following attributes: name, objectname, sourcename.

Allows the following attributes: name, objectname, password, sourcename, username.

These elements contain table. Source Service: table. DataPilotTable.

The following elements occur in table. Source Service: No element is allowed.

#### 5.17.78 table.SubtotalField

Requires the following attributes: *fieldnumber*, *function*. Allows the following attributes: *fieldnumber*, *function*.

These elements contain table. Subtotal Field: table. Subtotal Rule.

The following elements occur in table. Subtotal Field: No element is allowed.

#### 5.17.79 table.SubtotalRule

Requires the following attributes: groupbyfieldnumber.

Allows the following attributes: *groupbyfieldnumber*.

These elements contain table. Subtotal Rule: table. Subtotal Rules.

The following elements occur in table. Subtotal Rule: table. Subtotal Field.

### 5.17.80 table.SubtotalRules

Requires the following attributes: No attribute is required.

Allows the following attributes: bindstylestocontent, casesensitive, pagebreaksongroupchange.

These elements contain table. Subtotal Rules: table. Database Range.

The following elements occur in table. Subtotal Rules: table. Sort Groups, table. Subtotal Rule.

#### 5.17.81 table.Table

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *issubtable*, *name*, *print*, *printranges*, *protected*, *protectionkey*, *stylename*.

These elements contain table. Table: chart. Chart, draw. TextBox, office. Spreadsheet, office. Text, style. Footer, style. FooterLeft, style. Header, style. Header Left, table. Covered Table Cell, table. Dde Link, table. Table Cell, text. Deletion, text. IndexBody, text. IndexTitle, text. NoteBody, text. Section.

The following elements occur in table. Table: office. Dde Source, office. Forms, table. Scenario, table. Shapes, table. Table Column, table. Table Column Group, table. Table Columns, table. Table Header Columns, table. Table Header Rows, table. Table Row, table. Table Row Group, table. Table Rows, table. Table Source.

#### 5.17.82 table.TableCell

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: booleanvalue, contentvalidationname, currency, datevalue, formula, numbercolumnsrepeated, numbercolumnsspanned, numbermatrixcolumnsspanned, numbermatrixrowsspanned, numberrowsspanned, protect, stringvalue, stylename, timevalue, value, valuetype.

These elements contain table. Table Cell: table. Table Row.

The following elements occur in table. Table Cell: dr3d. Scene, draw. A, draw. Caption, draw. Circle,

draw.Connector, draw.Control, draw.CustomShape, draw.Ellipse, draw.Frame, draw.G, draw.Line, draw.Measure, draw.PageThumbnail, draw.Path, draw.Polygon, draw.Polyline, draw.Rect, draw.RegularPolygon, office.Annotation, table.CellRangeSource, table.Detective, table.Table, text.AlphabeticalIndex, text.Bibliography, text.Change, text.ChangeEnd, text.ChangeStart, text.H, text.IllustrationIndex, text.List, text.NumberedParagraph, text.ObjectIndex, text.P, text.Section, text.TableIndex, text.TableOfContent, text.UserIndex.

#### 5.17.83 table.TableColumn

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *defaultcellstylename*, *numbercolumnsrepeated*, *stylename*, *visibility*.

These elements contain table. Table Column: table. Table. Table. Table Column Group, table. Table Columns, table. Table Header Columns.

The following elements occur in table. Table Column: No element is allowed.

## 5.17.84 table.TableColumnGroup

Requires the following attributes: No attribute is required.

Allows the following attributes: display.

These elements contain table. Table Column Group: table. Table. Table. Table Column Group.

The following elements occur in table. Table Column Group: table. Table Column, table. Table Column Group, table. Table Columns, table. Table Header Columns.

#### 5.17.85 table.TableColumns

Requires the following attributes: No attribute is required.

Allows the following attributes: *No attribute is allowed*.

These elements contain table. Table Columns: table. Table, table. Table Column Group.

The following elements occur in table. Table Columns: table. Table Column.

#### 5.17.86 table.TableHeaderColumns

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *No attribute is allowed*.

These elements contain table. Table Header Columns: table. Table, table. Table Column Group.

The following elements occur in table. Table Header Columns: table. Table Column.

#### 5.17.87 table.TableHeaderRows

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *No attribute is allowed*.

These elements contain table. Table Header Rows: table. Table, table. Table Row Group.

The following elements occur in table. Table Header Rows: table. Table Row.

#### 5.17.88 table.TableRow

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: defaultcellstylename, numberrowsrepeated, stylename, visibility.

These elements contain table. Table Row: table. Table, table. Table Header Rows,

table.TableRowGroup, table.TableRows.

The following elements occur in table. Table Row: table. Covered Table Cell, table. Table Cell.

### 5.17.89 table.TableRowGroup

Requires the following attributes: No attribute is required.

Allows the following attributes: display.

These elements contain table. Table Row Group: table. Table, table. Table Row Group.

The following elements occur in table. Table Row Group: table. Table Header Rows, table. Table Row, table. Table Row Group, table. Table Rows.

#### 5.17.90 table.TableRows

Requires the following attributes: No attribute is required.

Allows the following attributes: *No attribute is allowed*.

These elements contain table. Table Rows: table. Table, table. Table Row Group.

The following elements occur in table. Table Rows: table. Table Row.

#### 5.17.91 table.TableSource

Requires the following attributes: No attribute is required.

Allows the following attributes: actuate, filtername, filteroptions, href, mode, refreshdelay, tablename, type.

These elements contain table. Table Source: table. Table.

The following elements occur in table. Table Source: No element is allowed.

## 5.17.92 table.TableTemplate

Requires the following attributes: firstrowendcolumn, firstrowstartcolumn, lastrowendcolumn, lastrowendcolumn, name.

Allows the following attributes: firstrowendcolumn, firstrowstartcolumn, lastrowendcolumn, lastrowendcolumn, name.

These elements contain table. Table Template: This is a toplevel element.

The following elements occur in table. Table Template: table. Body, table. Even Columns, table. Even Rows, table. First Column, table. First Row, table. Last Column, table. Last Row, table. Odd Columns, table. Odd Rows.

## 5.17.93 table.TargetRangeAddress

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *column, endcolumn, endrow, endtable, row, startcolumn, startrow, starttable, table.* 

These elements contain table. TargetRangeAddress: table. Movement.

The following elements occur in table. Target Range Address: No element is allowed.

## 5.17.94 table.TrackedChanges

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: trackchanges.

These elements contain table. Tracked Changes: office. Spreadsheet.

The following elements occur in table. Tracked Changes: table. Cell Content Change, table. Deletion, table. Insertion, table. Movement.

#### 5.18 text module

#### 5.18.1 text.A

Requires the following attributes: href.

Allows the following attributes: actuate, href, name, show, stylename, targetframename, type, visitedstylename.

These elements contain text.A: text.A, text.H, text.P, text.RubyBase, text.Span. The following elements occur in text.A: dr3d.Scene, draw.A, draw.Caption, draw.Circle, draw.Connector, draw.Control, draw.CustomShape, draw.Ellipse, draw.Frame, draw.G, draw.Line, draw.Measure, draw.PageThumbnail, draw.Path, draw.Polygon, draw.Polyline, draw.Rect, draw.RegularPolygon, office.Annotation, office.EventListeners, presentation.DateTime, presentation. Footer, presentation. Header, text. A, text. Alphabetical Index Mark, text.AlphabeticalIndexMarkEnd, text.AlphabeticalIndexMarkStart, text.AuthorInitials, text.AuthorName, text.BibliographyMark, text.Bookmark, text.BookmarkEnd, text.BookmarkRef, text.BookmarkStart, text.Change, text.ChangeEnd, text.ChangeStart, text.Chapter, text. ConditionalText, text. CreationDate, text. CreationTime, text. Creator, text. DatabaseDisplay, text.DatabaseName, text.DatabaseNext, text.DatabaseRowNumber, text.DatabaseRowSelect, text.Date, text.DdeConnection, text.Description, text.EditingCycles, text.EditingDuration, text.ExecuteMacro, text.Expression, text.FileName, text.HiddenParagraph, text.HiddenText, text.InitialCreator, text.Keywords, text.LineBreak, text.Measure, text.ModificationDate, text.ModificationTime, text.Note, text.NoteRef, text.ObjectCount, text.PageContinuation, text.PageNumber, text.PageVariableGet, text.PageVariableSet, text.Placeholder, text.PrintDate, text.PrintTime, text.PrintedBy, text.ReferenceMark, text.ReferenceMarkEnd, text.ReferenceMarkStart, text.Ruby, text.S, text.Script, text.SenderCity, text.SenderCompany, text.SenderCountry, text.SenderEmail, text.SenderFax, text.SenderFirstname, text.SenderInitials, text.SenderLastname, text.SenderPhonePrivate, text.SenderPhoneWork, text.SenderPosition, text.SenderPostalCode, text.SenderStateOrProvince, text.SenderStreet, text.SenderTitle, text.Sequence, text.SequenceRef, text.SheetName, text.Span, text.Subject, text.Tab, text.TableFormula, text.TemplateName, text.TextInput, text.Time, text.Title, text.TocMark, text.TocMarkEnd, text.TocMarkStart, text.UserDefined, text.UserFieldGet, text.UserFieldInput, text.UserIndexMark, text.UserIndexMarkEnd, text.UserIndexMarkStart, text.VariableGet, text. VariableInput, text. VariableSet.

# 5.18.2 text.AlphabeticalIndex

Requires the following attributes: *name*.

Allows the following attributes: name, protected, protectionkey, stylename. These elements contain text. AlphabeticalIndex: draw.TextBox, office.Text, style.Footer, style.FooterLeft, style.Header, style.HeaderLeft, table.CoveredTableCell, table.TableCell, text.Deletion, text.IndexBody, text.IndexTitle, text.NoteBody, text.Section.

The following elements occur in text. Alphabetical Index: text. Alphabetical Index Source, text. Index Body.

# 5.18.3 text.AlphabeticalIndexAutoMarkFile

Requires the following attributes: *href*.

Allows the following attributes: *href*, *type*.

These elements contain text. Alphabetical Index AutoMark File: office. Chart, office. Drawing, office. Presentation, office. Spreadsheet, office. Text, style. Footer, style. Footer Left, style. Header, style. Header Left.

