

# z3c.RML Reference

Version 4.0.1.dev0

# Introduction

RML is a XML dialect for generating PDF files. Like HTML produces a page within the browser, RML produces a PDF file. The RML processor uses the ReportLab library to convert the RML text into a full PDF template.

The original version of RML was developed by ReportLab, Inc. as a commercial extension to the free ReportLab library. This original version of RML is still available and supported by ReportLab, Inc. This version of RML, z3c.RML, is a free implementation of the XML dialect based on the available documentation. While it tries to keep some level of compatibility with the original version of RML, it is intended to provide as clean and feature-rich API as possible.

The contents of this document is auto-generated from the code itself and should thus be very accurate and complete.

# Attribute Types

This section lists the types of attributes used for the attributes within the RML elements.

## **Boolean**

A boolean value. For true the values "true", "yes", and "1" are allowed. For false, the values "false", "no", "1" are allowed.

## **BooleanWithDefault**

This is a boolean field that can also receive the value "default".

## **Choice**

A choice of several values. The values are always case-insensitive.

## **Color**

Requires the input of a color. There are several supported formats. Three values in a row are interpreted as RGB value ranging from 0-255. A string is interpreted as a name to a pre-defined color. The 'CMYK()' wrapper around four values represents a CMYK color specification.

## **Combination**

A combination of several other attribute types.

## **File**

This field will return a file object. The value itself can either be a relative or absolute path. Additionally the following syntax is supported: [path.to.python.mpackage]/path/to/file

## **FirstLevelTextNode**

Gets all the text content of an element without traversing into any child-elements.

## **Float**

An floating point. A minimum and maximum value can be specified.

## **FontSizeRelativeMeasurement**

This field is a measurement always relative to the current font size. The units "F", "f" and "L" refer to a multiple of the current font size, while "P" refers to the fractional font size. If no units are specified, the value is given in points/pixels.

## **Image**

Similar to the file File attribute, except that an image is internally expected.

## **Integer**

An integer. A minimum and maximum value can be specified.

## **IntegerSequence**

A sequence of integers.

## **Measurement**

This field represents a length value. The units "in" (inch), "cm", "mm", and "pt" are allowed. If no units are specified, the value is given in points/pixels.

## **ObjectRef**

This field will return a Python object. The value is a Python path to the object which is being resolved. The syntax is expected to be ``<path.to.module>.<name>``.

## **Padding**

This attribute is specific for padding and will produce the proper length of the padding sequence.

## **PageSize**

A simple measurement pair that specifies the page size. Optionally you can also specify a the name of a page size, such as A4, letter, or legal.

## **RawXMLContent**

Retrieve the raw content of an element. Only some special element substitution will be made.

## **Sequence**

A list of values of a specified type.

## **StringOrInt**

A (bytes) string or an integer.

## **Style**

Requires a valid style to be entered. Whether the style is a paragraph, table or box style is irrelevant, except that it has to fit the tag.

## **Symbol**

This attribute should contain the text representation of a symbol to be used.

## **Text**

A simple unicode string.

## **TextBoolean**

A boolean value as text. ReportLab sometimes exposes low-level APIs, so we have to provide values that are directly inserted into the PDF. For "true" the values "true", "yes", and "1" are allowed. For "false", the values "false", "no", "1" are allowed.

## **TextNode**

Return the text content of an element.

## **TextNodeGrid**

A grid/matrix of values retrieved from the element's content. The number of columns is specified for every case, but the number of rows is dynamic.

## **TextNodeSequence**

A sequence of values retrieved from the element's content.

## **XMLContent**

Same as 'RawXMLContent', except that the whitespace is normalized.

# Directives

## addMapping

Map various styles(bold, italic) of a font name to the actual ps fonts used.

### Attributes

**faceName** (*required*) - Text

*Name*: The name of the font to be mapped

**bold** (*required*) - Integer

*Bold*: Bold

**italic** (*required*) - Integer

*Italic*: Italic

**psName** (*required*) - Text

*psName*: Actual font name mapped

### Examples

```
<addMapping faceName="times" bold="1" italic="0" psName="Vera"/>
```

(Extracted from file *tag-addMapping.rml*, line 11) [\[PDF\]](#)

## alias

Defines an alias for a given style.

### Attributes

**id** (*required*) - Text

*Id*: The id as which the style will be known.

**value** (*required*) - Style

*Value*: The style that is represented.

### Examples

```
<alias id="h1" value="style.Heading1"/>
```

(Extracted from file *tag-alias.rml*, line 15) [\[PDF\]](#)

## b

Renders the text inside as bold.

## bar

Define the look of a bar.

### Attributes

**strokeColor** - Color

*Stroke Color*: The color in which the bar border is drawn.

**strokeWidth** - Measurement

*Stroke Width*: The width of the bar border line.

**fillColor** - Color

*Fill Color*: The color with which the bar is filled.

### Examples

```
<bar fillColor="blue" strokeColor="red" strokeWidth="0.5"/>
```

(Extracted from file *tag-barChart.rml*, line 22) [\[PDF\]](#)

## barChart

Creates a two-dimensional bar chart.

### Attributes

**dx** - Measurement

*Drawing X-Position:* The x-position of the entire drawing on the canvas.

**dy** - Measurement

*Drawing Y-Position:* The y-position of the entire drawing on the canvas.

**dwidth** - Measurement

*Drawing Width:* The width of the entire drawing

**dheight** - Measurement

*Drawing Height:* The height of the entire drawing

**angle** - Float

*Angle:* The orientation of the drawing as an angle in degrees.

**x** - Measurement

*Chart X-Position:* The x-position of the chart within the drawing.

**y** - Measurement

*Chart Y-Position:* The y-position of the chart within the drawing.

**width** - Measurement

*Chart Width:* The width of the chart.

**height** - Measurement

*Chart Height:* The height of the chart.

**strokeColor** - Color

*Stroke Color:* Color of the chart border.

**strokeWidth** - Measurement

*Stroke Width:* Width of the chart border.

**fillColor** - Color

*Fill Color:* Color of the chart interior.

**debug** - Boolean

*Debugging:* A flag that when set to True turns on debug messages.

**direction** - Choice of ('horizontal', 'vertical')

*Direction:* The direction of the bars within the chart.

**useAbsolute** - Boolean

*Use Absolute Spacing:* Flag to use absolute spacing values.

**barWidth** - Measurement

*Bar Width:* The width of an individual bar.

**groupSpacing** - Measurement

*Group Spacing:* Width between groups of bars.

**barSpacing** - Measurement

*Bar Spacing:* Width between individual bars.

**barLabelFormat** - Text

*Bar Label Text Format:* Formatting string for bar labels.

### Sub-Directives

**data** (One)

**bars** (ZeroOrOne)

**categoryAxis** (ZeroOrOne)

**valueAxis** (ZeroOrOne)

**barLabels** (ZeroOrOne)

**texts** (ZeroOrOne)

### Examples

```

<barChart dx="2in" dy="7in" dwidth="6in" dheight="4in" x="0" y="0" width="5in"
          height="3in" barSpacing="7" groupSpacing="15">
  <bars>
    <bar fillColor="blue" strokeColor="red" strokeWidth="0.5"/>
    <bar fillColor="yellow" strokeColor="green" strokeWidth="1"/>
  </bars>
  <categoryAxis strokeColor="black" strokeWidth="1">
    <labels fontName="Helvetica" fontSize="20"/>
    <categoryNames>
      <name>Category 1</name>
      <name>Category 2</name>
      <name>Category 3</name>
      <name>Category 4</name>
    </categoryNames>
  </categoryAxis>
  <valueAxis valueMin="0" valueMax="150" valueStep="30" visibleTicks="true"
             visibleLabels="true" forceZero="true">
    <labels fontName="Helvetica"/>
  </valueAxis>
  <data>
    <series>100 110 120 130</series>
    <series> 70  80  85  90</series>
  </data>
</barChart>

```

(Extracted from file *tag-barChart.rml*, line 19)

[\[PDF\]](#)

## barChart3D

Creates a three-dimensional bar chart.

### Attributes

**dx** - Measurement

*Drawing X-Position:* The x-position of the entire drawing on the canvas.

**dy** - Measurement

*Drawing Y-Position:* The y-position of the entire drawing on the canvas.

**dwidth** - Measurement

*Drawing Width:* The width of the entire drawing

**dheight** - Measurement

*Drawing Height:* The height of the entire drawing

**angle** - Float

*Angle:* The orientation of the drawing as an angle in degrees.

**x** - Measurement

*Chart X-Position:* The x-position of the chart within the drawing.

**y** - Measurement

*Chart Y-Position:* The y-position of the chart within the drawing.

**width** - Measurement

*Chart Width:* The width of the chart.

**height** - Measurement

*Chart Height:* The height of the chart.

**strokeColor** - Color

*Stroke Color:* Color of the chart border.

**strokeWidth** - Measurement

*Stroke Width:* Width of the chart border.

**fillColor** - Color

*Fill Color:* Color of the chart interior.

**debug** - Boolean

*Debugging:* A flag that when set to True turns on debug messages.

**direction** - Choice of ('horizontal', 'vertical')

*Direction:* The direction of the bars within the chart.

**useAbsolute** - Boolean

*Use Absolute Spacing:* Flag to use absolute spacing values.

**barWidth** - Measurement

*Bar Width:* The width of an individual bar.

**groupSpacing** - Measurement

*Group Spacing:* Width between groups of bars.

**barSpacing** - Measurement

*Bar Spacing:* Width between individual bars.

**barLabelFormat** - Text

*Bar Label Text Format:* Formatting string for bar labels.

**thetaX** - Float

*Theta-X:* Fraction of dx/dz.

**thetaY** - Float

*Theta-Y:* Fraction of dy/dz.

**zDepth** - Measurement

*Z-Depth:* Depth of an individual series/bar.

**zSpace** - Measurement

*Z-Space:* Z-Gap around a series/bar.

**Sub-Directives**

**data** (One)

**bars** (ZeroOrOne)

**categoryAxis** (ZeroOrOne)

**valueAxis** (ZeroOrOne)

**barLabels** (ZeroOrOne)

**texts** (ZeroOrOne)

**Examples**

```

<barChart3D dx="2in" dy="4in" dwidth="6in" dheight="4in" x="0" y="0"
    width="5in" height="2in" thetaX="0.3" thetaY="0.3" zDepth="5"
    zSpace="10" direction="vertical">
  <categoryAxis strokeColor="black" strokeWidth="1" visibleGrid="true">
    <labels fontName="Helvetica"/>
    <categoryNames>
      <name>Category 1</name>
      <name>Category 2</name>
      <name>Category 3</name>
      <name>Category 4</name>
    </categoryNames>
  </categoryAxis>
  <valueAxis valueMin="0" valueMax="150" valueStep="30" visibleTicks="true"
    visibleLabels="true" visibleGrid="true" forceZero="true">
    <labels fontName="Helvetica"/>
  </valueAxis>
  <data>
    <series>100 110 120 130</series>
    <series> 70  80  85  90</series>
  </data>
</barChart3D>

```

(Extracted from file *tag-barChart3d.rml*, line 49)

[\[PDF\]](#)



## barCode

A barcode graphic.

### Attributes

**code** (*required*) - Choice of ('codabar', 'code11', 'code128', 'code128auto', 'ean13', 'ean5', 'ean8', 'ecc200datamatrix', 'extended39', 'extended93', 'fim', 'i2of5', 'isbn', 'msi', 'postnet', 'qr', 'standard39', 'standard93', 'upca', 'usps\_4state')

*Code*: The name of the type of code to use.

**width** - Measurement

*Width*: The width of the barcode.

**height** - Measurement

*Height*: The height of the barcode.

**barStrokeColor** - Color

*Bar Stroke Color*: The color of the line strokes in the barcode.

**barStrokeWidth** - Measurement

*Bar Stroke Width*: The width of the line strokes in the barcode.

**barFillColor** - Color

*Bar Fill Color*: The color of the filled shapes in the barcode.

**gap** - Measurement

*Gap*: The width of the inter-character gaps.

**barWidth** - Measurement

*Bar Width*: The width of the smallest bar within the barcode

**barHeight** - Measurement

*Bar Height*: The height of the symbol.

**ratio** - Float

*Ratio*: The ratio of wide elements to narrow elements. Must be between 2.0 and 3.0 (or 2.2 and 3.0 if the barWidth is greater than 20 mils (.02 inch)).

**checksum** - Integer

*Ratio*: A flag that enables the computation and inclusion of the check digit.

**bearers** - Float

*Bearers*: Height of bearer bars (horizontal bars along the top and bottom of the barcode). Default is 3 x-dimensions. Set to zero for no bearer bars.(Bearer bars help detect misscans, so it is suggested to leave them on).

**quiet** - Boolean

*Quiet Zone*: A flag to include quiet zones in the symbol.

**lquiet** - Measurement

*Left Quiet Zone*: Quiet zone size to the left of code, if quiet is true. Default is the greater of .25 inch or .15 times the symbol's length.

**rquiet** - Measurement

*Right Quiet Zone*: Quiet zone size to the right of code, if quiet is true. Default is the greater of .25 inch or .15 times the symbol's length.

**fontName** - Text

*Font Name*: The font used to print the value.

**fontSize** - Measurement

*Font Size*: The size of the value text.

**humanReadable** - Boolean

*Human Readable*: A flag when set causes the value to be printed below the bar code.

**stop** - Boolean

*Show Start/Stop*: A flag to specify whether the start/stop symbols are to be shown.

**spaceWidth** - Measurement

*Space Width*: The space of the inter-character gaps.

**shortHeight** - Measurement

*Short Height:* The height of the short bar.

**textColor** - Color

*Text Color:* The color of human readable text.

**routing** - Text

*Routing:* The routing information string.

**barLevel** - Choice of ('l', 'm', 'q', 'h')

*Bar Level:* The error correction level for QR code

**barBorder** - Measurement

*Bar Border:* The width of the border around a QR code.

**x** - Measurement

*X-Position:* The x-position of the lower-left corner of the barcode.

**y** - Measurement

*Y-Position:* The y-position of the lower-left corner of the barcode.

**isoScale** - Boolean

*Isometric Scaling:* When set, the aspect ratio of the barcode is enforced.

**Content**

TextNode (*required*)

*Value:* The value represented by the code.

**Examples**

```
<barCode x="5cm" y="24cm" code="MSI">
  23465092892
</barCode>
```

(Extracted from file *tag-barcode.rml*, line 14) [\[PDF\]](#)

```
<barCode x="5cm" y="17cm" height="2cm" width="5cm" code="Ean13"
  humanReadable="true" fontName="Helvetica" fontSize="7"
  barStrokeColor="blue" barFillColor="blue" textColor="blue"
  quiet="false" barHeight="0.4in" barWidth="0.009in">
  123456789012
</barCode>
```

(Extracted from file *tag-barcode.rml*, line 28) [\[PDF\]](#)

**barCodeFlowable**

Creates a bar code as a flowable.

**Attributes**

**code** (*required*) - Choice of ('codabar', 'code11', 'code128', 'code128auto', 'ean13', 'ean5', 'ean8', 'ecc200datamatrix', 'extended39', 'extended93', 'fim', 'i2of5', 'isbn', 'msi', 'postnet', 'qr', 'standard39', 'standard93', 'upca', 'usps\_4state')

*Code:* The name of the type of code to use.

**width** - Measurement

*Width:* The width of the barcode.

**height** - Measurement

*Height:* The height of the barcode.

**barStrokeColor** - Color

*Bar Stroke Color:* The color of the line strokes in the barcode.

**barStrokeWidth** - Measurement

*Bar Stroke Width:* The width of the line strokes in the barcode.

**barFillColor** - Color

*Bar Fill Color:* The color of the filled shapes in the barcode.

**gap** - Measurement

*Gap*: The width of the inter-character gaps.

**barWidth** - Measurement

*Bar Width*: The width of the smallest bar within the barcode

**barHeight** - Measurement

*Bar Height*: The height of the symbol.

**ratio** - Float

*Ratio*: The ratio of wide elements to narrow elements. Must be between 2.0 and 3.0 (or 2.2 and 3.0 if the barWidth is greater than 20 mils (.02 inch)).

**checksum** - Integer

*Ratio*: A flag that enables the computation and inclusion of the check digit.

**bearers** - Float

*Bearers*: Height of bearer bars (horizontal bars along the top and bottom of the barcode). Default is 3 x-dimensions. Set to zero for no bearer bars. (Bearer bars help detect misscans, so it is suggested to leave them on).

**quiet** - Boolean

*Quiet Zone*: A flag to include quiet zones in the symbol.

**lquiet** - Measurement

*Left Quiet Zone*: Quiet zone size to the left of code, if quiet is true. Default is the greater of .25 inch or .15 times the symbol's length.

**rquiet** - Measurement

*Right Quiet Zone*: Quiet zone size to the right of code, if quiet is true. Default is the greater of .25 inch or .15 times the symbol's length.

**fontName** - Text

*Font Name*: The font used to print the value.

**fontSize** - Measurement

*Font Size*: The size of the value text.

**humanReadable** - Boolean

*Human Readable*: A flag when set causes the value to be printed below the bar code.

**stop** - Boolean

*Show Start/Stop*: A flag to specify whether the start/stop symbols are to be shown.

**spaceWidth** - Measurement

*Space Width*: The space of the inter-character gaps.

**shortHeight** - Measurement

*Short Height*: The height of the short bar.

**textColor** - Color

*Text Color*: The color of human readable text.

**routing** - Text

*Routing*: The routing information string.

**barLevel** - Choice of ('l', 'm', 'q', 'h')

*Bar Level*: The error correction level for QR code

**barBorder** - Measurement

*Bar Border*: The width of the border around a QR code.

**value** (*required*) - Text

*Value*: The value represented by the code.

## Examples

```
<barCodeFlowable code="Code128" value="PFWZF" />
```

(Extracted from file *tag-barCodeFlowable.rml*, line 26)

[\[PDF\]](#)

```
<barCodeFlowable code="Code128" value="PFWZF" humanReadable="true"
  fontName="Helvetica" fontSize="10" barFillColor="red"
  barStrokeColor="red" quiet="false" barHeight="0.4in"
```

```
barWidth="0.009in"/>
```

(Extracted from file *tag-barCodeFlowable.rml*, line 35)

[\[PDF\]](#)

## barLabels

A set of labels for a bar chart

### Attributes

**dx** - Measurement

*Horizontal Extension:* The width of the label.

**dy** - Measurement

*Vertical Extension:* The height of the label.

**angle** - Float

*Angle:* The angle to rotate the label.

**boxAnchor** - Choice of ('nw', 'n', 'ne', 'w', 'c', 'e', 'sw', 's', 'se', 'autox', 'autoy')

*Box Anchor:* The position relative to the label.

**boxStrokeColor** - Color

*Box Stroke Color:* The color of the box border line.

**boxStrokeWidth** - Measurement

*Box Stroke Width:* The width of the box border line.

**boxFillColor** - Color

*Box Fill Color:* The color in which the box is filled.

**boxTarget** - Text

*Box Target:* The box target.

**fillColor** - Color

*Fill Color:* The color in which the label is filled.

**strokeColor** - Color

*Stroke Color:* The color of the label.

**strokeWidth** - Measurement

*Stroke Width:* The width of the label line.

**fontName** - Text

*Font Name:* The font used to print the value.

**fontSize** - Measurement

*Font Size:* The size of the value text.

**leading** - Measurement

*Leading:* The height of a single text line. It includes character height.

**width** - Measurement

*Width:* The width the label.

**maxWidth** - Measurement

*Maximum Width:* The maximum width the label.

**height** - Measurement

*Height:* The height the label.

**textAnchor** - Choice of ('start', 'middle', 'end', 'boxauto')

*Text Anchor:* The position in the text to which the coordinates refer.

**visible** - Boolean

*Visible:* A flag making the label text visible.

**leftPadding** - Measurement

*Left Padding:* The size of the padding on the left side.

**rightPadding** - Measurement

*Right Padding:* The size of the padding on the right side.

### **topPadding** - Measurement

*Top Padding:* The size of the padding on the top.

### **bottomPadding** - Measurement

*Bottom Padding:* The size of the padding on the bottom.

## **Sub-Directives**

**label** (*ZeroOrMore*)

## **bars**

Collection of bar subscriptions.

## **Attributes**

### **strokeColor** - Color

*Stroke Color:* The color in which the bar border is drawn.

### **strokeWidth** - Measurement

*Stroke Width:* The width of the bar border line.

### **fillColor** - Color

*Fill Color:* The color with which the bar is filled.

## **Sub-Directives**

**bar** (*ZeroOrMore*)

## **blockAlignment**

Set the text alignment.

## **Attributes**

**start** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*Start Coordinates:* The start table coordinates for the style instruction

**stop** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*End Coordinates:* The end table coordinates for the style instruction

**value** (*required*) - Choice of ('left', 'right', 'center', 'centre', 'decimal')

*Text Alignment:* The text alignment within the cell.

## **Examples**

```
<blockAlignment start="0,0" stop="-1,1" value="center"/>
```

(Extracted from file *tag-blockTableStyle.rml*, line 16) [\[PDF\]](#)

## **blockBackground**

Define the background color of the cells. It also supports alternating colors.

## **Attributes**

**start** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*Start Coordinates:* The start table coordinates for the style instruction

**stop** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*End Coordinates:* The end table coordinates for the style instruction

### **colorName** - Color

*Color Name:* The color to use as the background for every cell.

### **colorsByRow** - Sequence of Color

*Colors By Row:* A list of colors to be used circularly for rows.

### **colorsByCol** - Sequence of Color

*Colors By Column:* A list of colors to be used circularly for columns.

## **Examples**

```
<blockBackground start="1,1" stop="-2,-2" colorName="green"/>
```

(Extracted from file *tag-blockTableStyle.rml*, line 18) [\[PDF\]](#)

## blockBottomPadding

Set the bottom padding of the cells.

### Attributes

**start** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*Start Coordinates:* The start table coordinates for the style instruction

**stop** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*End Coordinates:* The end table coordinates for the style instruction

**length** (*required*) - Measurement

*Length:* The size of the padding.

### Examples

```
<blockBottomPadding start="0,0" stop="-1,1" length="5mm"/>
```

(Extracted from file *tag-blockTableStyle.rml*, line 24) [\[PDF\]](#)

## blockColBackground

Define the background colors for columns.

### Attributes

**start** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*Start Coordinates:* The start table coordinates for the style instruction

**stop** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*End Coordinates:* The end table coordinates for the style instruction

**colorNames** (*required*) - Sequence of Color

*Colors By Row:* A list of colors to be used circularly for rows.

### Examples

```
<blockColBackground start="0,0" stop="2,-1" colorNames="red green"/>
```

(Extracted from file *tag-blockTableStyle.rml*, line 37) [\[PDF\]](#)

## blockFont

Set the font properties for the texts.

### Attributes

**start** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*Start Coordinates:* The start table coordinates for the style instruction

**stop** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*End Coordinates:* The end table coordinates for the style instruction

**name** - Text

*Font Name:* The name of the font for the cell.

**size** - Measurement

*Font Size:* The font size for the text of the cell.

**leading** - Measurement

*Leading:* The height of a single text line. It includes character height.

### Examples

```
<blockFont start="0,0" stop="1,-1" name="Courier" size="14" leading="18"/>
```

(Extracted from file *tag-blockTableStyle.rml*, line 29) [\[PDF\]](#)

## blockLeading

Set the text leading.

#### Attributes

**start** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*Start Coordinates:* The start table coordinates for the style instruction

**stop** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*End Coordinates:* The end table coordinates for the style instruction

**length** (*required*) - Measurement

*Length:* The height of a single text line. It includes character height.

#### Examples

```
<blockLeading start="0,0" stop="-1,1" length="18"/>
```

(Extracted from file *tag-blockTableStyle.rml*, line 43) [\[PDF\]](#)

### blockLeftPadding

Set the left padding of the cells.

#### Attributes

**start** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*Start Coordinates:* The start table coordinates for the style instruction

**stop** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*End Coordinates:* The end table coordinates for the style instruction

**length** (*required*) - Measurement

*Length:* The size of the padding.

#### Examples

```
<blockLeftPadding start="0,0" stop="-1,1" length="5mm"/>
```

(Extracted from file *tag-blockTableStyle.rml*, line 26) [\[PDF\]](#)

### blockNosplit

Define a nosplit over multiple cells (rows and columns).

#### Attributes

**start** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*Start Coordinates:* The start table coordinates for the style instruction

**stop** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*End Coordinates:* The end table coordinates for the style instruction

#### Examples

```
<blockNosplit start="0,-2" stop="-1,-1"/>
```

(Extracted from file *tag-blockNosplit.rml*, line 20) [\[PDF\]](#)

### blockRightPadding

Set the right padding of the cells.

#### Attributes

**start** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*Start Coordinates:* The start table coordinates for the style instruction

**stop** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*End Coordinates:* The end table coordinates for the style instruction

**length** (*required*) - Measurement

*Length:* The size of the padding.

## Examples

```
<blockRightPadding start="0,0" stop="-1,1" length="5mm"/>
```

(Extracted from file *tag-blockTableStyle.rml*, line 22) [\[PDF\]](#)

## blockRowBackground

Define the background colors for rows.

### Attributes

**start** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*Start Coordinates:* The start table coordinates for the style instruction

**stop** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*End Coordinates:* The end table coordinates for the style instruction

**colorNames** (*required*) - Sequence of Color

*Colors By Row:* A list of colors to be used circularly for rows.

### Examples

```
<blockRowBackground start="3,0" stop="-1,-1" colorNames="blue yellow"/>
```

(Extracted from file *tag-blockTableStyle.rml*, line 40) [\[PDF\]](#)

## blockSpan

Define a span over multiple cells (rows and columns).

### Attributes

**start** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*Start Coordinates:* The start table coordinates for the style instruction

**stop** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*End Coordinates:* The end table coordinates for the style instruction

### Examples

```
<blockSpan start="0,0" stop="2,2"/>
```

(Extracted from file *tag-blockTableStyle.rml*, line 48) [\[PDF\]](#)

## blockTable

A typical block table.

### Attributes

**style** - Style

*Style:* The table style that is applied to the table.

**rowHeights** - Sequence of Measurement

*Row Heights:* A list of row heights in the table.

**colWidths** - Sequence of Measurement

*Column Widths:* A list of column widths in the table.

**repeatRows** - Integer

*Repeat Rows:* A flag to repeat rows upon table splits.

**alignment** - Choice of ('left', 'right', 'center', 'centre', 'decimal')

*Alignment:* The alignment of whole table.

### Sub-Directives

**tr** (*ZeroOrMore*)

**bulkData** (*ZeroOrOne*)

**blockTableStyle** (*ZeroOrMore*)

### Examples



```

<blockTable colWidths="50% 50%" rowHeights="1cm 1cm">
  <tr>
    <td>This</td>
    <td>is</td>
  </tr>
  <tr>
    <td>a</td>
    <td>blockTable.</td>
  </tr>
</blockTable>

```

(Extracted from file *tag-blockTable-1.rml*, line 17)

[\[PDF\]](#)

## blockTableStyle

A style defining the look of a table.

### Attributes

**id** (*required*) - Text

*Id*: The name/id of the style.

**keepWithNext** - Boolean

*Keep with Next*: When set, this paragraph will always be in the same frame as the following flowable.

### Sub-Directives

**blockFont** (*ZeroOrMore*)

**blockLeading** (*ZeroOrMore*)

**blockTextColor** (*ZeroOrMore*)

**blockAlignment** (*ZeroOrMore*)

**blockLeftPadding** (*ZeroOrMore*)

**blockRightPadding** (*ZeroOrMore*)

**blockBottomPadding** (*ZeroOrMore*)

**blockTopPadding** (*ZeroOrMore*)

**blockBackground** (*ZeroOrMore*)

**blockRowBackground** (*ZeroOrMore*)

**blockColBackground** (*ZeroOrMore*)

**blockValign** (*ZeroOrMore*)

**blockSpan** (*ZeroOrMore*)

**blockNosplit** (*ZeroOrMore*)

**lineStyle** (*ZeroOrMore*)

### Examples

```

<blockTableStyle id="custom-table">
  <blockFont start="0,0" stop="-1,-1" name="Courier-Bold" size="10"/>
</blockTableStyle>

```

(Extracted from file *tag-blockTableStyle.rml*, line 56)

[\[PDF\]](#)

## blockTextColor

Set the text color.

### Attributes

**start** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*Start Coordinates*: The start table coordinates for the style instruction

**stop** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*End Coordinates*: The end table coordinates for the style instruction

**colorName** (*required*) - Color

*Color Name*: The color in which the text will appear.

### Examples

```
<blockTextColor start="0,0" stop="1,-1" colorName="red"/>
```

(Extracted from file *tag-blockTableStyle.rml*, line 31) [\[PDF\]](#)

## blockTopPadding

Set the top padding of the cells.

### Attributes

**start** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*Start Coordinates:* The start table coordinates for the style instruction

**stop** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*End Coordinates:* The end table coordinates for the style instruction

**length** (*required*) - Measurement

*Length:* The size of the padding.

### Examples

```
<blockTopPadding start="0,0" stop="-1,1" length="5mm"/>
```

(Extracted from file *tag-blockTableStyle.rml*, line 20) [\[PDF\]](#)

## blockValign

Define the vertical alignment of the cells.

### Attributes

**start** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*Start Coordinates:* The start table coordinates for the style instruction

**stop** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*End Coordinates:* The end table coordinates for the style instruction

**value** (*required*) - Choice of ('top', 'middle', 'bottom')

*Vertical Alignment:* The vertical alignment of the text with the cells.

### Examples

```
<blockValign start="0,0" stop="2,2" value="middle"/>
```

(Extracted from file *tag-blockTableStyle.rml*, line 53) [\[PDF\]](#)

## bookmark

This creates a bookmark to the current page which can be referred to with the given key elsewhere.  
(Used inside a page drawing.)

### Attributes

**name** (*required*) - Text

*Name:* The name of the bookmark.

**fit** - Choice of ('xyz', 'fit', 'fith', 'fitv', 'fitr')

*Fit:* The Fit Type.

**zoom** - Float

*Zoom:* The zoom level when clicking on the bookmark.

**x** - Measurement

*X-Position:* The x-position.

**y** - Measurement

*Y-Position:* The y-position.

## bookmark

This creates a bookmark to the current page which can be referred to with the given key elsewhere.  
(Used inside a story.)

## Attributes

**name** (*required*) - Text

*Name:* The name of the bookmark.

**x** - Measurement

*X Coordinate:* The x-position of the bookmark.

**y** - Measurement

*Y Coordinate:* The y-position of the bookmark.

## bookmarkPage

This creates a bookmark to the current page which can be referred to with the given key elsewhere. PDF offers very fine grained control over how Acrobat reader is zoomed when people link to this. The default is to keep the user's current zoom settings. the last arguments may or may not be needed depending on the choice of 'fitType'.

## Attributes

**name** (*required*) - Text

*Name:* The name of the bookmark.

**fit** - Choice of ('xyz', 'fit', 'fith', 'fitv', 'fitr')

*Fit:* The Fit Type.

**top** - Measurement

*Top:* The top position.

**bottom** - Measurement

*Bottom:* The bottom position.

**left** - Measurement

*Left:* The left position.

**right** - Measurement

*Right:* The right position.

**zoom** - Float

*Zoom:* The zoom level when clicking on the bookmark.