The following elements occur in text. Alphabetical Index AutoMarkFile: No element is allowed.

## 5.18.4 text.AlphabeticalIndexEntryTemplate

Requires the following attributes: outlinelevel, stylename.

Allows the following attributes: *outlinelevel*, *stylename*.

These elements contain text. Alphabetical Index Entry Template: text. Alphabetical Index Source. The following elements occur in text. Alphabetical Index Entry Template: text. Index Entry Chapter, text. Index Entry Page Number, text. Index Entry Span, text. Index Entry Text.

## 5.18.5 text.AlphabeticalIndexMark

Requires the following attributes: stringvalue.

Allows the following attributes: *key1*, *key1phonetic*, *key2*, *key2phonetic*, *mainentry*, *stringvalue*, *stringvaluephonetic*.

These elements contain text. Alphabetical Index Mark: text. A, text. H, text. P, text. Ruby Base, text. Span.

The following elements occur in text. Alphabetical Index Mark: No element is allowed.

## 5.18.6 text.AlphabeticalIndexMarkEnd

Requires the following attributes: *id*. Allows the following attributes: *id*.

These elements contain text. Alphabetical Index Mark End: text. A, text. H, text. P, text. Ruby Base, text. Span.

The following elements occur in text. Alphabetical Index Mark End: No element is allowed.

## 5.18.7 text.AlphabeticalIndexMarkStart

Requires the following attributes: id.

Allows the following attributes: *id*, *key1*, *key1phonetic*, *key2*, *key2phonetic*, *mainentry*, *stringvaluephonetic*.

These elements contain text. Alphabetical Index Mark Start: text. A, text. H, text. P, text. Ruby Base, text. Span.

The following elements occur in text. Alphabetical Index Mark Start: No element is allowed.

# 5.18.8 text.AlphabeticalIndexSource

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: alphabeticalseparators, capitalizeentries, combineentries, combineentrieswithdash, combineentrieswithpp, commaseparated, country, ignorecase, indexscope, language, mainentrystylename, relativetabstopposition, sortalgorithm, usekeysasentries.

These elements contain text. Alphabetical Index Source: text. Alphabetical Index.

The following elements occur in text.AlphabeticalIndexSource: text.AlphabeticalIndexEntryTemplate, text.IndexTitleTemplate.

#### 5.18.9 text. AuthorInitials

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: fixed.

These elements contain text. Author Initials: text. A, text. H, text. P, text. Ruby Base, text. Span.

The following elements occur in text. AuthorInitials: *No element is allowed.* 

#### 5.18.10 text.AuthorName

Requires the following attributes: No attribute is required.

Allows the following attributes: fixed.

These elements contain text. AuthorName: text. A, text. H, text. P, text. RubyBase, text. Span.

The following elements occur in text. Author Name: No element is allowed.

## 5.18.11 text.Bibliography

Requires the following attributes: name.

Allows the following attributes: name, protected, protectionkey, stylename.

These elements contain text.Bibliography: draw.TextBox, office.Text, style.Footer, style.FooterLeft, style.Header, style.HeaderLeft, table.CoveredTableCell, table.TableCell, text.Deletion, text.IndexBody, text.IndexTitle, text.NoteBody, text.Section.

The following elements occur in text. Bibliography: text. Bibliography Source, text. IndexBody.

# 5.18.12 text.BibliographyConfiguration

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *country, language, numberedentries, prefix, sortalgorithm, sortbyposition, suffix.* 

These elements contain text. Bibliography Configuration: office. Styles.

The following elements occur in text.BibliographyConfiguration: text.SortKey.

## 5.18.13 text.BibliographyEntryTemplate

Requires the following attributes: bibliographytype, stylename.

Allows the following attributes: *bibliographytype*, *stylename*.

These elements contain text. Bibliography Entry Template: text. Bibliography Source.

 $The following \ elements \ occur \ in \ text. Bibliography Entry Template: \ \textit{text.IndexEntryBibliography},$ 

text.IndexEntrySpan, text.IndexEntryTabStop.

# 5.18.14 text.BibliographyMark

Requires the following attributes: bibliographytype.

Allows the following attributes: bibliographytype, issn.

These elements contain text.BibliographyMark: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Bibliography Mark: *No element is allowed.* 

# 5.18.15 text.BibliographySource

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *No attribute is allowed.* 

These elements contain text. Bibliography Source: text. Bibliography.

The following elements occur in text.BibliographySource: text.BibliographyEntryTemplate,

text. Index Title Template.

#### 5.18.16 text.Bookmark

Requires the following attributes: No attribute is required.

Allows the following attributes: name.

These elements contain text. Bookmark: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Bookmark: No element is allowed.

### 5.18.17 text.BookmarkEnd

Requires the following attributes: name.

Allows the following attributes: name.

These elements contain text.BookmarkEnd: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. BookmarkEnd: No element is allowed.

#### 5.18.18 text.BookmarkRef

Requires the following attributes: *No attribute is required.* Allows the following attributes: *referenceformat, refname.* 

These elements contain text.BookmarkRef: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. BookmarkRef: No element is allowed.

#### 5.18.19 text.BookmarkStart

Requires the following attributes: *name*.

Allows the following attributes: *name*.

These elements contain text.BookmarkStart: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Bookmark Start: No element is allowed.

## 5.18.20 text.Change

Requires the following attributes: *changeid*. Allows the following attributes: *changeid*.

These elements contain text. Change: draw. TextBox, office. Text, style. Footer, style. FooterLeft, style. Header, style. HeaderLeft, table. CoveredTableCell, table. TableCell, text. A, text. Deletion, text. H, text. IndexBody, text. IndexTitle, text. NoteBody, text. P, text. RubyBase, text. Section, text. Span. The following elements occur in text. Change: No element is allowed.

## 5.18.21 text.ChangeEnd

Requires the following attributes: *changeid*. Allows the following attributes: *changeid*.

These elements contain text. Change End: draw. TextBox, office. Text, style. Footer, style. Footer Left, style. Header, style. Header Left, table. Covered Table Cell, table. Table Cell, text. A, text. Deletion, text. H, text. IndexBody, text. IndexTitle, text. NoteBody, text. P, text. Ruby Base, text. Section, text. Span. The following elements occur in text. Change End: No element is allowed.

# 5.18.22 text.ChangeStart

Requires the following attributes: *changeid*. Allows the following attributes: *changeid*.

These elements contain text. Change Start: draw. TextBox, office. Text, style. Footer, style. Footer Left, style. Header, style. Header Left, table. Covered Table Cell, table. Table Cell, text. A, text. Deletion, text. H, text. Index Body, text. Index Title, text. Note Body, text. P, text. Ruby Base, text. Section, text. Span. The following elements occur in text. Change Start: No element is allowed.

# 5.18.23 text.ChangedRegion

Requires the following attributes: *id*. Allows the following attributes: *id*.

These elements contain text. Changed Region: text. Tracked Changes.

The following elements occur in text. Changed Region: text. Deletion, text. Format Change, text. Insertion.

# 5.18.24 text.Chapter

Requires the following attributes: display, outlinelevel.

Allows the following attributes: display, outlinelevel.

These elements contain text. Chapter: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Chapter: No element is allowed.

#### 5.18.25 text.ConditionalText

Requires the following attributes: condition, stringvalueiffalse, stringvalueiftrue.

Allows the following attributes: *condition, currentvalue, stringvalueiffalse, stringvalueiftrue*. These elements contain text.ConditionalText: *text.A, text.H, text.P, text.RubyBase, text.Span*. The following elements occur in text.ConditionalText: *No element is allowed*.

#### 5.18.26 text.CreationDate

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: datastylename, datevalue, fixed.

These elements contain text.CreationDate: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Creation Date: No element is allowed.

#### 5.18.27 text.CreationTime

Requires the following attributes: No attribute is required.

Allows the following attributes: datastylename, fixed, timevalue.

These elements contain text. Creation Time: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Creation Time: No element is allowed.

#### 5.18.28 text.Creator

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: fixed.

These elements contain text. Creator: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Creator: No element is allowed.

## 5.18.29 text.DatabaseDisplay

Requires the following attributes: columnname, tablename.

Allows the following attributes: columnname, databasename, datastylename, tablename, tabletype.

These elements contain text. Database Display: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Database Display: form. Connection Resource.

#### 5.18.30 text.DatabaseName

Requires the following attributes: tablename.

Allows the following attributes: databasename, tablename, tabletype.

These elements contain text.DatabaseName: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. DatabaseName: form. ConnectionResource.

#### 5.18.31 text.DatabaseNext

Requires the following attributes: tablename.

Allows the following attributes: condition, databasename, tablename, tabletype.

These elements contain text.DatabaseNext: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. DatabaseNext: form. ConnectionResource.

#### 5.18.32 text.DatabaseRowNumber

Requires the following attributes: tablename.

Allows the following attributes: *databasename*, *numformat*, *numlettersync*, *tablename*, *tabletype*, *value*.

These elements contain text.DatabaseRowNumber: *text.A*, *text.H*, *text.P*, *text.RubyBase*, *text.Span*. The following elements occur in text.DatabaseRowNumber: *form.ConnectionResource*.

#### 5.18.33 text.DatabaseRowSelect

Requires the following attributes: tablename.

Allows the following attributes: *condition, databasename, rownumber, tablename, tabletype*. These elements contain text.DatabaseRowSelect: *text.A, text.H, text.P, text.RubyBase, text.Span.* 

The following elements occur in text.DatabaseRowSelect: form.ConnectionResource.

#### 5.18.34 text.Date

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *datastylename*, *dateadjust*, *datevalue*, *fixed*. These elements contain text.Date: *text.A*, *text.H*, *text.P*, *text.RubyBase*, *text.Span*.

The following elements occur in text. Date: No element is allowed.

#### 5.18.35 text.DdeConnection

Requires the following attributes: connectionname.

Allows the following attributes: connectionname.

These elements contain text.DdeConnection: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text.DdeConnection: No element is allowed.

#### 5.18.36 text.DdeConnectionDecl

Requires the following attributes: *ddeapplication*, *ddeitem*, *ddetopic*, *name*.

Allows the following attributes: automaticupdate, ddeapplication, ddeitem, ddetopic, name.

These elements contain text.DdeConnectionDecl: text.DdeConnectionDecls.

The following elements occur in text.DdeConnectionDecl: No element is allowed.

#### 5.18.37 text.DdeConnectionDecls

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: No attribute is allowed.

These elements contain text.DdeConnectionDecls: office.Chart, office.Drawing,

office.Presentation, office.Spreadsheet, office.Text, style.Footer, style.FooterLeft, style.Header, style.HeaderLeft.

The following elements occur in text.DdeConnectionDecls: text.DdeConnectionDecl.

### 5.18.38 text.Deletion

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain text. Deletion: text. Changed Region.

The following elements occur in text.Deletion: dr3d.Scene, draw.A, draw.Caption, draw.Circle, draw.Connector, draw.Control, draw.CustomShape, draw.Ellipse, draw.Frame, draw.G, draw.Line, draw.Measure, draw.PageThumbnail, draw.Path, draw.Polygon, draw.Polyline, draw.Rect, draw.RegularPolygon, office.ChangeInfo, table.Table, text.AlphabeticalIndex, text.Bibliography, text.Change, text.ChangeEnd, text.ChangeStart, text.H, text.IllustrationIndex, text.List, text.NumberedParagraph, text.ObjectIndex, text.P, text.Section, text.TableIndex, text.TableOfContent, text.UserIndex.

## 5.18.39 text.Description

Requires the following attributes: No attribute is required.

Allows the following attributes: fixed.

These elements contain text.Description: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Description: No element is allowed.

## 5.18.40 text.EditingCycles

Requires the following attributes: No attribute is required.

Allows the following attributes: *fixed*.

These elements contain text. Editing Cycles: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Editing Cycles: No element is allowed.

## 5.18.41 text.EditingDuration

Requires the following attributes: No attribute is required.

Allows the following attributes: datastylename, duration, fixed.

These elements contain text. Editing Duration: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Editing Duration: No element is allowed.

#### 5.18.42 text.ExecuteMacro

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: name.

These elements contain text. Execute Macro: text. A, text. H, text. P, text. Ruby Base, text. Span.

The following elements occur in text. Execute Macro: office. Event Listeners.

## 5.18.43 text.Expression

Requires the following attributes: No attribute is required.

Allows the following attributes: booleanvalue, currency, datastylename, datevalue, display, formula, stringvalue, timevalue, value, valuetype.

These elements contain text. Expression: text. A, text. H, text. P, text. Ruby Base, text. Span.

The following elements occur in text. Expression: No element is allowed.

#### 5.18.44 text.FileName

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: display, fixed.

These elements contain text.FileName: text.A, text.H, text.P, text.RubyBase, text.Span. The following elements occur in text.FileName: No element is allowed.

## 5.18.45 text.FormatChange

Requires the following attributes: *No attribute is required.*Allows the following attributes: *No attribute is allowed.*These elements contain text.FormatChange: *text.ChangedRegion.*The following elements occur in text.FormatChange: *office.ChangeInfo.* 

### 5.18.46 text.H

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *classnames*, *condstylename*, *id*, *islistheader*, *outlinelevel*, *restartnumbering*, *startvalue*, *stylename*.

These elements contain text.H: draw.TextBox, office.Text, style.Footer, style.FooterLeft, style.Header, style.HeaderLeft, table.CoveredTableCell, table.TableCell, text.Deletion, text.IndexBody, text.IndexTitle, text.ListHeader, text.ListItem, text.NoteBody, text.NumberedParagraph, text.Section.

The following elements occur in text.H: dr3d.Scene, draw.A, draw.Caption, draw.Circle, draw.Connector, draw.Control, draw.CustomShape, draw.Ellipse, draw.Frame, draw.G, draw.Line, draw.Measure, draw.PageThumbnail, draw.Path, draw.Polygon, draw.Polyline, draw.Rect, draw.RegularPolygon, office.Annotation, presentation.DateTime, presentation.Footer, presentation. Header, text. A, text. Alphabetical Index Mark, text. Alphabetical Index Mark End, text.AlphabeticalIndexMarkStart, text.AuthorInitials, text.AuthorName, text.BibliographyMark, text.Bookmark, text.BookmarkEnd, text.BookmarkRef, text.BookmarkStart, text.Change, text. ChangeEnd, text. ChangeStart, text. Chapter, text. ConditionalText, text. CreationDate, text.CreationTime, text.Creator, text.DatabaseDisplay, text.DatabaseName, text.DatabaseNext, text.DatabaseRowNumber, text.DatabaseRowSelect, text.Date, text.DdeConnection, text.Description, text.EditingCycles, text.EditingDuration, text.ExecuteMacro, text.Expression, text.FileName, text.HiddenParagraph, text.HiddenText, text.InitialCreator, text.Keywords, text.LineBreak, text.Measure, text.ModificationDate, text.ModificationTime, text.Note, text.NoteRef, text.Number, text.ObjectCount, text.PageContinuation, text.PageNumber, text.PageVariableGet, text.PageVariableSet, text.Placeholder, text.PrintDate, text.PrintTime, text.PrintedBy, text.ReferenceMark, text.ReferenceMarkEnd, text.ReferenceMarkStart, text.Ruby, text.S, text.Script, text.SenderCity, text.SenderCompany, text.SenderCountry, text.SenderEmail, text.SenderFax, text.SenderFirstname, text.SenderInitials, text.SenderLastname, text.SenderPhonePrivate, text.SenderPhoneWork, text.SenderPosition, text.SenderPostalCode, text.SenderStateOrProvince, text.SenderStreet, text.SenderTitle, text.Sequence, text.SequenceRef, text.SheetName, text.Span, text.Subject, text.Tab, text.TableFormula, text.TemplateName, text.TextInput, text.Time, text.Title, text.TocMark, text.TocMarkEnd, text.TocMarkStart, text.UserDefined, text.UserFieldGet, text.UserFieldInput, text.UserIndexMark, text.UserIndexMarkEnd, text.UserIndexMarkStart, text.VariableGet, text.VariableInput, text.VariableSet.

## 5.18.47 text.HiddenParagraph

Requires the following attributes: *condition*.

Allows the following attributes: condition, ishidden.

These elements contain text. Hidden Paragraph: text. A, text. H, text. P, text. Ruby Base, text. Span.

The following elements occur in text. Hidden Paragraph: No element is allowed.

### 5.18.48 text.HiddenText

Requires the following attributes: condition, stringvalue.

Allows the following attributes: condition, ishidden, stringvalue.

These elements contain text. Hidden Text: text. A, text. H, text. P, text. Ruby Base, text. Span.

The following elements occur in text. Hidden Text: No element is allowed.

### 5.18.49 text.IllustrationIndex

Requires the following attributes: *name*.

Allows the following attributes: name, protected, protectionkey, stylename.

These elements contain text.IllustrationIndex: draw.TextBox, office.Text, style.Footer, style.FooterLeft, style.Header, style.HeaderLeft, table.CoveredTableCell, table.TableCell, text.Deletion, text.IndexBody, text.IndexTitle, text.NoteBody, text.Section.

The following elements occur in text.IllustrationIndex: text.IllustrationIndexSource, text.IndexBody.

## 5.18.50 text.lllustrationIndexEntryTemplate

Requires the following attributes: stylename.

Allows the following attributes: *stylename*.

 $These \ elements \ contain \ text. Illustration Index Entry Template: \ \textit{text.IllustrationIndexSource}.$ 

The following elements occur in text.IllustrationIndexEntryTemplate: text.IndexEntryPageNumber, text.IndexEntrySpan, text.IndexEntryTabStop, text.IndexEntryText.

### 5.18.51 text.IllustrationIndexSource

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *captionsequenceformat*, *captionsequencename*, *indexscope*, *relativetabstopposition*, *usecaption*.

These elements contain text. IllustrationIndex Source: text. IllustrationIndex.

The following elements occur in text.IllustrationIndexSource: text.IllustrationIndexEntryTemplate, text.IndexTitleTemplate.

# 5.18.52 text.IndexBody

Requires the following attributes: No attribute is required.

Allows the following attributes: *No attribute is allowed*.

These elements contain text.IndexBody: text.AlphabeticalIndex, text.Bibliography, text.IllustrationIndex, text.ObjectIndex, text.TableIndex, text.TableOfContent, text.UserIndex.

The following elements occur in text.IndexBody: dr3d.Scene, draw.A, draw.Caption, draw.Circle, draw.Connector, draw.Control, draw.CustomShape, draw.Ellipse, draw.Frame, draw.G, draw.Line, draw.Measure, draw.PageThumbnail, draw.Path, draw.Polygon, draw.Polyline, draw.Rect, draw.RegularPolygon, table.Table, text.AlphabeticalIndex, text.Bibliography, text.Change, text.ChangeEnd, text.ChangeStart, text.H, text.IllustrationIndex, text.IndexTitle, text.List, text.NumberedParagraph, text.ObjectIndex, text.P, text.Section, text.TableIndex,

# 5.18.53 text.IndexEntryBibliography

text.TableOfContent, text.UserIndex.

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: bibliographydatafield, stylename.

These elements contain text.IndexEntryBibliography: text.BibliographyEntryTemplate.

The following elements occur in text.IndexEntryBibliography: No element is allowed.

## 5.18.54 text.IndexEntryChapter

Requires the following attributes: No attribute is required.

Allows the following attributes: display, stylename.

These elements contain text.IndexEntryChapter: text.AlphabeticalIndexEntryTemplate,

text.TableOfContentEntryTemplate, text.UserIndexEntryTemplate.

The following elements occur in text.IndexEntryChapter: No element is allowed.

## 5.18.55 text.IndexEntryLinkEnd

Requires the following attributes: No attribute is required.

Allows the following attributes: *stylename*.

These elements contain text.IndexEntryLinkEnd: *text.TableOfContentEntryTemplate*. The following elements occur in text.IndexEntryLinkEnd: *No element is allowed*.

## 5.18.56 text.IndexEntryLinkStart

Requires the following attributes: No attribute is required.

Allows the following attributes: *stylename*.

These elements contain text.IndexEntryLinkStart: *text.TableOfContentEntryTemplate*. The following elements occur in text.IndexEntryLinkStart: *No element is allowed*.