## Examples

```
<bookmarkPage name="TITLE" />
```

(Extracted from file *tag-bookmark.rml*, line 20) [\[PDF\]](#)

```
<bookmarkPage name="PAGE_1" fitType="fitv" zoom="2" left="2cm" right="10cm"
top="20cm" />
```

(Extracted from file *tag-bookmark.rml*, line 31) [\[PDF\]](#)

## br

Inserts a line break in the paragraph.

## bulkData

Bulk Data allows one to quickly create a table.

## Content

TextNodeSequence of Sequence of Text (*required*)

*Content:* The bulk data.

## Examples

```
<bulkData>
```

```
Product,Profit
```

```
Sprockets,26
```

```
Widgets,34
```

```
Thingummies,217
```

```
Bits & Bobs,23
```

Total , 277

</bulkData>

(Extracted from file *tag-blockTable-bulkData.rml*, line 16)

[\[PDF\]](#)

## buttonField

A button field within the PDF

### Attributes

**title** (*required*) - Text

*Title*: The title of the field.

**x** (*required*) - Measurement

*X-Position*: The x-position of the lower-left corner of the field.

**y** (*required*) - Measurement

*Y-Position*: The y-position of the lower-left corner of the field.

**value** (*required*) - Choice of ('yes', 'off')

*Value*: The value of the button.

## categoryAxis

An axis displaying categories (instead of numerical values).

### Attributes

**visible** - Boolean

*Visible*: When true, draw the entire axis with all details.

**visibleAxis** - Boolean

*Visible Axis*: When true, draw the axis line.

**visibleTicks** - Boolean

*Visible Ticks*: When true, draw the axis ticks on the line.

**visibleLabels** - Boolean

*Visible Labels*: When true, draw the axis labels.

**visibleGrid** - Boolean

*Visible Grid*: When true, draw the grid lines for the axis.

**strokeWidth** - Measurement

*Stroke Width*: The width of axis line and ticks.

**strokeColor** - Color

*Stroke Color*: The color in which the axis line and ticks are drawn.

**strokeDashArray** - Sequence of Float

*Stroke Dash Array*: The dash array that is used for the axis line and ticks.

**gridStrokeWidth** - Measurement

*Grid Stroke Width*: The width of the grid lines.

**gridStrokeColor** - Color

*Grid Stroke Color*: The color in which the grid lines are drawn.

**gridStrokeDashArray** - Sequence of Float

*Grid Stroke Dash Array*: The dash array that is used for the grid lines.

**gridStart** - Measurement

*Grid Start*: The start of the grid lines with respect to the axis origin.

**gridEnd** - Measurement

*Grid End*: The end of the grid lines with respect to the axis origin.

**style** - Choice of ('parallel', 'stacked', 'parallel\_3d')

*Style*: The plot style of the common categories.

**categoryNames** - Sequence of Text

*Category Names*: A simple list of category names.

**joinAxis** - Boolean

*Join Axis:* When true, both axes join together.

**joinAxisPos** - Measurement

*Join Axis Position:* The position at which the axes should join together.

**reverseDirection** - Boolean

*Reverse Direction:* A flag to reverse the direction of category names.

**labelAxisMode** - Choice of ('high', 'low', 'axis')

*Label Axis Mode:* Defines the relative position of the axis labels.

**tickShift** - Boolean

*Tick Shift:* When true, place the ticks in the center of a category instead the beginning and end.

**Sub-Directives**

**categoryNames** (*ZeroOrOne*)

**labels** (*ZeroOrMore*)

**Examples**

```

<categoryAxis strokeColor="black" strokeWidth="1">
  <labels fontName="Helvetica" fontSize="20"/>
  <categoryNames>
    <name>Category 1</name>
    <name>Category 2</name>
    <name>Category 3</name>
    <name>Category 4</name>
  </categoryNames>
</categoryAxis>

```

(Extracted from file *tag-barChart.rml*, line 26)

[\[PDF\]](#)

**categoryNames**

A list of category names.

**Sub-Directives**

**name** (*OneOrMore*)

**Examples**

```

<categoryNames>
  <name>Category 1</name>
  <name>Category 2</name>
  <name>Category 3</name>
  <name>Category 4</name>
</categoryNames>

```

(Extracted from file *tag-barChart.rml*, line 29)

[\[PDF\]](#)

**circle**

Draws a circle on the canvas.

**Attributes**

**x** (*required*) - Measurement

*X-Coordinate:* The X-coordinate of the lower-left position of the shape.

**y** (*required*) - Measurement

*Y-Coordinate:* The Y-coordinate of the lower-left position of the shape.

**fill** - Boolean

*Fill:* A flag to specify whether the shape should be filled.

**stroke** - Boolean

*Stroke:* A flag to specify whether the shape's outline should be drawn.

## **radius** (*required*) - Measurement

*Radius*: The radius of the circle.

### **Examples**

```
<circle x="10cm" y="25cm" radius="2cm" fill="false" stroke="false"/>
```

(Extracted from file *tag-circle.rml*, line 10)

[\[PDF\]](#)

## **codesnippet**

A code snippet with text highlighting.

### **Attributes**

#### **bulletText** - Text

*Bullet Character*: The bullet character is the ASCII representation of the symbol making up the bullet in a listing.

#### **dedent** - Integer

*Dedent*: Number of characters to be removed in front of every line of the text.

#### **style** - Style

*Style*: The paragraph style that is applied to the paragraph. See the ``paraStyle`` tag for creating a paragraph style.

#### **language** - Text

*Language*: The language the code snippet is written in.

### **Content**

RawXMLContent (*required*)

*Text*: The text that will be layed out.

### **Sub-Directives**

**b** (*ZeroOrMore*)

**i** (*ZeroOrMore*)

**u** (*ZeroOrMore*)

**br** (*ZeroOrMore*)

**pageNumber** (*ZeroOrMore*)

### **Examples**

```
<codesnippet language="python" style="boxed-code">
class HelloWorld(object):
```

```
    def render(self):
        print 'Hello World!'
```

```
    HelloWorld().render()
```

```
</codesnippet>
```

(Extracted from file *tag-codesnippet.rml*, line 28)

[\[PDF\]](#)

```
<codesnippet language="xml" style="boxed-code">
    &lt;tag attr="value"&gt;
        &lt;content&gt;Hello World!&lt;/content&gt;
    &lt;/tag&gt;
</codesnippet>
```

(Extracted from file *tag-codesnippet.rml*, line 39)

[\[PDF\]](#)

## **color**

Define a new color and give it a name to be known under.

### **Attributes**

#### **id** (*required*) - Text

*Id*: The id/name the color will be available under.

#### **RGB** - Color

*RGB Color*: The color value that is represented.

#### **CMYK** - Color

*CMYK Color*: The color value that is represented.

#### **value** - Color

*Color*: The color value that is represented.

#### **spotName** - Text

*Spot Name*: The Spot Name of the CMYK color.

#### **density** - Float

*Density*: The color density of the CMYK color.

#### **knockout** - Text

*Knockout*: The knockout of the CMYK color.

#### **alpha** - Float

*Alpha*: The alpha channel of the color.

### **Examples**

```
<color id="favorite-color" value="yellow"/>
```

(Extracted from file *tag-color.rml*, line 9)

[\[PDF\]](#)

## **condPageBreak**

Switch to the next page if not enough vertical space is available.

### **Attributes**

#### **height** (*required*) - Measurement

*height*: The minimal height that must be remaining on the page.

### **Examples**

```
<condPageBreak height="8cm"/>
```

(Extracted from file *tag-condPageBreak.rml*, line 16)

[\[PDF\]](#)

## **critical**

Log message at CRITICAL level.

### **Content**

RawXMLContent (*required*)

*Message*: The message to be logged.

### **Examples**

```
<critical>A CRITICAL message</critical>
```

(Extracted from file *tag-log.rml*, line 37)

[\[PDF\]](#)

## **cropMarks**

Crop Marks specification

### **Attributes**

#### **name** (*required*) - Text

*Name*: The name of the index.

#### **borderWidth** - Measurement

*Border Width*: The width of the crop mark border.

#### **markColor** - Color

*Mark Color*: The color of the crop marks.

#### **markWidth** - Measurement

*Mark Width*: The line width of the actual crop marks.

### **markLength** - Measurement

*Mark Length:* The length of the actual crop marks.

### **markLast** - Boolean

*Mark Last:* If set, marks are drawn after the content is rendered.

### **bleedWidth** - Measurement

*Bleed Width:* The width of the page bleed.

### **Examples**

```
<cropMarks borderWidth="30" markWidth="2" markColor="red" markLength="20"
            markLast="0" bleedWidth="0" />
```

(Extracted from file *tag-cropMarks.rml*, line 10)

[\[PDF\]](#)

## **curves**

A path of connected bezier curves drawn on the canvas.

### **Content**

TextNodeGrid with 8 cols of Measurement (*required*)

*Curve List:* A list of curve coordinates to draw.

### **Examples**

```
<curves>
  1in 1in 2in 2in 2in 3in 1in 3in
  1in 2in 2in 3in 2in 4in 1in 4in
  1in 3in 2in 4in 2in 5in 1in 5in
</curves>
```

(Extracted from file *tag-curves.rml*, line 9)

[\[PDF\]](#)

## **curvesto**

**Deprecated:** Available for ReportLab RML compatibility. Please use the "curveto" directive instead.

### **Content**

TextNodeGrid with 6 cols of Measurement (*required*)

*Curve Specification:* Describes the end position and the curve properties.

## **curveto**

Create a bezier curve from the current location to the specified one.

### **Content**

TextNodeGrid with 6 cols of Measurement (*required*)

*Curve Specification:* Describes the end position and the curve properties.

### **Examples**

```
<curveto>
  10cm 12cm 10cm 9cm 8cm 9cm
</curveto>
```

(Extracted from file *tag-path.rml*, line 51)

[\[PDF\]](#)

## **data**

A 1-D data set.

### **Sub-Directives**

**series** (*OneOrMore*)

### **Examples**



```

<data>
  <series>100 110 120 130</series>
  <series> 70  80  85  90</series>
</data>

```

(Extracted from file *tag-barChart.rml*, line 42)

[\[PDF\]](#)

## data

A 1-D data set.

### Sub-Directives

**series** (*One*)

### Examples

```

<data>
  <series>10 20 30 40 50 60</series>
</data>

```

(Extracted from file *tag-pieChart.rml*, line 38)

[\[PDF\]](#)

## data

A 2-D data set.

### Sub-Directives

**series** (*OneOrMore*)

### Examples

```

<data>
  <series>
    1    1
    2    2
    2.5  1
    3    3
    4    5
  </series>
  <series>
    1    2
    2    3
    2.5  2
    3.5  5
    4    6
  </series>
</data>

```

(Extracted from file *tag-linePlot.rml*, line 32)

[\[PDF\]](#)

## debug

Log message at DEBUG level.

### Content

RawXMLContent (*required*)

*Message:* The message to be logged.

### Examples

```

<debug>A DEBUG message</debug>

```

(Extracted from file *tag-log.rml*, line 33)

[\[PDF\]](#)

## docAssign

Assign a value to the namespace.

## Attributes

**var** (*required*) - Text

*Variable Name:* The name under which the value is stored.

**expr** (*required*) - Text

*Expression:* The expression that creates the value when evaluated.

## Examples

```
<docAssign var="currentFrame" expr="doc.frame.id"/>
```

(Extracted from file *tag-doc.rml*, line 17)

[\[PDF\]](#)

```
<docAssign var="i" expr="3"/>
```

(Extracted from file *tag-doc.rml*, line 19)

[\[PDF\]](#)

## docElse

Starts 'else' block.

## Examples

```
<docElse/>
```

(Extracted from file *tag-doc.rml*, line 22)

[\[PDF\]](#)

## docExec

Execute a statement.

## Attributes

**stmt** (*required*) - Text

*Statement:* The statement to be executed.

## Examples

```
<docExec stmt="i -= 1"/>
```

(Extracted from file *tag-doc.rml*, line 36)

[\[PDF\]](#)

## docIf

Display story flow based on the value of the condition.

## Attributes

**cond** (*required*) - Text

*Condition:* The condition to be tested.

## Sub-Directives

**spacer** (*ZeroOrMore*)

**illustration** (*ZeroOrMore*)

**pre** (*ZeroOrMore*)

**xpre** (*ZeroOrMore*)

**codesnippet** (*ZeroOrMore*)

**plugInFlowable** (*ZeroOrMore*)

**barCodeFlowable** (*ZeroOrMore*)

**outlineAdd** (*ZeroOrMore*)

**title** (*ZeroOrMore*)

**h1** (*ZeroOrMore*)

**h2** (*ZeroOrMore*)

**h3** (*ZeroOrMore*)

**h4** (*ZeroOrMore*)

**h5** (*ZeroOrMore*)

**h6** (*ZeroOrMore*)

**para** (*ZeroOrMore*)

**blockTable** (*ZeroOrMore*)

**nextFrame** (ZeroOrMore)  
**setNextFrame** (ZeroOrMore)  
**nextPage** (ZeroOrMore)  
**setNextTemplate** (ZeroOrMore)  
**condPageBreak** (ZeroOrMore)  
**keepInFrame** (ZeroOrMore)  
**keepTogether** (ZeroOrMore)  
**img** (ZeroOrMore)  
**imageAndFlowables** (ZeroOrMore)  
**indent** (ZeroOrMore)  
**fixedSize** (ZeroOrMore)  
**bookmarkPage** (ZeroOrMore)  
**bookmark** (ZeroOrMore)  
**link** (ZeroOrMore)  
**hr** (ZeroOrMore)  
**showIndex** (ZeroOrMore)  
**name** (ZeroOrMore)  
**namedString** (ZeroOrMore)  
**log** (ZeroOrMore)  
**debug** (ZeroOrMore)  
**info** (ZeroOrMore)  
**warning** (ZeroOrMore)  
**error** (ZeroOrMore)  
**critical** (ZeroOrMore)  
**docAssign** (ZeroOrMore)  
**docExec** (ZeroOrMore)  
**docPara** (ZeroOrMore)  
**docIf** (ZeroOrMore)  
**docElse** (ZeroOrMore)  
**docWhile** (ZeroOrMore)  
**ol** (ZeroOrMore)  
**ul** (ZeroOrMore)  
**includePdfPages** (ZeroOrMore)  
**storyPlace** (ZeroOrMore)

### Examples

```
<docIf cond="i > 3">
  <para>The value of i is larger than 3</para>
<docElse/>
  <para>The value of i is not larger than to 3</para>
</docIf>
```

(Extracted from file *tag-doc.rml*, line 20)

[\[PDF\]](#)

## docPara

Create a paragraph with the value returned from the expression.

### Attributes

**expr** (required) - Text

*Expression:* The expression to be executed.

**format** - Text

*Format:* The format used to render the expression value.

**style** - Style

*Style:* The style of the paragraph.

**escape** - Boolean

*Escape Text:* When set (default) the expression value is escaped.

### Examples

```
<docPara expr="i" format="The value of i is %(__expr__)d"/>
```

(Extracted from file *tag-doc.rml*, line 35)

[\[PDF\]](#)

## docWhile

Repeat the included directives as long as the condition is true.

### Attributes

**cond** (*required*) - Text

*Condition:* The condition to be tested.