## 5.18.57 text.IndexEntryPageNumber

Requires the following attributes: No attribute is required.

Allows the following attributes: *stylename*.

These elements contain text.IndexEntryPageNumber: text.AlphabeticalIndexEntryTemplate,

text.IllustrationIndexEntryTemplate, text.ObjectIndexEntryTemplate,

text.TableIndexEntryTemplate, text.TableOfContentEntryTemplate, text.UserIndexEntryTemplate.

The following elements occur in text.IndexEntryPageNumber: No element is allowed.

# 5.18.58 text.IndexEntrySpan

Requires the following attributes: No attribute is required.

Allows the following attributes: *stylename*.

These elements contain text.IndexEntrySpan: text.AlphabeticalIndexEntryTemplate,

text.BibliographyEntryTemplate, text.IllustrationIndexEntryTemplate,

 $text. Object Index Entry Template, \ text. Table Index Entry Template, \ text. Table Of Content Entry Template, \ text. User Index Entry Template.$ 

The following elements occur in text.IndexEntrySpan: No element is allowed.

# 5.18.59 text.IndexEntryTabStop

Requires the following attributes: No attribute is required.

Allows the following attributes: leaderchar, position, stylename, type.

These elements contain text.IndexEntryTabStop: text.AlphabeticalIndexEntryTemplate,

text.BibliographyEntryTemplate, text.IllustrationIndexEntryTemplate,

text.ObjectIndexEntryTemplate, text.TableIndexEntryTemplate, text.TableOfContentEntryTemplate, text.UserIndexEntryTemplate.

The following elements occur in text.IndexEntryTabStop: No element is allowed.

## 5.18.60 text.IndexEntryText

Requires the following attributes: No attribute is required.

Allows the following attributes: *stylename*.

These elements contain text.IndexEntryText: text.AlphabeticalIndexEntryTemplate,

text.IllustrationIndexEntryTemplate, text.ObjectIndexEntryTemplate,

text.TableIndexEntryTemplate, text.TableOfContentEntryTemplate, text.UserIndexEntryTemplate.

The following elements occur in text.IndexEntryText: No element is allowed.

## 5.18.61 text.IndexSourceStyle

Requires the following attributes: *stylename*. Allows the following attributes: *stylename*.

These elements contain text.IndexSourceStyle: text.IndexSourceStyles.

The following elements occur in text.IndexSourceStyle: No element is allowed.

## 5.18.62 text.IndexSourceStyles

Requires the following attributes: outlinelevel.

Allows the following attributes: outlinelevel.

These elements contain text.IndexSourceStyles: text.TableOfContentSource, text.UserIndexSource.

The following elements occur in text.IndexSourceStyles: text.IndexSourceStyle.

### 5.18.63 text.IndexTitle

Requires the following attributes: name.

Allows the following attributes: name, protected, protectionkey, stylename.

These elements contain text.IndexTitle: style.Footer, style.FooterLeft, style.Header, style.HeaderLeft, text.IndexBody, text.IndexTitle.

The following elements occur in text.IndexTitle: dr3d.Scene, draw.A, draw.Caption, draw.Circle, draw.Connector, draw.Control, draw.CustomShape, draw.Ellipse, draw.Frame, draw.G, draw.Line, draw.Measure, draw.PageThumbnail, draw.Path, draw.Polygon, draw.Polyline, draw.Rect, draw.RegularPolygon, table.Table, text.AlphabeticalIndex, text.Bibliography, text.Change, text.ChangeEnd, text.ChangeStart, text.H, text.IllustrationIndex, text.IndexTitle, text.List, text.NumberedParagraph, text.ObjectIndex, text.P, text.Section, text.TableIndex, text.TableOfContent, text.UserIndex.

## 5.18.64 text.IndexTitleTemplate

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *stylename*.

These elements contain text.IndexTitleTemplate: text.AlphabeticalIndexSource, text.BibliographySource, text.IllustrationIndexSource, text.ObjectIndexSource, text.TableIndexSource, text.TableOfContentSource, text.UserIndexSource.

The following elements occur in text.IndexTitleTemplate: No element is allowed.

#### 5.18.65 text.InitialCreator

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: fixed.

These elements contain text.InitialCreator: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text.InitialCreator: No element is allowed.

### 5.18.66 text.Insertion

Requires the following attributes: *No attribute is required.*Allows the following attributes: *No attribute is allowed.*These elements contain text.Insertion: *text.ChangedRegion.*The following elements occur in text.Insertion: *office.ChangeInfo.* 

### 5.18.67 text.Keywords

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: fixed.

These elements contain text. Keywords: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Keywords: No element is allowed.

### 5.18.68 text.LineBreak

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain text.LineBreak: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text.LineBreak: No element is allowed.

## 5.18.69 text.LinenumberingConfiguration

Requires the following attributes: No attribute is required.

Allows the following attributes: countemptylines, countintextboxes, increment, numberlines,

numberposition, numformat, numlettersync, offset, restartonpage, stylename.

These elements contain text.LinenumberingConfiguration: office.Styles.

The following elements occur in text.LinenumberingConfiguration: text.LinenumberingSeparator.

# 5.18.70 text.LinenumberingSeparator

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *increment*.

These elements contain text.LinenumberingSeparator: *text.LinenumberingConfiguration*. The following elements occur in text.LinenumberingSeparator: *No element is allowed*.

### 5.18.71 text.List

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *continuenumbering*, *stylename*.

These elements contain text.List: draw.Caption, draw.Circle, draw.Connector, draw.CustomShape, draw.Ellipse, draw.Image, draw.Line, draw.Measure, draw.Path, draw.Polygon, draw.Polyline, draw.Rect, draw.RegularPolygon, draw.TextBox, office.Annotation, office.Text, style.Footer, style.FooterLeft, style.Header, style.HeaderLeft, table.CoveredTableCell, table.TableCell, text.Deletion, text.IndexBody, text.IndexTitle, text.ListHeader, text.ListItem, text.NoteBody, text.Section.

The following elements occur in text.List: text.ListHeader, text.ListItem.

### 5.18.72 text.ListHeader

Requires the following attributes: *No attribute is required.*Allows the following attributes: *No attribute is allowed.*These elements contain text.ListHeader: *text.List.* 

The following elements occur in text.ListHeader: text.H, text.List, text.Number, text.P.

### 5.18.73 text.ListItem

Requires the following attributes: No attribute is required.

Allows the following attributes: startvalue.

These elements contain text.ListItem: text.List.

The following elements occur in text.ListItem: text.H, text.List, text.Number, text.P.

## 5.18.74 text.ListLevelStyleBullet

Requires the following attributes: bulletchar, level.

Allows the following attributes: bulletchar, bulletrelativesize, level, numprefix, numsuffix, stylename.

These elements contain text.ListLevelStyleBullet: text.ListStyle.

The following elements occur in text.ListLevelStyleBullet: *style.ListLevelProperties*, *style.TextProperties*.

## 5.18.75 text.ListLevelStyleImage

Requires the following attributes: level.

Allows the following attributes: *actuate, href, level, show, type*. These elements contain text.ListLevelStyleImage: *text.ListStyle*.

The following elements occur in text.ListLevelStyleImage: *office.BinaryData*, *style.ListLevelProperties*.

## 5.18.76 text.ListLevelStyleNumber

Requires the following attributes: level.

Allows the following attributes: *displaylevels, level, numformat, numlettersync, numprefix, numsuffix, startvalue, stylename.* 

These elements contain text.ListLevelStyleNumber: text.ListStyle.

The following elements occur in text.ListLevelStyleNumber: *style.ListLevelProperties*, *style.TextProperties*.

# 5.18.77 text.ListStyle

Requires the following attributes: *name*.

Allows the following attributes: consecutivenumbering, displayname, name.

These elements contain text.ListStyle: office.AutomaticStyles, office.Styles,

style.GraphicProperties.

The following elements occur in text.ListStyle: text.ListLevelStyleBullet, text.ListLevelStyleImage, text.ListLevelStyleNumber.

### 5.18.78 text.Measure

Requires the following attributes: *kind*. Allows the following attributes: *kind*.

These elements contain text. Measure: text. A, text. H, text. P, text. Ruby Base, text. Span.

The following elements occur in text. Measure: No element is allowed.

### 5.18.79 text.ModificationDate

Requires the following attributes: No attribute is required.

Allows the following attributes: datastylename, datevalue, fixed.

These elements contain text. Modification Date: text. A, text. H, text. P, text. Ruby Base, text. Span.

The following elements occur in text. Modification Date: No element is allowed.

### 5.18.80 text.ModificationTime

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: datastylename, fixed, timevalue.

These elements contain text. Modification Time: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Modification Time: No element is allowed.

### 5.18.81 text.Note

Requires the following attributes: *noteclass*. Allows the following attributes: *id*, *noteclass*.

These elements contain text.Note: *text.A*, *text.H*, *text.P*, *text.RubyBase*, *text.Span*. The following elements occur in text.Note: *text.NoteBody*, *text.NoteCitation*.

## 5.18.82 text.NoteBody

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain text.NoteBody: text.Note.

The following elements occur in text.NoteBody: dr3d.Scene, draw.A, draw.Caption, draw.Circle, draw.Connector, draw.Control, draw.CustomShape, draw.Ellipse, draw.Frame, draw.G, draw.Line, draw.Measure, draw.PageThumbnail, draw.Path, draw.Polygon, draw.Polyline, draw.Rect, draw.RegularPolygon, table.Table, text.AlphabeticalIndex, text.Bibliography, text.Change, text.ChangeEnd, text.ChangeStart, text.H, text.IllustrationIndex, text.List, text.NumberedParagraph, text.ObjectIndex, text.P, text.Section, text.TableIndex, text.TableOfContent, text.UserIndex.

#### 5.18.83 text.NoteCitation

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: label.

These elements contain text. Note Citation: text. Note.

The following elements occur in text. Note Citation: No element is allowed.

### 5.18.84 text.NoteContinuationNoticeBackward

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain text.NoteContinuationNoticeBackward: text.NotesConfiguration.

The following elements occur in text.NoteContinuationNoticeBackward: No element is allowed.

### 5.18.85 text.NoteContinuationNoticeForward

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain text.NoteContinuationNoticeForward: text.NotesConfiguration.

The following elements occur in text.NoteContinuationNoticeForward: No element is allowed.

### 5.18.86 text.NoteRef

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: noteclass, referenceformat, refname.

These elements contain text.NoteRef: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. NoteRef: No element is allowed.

## 5.18.87 text.NotesConfiguration

Requires the following attributes: noteclass.

Allows the following attributes: *citationbodystylename*, *citationstylename*, *defaultstylename*, *footnotesposition*, *masterpagename*, *noteclass*, *numformat*, *numlettersync*, *numprefix*, *numsuffix*, *startnumberingat*, *startvalue*.

These elements contain text. Notes Configuration: office. Styles, style. Section Properties.

The following elements occur in text. Notes Configuration: text. Note Continuation Notice Backward, text. Note Continuation Notice Forward.

### 5.18.88 text.Number

Requires the following attributes: No attribute is required.

Allows the following attributes: No attribute is allowed.

These elements contain text. Number: text. H, text. ListHeader, text. ListItem,

text.NumberedParagraph.

The following elements occur in text. Number: No element is allowed.

## 5.18.89 text.NumberedParagraph

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: continuenumbering, level, startvalue, stylename.

These elements contain text.NumberedParagraph: draw.TextBox, office.Text,

table.CoveredTableCell, table.TableCell, text.Deletion, text.IndexBody, text.IndexTitle, text.NoteBody, text.Section.

The following elements occur in text. Numbered Paragraph: text. H, text. Number, text. P.

# 5.18.90 text.ObjectCount

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *numformat*, *numlettersync*.

These elements contain text. Object Count: text. A, text. H, text. P, text. Ruby Base, text. Span.

The following elements occur in text. Object Count: No element is allowed.

# 5.18.91 text.ObjectIndex

Requires the following attributes: name.

Allows the following attributes: *name*, *protected*, *protectionkey*, *stylename*.

These elements contain text. ObjectIndex: draw. TextBox, office. Text, style. Footer, style. FooterLeft, style. Header, style. HeaderLeft, table. Covered Table Cell, table. Table Cell, text. Deletion, text. IndexBody, text. IndexTitle, text. NoteBody, text. Section.

The following elements occur in text. ObjectIndex: text. IndexBody, text. ObjectIndexSource.

# 5.18.92 text.ObjectIndexEntryTemplate

Requires the following attributes: stylename.

Allows the following attributes: *stylename*.

These elements contain text. ObjectIndexEntryTemplate: text. ObjectIndexSource.

The following elements occur in text. ObjectIndexEntryTemplate: text. IndexEntryPageNumber, text. IndexEntrySpan, text. IndexEntryTabStop, text. IndexEntryText.

## 5.18.93 text.ObjectIndexSource

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: indexscope, relativetabstopposition, usechartobjects,

usedrawobjects, usemathobjects, useotherobjects, usespreadsheetobjects.

These elements contain text. ObjectIndex Source: text. ObjectIndex.

The following elements occur in text. ObjectIndexSource: text. IndexTitleTemplate,

text.ObjectIndexEntryTemplate.

## 5.18.94 text.OutlineLevelStyle

Requires the following attributes: level.

Allows the following attributes: *displaylevels, level, numformat, numlettersync, numprefix, numsuffix, startvalue, stylename.* 

These elements contain text. Outline Level Style: text. Outline Style.

The following elements occur in text.OutlineLevelStyle: *style.ListLevelProperties*, *style.TextProperties*.

## 5.18.95 text.OutlineStyle

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain text. Outline Style: office. Styles.

The following elements occur in text. Outline Style: text. Outline Level Style.

#### 5.18.96 text.P

Requires the following attributes: No attribute is required.

Allows the following attributes: *classnames*, *condstylename*, *id*, *stylename*.

These elements contain text.P: chart.Footer, chart.Subtitle, chart.Title, draw.Caption, draw.Circle, draw.Connector, draw.CustomShape, draw.Ellipse, draw.Image, draw.Line, draw.Measure, draw.Path, draw.Polygon, draw.Polyline, draw.Rect, draw.RegularPolygon, draw.TextBox, form.Textarea, office.Annotation, office.ChangeInfo, office.Text, style.Footer, style.FooterLeft, style.Header, style.HeaderLeft, style.RegionCenter, style.RegionLeft, style.RegionRight, table.ChangeTrackTableCell, table.CoveredTableCell, table.ErrorMessage, table.HelpMessage, table.TableCell, text.Deletion, text.IndexBody, text.IndexTitle, text.ListHeader, text.ListItem, text.NoteBody, text.NumberedParagraph, text.Section.

The following elements occur in text.P: dr3d.Scene, draw.A, draw.Caption, draw.Circle, draw.Connector, draw.Control, draw.CustomShape, draw.Ellipse, draw.Frame, draw.G, draw.Line, draw.Measure, draw.PageThumbnail, draw.Path, draw.Polygon, draw.Polyline, draw.Rect, draw.RegularPolygon, office.Annotation, presentation.DateTime, presentation.Footer, presentation.Header, text.A, text.AlphabeticalIndexMark, text.AlphabeticalIndexMarkEnd, text.AlphabeticalIndexMarkStart, text.AuthorInitials, text.AuthorName, text.BibliographyMark, text.Bookmark, text.BookmarkEnd, text.BookmarkRef, text.BookmarkStart, text.Change, text.ChangeEnd, text.ChangeStart, text.Chapter, text.ConditionalText, text.CreationDate, text.CreationTime, text.Creator, text.DatabaseDisplay, text.DatabaseName, text.DatabaseNext, text.DatabaseRowNumber, text.DatabaseRowSelect, text.Date, text.DateConnection,

text.Description, text.EditingCycles, text.EditingDuration, text.ExecuteMacro, text.Expression, text.FileName, text.HiddenParagraph, text.HiddenText, text.InitialCreator, text.Keywords, text.LineBreak, text.Measure, text.ModificationDate, text.ModificationTime, text.Note, text.NoteRef, text.ObjectCount, text.PageContinuation, text.PageNumber, text.PageVariableGet, text.PageVariableSet, text.Placeholder, text.PrintDate, text.PrintTime, text.PrintedBy, text.ReferenceMark, text.ReferenceMarkEnd, text.ReferenceMarkStart, text.Ruby, text.S, text.Script, text.SenderCity, text.SenderCompany, text.SenderCountry, text.SenderEmail, text.SenderFax, text.SenderFirstname, text.SenderInitials, text.SenderLastname, text.SenderPhonePrivate, text.SenderPhoneWork, text.SenderPosition, text.SenderPostalCode, text.SenderStateOrProvince, text.SenderStreet, text.SenderTitle, text.Sequence, text.SequenceRef, text.SheetName, text.Span, text.Subject, text.TableFormula, text.TemplateName, text.TextInput, text.Time, text.Title, text.TocMark, text.TocMarkEnd, text.TocMarkStart, text.UserDefined, text.UserFieldGet, text.UserFieldInput, text.UserIndexMark, text.UserIndexMarkEnd, text.UserIndexMarkStart, text.VariableGet, text.VariableInput, text.VariableSet.

## 5.18.97 text.Page

Requires the following attributes: *masterpagename*. Allows the following attributes: *masterpagename*. These elements contain text.Page: *text.PageSequence*.

The following elements occur in text. Page: No element is allowed.

## 5.18.98 text.PageContinuation

Requires the following attributes: selectpage.

Allows the following attributes: *selectpage*, *stringvalue*.

These elements contain text.PageContinuation: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text.PageContinuation: No element is allowed.

# 5.18.99 text.PageNumber

Requires the following attributes: No attribute is required.

Allows the following attributes: *fixed, numformat, numlettersync, pageadjust, selectpage*. These elements contain text.PageNumber: *text.A, text.H, text.P, text.RubyBase, text.Span*. The following elements occur in text.PageNumber: *No element is allowed.* 

# 5.18.100 text.PageSequence

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* These elements contain text.PageSequence: *office.Text.* 

The following elements occur in text.PageSequence: text.Page.

# 5.18.101 text.PageVariableGet

Requires the following attributes: *No attribute is required.* Allows the following attributes: *numformat, numlettersync.* 

These elements contain text.PageVariableGet: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text.PageVariableGet: No element is allowed.

# 5.18.102 text.PageVariableSet

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: active, pageadjust.

These elements contain text.PageVariableSet: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text.PageVariableSet: No element is allowed.

### 5.18.103 text.Placeholder

Requires the following attributes: placeholdertype.

Allows the following attributes: description, placeholdertype.

These elements contain text.Placeholder: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Placeholder: No element is allowed.

### 5.18.104 text.PrintDate

Requires the following attributes: No attribute is required.

Allows the following attributes: datastylename, datevalue, fixed.

These elements contain text.PrintDate: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text.PrintDate: No element is allowed.

### 5.18.105 text.PrintTime

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: datastylename, fixed, timevalue.

These elements contain text.PrintTime: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text.PrintTime: No element is allowed.

## 5.18.106 text.PrintedBy

Requires the following attributes: No attribute is required.

Allows the following attributes: fixed.

These elements contain text.PrintedBy: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Printed By: No element is allowed.

### 5.18.107 text.ReferenceMark

Requires the following attributes: name.

Allows the following attributes: *name*.

These elements contain text.ReferenceMark: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text.ReferenceMark: *No element is allowed.* 

#### 5.18.108 text.ReferenceMarkEnd

Requires the following attributes: *name*.

Allows the following attributes: name.

These elements contain text.ReferenceMarkEnd: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text.ReferenceMarkEnd: No element is allowed.

### 5.18.109 text.ReferenceMarkStart

Requires the following attributes: *name*.

Allows the following attributes: *name*.

These elements contain text.ReferenceMarkStart: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text.ReferenceMarkStart: No element is allowed.

## 5.18.110 text.Ruby

Requires the following attributes: No attribute is required.

Allows the following attributes: *stylename*.

These elements contain text.Ruby: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text.Ruby: text.RubyBase, text.RubyText.