### Sub-Directives

**spacer** (*ZeroOrMore*)

**illustration** (*ZeroOrMore*)

**pre** (*ZeroOrMore*)

**xpre** (*ZeroOrMore*)

**codesnippet** (*ZeroOrMore*)

**plugInFlowable** (*ZeroOrMore*)

**barCodeFlowable** (*ZeroOrMore*)

**outlineAdd** (*ZeroOrMore*)

**title** (*ZeroOrMore*)

**h1** (*ZeroOrMore*)

**h2** (*ZeroOrMore*)

**h3** (*ZeroOrMore*)

**h4** (*ZeroOrMore*)

**h5** (*ZeroOrMore*)

**h6** (*ZeroOrMore*)

**para** (*ZeroOrMore*)

**blockTable** (*ZeroOrMore*)

**nextFrame** (*ZeroOrMore*)

**setNextFrame** (*ZeroOrMore*)

**nextPage** (*ZeroOrMore*)

**setNextTemplate** (*ZeroOrMore*)

**condPageBreak** (*ZeroOrMore*)

**keepInFrame** (*ZeroOrMore*)

**keepTogether** (*ZeroOrMore*)

**img** (*ZeroOrMore*)

**imageAndFlowables** (*ZeroOrMore*)

**indent** (*ZeroOrMore*)

**fixedSize** (*ZeroOrMore*)

**bookmarkPage** (*ZeroOrMore*)

**bookmark** (*ZeroOrMore*)

**link** (*ZeroOrMore*)

**hr** (*ZeroOrMore*)

**showIndex** (*ZeroOrMore*)

**name** (*ZeroOrMore*)

**namedString** (*ZeroOrMore*)

**log** (*ZeroOrMore*)

**debug** (*ZeroOrMore*)

**info** (*ZeroOrMore*)

**warning** (*ZeroOrMore*)

**error** (*ZeroOrMore*)

**critical** (*ZeroOrMore*)

**docAssign** (*ZeroOrMore*)

**docExec** (*ZeroOrMore*)

**docPara** (*ZeroOrMore*)

**docIf** (*ZeroOrMore*)

**docElse** (*ZeroOrMore*)

**docWhile** (*ZeroOrMore*)

**ol** (*ZeroOrMore*)

[ul](#) (ZeroOrMore)  
[includePdfPages](#) (ZeroOrMore)  
[storyPlace](#) (ZeroOrMore)

## Examples

```
<docWhile cond="i">  
  <docPara expr="i" format="The value of i is %(__expr__)d"/>  
  <docExec stmt="i -= 1"/>  
</docWhile>
```

(Extracted from file *tag-doc.rml*, line 33)

[\[PDF\]](#)

## docinit

### Attributes

**pageMode** - Choice of ('usenone', 'useoutlines', 'usethumbs', 'fullscreen')

*Page Mode*: The page mode in which the document is opened in the viewer.

**pageLayout** - Choice of ('singlepage', 'onecolumn', 'twocolumnleft', 'twocolumnright')

*Page Layout*: The layout in which the pages are displayed in the viewer.

**useCropMarks** - Boolean

*Use Crop Marks*: A flag when set shows crop marks on the page.

**hideToolbar** - TextBoolean

*Hide Toolbar*: A flag indicating that the toolbar is hidden in the viewer.

**hideMenubar** - TextBoolean

*Hide Menubar*: A flag indicating that the menubar is hidden in the viewer.

**hideWindowUI** - TextBoolean

*Hide Window UI*: A flag indicating that the window UI is hidden in the viewer.

**fitWindow** - TextBoolean

*Fit Window*: A flag indicating that the page fits in the viewer.

**centerWindow** - TextBoolean

*Center Window*: A flag indicating that the page fits is centered in the viewer.

**displayDocTitle** - TextBoolean

*Display Doc Title*: A flag indicating that the document title is displayed in the viewer.

**nonFullScreenPageMode** - Choice of ('usenone', 'useoutlines', 'usethumbs', 'useoc')

*Non-Full-Screen Page Mode*: Non-Full-Screen page mode in the viewer.

**direction** - Choice of ('l2r', 'r2l')

*Text Direction*: The text direction of the PDF.

**viewArea** - Choice of ('mediabox', 'cropbox', 'bleedbox', 'trimbox', 'artbox')

*View Area*: View Area setting used in the viewer.

**viewClip** - Choice of ('mediabox', 'cropbox', 'bleedbox', 'trimbox', 'artbox')

*View Clip*: View Clip setting used in the viewer.

**printArea** - Choice of ('mediabox', 'cropbox', 'bleedbox', 'trimbox', 'artbox')

*Print Area*: Print Area setting used in the viewer.

**printClip** - Choice of ('mediabox', 'cropbox', 'bleedbox', 'trimbox', 'artbox')

*Print Clip*: Print Clip setting used in the viewer.

**printScaling** - Choice of ('none', 'appdefault')

*Print Scaling*: The print scaling mode in which the document is opened in the viewer.

### Sub-Directives

[color](#) (ZeroOrMore)  
[name](#) (ZeroOrMore)  
[registerType1Face](#) (ZeroOrMore)  
[registerFont](#) (ZeroOrMore)

**registerCidFont** (ZeroOrMore)  
**registerTTFont** (ZeroOrMore)  
**registerFontFamily** (ZeroOrMore)  
**addMapping** (ZeroOrMore)  
**logConfig** (ZeroOrMore)  
**cropMarks** (ZeroOrMore)  
**startIndex** (ZeroOrMore)

## Examples

```
<docinit hideToolbar="true" hideMenubar="true" hideWindowUI="true"
  fitWindow="true" centerWindow="true" displayDocTitle="true"
  nonFullScreenPageMode="UseOutlines" direction="L2R"
  viewArea="MediaBox" viewClip="MediaBox" printArea="MediaBox"
  printClip="MediaBox" printScaling="None">
</docinit>
```

(Extracted from file *tag-docinit-viewer-options.rml*,  
line 22)

[\[PDF\]](#)

```
<docinit>
  <registerTTFont faceName="Vera" fileName="[z3c.rml.tests]/input/Vera.ttf"/>
  <addMapping faceName="times" bold="1" italic="0" psName="Vera"/>
</docinit>
```

(Extracted from file *tag-addMapping.rml*, line 8)

[\[PDF\]](#)

```
<docinit>
  <registerTTFont faceName="Vera" fileName="[z3c.rml.tests]/input/Vera.ttf"/>
  <registerTTFont faceName="VeraMono"
    fileName="[z3c.rml]/tests/input/VeraMono.ttf"/>
</docinit>
```

(Extracted from file *tag-registerTTFont.rml*, line 8)

[\[PDF\]](#)

## document

### Attributes

**filename** (*required*) - Text

*File Name:* The default name of the output file, if no output file was provided.

**title** - Text

*Title:* The "Title" annotation for the PDF document.

**subject** - Text

*Subject:* The "Subject" annotation for the PDF document.

**author** - Text

*Author:* The "Author" annotation for the PDF document.

**creator** - Text

*Creator:* The "Creator" annotation for the PDF document.

**debug** - Boolean

*Debug:* A flag to activate the debug output.

**compression** - BooleanWithDefault

*Compression:* A flag determining whether page compression should be used.

**invariant** - BooleanWithDefault

*Invariant:* A flag that determines whether the produced PDF should be invariant with respect to the date and the exact contents.

### Sub-Directives

**docinit** (ZeroOrOne)  
**stylesheet** (ZeroOrOne)  
**template** (ZeroOrOne)  
**story** (ZeroOrOne)

**pageInfo** (ZeroOrOne)  
**pageDrawing** (ZeroOrMore)

## Examples

```
<document filename="tag-document-pageDrawing.pdf">
  <pageDrawing>
    <drawString x="4.1in" y="8in">Hello World!</drawString>
  </pageDrawing>
</document>
```

(Extracted from file *tag-document-pageDrawing.rml*,  
line 7)

[\[PDF\]](#)

```
<document filename="tag-document.pdf">
  <template>
    <pageTemplate id="main">
      <frame id="first" x1="1cm" y1="1cm" width="19cm" height="26cm"/>
    </pageTemplate>
  </template>
  <story>
    <title>Hello World!</title>
  </story>
</document>
```

(Extracted from file *tag-document-story.rml*, line 7)

[\[PDF\]](#)

```
<document filename="tag-document-annotations.pdf" title="Sample Document"
  subject="Testing/Documentation" author="Stephan Richter"
  creator="Stephan Richter">
  <template>
    <pageTemplate id="main">
      <frame id="first" x1="1cm" y1="1cm" width="19cm" height="26cm"/>
    </pageTemplate>
  </template>
  <story>
    <title>See Document Properties.</title>
  </story>
</document>
```

(Extracted from file *tag-document-annotations.rml*,  
line 11)

[\[PDF\]](#)

## drawAlignedString

Draws a simple string (aligned to the pivot character) onto the canvas at the specified location.

### Attributes

**x** (*required*) - Measurement

*X-Coordinate*: The X-coordinate of the lower-left position of the string.

**y** (*required*) - Measurement

*Y-Coordinate*: The Y-coordinate of the lower-left position of the string.

**pivotChar** (*required*) - Text

*Text*: The string/text that is put onto the canvas.

### Content

RawXMLContent (*required*)

*Text*: The string/text that is put onto the canvas.

## Examples

```
<drawAlignedString x="4.1in" y="9.8in">$ 13.63</drawAlignedString>
```

(Extracted from file *tag-drawAlignedString.rml*, line  
11)

[\[PDF\]](#)

## drawCentredString

Draws a simple string (centered aligned) onto the canvas at the specified location.

### Attributes

**x** (*required*) - Measurement

*X-Coordinate*: The X-coordinate of the lower-left position of the string.

**y** (*required*) - Measurement

*Y-Coordinate*: The Y-coordinate of the lower-left position of the string.

### Content

RawXMLContent (*required*)

*Text*: The string/text that is put onto the canvas.

## drawRightString

Draws a simple string (right aligned) onto the canvas at the specified location.

### Attributes

**x** (*required*) - Measurement

*X-Coordinate*: The X-coordinate of the lower-left position of the string.

**y** (*required*) - Measurement

*Y-Coordinate*: The Y-coordinate of the lower-left position of the string.

### Content

RawXMLContent (*required*)

*Text*: The string/text that is put onto the canvas.

### Examples

```
<drawRightString x="4.1in" y="5.8in">Hello World.</drawRightString>
```

(Extracted from file *tag-drawRightString.rml*, line 12) [\[PDF\]](#)

## drawString

Draws a simple string (left aligned) onto the canvas at the specified location.

### Attributes

**x** (*required*) - Measurement

*X-Coordinate*: The X-coordinate of the lower-left position of the string.

**y** (*required*) - Measurement

*Y-Coordinate*: The Y-coordinate of the lower-left position of the string.

### Content

RawXMLContent (*required*)

*Text*: The string/text that is put onto the canvas.

### Examples

```
<drawString x="4.1in" y="5.8in">Hello World.</drawString>
```

(Extracted from file *tag-drawString.rml*, line 9) [\[PDF\]](#)

## ellipse

Draws an ellipse on the canvas.

### Attributes

**x** (*required*) - Measurement

*X-Coordinate*: The X-coordinate of the lower-left position of the shape.

**y** (*required*) - Measurement



*Y-Coordinate*: The Y-coordinate of the lower-left position of the shape.

**fill** - Boolean

*Fill*: A flag to specify whether the shape should be filled.

**stroke** - Boolean

*Stroke*: A flag to specify whether the shape's outline should be drawn.

**width** (*required*) - Measurement

*Width*: The width of the ellipse.

**height** (*required*) - Measurement

*Height*: The height of the ellipse.

**Examples**

```
<ellipse x="10cm" y="25cm" width="5cm" height="3cm" fill="false"
stroke="false"/>
```

(Extracted from file *tag-ellipse.rml*, line 10)

[\[PDF\]](#)

**error**

Log message at ERROR level.

**Content**

RawXMLContent (*required*)

*Message*: The message to be logged.

**Examples**

```
<error>A ERROR message</error>
```

(Extracted from file *tag-log.rml*, line 36)

[\[PDF\]](#)

**fill**

Set the fill color.

**Attributes**

**color** (*required*) - Color

*Color*: The color value to be set.

**Examples**

```
<fill color="red"/>
```

(Extracted from file *tag-fill.rml*, line 8)

[\[PDF\]](#)

**fixedSize**

Create a container flowable of a fixed size.

**Attributes**

**width** (*required*) - Measurement

*Width*: The width the flowables are allotted.

**height** (*required*) - Measurement

*Height*: The height the flowables are allotted.

**Examples**

```
<fixedSize width="3cm" height="2cm">
  <title><font face="Courier">&lt;fixedSize&gt;</font> Tag Demo</title>
  <para>
    This tag allows keeping a set of flowables in a confined space.
  </para>
  <para>
    Lot's of text goes here. Lot's of text goes here. Lot's of text goes
```

here. Lot's of text goes here. Lot's of text goes here. Lot's of text goes here. Lot's of text goes here. Lot's of text goes here. Lot's of text goes here. Lot's of text goes here.

```
</para>  
</fixedSize>
```

(Extracted from file *tag-fixedSize.rml*, line 34)

[\[PDF\]](#)

## frame

A frame on a page.

### Attributes

**x1** (*required*) - Measurement

*X-Position*: The X-Position of the lower-left corner of the frame.

**y1** (*required*) - Measurement

*Y-Position*: The Y-Position of the lower-left corner of the frame.

**width** (*required*) - Measurement

*Width*: The width of the frame.

**height** (*required*) - Measurement

*Height*: The height of the frame.

**id** - Text

*Id*: The id of the frame.

**leftPadding** - Measurement

*Left Padding*: The left padding of the frame.

**rightPadding** - Measurement

*Right Padding*: The right padding of the frame.

**topPadding** - Measurement

*Top Padding*: The top padding of the frame.

**bottomPadding** - Measurement

*Bottom Padding*: The bottom padding of the frame.

**showBoundary** - Boolean

*Show Boundary*: A flag to show the boundary of the frame.

### Examples

```
<frame id="first" x1="1cm" y1="1cm" width="19cm" height="26cm"/>
```

(Extracted from file *tag-document-story.rml*, line 11) [\[PDF\]](#)

```
<frame id="first" x1="1cm" y1="1cm" width="19cm" height="26cm"/>
```

(Extracted from file *tag-document-annotations.rml*,  
line 15)

[\[PDF\]](#)

## grid

A shape to be drawn on the canvas.

### Attributes

**xs** (*required*) - Sequence of Measurement

*X-Coordinates*: A sequence x-coordinates that represent the vertical line positions.

**ys** (*required*) - Sequence of Measurement

*Y-Coordinates*: A sequence y-coordinates that represent the horizontal line positions.

### Examples

```
<grid xs="1in 2in 3in 4in 5in 6in" ys="7in 7.2in 7.4in 7.6in 7.8in 8.0in"/>
```

(Extracted from file *tag-grid.rml*, line 13)

[\[PDF\]](#)

# h1

Heading 1 is a simple paragraph with a special heading 1 style.

## Attributes

**name** (*required*) - Text

*Name:* The name of the style.

**alias** - Text

*Alias:* An alias under which the style will also be known as.

**parent** - Style

*Parent:* The apragraph style that will be used as a base for this one.

**fontName** - Text

*Font Name:* The name of the font for the span.

**fontSize** - Measurement

*Font Size:* The font size for the text of the span.

**textTransform** - Choice of ('none', 'uppercase', 'lowercase', 'capitalize')

*Text Transform:* Text transformation.

**underline** - Boolean

*Underline Text:* A flag, when set, causes text to be underlined.

**underlineColor** - Color

*Underline Color:* The color in which the underline will appear.

**underlineWidth** - FontSizeRelativeMeasurement

*Underline Width:* The width/thickness of the underline.

**underlineOffset** - FontSizeRelativeMeasurement

*Underline Offset:* The offset of the underline with respect to the baseline.

**underlineGap** - FontSizeRelativeMeasurement

*Underline Gap:* The gap between lines for double and triple underlines.

**underlineKind** - Choice of ('single', 'double', 'triple')

*Underline Kind:* The kind of the underline to use.

**strike** - Boolean

*Strike-through Text:* A flag, when set, causes text to be struck out.

**strikeColor** - Color

*Strike Color:* The color in which the strike line will appear.

**strikeWidth** - FontSizeRelativeMeasurement

*Strike Width:* The width of the strike line.