## 5.18.111 text.RubyBase

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* These elements contain text.RubyBase: *text.Ruby.* 

The following elements occur in text.RubyBase: dr3d.Scene, draw.A, draw.Caption, draw.Circle, draw.Connector, draw.Control, draw.CustomShape, draw.Ellipse, draw.Frame, draw.G, draw.Line, draw.Measure, draw.PageThumbnail, draw.Path, draw.Polygon, draw.Polyline, draw.Rect, draw.RegularPolygon, office.Annotation, presentation.DateTime, presentation.Footer, presentation. Header, text. A, text. Alphabetical Index Mark, text. Alphabetical Index Mark End, text.AlphabeticalIndexMarkStart, text.AuthorInitials, text.AuthorName, text.BibliographyMark, text.Bookmark, text.BookmarkEnd, text.BookmarkRef, text.BookmarkStart, text.Change, text. ChangeEnd, text. ChangeStart, text. Chapter, text. ConditionalText, text. CreationDate, text.CreationTime, text.Creator, text.DatabaseDisplay, text.DatabaseName, text.DatabaseNext, text.DatabaseRowNumber, text.DatabaseRowSelect, text.Date, text.DdeConnection, text.Description, text.EditingCycles, text.EditingDuration, text.ExecuteMacro, text.Expression, text.FileName, text.HiddenParagraph, text.HiddenText, text.InitialCreator, text.Keywords, text.LineBreak, text.Measure, text.ModificationDate, text.ModificationTime, text.Note, text.NoteRef, text.ObjectCount, text.PageContinuation, text.PageNumber, text.PageVariableGet, text.PageVariableSet, text.Placeholder, text.PrintDate, text.PrintTime, text.PrintedBy, text.ReferenceMark, text.ReferenceMarkEnd, text.ReferenceMarkStart, text.Ruby, text.S, text.Script, text.SenderCity, text.SenderCompany, text.SenderCountry, text.SenderEmail, text.SenderFax, text.SenderFirstname, text.SenderInitials, text.SenderLastname, text.SenderPhonePrivate, text.SenderPhoneWork, text.SenderPosition, text.SenderPostalCode, text.SenderStateOrProvince, text.SenderStreet, text.SenderTitle, text.Sequence, text.SequenceRef, text.SheetName, text.Span, text.Subject, text.Tab, text.TableFormula, text.TemplateName, text.TextInput, text.Time, text.Title, text.TocMark, text.TocMarkEnd, text.TocMarkStart, text.UserDefined, text.UserFieldGet, text.UserFieldInput, text.UserIndexMark, text.UserIndexMarkEnd, text.UserIndexMarkStart, text.VariableGet, text.VariableInput, text.VariableSet.

## 5.18.112 text.RubyText

Requires the following attributes: No attribute is required.

Allows the following attributes: *stylename*.

These elements contain text.RubyText: text.Ruby.

The following elements occur in text. Ruby Text: No element is allowed.

### 5.18.113 text.S

Requires the following attributes: No attribute is required.

Allows the following attributes: c.

These elements contain text.S: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text.S: No element is allowed.

## 5.18.114 text.Script

Requires the following attributes: No attribute is required.

Allows the following attributes: *href, language, type*.

These elements contain text.Script: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Script: No element is allowed.

### 5.18.115 text.Section

Requires the following attributes: *name*.

Allows the following attributes: condition, display, name, protected, protectionkey, stylename. These elements contain text.Section: draw.TextBox, office.Text, style.Footer, style.FooterLeft, style.Header, style.HeaderLeft, table.CoveredTableCell, table.TableCell, text.Deletion, text.IndexBody, text.IndexTitle, text.NoteBody, text.Section.

The following elements occur in text. Section: dr3d. Scene, draw. A, draw. Caption, draw. Circle, draw. Connector, draw. Control, draw. Custom Shape, draw. Ellipse, draw. Frame, draw. G, draw. Line, draw. Measure, draw. Page Thumbnail, draw. Path, draw. Polygon, draw. Polyline, draw. Regular Polygon, office. Dde Source, table. Table, text. Alphabetical Index, text. Bibliography, text. Change, text. Change End, text. Change Start, text. H, text. Illustration Index, text. List, text. Numbered Paragraph, text. Object Index, text. P, text. Section, text. Section Source, text. Table Index, text. Table Of Content, text. User Index.

### 5.18.116 text.SectionSource

Requires the following attributes: No attribute is required.

Allows the following attributes: *filtername*, *href*, *sectionname*, *show*, *type*.

These elements contain text. Section Source: text. Section.

The following elements occur in text. Section Source: No element is allowed.

## 5.18.117 text.SenderCity

Requires the following attributes: No attribute is required.

Allows the following attributes: fixed.

These elements contain text. SenderCity: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Sender City: No element is allowed.

## 5.18.118 text.SenderCompany

Requires the following attributes: No attribute is required.

Allows the following attributes: *fixed*.

These elements contain text. Sender Company: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Sender Company: No element is allowed.

# 5.18.119 text.SenderCountry

Requires the following attributes: No attribute is required.

Allows the following attributes: fixed.

These elements contain text.SenderCountry: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Sender Country: No element is allowed.

### 5.18.120 text.SenderEmail

Requires the following attributes: No attribute is required.

Allows the following attributes: fixed.

These elements contain text.SenderEmail: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Sender Email: No element is allowed.

### 5.18.121 text.SenderFax

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *fixed*.

These elements contain text.SenderFax: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. SenderFax: No element is allowed.

### 5.18.122 text.SenderFirstname

Requires the following attributes: No attribute is required.

Allows the following attributes: *fixed*.

These elements contain text. SenderFirstname: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. SenderFirstname: No element is allowed.

### 5.18.123 text.SenderInitials

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: fixed.

These elements contain text. SenderInitials: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. SenderInitials: No element is allowed.

### 5.18.124 text.SenderLastname

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: fixed.

These elements contain text. Sender Lastname: text. A, text. H, text. P, text. Ruby Base, text. Span.

The following elements occur in text. Sender Lastname: No element is allowed.

### 5.18.125 text.SenderPhonePrivate

Requires the following attributes: No attribute is required.

Allows the following attributes: *fixed*.

These elements contain text. Sender Phone Private: text. A, text. H, text. P, text. Ruby Base, text. Span.

The following elements occur in text. SenderPhonePrivate: No element is allowed.

### 5.18.126 text.SenderPhoneWork

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: fixed.

These elements contain text. Sender Phone Work: text. A, text. H, text. P, text. Ruby Base, text. Span.

The following elements occur in text. SenderPhoneWork: No element is allowed.

### 5.18.127 text.SenderPosition

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *fixed*.

These elements contain text. SenderPosition: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. SenderPosition: No element is allowed.

### 5.18.128 text.SenderPostalCode

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: fixed.

These elements contain text. SenderPostalCode: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. SenderPostalCode: No element is allowed.

### 5.18.129 text.SenderStateOrProvince

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: fixed.

These elements contain text. SenderStateOrProvince: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. SenderStateOrProvince: No element is allowed.

### 5.18.130 text.SenderStreet

Requires the following attributes: No attribute is required.

Allows the following attributes: fixed.

These elements contain text. Sender Street: text. A, text. H, text. P, text. Ruby Base, text. Span.

The following elements occur in text. SenderStreet: No element is allowed.

### 5.18.131 text.SenderTitle

Requires the following attributes: No attribute is required.

Allows the following attributes: fixed.

These elements contain text. SenderTitle: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Sender Title: No element is allowed.

## 5.18.132 text.Sequence

Requires the following attributes: *name*.

Allows the following attributes: formula, name, numformat, numlettersync, refname.

These elements contain text. Sequence: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Sequence: No element is allowed.

## 5.18.133 text.SequenceDecl

Requires the following attributes: displayoutlinelevel, name.

Allows the following attributes: *displayoutlinelevel*, *name*, *separationcharacter*.

These elements contain text. Sequence Decl: text. Sequence Decls.

The following elements occur in text. Sequence Decl: No element is allowed.

### 5.18.134 text.SequenceDecls

Requires the following attributes: No attribute is required.

Allows the following attributes: *No attribute is allowed.* 

These elements contain text. SequenceDecls: office. Chart, office. Drawing, office. Presentation, office. Spreadsheet, office. Text, style. Footer, style. Footer Left, style. Header, style. Header Left.

The following elements occur in text. Sequence Decls: text. Sequence Decl.

## 5.18.135 text.SequenceRef

Requires the following attributes: *No attribute is required.* Allows the following attributes: *referenceformat, refname.* 

These elements contain text. Sequence Ref: text. A, text. H, text. P, text. Ruby Base, text. Span. The following elements occur in text. Sequence Ref: No element is allowed.

### 5.18.136 text.SheetName

Requires the following attributes: *No attribute is required.* Allows the following attributes: *No attribute is allowed.* 

These elements contain text. Sheet Name: text. A, text. H, text. P, text. Ruby Base, text. Span.

The following elements occur in text. Sheet Name: No element is allowed.

## **5.18.137** text.SortKey

Requires the following attributes: No attribute is required.

Allows the following attributes: key, sortascending.

These elements contain text.SortKey: *text.BibliographyConfiguration*. The following elements occur in text.SortKey: *No element is allowed*.

## 5.18.138 text.Span

Requires the following attributes: *No attribute is required.* Allows the following attributes: *classnames, stylename.* 

These elements contain text.Span: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text.Span: dr3d.Scene, draw.A, draw.Caption, draw.Circle, draw.Connector, draw.Control, draw.CustomShape, draw.Ellipse, draw.Frame, draw.G, draw.Line, draw.Measure, draw.PageThumbnail, draw.Path, draw.Polygon, draw.Polyline, draw.Rect, draw.RegularPolygon, office.Annotation, presentation.DateTime, presentation.Footer, presentation. Header, text. A, text. Alphabetical Index Mark, text. Alphabetical Index Mark End, text.AlphabeticalIndexMarkStart, text.AuthorInitials, text.AuthorName, text.BibliographyMark, text.Bookmark, text.BookmarkEnd, text.BookmarkRef, text.BookmarkStart, text.Change, text. ChangeEnd, text. ChangeStart, text. Chapter, text. ConditionalText, text. CreationDate, text.CreationTime, text.Creator, text.DatabaseDisplay, text.DatabaseName, text.DatabaseNext, text.DatabaseRowNumber, text.DatabaseRowSelect, text.Date, text.DdeConnection, text.Description, text.EditingCycles, text.EditingDuration, text.ExecuteMacro, text.Expression, text.FileName, text.HiddenParagraph, text.HiddenText, text.InitialCreator, text.Keywords, text.LineBreak, text.Measure, text.ModificationDate, text.ModificationTime, text.Note, text.NoteRef, text.ObjectCount, text.PageContinuation, text.PageNumber, text.PageVariableGet, text.PageVariableSet, text.Placeholder, text.PrintDate, text.PrintTime, text.PrintedBy, text.ReferenceMark, text.ReferenceMarkEnd, text.ReferenceMarkStart, text.Ruby, text.S, text.Script, text.SenderCity, text.SenderCompany, text.SenderCountry, text.SenderEmail, text.SenderFax, text.SenderFirstname, text.SenderInitials, text.SenderLastname, text.SenderPhonePrivate, text.SenderPhoneWork, text.SenderPosition, text.SenderPostalCode, text.SenderStateOrProvince, text.SenderStreet, text.SenderTitle, text.Sequence, text.SequenceRef, text.SheetName, text.Span, text.Subject, text.Tab, text.TableFormula, text.TemplateName, text.TextInput, text.Time, text.Title, text.TocMark, text.TocMarkEnd, text.TocMarkStart, text.UserDefined, text.UserFieldGet, text.UserFieldInput, text.UserIndexMark, text.UserIndexMarkEnd, text.UserIndexMarkStart, text.VariableGet, text.VariableInput, text.VariableSet.

# 5.18.139 text.Subject

Requires the following attributes: No attribute is required.

Allows the following attributes: fixed.

These elements contain text. Subject: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Subject: No element is allowed.

### 5.18.140 text.Tab

Requires the following attributes: No attribute is required.

Allows the following attributes: *tabref*.

These elements contain text. Tab: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Tab: No element is allowed.

### 5.18.141 text.TableFormula

Requires the following attributes: No attribute is required.

Allows the following attributes: datastylename, display, formula.

These elements contain text. Table Formula: text. A, text. H, text. P, text. Ruby Base, text. Span.

The following elements occur in text. Table Formula: No element is allowed.

### 5.18.142 text.TableIndex

Requires the following attributes: name.

Allows the following attributes: name, protected, protectionkey, stylename.

These elements contain text. Table Index: draw. TextBox, office. Text, style. Footer, style. FooterLeft, style. Header, style. HeaderLeft, table. Covered Table Cell, table. Table Cell, text. Deletion, text. IndexBody, text. IndexTitle, text. NoteBody, text. Section.

The following elements occur in text. Table Index: text. IndexBody, text. Table IndexSource.

## 5.18.143 text.TableIndexEntryTemplate

Requires the following attributes: *stylename*.

Allows the following attributes: *stylename*.

These elements contain text. TableIndexEntryTemplate: text. TableIndexSource.

The following elements occur in text. Table Index Entry Template: text. Index Entry Page Number,

text.IndexEntrySpan, text.IndexEntryTabStop, text.IndexEntryText.

#### 5.18.144 text.TableIndexSource

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: captionsequenceformat, captionsequencename, indexscope,

relativetabstopposition, usecaption.

These elements contain text. TableIndex Source: text. TableIndex.

The following elements occur in text. Table Index Source: text. Index Title Template,

text.TableIndexEntryTemplate.

#### 5.18.145 text.TableOfContent

Requires the following attributes: *name*.

Allows the following attributes: name, protected, protectionkey, stylename.

These elements contain text. Table Of Content: draw. TextBox, office. Text, style. Footer,

style.FooterLeft, style.Header, style.HeaderLeft, table.CoveredTableCell, table.TableCell,

text.Deletion, text.IndexBody, text.IndexTitle, text.NoteBody, text.Section.

The following elements occur in text. Table Of Content: text. IndexBody, text. Table Of Content Source.

# 5.18.146 text.TableOfContentEntryTemplate

Requires the following attributes: outlinelevel, stylename.

Allows the following attributes: outlinelevel, stylename.

These elements contain text. Table Of Content Entry Template: text. Table Of Content Source. The following elements occur in text. Table Of Content Entry Template: text. Index Entry Chapter, text. Index Entry Link End, text. Index Entry Link Start, text. Index Entry Page Number, text. Index Entry Tab Stop, text. Index Entry Text.

### 5.18.147 text.TableOfContentSource

Requires the following attributes: No attribute is required.

Allows the following attributes: *indexscope*, *outlinelevel*, *relativetabstopposition*, *useindexmarks*, *useindexsourcestyles*, *useoutlinelevel*.

These elements contain text. Table Of Content Source: text. Table Of Content.

The following elements occur in text. Table Of Content Source: text. Index Source Styles,

text.IndexTitleTemplate, text.TableOfContentEntryTemplate.

## 5.18.148 text.TemplateName

Requires the following attributes: No attribute is required.

Allows the following attributes: display.

These elements contain text. TemplateName: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Template Name: No element is allowed.

## 5.18.149 text.TextInput

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: description.

These elements contain text. TextInput: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. TextInput: No element is allowed.

### 5.18.150 text.Time

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: datastylename, fixed, timeadjust, timevalue.

These elements contain text. Time: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Time: No element is allowed.

#### 5.18.151 text.Title

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: fixed.

These elements contain text. Title: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Title: No element is allowed.

### 5.18.152 text.TocMark

Requires the following attributes: stringvalue.

Allows the following attributes: outlinelevel, stringvalue.

These elements contain text. TocMark: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. TocMark: No element is allowed.

#### 5.18.153 text.TocMarkEnd

Requires the following attributes: *id*. Allows the following attributes: *id*.

These elements contain text. TocMarkEnd: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. TocMarkEnd: No element is allowed.

### 5.18.154 text.TocMarkStart

Requires the following attributes: id.

Allows the following attributes: id, outlinelevel.

These elements contain text. TocMarkStart: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. TocMarkStart: No element is allowed.

## 5.18.155 text.TrackedChanges

Requires the following attributes: No attribute is required.

Allows the following attributes: trackchanges.

These elements contain text. Tracked Changes: office. Text.

The following elements occur in text. Tracked Changes: text. Changed Region.

### 5.18.156 text.UserDefined

Requires the following attributes: name.

Allows the following attributes: booleanvalue, datastylename, datevalue, fixed, name, stringvalue, timevalue, value.

These elements contain text. UserDefined: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. UserDefined: No element is allowed.

### 5.18.157 text.UserFieldDecl

Requires the following attributes: name.

Allows the following attributes: booleanvalue, currency, datevalue, formula, name, stringvalue, timevalue, value, valuetype.

These elements contain text. UserFieldDecl: text. UserFieldDecls.

The following elements occur in text. UserFieldDecl: No element is allowed.

#### 5.18.158 text.UserFieldDecls

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *No attribute is allowed*.

These elements contain text. UserFieldDecls: office. Chart, office. Drawing, office. Presentation, office. Spreadsheet, office. Text, style. Footer, style. FooterLeft, style. Header, style. HeaderLeft.

The following elements occur in text. UserFieldDecls: text. UserFieldDecl.

### 5.18.159 text.UserFieldGet

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: datastylename, display, name.

These elements contain text. UserFieldGet: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. UserFieldGet: No element is allowed.

## 5.18.160 text.UserFieldInput

Requires the following attributes: name.

Allows the following attributes: datastylename, description, name.

These elements contain text. UserFieldInput: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. UserFieldInput: No element is allowed.

### 5.18.161 text.UserIndex

Requires the following attributes: name.

Allows the following attributes: name, protected, protectionkey, stylename.

These elements contain text. UserIndex: draw. TextBox, office. Text, style. Footer, style. FooterLeft, style. Header, style. HeaderLeft, table. CoveredTableCell, table. TableCell, text. Deletion,

text.IndexBody, text.IndexTitle, text.NoteBody, text.Section.

The following elements occur in text. UserIndex: text.IndexBody, text.UserIndexSource.

## 5.18.162 text.UserIndexEntryTemplate

Requires the following attributes: *outlinelevel*, *stylename*.

Allows the following attributes: *outlinelevel*, *stylename*.

These elements contain text. UserIndexEntryTemplate: text. UserIndexSource.

The following elements occur in text. UserIndexEntryTemplate: text.IndexEntryChapter,

text.IndexEntryPageNumber, text.IndexEntrySpan, text.IndexEntryTabStop, text.IndexEntryText.

### 5.18.163 text.UserIndexMark

Requires the following attributes: indexname, stringvalue.

Allows the following attributes: indexname, outlinelevel, stringvalue.

These elements contain text. UserIndexMark: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. UserIndexMark: No element is allowed.

### 5.18.164 text.UserIndexMarkEnd

Requires the following attributes: id.

Allows the following attributes: id, outlinelevel.

These elements contain text. UserIndexMarkEnd: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. UserIndexMarkEnd: No element is allowed.

### 5.18.165 text.UserIndexMarkStart

Requires the following attributes: *id, indexname*.

Allows the following attributes: id, indexname, outlinelevel.

These elements contain text. UserIndexMarkStart: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. UserIndexMarkStart: No element is allowed.

### 5.18.166 text.UserIndexSource

Requires the following attributes: *indexname*.

Allows the following attributes: *copyoutlinelevels, indexname, indexscope, relativetabstopposition, usefloatingframes, usegraphics, useindexmarks, useobjects, usetables.* 

These elements contain text. UserIndexSource: text. UserIndex.

The following elements occur in text. UserIndexSource: text. IndexSourceStyles,

 $text. Index Title Template, \ text. User Index Entry Template.$ 

### 5.18.167 text.VariableDecl

Requires the following attributes: name, valuetype.

Allows the following attributes: name, valuetype.

These elements contain text. Variable Decl: text. Variable Decls.

The following elements occur in text. Variable Decl: No element is allowed.

### 5.18.168 text.VariableDecls

Requires the following attributes: No attribute is required.

Allows the following attributes: *No attribute is allowed*.

These elements contain text. VariableDecls: office. Chart, office. Drawing, office. Presentation, office. Spreadsheet, office. Text, style. Footer, style. FooterLeft, style. HeaderLeft.