**strikeOffset** - FontSizeRelativeMeasurement

*Strike Offset:* The offset of the strike line with respect to the baseline.

**strikeGap** - FontSizeRelativeMeasurement

*Strike Gap:* The gap between lines for double and triple strike lines.

**strikeKind** - Choice of ('single', 'double', 'triple')

*Strike Kind:* The kind of the strike to use.

**textColor** - Color

*Text Color:* The color in which the text will appear.

**backColor** - Color

*Background Color:* The background color of the span.

**linkUnderline** - Boolean

*Underline Links:* A flag, when set indicating that all links should be underlined.

**leading** - Measurement

*Leading:* The height of a single paragraph line. It includes character height.

**leftIndent** - Measurement

*Left Indentation:* General indentation on the left side.

**rightIndent** - Measurement

*Right Indentation:* General indentation on the right side.

**firstLineIndent** - Measurement

*First Line Indentation:* The indentation of the first line in the paragraph.

**alignment** - Choice of ('left', 'right', 'center', 'centre', 'justify')

*Alignment:* The text alignment.

**spaceBefore** - Measurement

*Space Before:* The vertical space before the paragraph.

**spaceAfter** - Measurement

*Space After:* The vertical space after the paragraph.

**bulletFontName** - Text

*Bullet Font Name:* The font in which the bullet character will be rendered.

**bulletFontSize** - Measurement

*Bullet Font Size:* The font size of the bullet character.

**bulletIndent** - Measurement

*Bullet Indentation:* The indentation that is kept for a bullet point.

**bulletColor** - Color

*Bullet Color:* The color in which the bullet will appear.

**wordWrap** - Choice of ('cjk', 'rtl', 'ltr')

*Word Wrap Method:* When set to "CJK", invoke CJK word wrapping. LTR RTL use left to right / right to left with support from pyfribi2 if available

**borderWidth** - Measurement

*Paragraph Border Width:* The width of the paragraph border.

**borderPadding** - Padding

*Paragraph Border Padding:* Padding of the paragraph.

**borderColor** - Color

*Border Color:* The color in which the paragraph border will appear.

**borderRadius** - Measurement

*Paragraph Border Radius:* The radius of the paragraph border.

**allowWidows** - Boolean

*Allow Widows:* Allow widows.

**allowOrphans** - Boolean

*Allow Orphans:* Allow orphans.

**endDots** - Text

*End Dots:* Characters/Dots at the end of a paragraph.

**splitLongWords** - Boolean

*Split Long Words:* Try to split long words at the end of a line.

**justifyLastLine** - Integer

*Justify Last Line:* Justify last line if there are more then this number of words. Otherwise, don't bother.

**justifyBreaks** - Boolean

*Justify Breaks:* A flag, when set indicates that a line with a break should be justified as well.

**spaceShrinkage** - Float

*Allowed Whitespace Shrinkage Fraction:* The fraction of the original whitespace by which the whitespace is allowed to shrink to fit content on the same line.

**bulletAnchor** - Choice of ('start', 'middle', 'end', 'numeric')

*Bullet Anchor:* The place at which the bullet is anchored.

**keepWithNext** - Boolean

*Keep with Next:* When set, this paragraph will always be in the same frame as the following flowable.

**pageBreakBefore** - Boolean

*Page Break Before:* Specifies whether a page break should be inserted before the directive.

**frameBreakBefore** - Boolean

*Frame Break Before:* Specifies whether a frame break should be inserted before the directive.

**style** - Style

*Style:* The paragraph style that is applied to the paragraph. See the ``paraStyle`` tag for creating a paragraph style.

**bulletText** - Text

*Bullet Character:* The bullet character is the ASCII representation of the symbol making up the bullet in a listing.

**dedent** - Integer

*Dedent:* Number of characters to be removed in front of every line of the text.

## Content

XMLContent (*required*)

*Text:* The text that will be layed out.

## Sub-Directives

**b** (*ZeroOrMore*)

**i** (*ZeroOrMore*)

**u** (*ZeroOrMore*)

**br** (*ZeroOrMore*)

**pageNumber** (*ZeroOrMore*)

## Examples

```
<h1>Header 1</h1>
```

(Extracted from file *tag-para.rml*, line 21)

[\[PDF\]](#)

## h2

Heading 2 is a simple paragraph with a special heading 2 style.

## Attributes

**name** (*required*) - Text

*Name:* The name of the style.

**alias** - Text

*Alias:* An alias under which the style will also be known as.

**parent** - Style

*Parent:* The apragraph style that will be used as a base for this one.

**fontName** - Text

*Font Name:* The name of the font for the span.

**fontSize** - Measurement

*Font Size:* The font size for the text of the span.

**textTransform** - Choice of ('none', 'uppercase', 'lowercase', 'capitalize')

*Text Transform:* Text transformation.

**underline** - Boolean

*Underline Text:* A flag, when set, causes text to be underlined.

**underlineColor** - Color

*Underline Color:* The color in which the underline will appear.

**underlineWidth** - FontSizeRelativeMeasurement

*Underline Width:* The width/thickness of the underline.

**underlineOffset** - FontSizeRelativeMeasurement

*Underline Offset:* The offset of the underline with respect to the baseline.

**underlineGap** - FontSizeRelativeMeasurement

*Underline Gap:* The gap between lines for double and triple underlines.

**underlineKind** - Choice of ('single', 'double', 'triple')

*Underline Kind:* The kind of the underline to use.

**strike** - Boolean

*Strike-through Text:* A flag, when set, causes text to be struck out.

**strikeColor** - Color

*Strike Color:* The color in which the strike line will appear.

**strikeWidth** - FontSizeRelativeMeasurement

*Strike Width:* The width of the strike line.

**strikeOffset** - FontSizeRelativeMeasurement

*Strike Offset:* The offset of the strike line with respect to the baseline.

**strikeGap** - FontSizeRelativeMeasurement

*Strike Gap:* The gap between lines for double and triple strike lines.

**strikeKind** - Choice of ('single', 'double', 'triple')

*Strike Kind:* The kind of the strike to use.

**textColor** - Color

*Text Color:* The color in which the text will appear.

**backColor** - Color

*Background Color:* The background color of the span.

**linkUnderline** - Boolean

*Underline Links:* A flag, when set indicating that all links should be underlined.

**leading** - Measurement

*Leading:* The height of a single paragraph line. It includes character height.

**leftIndent** - Measurement

*Left Indentation:* General indentation on the left side.

**rightIndent** - Measurement

*Right Indentation:* General indentation on the right side.

**firstLineIndent** - Measurement

*First Line Indentation:* The indentation of the first line in the paragraph.

**alignment** - Choice of ('left', 'right', 'center', 'centre', 'justify')

*Alignment:* The text alignment.

**spaceBefore** - Measurement

*Space Before:* The vertical space before the paragraph.

**spaceAfter** - Measurement

*Space After:* The vertical space after the paragraph.

**bulletFontName** - Text

*Bullet Font Name:* The font in which the bullet character will be rendered.

**bulletFontSize** - Measurement

*Bullet Font Size:* The font size of the bullet character.

**bulletIndent** - Measurement

*Bullet Indentation:* The indentation that is kept for a bullet point.

**bulletColor** - Color

*Bullet Color:* The color in which the bullet will appear.

**wordWrap** - Choice of ('cjk', 'rtl', 'ltr')

*Word Wrap Method:* When set to "CJK", invoke CJK word wrapping. LTR RTL use left to right / right to left with support from pyfri2 if available

**borderWidth** - Measurement

*Paragraph Border Width:* The width of the paragraph border.

**borderPadding** - Padding

*Paragraph Border Padding:* Padding of the paragraph.

**borderColor** - Color

*Border Color:* The color in which the paragraph border will appear.

**borderRadius** - Measurement

*Paragraph Border Radius*: The radius of the paragraph border.

**allowWidows** - Boolean

*Allow Widows*: Allow widows.

**allowOrphans** - Boolean

*Allow Orphans*: Allow orphans.

**endDots** - Text

*End Dots*: Characters/Dots at the end of a paragraph.

**splitLongWords** - Boolean

*Split Long Words*: Try to split long words at the end of a line.

**justifyLastLine** - Integer

*Justify Last Line*: Justify last line if there are more than this number of words. Otherwise, don't bother.

**justifyBreaks** - Boolean

*Justify Breaks*: A flag, when set indicates that a line with a break should be justified as well.

**spaceShrinkage** - Float

*Allowed Whitespace Shrinkage Fraction*: The fraction of the original whitespace by which the whitespace is allowed to shrink to fit content on the same line.

**bulletAnchor** - Choice of ('start', 'middle', 'end', 'numeric')

*Bullet Anchor*: The place at which the bullet is anchored.

**keepWithNext** - Boolean

*Keep with Next*: When set, this paragraph will always be in the same frame as the following flowable.

**pageBreakBefore** - Boolean

*Page Break Before*: Specifies whether a page break should be inserted before the directive.

**frameBreakBefore** - Boolean

*Frame Break Before*: Specifies whether a frame break should be inserted before the directive.

**style** - Style

*Style*: The paragraph style that is applied to the paragraph. See the ``paraStyle`` tag for creating a paragraph style.

**bulletText** - Text

*Bullet Character*: The bullet character is the ASCII representation of the symbol making up the bullet in a listing.

**dedent** - Integer

*Dedent*: Number of characters to be removed in front of every line of the text.

## Content

XMLContent (*required*)

*Text*: The text that will be layed out.

## Sub-Directives

**b** (*ZeroOrMore*)

**i** (*ZeroOrMore*)

**u** (*ZeroOrMore*)

**br** (*ZeroOrMore*)

**pageNumber** (*ZeroOrMore*)

## Examples

```
<h2>Header 2</h2>
```

(Extracted from file *tag-para.rml*, line 22)

[\[PDF\]](#)

## h3

Heading 3 is a simple paragraph with a special heading 3 style.

## Attributes

**name** (*required*) - Text

*Name*: The name of the style.

**alias** - Text

*Alias:* An alias under which the style will also be known as.

**parent** - Style

*Parent:* The paragraph style that will be used as a base for this one.

**fontName** - Text

*Font Name:* The name of the font for the span.

**fontSize** - Measurement

*Font Size:* The font size for the text of the span.

**textTransform** - Choice of ('none', 'uppercase', 'lowercase', 'capitalize')

*Text Transform:* Text transformation.

**underline** - Boolean

*Underline Text:* A flag, when set, causes text to be underlined.

**underlineColor** - Color

*Underline Color:* The color in which the underline will appear.

**underlineWidth** - FontSizeRelativeMeasurement

*Underline Width:* The width/thickness of the underline.

**underlineOffset** - FontSizeRelativeMeasurement

*Underline Offset:* The offset of the underline with respect to the baseline.

**underlineGap** - FontSizeRelativeMeasurement

*Underline Gap:* The gap between lines for double and triple underlines.

**underlineKind** - Choice of ('single', 'double', 'triple')

*Underline Kind:* The kind of the underline to use.

**strike** - Boolean

*Strike-through Text:* A flag, when set, causes text to be struck out.

**strikeColor** - Color

*Strike Color:* The color in which the strike line will appear.

**strikeWidth** - FontSizeRelativeMeasurement

*Strike Width:* The width of the strike line.

**strikeOffset** - FontSizeRelativeMeasurement

*Strike Offset:* The offset of the strike line with respect to the baseline.

**strikeGap** - FontSizeRelativeMeasurement

*Strike Gap:* The gap between lines for double and triple strike lines.

**strikeKind** - Choice of ('single', 'double', 'triple')

*Strike Kind:* The kind of the strike to use.

**textColor** - Color

*Text Color:* The color in which the text will appear.

**backgroundColor** - Color

*Background Color:* The background color of the span.

**linkUnderline** - Boolean

*Underline Links:* A flag, when set indicating that all links should be underlined.

**leading** - Measurement

*Leading:* The height of a single paragraph line. It includes character height.

**leftIndent** - Measurement

*Left Indentation:* General indentation on the left side.

**rightIndent** - Measurement

*Right Indentation:* General indentation on the right side.

**firstLineIndent** - Measurement

*First Line Indentation:* The indentation of the first line in the paragraph.

**alignment** - Choice of ('left', 'right', 'center', 'centre', 'justify')

*Alignment:* The text alignment.



**spaceBefore** - Measurement

*Space Before:* The vertical space before the paragraph.

**spaceAfter** - Measurement

*Space After:* The vertical space after the paragraph.

**bulletFontName** - Text

*Bullet Font Name:* The font in which the bullet character will be rendered.

**bulletFontSize** - Measurement

*Bullet Font Size:* The font size of the bullet character.

**bulletIndent** - Measurement

*Bullet Indentation:* The indentation that is kept for a bullet point.

**bulletColor** - Color

*Bullet Color:* The color in which the bullet will appear.

**wordWrap** - Choice of ('cjk', 'rtl', 'ltr')

*Word Wrap Method:* When set to "CJK", invoke CJK word wrapping. LTR RTL use left to right / right to left with support from pyfribi2 if available

**borderWidth** - Measurement

*Paragraph Border Width:* The width of the paragraph border.

**borderPadding** - Padding

*Paragraph Border Padding:* Padding of the paragraph.

**borderColor** - Color

*Border Color:* The color in which the paragraph border will appear.

**borderRadius** - Measurement

*Paragraph Border Radius:* The radius of the paragraph border.

**allowWidows** - Boolean

*Allow Widows:* Allow widows.

**allowOrphans** - Boolean

*Allow Orphans:* Allow orphans.

**endDots** - Text

*End Dots:* Characters/Dots at the end of a paragraph.

**splitLongWords** - Boolean

*Split Long Words:* Try to split long words at the end of a line.

**justifyLastLine** - Integer

*Justify Last Line:* Justify last line if there are more then this number of words. Otherwise, don't bother.

**justifyBreaks** - Boolean

*Justify Breaks:* A flag, when set indicates that a line with a break should be justified as well.

**spaceShrinkage** - Float

*Allowed Whitespace Shrinkage Fraction:* The fraction of the original whitespace by which the whitespace is allowed to shrink to fit content on the same line.

**bulletAnchor** - Choice of ('start', 'middle', 'end', 'numeric')

*Bullet Anchor:* The place at which the bullet is anchored.

**keepWithNext** - Boolean

*Keep with Next:* When set, this paragraph will always be in the same frame as the following flowable.

**pageBreakBefore** - Boolean

*Page Break Before:* Specifies whether a page break should be inserted before the directive.

**frameBreakBefore** - Boolean

*Frame Break Before:* Specifies whether a frame break should be inserted before the directive.

**style** - Style

*Style:* The paragraph style that is applied to the paragraph. See the ``paraStyle`` tag for creating a paragraph style.

**bulletText** - Text

*Bullet Character:* The bullet character is the ASCII representation of the symbol making up the bullet in a listing.

**dedent** - Integer

*Dedent*: Number of characters to be removed in front of every line of the text.

## Content

XMLContent (*required*)

*Text*: The text that will be layed out.

## Sub-Directives

**b** (*ZeroOrMore*)

**i** (*ZeroOrMore*)

**u** (*ZeroOrMore*)

**br** (*ZeroOrMore*)

**pageNumber** (*ZeroOrMore*)

## Examples

```
<h3>Header 3</h3>
```

(Extracted from file *tag-para.rml*, line 23)

[\[PDF\]](#)

## h4

Heading 4 is a simple paragraph with a special heading 4 style.

## Attributes

**name** (*required*) - Text

*Name*: The name of the style.

**alias** - Text

*Alias*: An alias under which the style will also be known as.

**parent** - Style

*Parent*: The apragraph style that will be used as a base for this one.

**fontName** - Text

*Font Name*: The name of the font for the span.

**fontSize** - Measurement

*Font Size*: The font size for the text of the span.

**textTransform** - Choice of ('none', 'uppercase', 'lowercase', 'capitalize')

*Text Transform*: Text transformation.

**underline** - Boolean

*Underline Text*: A flag, when set, causes text to be underlined.

**underlineColor** - Color

*Underline Color*: The color in which the underline will appear.

**underlineWidth** - FontSizeRelativeMeasurement

*Underline Width*: The width/thickness of the underline.

**underlineOffset** - FontSizeRelativeMeasurement

*Underline Offset*: The offset of the underline with respect to the baseline.

**underlineGap** - FontSizeRelativeMeasurement

*Underline Gap*: The gap between lines for double and triple underlines.

**underlineKind** - Choice of ('single', 'double', 'triple')

*Underline Kind*: The kind of the underline to use.

**strike** - Boolean

*Strike-through Text*: A flag, when set, causes text to be struck out.

**strikeColor** - Color

*Strike Color*: The color in which the strike line will appear.

**strikeWidth** - FontSizeRelativeMeasurement

*Strike Width*: The width of the strike line.

**strikeOffset** - FontSizeRelativeMeasurement

*Strike Offset:* The offset of the strike line with respect to the baseline.

**strikeGap** - FontSizeRelativeMeasurement

*Strike Gap:* The gap between lines for double and triple strike lines.

**strikeKind** - Choice of ('single', 'double', 'triple')

*Strike Kind:* The kind of the strike to use.

**textColor** - Color

*Text Color:* The color in which the text will appear.

**backgroundColor** - Color

*Background Color:* The background color of the span.

**linkUnderline** - Boolean

*Underline Links:* A flag, when set indicating that all links should be underlined.

**leading** - Measurement

*Leading:* The height of a single paragraph line. It includes character height.

**leftIndent** - Measurement

*Left Indentation:* General indentation on the left side.

**rightIndent** - Measurement

*Right Indentation:* General indentation on the right side.

**firstLineIndent** - Measurement

*First Line Indentation:* The indentation of the first line in the paragraph.

**alignment** - Choice of ('left', 'right', 'center', 'centre', 'justify')

*Alignment:* The text alignment.

**spaceBefore** - Measurement

*Space Before:* The vertical space before the paragraph.

**spaceAfter** - Measurement

*Space After:* The vertical space after the paragraph.

**bulletFontName** - Text

*Bullet Font Name:* The font in which the bullet character will be rendered.

**bulletFontSize** - Measurement

*Bullet Font Size:* The font size of the bullet character.

**bulletIndent** - Measurement

*Bullet Indentation:* The indentation that is kept for a bullet point.

**bulletColor** - Color

*Bullet Color:* The color in which the bullet will appear.

**wordWrap** - Choice of ('cjk', 'rtl', 'ltr')

*Word Wrap Method:* When set to "CJK", invoke CJK word wrapping. LTR RTL use left to right / right to left with support from pyfri2 if available

**borderWidth** - Measurement

*Paragraph Border Width:* The width of the paragraph border.

**borderPadding** - Padding

*Paragraph Border Padding:* Padding of the paragraph.

**borderColor** - Color

*Border Color:* The color in which the paragraph border will appear.

**borderRadius** - Measurement

*Paragraph Border Radius:* The radius of the paragraph border.

**allowWidows** - Boolean

*Allow Widows:* Allow widows.

**allowOrphans** - Boolean

*Allow Orphans:* Allow orphans.

**endDots** - Text

*End Dots*: Characters/Dots at the end of a paragraph.

**splitLongWords** - Boolean

*Split Long Words*: Try to split long words at the end of a line.

**justifyLastLine** - Integer

*Justify Last Line*: Justify last line if there are more then this number of words. Otherwise, don't bother.

**justifyBreaks** - Boolean

*Justify Breaks*: A flag, when set indicates that a line with a break should be justified as well.

**spaceShrinkage** - Float

*Allowed Whitespace Shrinkage Fraction*: The fraction of the original whitespace by which the whitespace is allowed to shrink to fit content on the same line.

**bulletAnchor** - Choice of ('start', 'middle', 'end', 'numeric')

*Bullet Anchor*: The place at which the bullet is anchored.

**keepWithNext** - Boolean

*Keep with Next*: When set, this paragraph will always be in the same frame as the following flowable.

**pageBreakBefore** - Boolean

*Page Break Before*: Specifies whether a page break should be inserted before the directive.

**frameBreakBefore** - Boolean

*Frame Break Before*: Specifies whether a frame break should be inserted before the directive.

**style** - Style

*Style*: The paragraph style that is applied to the paragraph. See the ``paraStyle`` tag for creating a paragraph style.

**bulletText** - Text

*Bullet Character*: The bullet character is the ASCII representation of the symbol making up the bullet in a listing.

**dedent** - Integer

*Dedent*: Number of characters to be removed in front of every line of the text.

## Content

XMLContent (*required*)

*Text*: The text that will be layed out.

## Sub-Directives

**b** (*ZeroOrMore*)

**i** (*ZeroOrMore*)

**u** (*ZeroOrMore*)

**br** (*ZeroOrMore*)

**pageNumber** (*ZeroOrMore*)

## Examples

```
<h4>Header 4</h4>
```

(Extracted from file *tag-para.rml*, line 24)

[\[PDF\]](#)

## h5

Heading 5 is a simple paragraph with a special heading 5 style.

## Attributes

**name** (*required*) - Text

*Name*: The name of the style.

**alias** - Text

*Alias*: An alias under which the style will also be known as.

**parent** - Style

*Parent*: The paragraph style that will be used as a base for this one.

**fontName** - Text

*Font Name*: The name of the font for the span.

**fontSize** - Measurement

*Font Size:* The font size for the text of the span.

**textTransform** - Choice of ('none', 'uppercase', 'lowercase', 'capitalize')

*Text Transform:* Text transformation.

**underline** - Boolean

*Underline Text:* A flag, when set, causes text to be underlined.

**underlineColor** - Color

*Underline Color:* The color in which the underline will appear.

**underlineWidth** - FontSizeRelativeMeasurement

*Underline Width:* The width/thickness of the underline.

**underlineOffset** - FontSizeRelativeMeasurement

*Underline Offset:* The offset of the underline with respect to the baseline.

**underlineGap** - FontSizeRelativeMeasurement

*Underline Gap:* The gap between lines for double and triple underlines.

**underlineKind** - Choice of ('single', 'double', 'triple')

*Underline Kind:* The kind of the underline to use.

**strike** - Boolean

*Strike-through Text:* A flag, when set, causes text to be struck out.

**strikeColor** - Color

*Strike Color:* The color in which the strike line will appear.

**strikeWidth** - FontSizeRelativeMeasurement

*Strike Width:* The width of the strike line.

**strikeOffset** - FontSizeRelativeMeasurement

*Strike Offset:* The offset of the strike line with respect to the baseline.

**strikeGap** - FontSizeRelativeMeasurement

*Strike Gap:* The gap between lines for double and triple strike lines.

**strikeKind** - Choice of ('single', 'double', 'triple')

*Strike Kind:* The kind of the strike to use.

**textColor** - Color

*Text Color:* The color in which the text will appear.

**backgroundColor** - Color

*Background Color:* The background color of the span.

**linkUnderline** - Boolean

*Underline Links:* A flag, when set indicating that all links should be underlined.

**leading** - Measurement

*Leading:* The height of a single paragraph line. It includes character height.

**leftIndent** - Measurement

*Left Indentation:* General indentation on the left side.

**rightIndent** - Measurement

*Right Indentation:* General indentation on the right side.

**firstLineIndent** - Measurement

*First Line Indentation:* The indentation of the first line in the paragraph.

**alignment** - Choice of ('left', 'right', 'center', 'centre', 'justify')

*Alignment:* The text alignment.

**spaceBefore** - Measurement

*Space Before:* The vertical space before the paragraph.

**spaceAfter** - Measurement

*Space After:* The vertical space after the paragraph.

**bulletFontName** - Text

*Bullet Font Name:* The font in which the bullet character will be rendered.

**bulletFontSize** - Measurement

*Bullet Font Size:* The font size of the bullet character.

**bulletIndent** - Measurement

*Bullet Indentation:* The indentation that is kept for a bullet point.

**bulletColor** - Color

*Bullet Color:* The color in which the bullet will appear.

**wordWrap** - Choice of ('cjk', 'rtl', 'ltr')

*Word Wrap Method:* When set to "CJK", invoke CJK word wrapping. LTR RTL use left to right / right to left with support from pyfribi2 if available

**borderWidth** - Measurement

*Paragraph Border Width:* The width of the paragraph border.

**borderPadding** - Padding

*Paragraph Border Padding:* Padding of the paragraph.

**borderColor** - Color

*Border Color:* The color in which the paragraph border will appear.

**borderRadius** - Measurement

*Paragraph Border Radius:* The radius of the paragraph border.

**allowWidows** - Boolean

*Allow Widows:* Allow widows.

**allowOrphans** - Boolean

*Allow Orphans:* Allow orphans.

**endDots** - Text

*End Dots:* Characters/Dots at the end of a paragraph.

**splitLongWords** - Boolean

*Split Long Words:* Try to split long words at the end of a line.

**justifyLastLine** - Integer

*Justify Last Line:* Justify last line if there are more then this number of words. Otherwise, don't bother.

**justifyBreaks** - Boolean

*Justify Breaks:* A flag, when set indicates that a line with a break should be justified as well.

**spaceShrinkage** - Float

*Allowed Whitespace Shrinkage Fraction:* The fraction of the original whitespace by which the whitespace is allowed to shrink to fit content on the same line.

**bulletAnchor** - Choice of ('start', 'middle', 'end', 'numeric')

*Bullet Anchor:* The place at which the bullet is anchored.

**keepWithNext** - Boolean

*Keep with Next:* When set, this paragraph will always be in the same frame as the following flowable.

**pageBreakBefore** - Boolean

*Page Break Before:* Specifies whether a page break should be inserted before the directive.

**frameBreakBefore** - Boolean

*Frame Break Before:* Specifies whether a frame break should be inserted before the directive.

**style** - Style

*Style:* The paragraph style that is applied to the paragraph. See the ``paraStyle`` tag for creating a paragraph style.

**bulletText** - Text

*Bullet Character:* The bullet character is the ASCII representation of the symbol making up the bullet in a listing.

**dedent** - Integer

*Dedent:* Number of characters to be removed in front of every line of the text.

**Content**

**XMLContent** (*required*)

*Text:* The text that will be layed out.

## Sub-Directives

**b** (ZeroOrMore)  
**i** (ZeroOrMore)  
**u** (ZeroOrMore)  
**br** (ZeroOrMore)  
**pageNumber** (ZeroOrMore)

## Examples

`<h5>Header 5</h5>`

(Extracted from file *tag-para.rml*, line 25)

[\[PDF\]](#)

## h6

Heading 6 is a simple paragraph with a special heading 6 style.

## Attributes

**name** (required) - Text

*Name:* The name of the style.

**alias** - Text

*Alias:* An alias under which the style will also be known as.

**parent** - Style

*Parent:* The paragraph style that will be used as a base for this one.

**fontName** - Text

*Font Name:* The name of the font for the span.

**fontSize** - Measurement

*Font Size:* The font size for the text of the span.

**textTransform** - Choice of ('none', 'uppercase', 'lowercase', 'capitalize')

*Text Transform:* Text transformation.

**underline** - Boolean

*Underline Text:* A flag, when set, causes text to be underlined.

**underlineColor** - Color

*Underline Color:* The color in which the underline will appear.

**underlineWidth** - FontSizeRelativeMeasurement

*Underline Width:* The width/thickness of the underline.

**underlineOffset** - FontSizeRelativeMeasurement

*Underline Offset:* The offset of the underline with respect to the baseline.

**underlineGap** - FontSizeRelativeMeasurement

*Underline Gap:* The gap between lines for double and triple underlines.

**underlineKind** - Choice of ('single', 'double', 'triple')

*Underline Kind:* The kind of the underline to use.

**strike** - Boolean

*Strike-through Text:* A flag, when set, causes text to be struck out.

**strikeColor** - Color

*Strike Color:* The color in which the strike line will appear.

**strikeWidth** - FontSizeRelativeMeasurement

*Strike Width:* The width of the strike line.

**strikeOffset** - FontSizeRelativeMeasurement

*Strike Offset:* The offset of the strike line with respect to the baseline.

**strikeGap** - FontSizeRelativeMeasurement

*Strike Gap:* The gap between lines for double and triple strike lines.

**strikeKind** - Choice of ('single', 'double', 'triple')

*Strike Kind:* The kind of the strike to use.

**textColor** - Color

*Text Color:* The color in which the text will appear.

**backColor** - Color

*Background Color:* The background color of the span.

**linkUnderline** - Boolean

*Underline Links:* A flag, when set indicating that all links should be underlined.

**leading** - Measurement

*Leading:* The height of a single paragraph line. It includes character height.

**leftIndent** - Measurement

*Left Indentation:* General indentation on the left side.

**rightIndent** - Measurement

*Right Indentation:* General indentation on the right side.

**firstLineIndent** - Measurement

*First Line Indentation:* The indentation of the first line in the paragraph.

**alignment** - Choice of ('left', 'right', 'center', 'centre', 'justify')

*Alignment:* The text alignment.

**spaceBefore** - Measurement

*Space Before:* The vertical space before the paragraph.

**spaceAfter** - Measurement

*Space After:* The vertical space after the paragraph.

**bulletFontName** - Text

*Bullet Font Name:* The font in which the bullet character will be rendered.

**bulletFontSize** - Measurement

*Bullet Font Size:* The font size of the bullet character.

**bulletIndent** - Measurement

*Bullet Indentation:* The indentation that is kept for a bullet point.

**bulletColor** - Color

*Bullet Color:* The color in which the bullet will appear.

**wordWrap** - Choice of ('cjk', 'rtl', 'ltr')

*Word Wrap Method:* When set to "CJK", invoke CJK word wrapping. LTR RTL use left to right / right to left with support from pyfribi2 if available

**borderWidth** - Measurement

*Paragraph Border Width:* The width of the paragraph border.

**borderPadding** - Padding

*Paragraph Border Padding:* Padding of the paragraph.

**borderColor** - Color

*Border Color:* The color in which the paragraph border will appear.

**borderRadius** - Measurement

*Paragraph Border Radius:* The radius of the paragraph border.

**allowWidows** - Boolean

*Allow Widows:* Allow widows.

**allowOrphans** - Boolean

*Allow Orphans:* Allow orphans.

**endDots** - Text

*End Dots:* Characters/Dots at the end of a paragraph.

**splitLongWords** - Boolean

*Split Long Words:* Try to split long words at the end of a line.

**justifyLastLine** - Integer

*Justify Last Line:* Justify last line if there are more than this number of words. Otherwise, don't bother.

**justifyBreaks** - Boolean



*Justify Breaks*: A flag, when set indicates that a line with a break should be justified as well.

**spaceShrinkage** - Float

*Allowed Whitespace Shrinkage Fraction*: The fraction of the original whitespace by which the whitespace is allowed to shrink to fit content on the same line.

**bulletAnchor** - Choice of ('start', 'middle', 'end', 'numeric')

*Bullet Anchor*: The place at which the bullet is anchored.

**keepWithNext** - Boolean

*Keep with Next*: When set, this paragraph will always be in the same frame as the following flowable.

**pageBreakBefore** - Boolean

*Page Break Before*: Specifies whether a page break should be inserted before the directive.

**frameBreakBefore** - Boolean

*Frame Break Before*: Specifies whether a frame break should be inserted before the directive.

**style** - Style

*Style*: The paragraph style that is applied to the paragraph. See the ``paraStyle`` tag for creating a paragraph style.

**bulletText** - Text

*Bullet Character*: The bullet character is the ASCII representation of the symbol making up the bullet in a listing.

**dedent** - Integer

*Dedent*: Number of characters to be removed in front of every line of the text.

## **Content**

XMLContent (*required*)

*Text*: The text that will be layed out.