The following elements occur in text. Variable Decls: text. Variable Decl.

### 5.18.169 text.VariableGet

Requires the following attributes: No attribute is required.

Allows the following attributes: *datastylename*, *display*, *name*.

These elements contain text. VariableGet: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Variable Get: No element is allowed.

## 5.18.170 text. Variable Input

Requires the following attributes: name, valuetype.

Allows the following attributes: datastylename, description, display, name, valuetype.

These elements contain text. VariableInput: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Variable Input: No element is allowed.

### 5.18.171 text.VariableSet

Requires the following attributes: name.

Allows the following attributes: booleanvalue, currency, datastylename, datevalue, display, formula, name, stringvalue, timevalue, value, valuetype.

These elements contain text. VariableSet: text.A, text.H, text.P, text.RubyBase, text.Span.

The following elements occur in text. Variable Set: No element is allowed.

### 5.19 xforms module

### 5.19.1 xforms.Model

Requires the following attributes: *No attribute is required.* 

Allows the following attributes: *No attribute is allowed*.

These elements contain xforms. Model: office. Forms.

The following elements occur in xforms. Model: Any element is allowed.

### 6 Convenience modules

The convenience modules are classes that implement often-used functionality.

### 6.1 Userfield module

The userfield module lets you extract and modify userfield variable declarations in an OpenDocument file.

To start, you first open the document with:

from odf.userfield import UserFields
obj = UserFields(inputfile, outputfile)

Outputfile can be None. The object has the following methods:

list fields() Returns list of user-field names.

list\_fields\_and\_values() List (extract) user-fields with type and value.

get(name) Extract the contents of this field. Returns field value or None if field does

not exist.

get\_type\_and\_value(name) Extract the type and contents of this field from the file.

update(values) Set the value of user fields. The field types will be the same. The argument

is a dictionary with field name as key, field value as value.

## 6.2 Teletype module

XML has the "feature" that consecutive whitespace – i.e. spaces, newlines and tabs is squashed into one space. It makes it easy to fold XML source code, but if you are adding text from a plain text document, you might want to keep those.

```
from odf import text, teletype
from odf.opendocument import OpenDocumentText
doc = OpenDocumentText()

para = text.P()
teletype.addTextToElement(para, "milk\t2 liters!\nsugar\nflour\n")
textdoc.text.addElement(p)
textdoc.save("my document.odt")
```

When you load a document, you can also conveniently convert the whitespace structural elements back into the teletype conventions like this:

```
from odf import text, teletype
from odf.opendocument import load

textdoc = load("my document.odt")
allparas = textdoc.getElementsByType(text.P)
print teletype.extractText(allparas[0])
```

# 6.3 Easyliststyle module

Creating a <text:list-style> element with all of its child <text:list-level-style-number> (or -bullet) elements takes a lot of code. The easyliststyle.py module lets you specify the level styles in a delimited string. Here's a sample call:

```
from odf import easyliststyle
listStyle = easyliststyle.styleFromString( 'numl',  # style name
    'I;1.;(a)',  # the level specification string
    ';',  # the delimiter character
    '1.0cm',  # spacing as a CSS length
    easyliststyle.SHOW_ONE_LEVEL ) # show only one level of numbering
```

The specification string "I;1.;(a)" given here says that level one uses uppercase roman numerals, level two uses arabic numerals followed by a period, and level three uses lowercase letters in parentheses.

If a level specification doesn't contain 1, I, i, A, or a, then it is presumed to be a bullet style.

You may also use a list to specify each level's list style; in this case you call styleFromList.

# 7 Examples

## 7.1 Creating a table in OpenDocument text

This example reads the UNIX /etc/passwd file and creates a table with seven columns. Unlike in HTML tables, ODF tables must have declared column widths. For those who don't know /etc/passwd, it is a wellknown text file in Linux with seven colon-separated values.

```
#!/usr/bin/env python
# -*- coding: utf-8 -*-
from odf.opendocument import OpenDocumentText
from odf.style import Style, TextProperties, ParagraphProperties
from odf.style import TableColumnProperties
from odf.text import P
from odf.table import Table, TableColumn, TableRow, TableCell
doc = OpenDocumentText()
# Create a style for the table content. One we can modify
# later in the word processor.
tablecontents = Style(name="Table Contents", family="paragraph")
tablecontents.addElement(ParagraphProperties(numberlines="false",
linenumber="0"))
doc.styles.addElement(tablecontents)
# Create automatic styles for the column widths.
# We want two different widths, one in inches, the other one in metric.
# ODF Standard section 15.9.1
widthshort = Style(name="Wshort", family="table-column")
widthshort.addElement(TableColumnProperties(columnwidth="1.7cm"))
doc.automaticstyles.addElement(widthshort)
widthwide = Style(name="Wwide", family="table-column")
widthwide.addElement(TableColumnProperties(columnwidth="1.5in"))
doc.automaticstyles.addElement(widthwide)
# Start the table, and describe the columns
table = Table()
table.addElement(TableColumn(numbercolumnsrepeated=4,stylename=widthshort))
table.addElement(TableColumn(numbercolumnsrepeated=3,stylename=widthwide))
f = open('/etc/passwd')
for line in f:
   rec = line.strip().split(":")
   tr = TableRow()
    table.addElement(tr)
    for val in rec:
        tc = TableCell()
       tr.addElement(tc)
       p = P(stylename=tablecontents,text=val)
       tc.addElement(p)
doc.text.addElement(table)
doc.save("passwd", True)
```

# 7.2 Creating the table as a spreadsheet

The spreadsheet version is almost identical. I have highlighted with italics and underscore where the differences are. But you can definitely simplify it further. E.g. you don't need the *Table Contents* style in a spreadsheet.

```
#!/usr/bin/env python
```

```
# -*- coding: utf-8 -*-
from odf.opendocument import OpenDocumentSpreadsheet
from odf.style import Style, TextProperties, ParagraphProperties
from odf.style import TableColumnProperties
from odf.text import P
from odf.table import Table, TableColumn, TableRow, TableCell
doc = OpenDocumentSpreadsheet()
# Create a style for the table content. One we can modify
# later in the word processor.
tablecontents = Style(name="Table Contents", family="paragraph")
tablecontents.addElement(ParagraphProperties(numberlines="false",
linenumber="0"))
doc.styles.addElement(tablecontents)
# Create automatic styles for the column widths.
# We want two different widths, one in inches, the other one in metric.
# ODF Standard section 15.9.1
widthshort = Style(name="Wshort", family="table-column")
widthshort.addElement(TableColumnProperties(columnwidth="1.7cm"))
doc.automaticstyles.addElement(widthshort)
widthwide = Style(name="Wwide", family="table-column")
widthwide.addElement(TableColumnProperties(columnwidth="1.5in"))
doc.automaticstyles.addElement(widthwide)
# Start the table, and describe the columns
table = Table(name="Password")
table.addElement(TableColumn(numbercolumnsrepeated=4,stylename=widthshort))
table.addElement(TableColumn(numbercolumnsrepeated=3,stylename=widthwide))
f = open('/etc/passwd')
for line in f:
   rec = line.strip().split(":")
    tr = TableRow()
    table.addElement(tr)
    for val in rec:
        tc = TableCell()
        tr.addElement(tc)
       p = P(stylename=tablecontents,text=val)
        tc.addElement(p)
doc. spreadsheet .addElement (table)
doc.save("passwd", True)
```

#### 7.3 Photo album

This example creates a simple photo album with an automatic slide transition after five seconds. Every drawing page must have a master page assigned to it. We create a simple placeholder that can't be used to adjust all slides at once. If your pictures aren't of the dimensions 4x3, they will look distorted. I'll leave that as an exercise left for the reader.

```
from odf.opendocument import OpenDocumentPresentation
from odf.style import Style, MasterPage, PageLayout, PageLayoutProperties, \
TextProperties, GraphicProperties, ParagraphProperties, DrawingPageProperties
from odf.text import P
from odf.draw import Page, Frame, TextBox, Image

doc = OpenDocumentPresentation()

# We must describe the dimensions of the page
pagelayout = PageLayout(name="MyLayout")
```

```
doc.automaticstyles.addElement(pagelayout)
pagelayout.addElement(PageLayoutProperties(margin="0cm", pagewidth="28cm",
pageheight="21cm", printorientation="landscape"))
# Style for the title frame of the page
# We set a centered 34pt font with yellowish background
titlestyle = Style(name="MyMaster-title", family="presentation")
titlestyle.addElement(ParagraphProperties(textalign="center"))
titlestyle.addElement(TextProperties(fontsize="34pt"))
titlestyle.addElement(GraphicProperties(fillcolor="#ffff99"))
doc.styles.addElement(titlestyle)
# Style for the photo frame
photostyle = Style(name="MyMaster-photo", family="presentation")
doc.styles.addElement(photostyle)
# Create automatic transition - MUST be named dp1
dpstyle = Style(name="dp1", family="drawing-page")
dpstyle.addElement(DrawingPageProperties(transitiontype="automatic",
  transitionstyle="move-from-top", duration="PT05S"))
doc.automaticstyles.addElement(dpstyle)
# Every drawing page must have a master page assigned to it.
masterpage = MasterPage(name="MyMaster", pagelayoutname=pagelayout)
doc.masterstyles.addElement(masterpage)
# Slides
for picture in [('forum.jpg','Forum Romanum'),('coloseum.jpg','Coloseum')]:
   page = Page(stylename=dpstyle, masterpagename=masterpage)
   doc.presentation.addElement(page)
   titleframe = Frame(stylename=titlestyle, width="25cm", height="2cm",
x="1.5cm", y="0.5cm")
   page.addElement(titleframe)
    textbox = TextBox()
    titleframe.addElement(textbox)
    textbox.addElement(P(text=picture[1]))
   \# Photo set to 25x18.75 cm.
   photoframe = Frame(stylename=photostyle, width="25cm", height="18.75cm",
x="1.5cm", y="2.5cm")
   page.addElement(photoframe)
   href = doc.addPicture(picture[0])
   photoframe.addElement(Image(href=href))
doc.save("trip-to-rome", True)
```

See the examples folder in the source package for these examples and others.