## **Sub-Directives**

**b** (*ZeroOrMore*)

**i** (*ZeroOrMore*)

**u** (*ZeroOrMore*)

**br** (*ZeroOrMore*)

**pageNumber** (*ZeroOrMore*)

## **Examples**

`<h6>Header 6</h6>`

(Extracted from file *tag-para.rml*, line 26)

[\[PDF\]](#)

## **hr**

Create a horizontal line on the page.

## **Attributes**

**width** - Measurement

*Width*: The width of the line on the page.

**thickness** - Measurement

*Thickness*: Line Thickness

**color** - Color

*Color*: The color of the line.

**lineCap** - Choice of ('default', 'butt', 'round', 'square')

*Cap*: The cap at the end of the line.

**spaceBefore** - Measurement

*Space Before*: The vertical space before the line.

**spaceAfter** - Measurement

*Space After*: The vertical space after the line.

**align** - Choice of ('left', 'right', 'center', 'centre', 'decimal')

*Alignment*: The alignment of the line within the frame.

**valign** - Choice of ('top', 'middle', 'bottom')

*Vertical Alignment*: The vertical alignment of the line.

**dash** - Sequence of Measurement

*Dash-Pattern*: The dash-pattern of a line.

### Examples

```
<hr width="80%" thickness="2" color="blue" dash="1 3" spaceAfter="5"
    spaceBefore="5" align="center"/>
```

(Extracted from file *tag-hr.rml*, line 16)

[\[PDF\]](#)

## i

Renders the text inside as italic.

## illustration

Inserts an illustration with graphics elements.

### Attributes

**width** (*required*) - Measurement

*Width*: The width of the illustration.

**height** (*required*) - Measurement

*Height*: The height of the illustration.

### Examples

```
<illustration height="3cm" width="5cm">
  <lines>
    0    0    0    3cm
    0    3cm 5cm 3cm
    5cm 3cm 5cm 0
    5cm 0    0    0
  </lines>
</illustration>
```

(Extracted from file *tag-illustration.rml*, line 19)

[\[PDF\]](#)

## image

Draws an external image on the canvas.

### Attributes

**file** (*required*) - Image

*File*: Reference to the external file of the iamge.

**x** (*required*) - Measurement

*X-Coordinate*: The X-coordinate of the lower-left position of the shape.

**y** (*required*) - Measurement

*Y-Coordinate*: The Y-coordinate of the lower-left position of the shape.

**width** - Measurement

*Width*: The width of the image.

**height** - Measurement

*Height*: The height of the image.

**showBoundary** - Boolean

*Show Boundary*: A flag determining whether a border should be drawn around the image.

**preserveAspectRatio** - Boolean

*Preserve Aspect Ratio*: A flag determining whether the image's aspect ration should be conserved under any circumstances.

**mask** - Color

*Mask*: The color mask used to render the image, or "auto" to use the alpha channel if available.

## Examples

```
<image file="[z3c.rml.tests]/input/zope3logo.gif" x="2in" y="2in" width="0.5in"
height="3in"/>
```

(Extracted from file *tag-image.rml*, line 20)

[\[PDF\]](#)

## imageAndFlowables

An image with flowables around it.

### Attributes

**imageName** (*required*) - Image

*Image*: The file that is used to extract the image data.

**imageWidth** - Measurement

*Image Width*: The width of the image.

**imageHeight** - Measurement

*Image Height*: The height the image.

**imageMask** - Color

*Mask*: The color mask used to render the image, or "auto" to use the alpha channel if available.

**imageLeftPadding** - Measurement

*Image Left Padding*: The padding on the left side of the image.

**imageRightPadding** - Measurement

*Image Right Padding*: The padding on the right side of the image.

**imageTopPadding** - Measurement

*Image Top Padding*: The padding on the top of the image.

**imageBottomPadding** - Measurement

*Image Bottom Padding*: The padding on the bottom of the image.

**imageSide** - Choice of ('left', 'right')

*Image Side*: The side at which the image will be placed.

### Examples

```
<imageAndFlowables imageName="[z3c.rml.tests]/input/images/replogo.gif"
                    imageWidth="200" imageMask="white" imageSide="left">
  <h1>Wrap around</h1>
  <para>This text should wrap around the image.</para>
</imageAndFlowables>
```

(Extracted from file *tag-imageAndFlowables.rml*, line 52)

[\[PDF\]](#)

```
<imageAndFlowables imageName="[z3c.rml.tests]/input/images/cylinder.svg"
                    imageWidth="200" imageMask="white" imageSide="left">
  <h1>Wrap around</h1>
  <para>This text should wrap around the image.</para>
</imageAndFlowables>
```

(Extracted from file *tag-imageAndFlowables-svg.rml*, line 53)

[\[PDF\]](#)

## img

An image.

### Attributes

**src** (*required*) - Image

*Image Source*: The file that is used to extract the image data.

**width** - Measurement

*Image Width*: The width of the image.

**height** - Measurement

*Image Height*: The height the image.

**preserveAspectRatio** - Boolean

*Preserve Aspect Ratio*: If set, the aspect ratio of the image is kept. When both, width and height, are specified, the image will be fitted into that bounding box.

**mask** - Color

*Mask*: The color mask used to render the image, or "auto" to use the alpha channel if available.

**align** - Choice of ('left', 'right', 'center', 'centre', 'decimal')

*Alignment*: The alignment of the image within the frame.

**vAlign** - Choice of ('top', 'middle', 'bottom')

*Vertical Alignment*: The vertical alignment of the image.

**Examples**

```

```

(Extracted from file *tag-img.rml*, line 19) [\[PDF\]](#)

```

```

(Extracted from file *tag-img.rml*, line 24) [\[PDF\]](#)

```

```

(Extracted from file *tag-img.rml*, line 37) [\[PDF\]](#)

**includePdfPages**

Inserts a set of pages from a given PDF.

**Attributes**

**filename** (*required*) - File

*Path to file*: The pdf file to include.

**pages** - IntegerSequence

*Pages*: A list of pages to insert.

**Examples**

```
<includePdfPages filename="[z3c.rml.tests]/input/data/include-bookmarks2.pdf"/>
```

(Extracted from file *tag-includePdfPages.rml*, line 31) [\[PDF\]](#)

**indent**

Indent the contained flowables.

**Attributes**

**left** - Measurement

*Left*: The indentation to the left.

**right** - Measurement

*Right*: The indentation to the right.

**Examples**

```
<indent left="2cm">
  <para>Item 1-1</para>
  <indent left="2cm">
    <para>Item 2-1</para>
    <indent left="2cm">
      <para>Item 3-1</para>
      <para>Item 3-2</para>
    </indent>
    <para>Item 2-2</para>
    <para>Item 2-3</para>
```

```
</indent>
<para>Item 1-2</para>
</indent>
```

(Extracted from file *tag-indent.rml*, line 40)

[\[PDF\]](#)

## info

Log message at INFO level.

### Content

RawXMLContent (*required*)

*Message*: The message to be logged.

### Examples

```
<info>A INFO message</info>
```

(Extracted from file *tag-log.rml*, line 34)

[\[PDF\]](#)

## initialize

Do some RML processing initialization.

### Sub-Directives

**name** (*ZeroOrMore*)

**alias** (*ZeroOrMore*)

**color** (*ZeroOrMore*)

### Examples

```
<initialize>
  <alias id="h1" value="style.Heading1"/>
</initialize>
```

(Extracted from file *tag-alias.rml*, line 13)

[\[PDF\]](#)

## keepInFrame

Ask a flowable to stay within the frame.

### Attributes

**maxWidth** - Measurement

*Maximum Width*: The maximum width the flowables are allotted.

**maxHeight** - Measurement

*Maximum Height*: The maximum height the flowables are allotted.

**mergeSpace** - Boolean

*Merge Space*: A flag to set whether the space should be merged.

**onOverflow** - Choice of ('error', 'overflow', 'shrink', 'truncate')

*On Overflow*: Defines what has to be done, if an overflow is detected.

**id** - Text

*Name/Id*: The name/id of the flowable.

**frame** - StringOrInt

*Frame*: The frame to which the flowable should be fitted.

### Examples

```
<keepInFrame maxWidth="3cm" maxHeight="2cm" onOverflow="shrink" name="second">
  <para>
    This tag allows keeping a set of flowables in a confined space.
  </para>
</keepInFrame>
```

(Extracted from file *tag-keepInFrame.rml*, line 48)

[\[PDF\]](#)

## keepTogether

Keep the child flowables in the same frame. Add frame break when necessary.

### Attributes

**maxHeight** - Measurement

*Maximum Height:* The maximum height the flowables are allotted.

### Examples

```
<keepTogether>
  <para style="normal">
    This is the 1st paragraph of 3 that we wish to keep together. <br/>
    Some nonsense text to fill up the space.
    Some nonsense text to fill up the space.
    Some nonsense text to fill up the space.
    Some nonsense text to fill up the space.
    Some nonsense text to fill up the space.
    Some nonsense text to fill up the space.
  </para>
  <spacer length="1cm"/>
  <para style="normal">
    This is the 2nd paragraph of 3 that we wish to keep together. <br/>
    Some nonsense text to fill up the space.
    Some nonsense text to fill up the space.
    Some nonsense text to fill up the space.
    Some nonsense text to fill up the space.
    Some nonsense text to fill up the space.
    Some nonsense text to fill up the space.
  </para>
  <spacer length="1cm"/>
  <para style="normal">
    This is the 3rd paragraph of 3 that we wish to keep together. <br/>
    Some nonsense text to fill up the space.
    Some nonsense text to fill up the space.
    Some nonsense text to fill up the space.
    Some nonsense text to fill up the space.
    Some nonsense text to fill up the space.
    Some nonsense text to fill up the space.
  </para>
</keepTogether>
```

(Extracted from file *tag-keepTogether.rml*, line 34)

[\[PDF\]](#)

## label

A simple label

### Content

TextNode (*required*)

*Text:* The text value that is the name.

### Examples

```
<label>Age 1-10</label>
```

(Extracted from file *tag-pieChart3d.rml*, line 49)

[\[PDF\]](#)

## label

A label for a spoke.

### Attributes

**dx** - Measurement

*Horizontal Extension:* The width of the label.

**dy** - Measurement

*Vertical Extension:* The height of the label.

**angle** - Float

*Angle:* The angle to rotate the label.

**boxAnchor** - Choice of ('nw', 'n', 'ne', 'w', 'c', 'e', 'sw', 's', 'se', 'autox', 'autoy')

*Box Anchor:* The position relative to the label.

**boxStrokeColor** - Color

*Box Stroke Color:* The color of the box border line.

**boxStrokeWidth** - Measurement

*Box Stroke Width:* The width of the box border line.

**boxFillColor** - Color

*Box Fill Color:* The color in which the box is filled.

**boxTarget** - Text

*Box Target:* The box target.

**fillColor** - Color

*Fill Color:* The color in which the label is filled.

**strokeColor** - Color

*Stroke Color:* The color of the label.

**strokeWidth** - Measurement

*Stroke Width:* The width of the label line.

**fontName** - Text

*Font Name:* The font used to print the value.

**fontSize** - Measurement

*Font Size:* The size of the value text.

**leading** - Measurement

*Leading:* The height of a single text line. It includes character height.

**width** - Measurement

*Width:* The width the label.

**maxWidth** - Measurement

*Maximum Width:* The maximum width the label.

**height** - Measurement

*Height:* The height the label.

**textAnchor** - Choice of ('start', 'middle', 'end', 'boxauto')

*Text Anchor:* The position in the text to which the coordinates refer.

**visible** - Boolean

*Visible:* A flag making the label text visible.

**leftPadding** - Measurement

*Left Padding:* The size of the padding on the left side.

**rightPadding** - Measurement

*Right Padding:* The size of the padding on the right side.

**topPadding** - Measurement

*Top Padding:* The size of the padding on the top.

**bottomPadding** - Measurement

*Bottom Padding:* The size of the padding on the bottom.

## **Content**

TextNode

*Text:* The text of the spoke (label).

## Examples

```
<label>U</label>
```

(Extracted from file *tag-spiderChart.rml*, line 45)

[\[PDF\]](#)

## label

A label for a strand.

### Attributes

**dx** - Measurement

*Horizontal Extension:* The width of the label.

**dy** - Measurement

*Vertical Extension:* The height of the label.

**angle** - Float

*Angle:* The angle to rotate the label.

**boxAnchor** - Choice of ('nw', 'n', 'ne', 'w', 'c', 'e', 'sw', 's', 'se', 'autox', 'autoy')

*Box Anchor:* The position relative to the label.

**boxStrokeColor** - Color

*Box Stroke Color:* The color of the box border line.

**boxStrokeWidth** - Measurement

*Box Stroke Width:* The width of the box border line.

**boxFillColor** - Color

*Box Fill Color:* The color in which the box is filled.

**boxTarget** - Text

*Box Target:* The box target.

**fillColor** - Color

*Fill Color:* The color in which the label is filled.

**strokeColor** - Color

*Stroke Color:* The color of the label.

**strokeWidth** - Measurement

*Stroke Width:* The width of the label line.

**fontName** - Text

*Font Name:* The font used to print the value.

**fontSize** - Measurement

*Font Size:* The size of the value text.

**leading** - Measurement

*Leading:* The height of a single text line. It includes character height.

**width** - Measurement

*Width:* The width the label.

**maxWidth** - Measurement

*Maximum Width:* The maximum width the label.

**height** - Measurement

*Height:* The height the label.

**textAnchor** - Choice of ('start', 'middle', 'end', 'boxauto')

*Text Anchor:* The position in the text to which the coordinates refer.

**visible** - Boolean

*Visible:* A flag making the label text visible.

**leftPadding** - Measurement

*Left Padding:* The size of the padding on the left side.

**rightPadding** - Measurement

*Right Padding:* The size of the padding on the right side.



**topPadding** - Measurement

*Top Padding:* The size of the padding on the top.

**bottomPadding** - Measurement

*Bottom Padding:* The size of the padding on the bottom.

**row** - Integer

*Row:* The row of the strand label

**col** - Integer

*Column:* The column of the strand label.

**format** - Text

*Format:* The format string for the label.

**dR** - Float

*Radial Shift:* The radial shift of the label.

**Content**

## TextNode

*Text:* The label text of the strand.

**Examples**

```
<label row="0" col="3" dx="-10">special</label>
```

(Extracted from file *tag-spiderChart.rml*, line 61) [\[PDF\]](#)

**label**

The label of a slice within a bar chart.

**Attributes****dx** - Measurement

*Horizontal Extension:* The width of the label.

**dy** - Measurement

*Vertical Extension:* The height of the label.

**angle** - Float

*Angle:* The angle to rotate the label.

**boxAnchor** - Choice of ('nw', 'n', 'ne', 'w', 'c', 'e', 'sw', 's', 'se', 'autox', 'autoy')

*Box Anchor:* The position relative to the label.

**boxStrokeColor** - Color

*Box Stroke Color:* The color of the box border line.

**boxStrokeWidth** - Measurement

*Box Stroke Width:* The width of the box border line.

**boxFillColor** - Color

*Box Fill Color:* The color in which the box is filled.

**boxTarget** - Text

*Box Target:* The box target.

**fillColor** - Color

*Fill Color:* The color in which the label is filled.

**strokeColor** - Color

*Stroke Color:* The color of the label.

**strokeWidth** - Measurement

*Stroke Width:* The width of the label line.

**fontName** - Text

*Font Name:* The font used to print the value.

**fontSize** - Measurement

*Font Size:* The size of the value text.

**leading** - Measurement

*Leading*: The height of a single text line. It includes character height.

**width** - Measurement

*Width*: The width the label.

**maxWidth** - Measurement

*Maximum Width*: The maximum width the label.

**height** - Measurement

*Height*: The height the label.

**textAnchor** - Choice of ('start', 'middle', 'end', 'boxauto')

*Text Anchor*: The position in the text to which the coordinates refer.

**visible** - Boolean

*Visible*: A flag making the label text visible.

**leftPadding** - Measurement

*Left Padding*: The size of the padding on the left side.

**rightPadding** - Measurement

*Right Padding*: The size of the padding on the right side.

**topPadding** - Measurement

*Top Padding*: The size of the padding on the top.

**bottomPadding** - Measurement

*Bottom Padding*: The size of the padding on the bottom.

**Content**

TextNode (*required*)

*Text*: The label text to be displayed.

**Examples**

```
<label dx="10" dy="10" visible="true">Age 1-10</label>
```

(Extracted from file *tag-pieChart.rml*, line 51)

[\[PDF\]](#)

**label**

A label for the chart on an axis.

**Attributes****dx** - Measurement

*Horizontal Extension*: The width of the label.

**dy** - Measurement

*Vertical Extension*: The height of the label.

**angle** - Float

*Angle*: The angle to rotate the label.

**boxAnchor** - Choice of ('nw', 'n', 'ne', 'w', 'c', 'e', 'sw', 's', 'se', 'autox', 'autoy')

*Box Anchor*: The position relative to the label.

**boxStrokeColor** - Color

*Box Stroke Color*: The color of the box border line.

**boxStrokeWidth** - Measurement

*Box Stroke Width*: The width of the box border line.

**boxFillColor** - Color

*Box Fill Color*: The color in which the box is filled.

**boxTarget** - Text

*Box Target*: The box target.

**fillColor** - Color

*Fill Color*: The color in which the label is filled.

**strokeColor** - Color

*Stroke Color:* The color of the label.

**strokeWidth** - Measurement

*Stroke Width:* The width of the label line.

**fontName** - Text

*Font Name:* The font used to print the value.

**fontSize** - Measurement

*Font Size:* The size of the value text.

**leading** - Measurement

*Leading:* The height of a single text line. It includes character height.

**width** - Measurement

*Width:* The width the label.

**maxWidth** - Measurement

*Maximum Width:* The maximum width the label.

**height** - Measurement

*Height:* The height the label.

**textAnchor** - Choice of ('start', 'middle', 'end', 'boxauto')

*Text Anchor:* The position in the text to which the coordinates refer.

**visible** - Boolean

*Visible:* A flag making the label text visible.

**leftPadding** - Measurement

*Left Padding:* The size of the padding on the left side.

**rightPadding** - Measurement

*Right Padding:* The size of the padding on the right side.

**topPadding** - Measurement

*Top Padding:* The size of the padding on the top.

**bottomPadding** - Measurement

*Bottom Padding:* The size of the padding on the bottom.

**x** - Measurement

*X-Coordinate:* The X-coordinate of the lower-left position of the label.

**y** - Measurement

*Y-Coordinate:* The Y-coordinate of the lower-left position of the label.

**Content**

TextNode (*required*)

*Text:* The label text to be displayed.

**labels**

A set of simple labels for a chart.

**Sub-Directives**

**label** (*OneOrMore*)

**Examples**

```
<labels>
  <label>Age  1-10</label>
  <label>Age 11-20</label>
  <label>Age 21-30</label>
  <label>Age 31-40</label>
  <label>Age 41-50</label>
  <label>Age 51-60</label>
</labels>
```

## labels

A set of labels of an axis.

### Attributes

**dx** - Measurement

*Horizontal Extension:* The width of the label.

**dy** - Measurement

*Vertical Extension:* The height of the label.

**angle** - Float

*Angle:* The angle to rotate the label.

**boxAnchor** - Choice of ('nw', 'n', 'ne', 'w', 'c', 'e', 'sw', 's', 'se', 'autox', 'autoy')

*Box Anchor:* The position relative to the label.

**boxStrokeColor** - Color

*Box Stroke Color:* The color of the box border line.

**boxStrokeWidth** - Measurement

*Box Stroke Width:* The width of the box border line.

**boxFillColor** - Color

*Box Fill Color:* The color in which the box is filled.

**boxTarget** - Text

*Box Target:* The box target.

**fillColor** - Color

*Fill Color:* The color in which the label is filled.

**strokeColor** - Color

*Stroke Color:* The color of the label.

**strokeWidth** - Measurement

*Stroke Width:* The width of the label line.

**fontName** - Text

*Font Name:* The font used to print the value.

**fontSize** - Measurement

*Font Size:* The size of the value text.

**leading** - Measurement

*Leading:* The height of a single text line. It includes character height.

**width** - Measurement

*Width:* The width the label.

**maxWidth** - Measurement

*Maximum Width:* The maximum width the label.

**height** - Measurement

*Height:* The height the label.

**textAnchor** - Choice of ('start', 'middle', 'end', 'boxauto')

*Text Anchor:* The position in the text to which the coordinates refer.

**visible** - Boolean

*Visible:* A flag making the label text visible.

**leftPadding** - Measurement

*Left Padding:* The size of the padding on the left side.

**rightPadding** - Measurement

*Right Padding:* The size of the padding on the right side.

**topPadding** - Measurement

*Top Padding:* The size of the padding on the top.

**bottomPadding** - Measurement

*Bottom Padding:* The size of the padding on the bottom.

**x** - Measurement

*X-Coordinate:* The X-coordinate of the lower-left position of the label.

**y** - Measurement

*Y-Coordinate:* The Y-coordinate of the lower-left position of the label.

**Sub-Directives**

**label** (*ZeroOrMore*)

**Examples**

```
<labels fontName="Helvetica" fontSize="20"/>
```

(Extracted from file *tag-barChart.rml*, line 28)

[\[PDF\]](#)

**li**

An ordered list item.

**Attributes****leftIndent** - Measurement

*Left Indentation:* General indentation on the left side.

**rightIndent** - Measurement

*Right Indentation:* General indentation on the right side.

**bulletColor** - Color

*Bullet Color:* The color in which the bullet will appear.

**bulletFontName** - Text

*Bullet Font Name:* The font in which the bullet character will be rendered.

**bulletFontSize** - Measurement

*Bullet Font Size:* The font size of the bullet character.

**bulletOffsetY** - Measurement

*Bullet Y-Offset:* The vertical offset of the bullet.

**bulletDedent** - StringOrInt

*Bullet Dedent:* Either pixels of dedent or auto (default).

**bulletDir** - Choice of ('ltr', 'rtl')

*Bullet Layout Direction:* The layout direction of the bullet.

**bulletFormat** - Text

*Bullet Format:* A formatting expression for the bullet text.

**bulletType** - Choice of ('I', 'i', '1', 'A', 'a', 'l', 'L', 'O', 'o', 'R', 'r', 'bulletchar', 'bullet', 'circle', 'square', 'disc', 'diamond', 'arrowhead', 'diamondwx', 'sparkle', 'squarelrs', 'blackstar')

*Bullet Type:* The type of number to display.

**style** - Style

*Style:* The list style that is applied to the list.

**value** - Choice of ('bulletchar', 'bullet', 'circle', 'square', 'disc', 'diamond', 'arrowhead', 'diamondwx', 'sparkle', 'squarelrs', 'blackstar')

*Bullet Value:* The type of bullet character.

**Sub-Directives**

**spacer** (*ZeroOrMore*)

**illustration** (*ZeroOrMore*)

**pre** (*ZeroOrMore*)

**xpre** (*ZeroOrMore*)

**codesnippet** (*ZeroOrMore*)

**plugInFlowable** (*ZeroOrMore*)

**barCodeFlowable** (*ZeroOrMore*)

**outlineAdd** (ZeroOrMore)  
**title** (ZeroOrMore)  
**h1** (ZeroOrMore)  
**h2** (ZeroOrMore)  
**h3** (ZeroOrMore)  
**h4** (ZeroOrMore)  
**h5** (ZeroOrMore)  
**h6** (ZeroOrMore)  
**para** (ZeroOrMore)  
**blockTable** (ZeroOrMore)  
**nextFrame** (ZeroOrMore)  
**setNextFrame** (ZeroOrMore)  
**nextPage** (ZeroOrMore)  
**setNextTemplate** (ZeroOrMore)  
**condPageBreak** (ZeroOrMore)  
**keepInFrame** (ZeroOrMore)  
**keepTogether** (ZeroOrMore)  
**img** (ZeroOrMore)  
**imageAndFlowables** (ZeroOrMore)  
**indent** (ZeroOrMore)  
**fixedSize** (ZeroOrMore)  
**bookmarkPage** (ZeroOrMore)  
**bookmark** (ZeroOrMore)  
**link** (ZeroOrMore)  
**hr** (ZeroOrMore)  
**showIndex** (ZeroOrMore)  
**name** (ZeroOrMore)  
**namedString** (ZeroOrMore)  
**log** (ZeroOrMore)  
**debug** (ZeroOrMore)  
**info** (ZeroOrMore)  
**warning** (ZeroOrMore)  
**error** (ZeroOrMore)  
**critical** (ZeroOrMore)  
**docAssign** (ZeroOrMore)  
**docExec** (ZeroOrMore)  
**docPara** (ZeroOrMore)  
**docIf** (ZeroOrMore)  
**docElse** (ZeroOrMore)  
**docWhile** (ZeroOrMore)  
**ol** (ZeroOrMore)  
**ul** (ZeroOrMore)  
**includePdfPages** (ZeroOrMore)  
**storyPlace** (ZeroOrMore)

### Examples

```
<li value="circle" bulletFontName="Helvetica">  
  <para>unordered 1</para>  
</li>
```

(Extracted from file *tag-ul-ol-li.rml*, line 76)

[\[PDF\]](#)

## li

An ordered list item.

### Attributes

**leftIndent** - Measurement

*Left Indentation:* General indentation on the left side.

**rightIndent** - Measurement

*Right Indentation:* General indentation on the right side.

**bulletColor** - Color

*Bullet Color:* The color in which the bullet will appear.

**bulletFontName** - Text

*Bullet Font Name:* The font in which the bullet character will be rendered.

**bulletFontSize** - Measurement

*Bullet Font Size:* The font size of the bullet character.

**bulletOffsetY** - Measurement

*Bullet Y-Offset:* The vertical offset of the bullet.

**bulletDedent** - StringOrInt

*Bullet Dedent:* Either pixels of dedent or auto (default).

**bulletDir** - Choice of ('ltr', 'rtl')

*Bullet Layout Direction:* The layout direction of the bullet.

**bulletFormat** - Text

*Bullet Format:* A formatting expression for the bullet text.

**bulletType** - Choice of ('I', 'i', '1', 'A', 'a', 'L', 'O', 'o', 'R', 'r', 'bulletchar', 'bullet', 'circle', 'square', 'disc', 'diamond', 'arrowhead', 'diamondwx', 'sparkle', 'squarelrs', 'blackstar')

*Bullet Type:* The type of number to display.

**style** - Style

*Style:* The list style that is applied to the list.

**value** - Integer

*Bullet Value:* The counter value.

## **Sub-Directives**

**spacer** (ZeroOrMore)

**illustration** (ZeroOrMore)

**pre** (ZeroOrMore)

**xpre** (ZeroOrMore)

**codesnippet** (ZeroOrMore)

**plugInFlowable** (ZeroOrMore)

**barCodeFlowable** (ZeroOrMore)

**outlineAdd** (ZeroOrMore)

**title** (ZeroOrMore)

**h1** (ZeroOrMore)

**h2** (ZeroOrMore)

**h3** (ZeroOrMore)

**h4** (ZeroOrMore)

**h5** (ZeroOrMore)

**h6** (ZeroOrMore)

**para** (ZeroOrMore)

**blockTable** (ZeroOrMore)

**nextFrame** (ZeroOrMore)

**setNextFrame** (ZeroOrMore)

**nextPage** (ZeroOrMore)

**setNextTemplate** (ZeroOrMore)

**condPageBreak** (ZeroOrMore)

**keepInFrame** (ZeroOrMore)

**keepTogether** (ZeroOrMore)

**img** (ZeroOrMore)

**imageAndFlowables** (ZeroOrMore)

**indent** (ZeroOrMore)

**fixedSize** (ZeroOrMore)

**bookmarkPage** (ZeroOrMore)

**bookmark** (ZeroOrMore)

**link** (ZeroOrMore)

**hr** (ZeroOrMore)

**showIndex** (ZeroOrMore)

**name** (ZeroOrMore)  
**namedString** (ZeroOrMore)  
**log** (ZeroOrMore)  
**debug** (ZeroOrMore)  
**info** (ZeroOrMore)  
**warning** (ZeroOrMore)  
**error** (ZeroOrMore)  
**critical** (ZeroOrMore)  
**docAssign** (ZeroOrMore)  
**docExec** (ZeroOrMore)  
**docPara** (ZeroOrMore)  
**docIf** (ZeroOrMore)  
**docElse** (ZeroOrMore)  
**docWhile** (ZeroOrMore)  
**ol** (ZeroOrMore)  
**ul** (ZeroOrMore)  
**includePdfPages** (ZeroOrMore)  
**storyPlace** (ZeroOrMore)

### Examples

```
<li bulletColor="gray" bulletFontName="Helvetica">  
  <para>Item 1</para>  
</li>
```

(Extracted from file *tag-ul-ol-li.rml*, line 96)

[\[PDF\]](#)

## line

A line description of a series of a line plot.

### Attributes

**strokeWidth** - Measurement

*Stroke Width*: The width of the plot line.

**strokeColor** - Color

*Stroke Color*: The color of the plot line.

**strokeDashArray** - Sequence of Float

*Stroke Dash Array*: The dash array of the plot line.

**symbol** - Symbol

*Symbol*: The symbol to be used for every data point in the plot.

**name** - Text

*Name*: The name of the line.

### Examples

```
<line strokeColor="red" symbol="FilledCircle"/>
```

(Extracted from file *tag-linePlot.rml*, line 22)

[\[PDF\]](#)

## lineLabels

A set of labels of an axis.

### Attributes

**dx** - Measurement

*Horizontal Extension*: The width of the label.

**dy** - Measurement

*Vertical Extension*: The height of the label.

**angle** - Float

*Angle*: The angle to rotate the label.

**boxAnchor** - Choice of ('nw', 'n', 'ne', 'w', 'c', 'e', 'sw', 's', 'se', 'autox', 'autoy')



*Box Anchor*: The position relative to the label.

**boxStrokeColor** - Color

*Box Stroke Color*: The color of the box border line.

**boxStrokeWidth** - Measurement

*Box Stroke Width*: The width of the box border line.

**boxFillColor** - Color

*Box Fill Color*: The color in which the box is filled.

**boxTarget** - Text

*Box Target*: The box target.

**fillColor** - Color

*Fill Color*: The color in which the label is filled.

**strokeColor** - Color

*Stroke Color*: The color of the label.

**strokeWidth** - Measurement

*Stroke Width*: The width of the label line.

**fontName** - Text

*Font Name*: The font used to print the value.

**fontSize** - Measurement

*Font Size*: The size of the value text.

**leading** - Measurement

*Leading*: The height of a single text line. It includes character height.

**width** - Measurement

*Width*: The width the label.

**maxWidth** - Measurement

*Maximum Width*: The maximum width the label.

**height** - Measurement

*Height*: The height the label.

**textAnchor** - Choice of ('start', 'middle', 'end', 'boxauto')

*Text Anchor*: The position in the text to which the coordinates refer.

**visible** - Boolean

*Visible*: A flag making the label text visible.

**leftPadding** - Measurement

*Left Padding*: The size of the padding on the left side.

**rightPadding** - Measurement

*Right Padding*: The size of the padding on the right side.

**topPadding** - Measurement

*Top Padding*: The size of the padding on the top.

**bottomPadding** - Measurement

*Bottom Padding*: The size of the padding on the bottom.

**x** - Measurement

*X-Coordinate*: The X-coordinate of the lower-left position of the label.

**y** - Measurement

*Y-Coordinate*: The Y-coordinate of the lower-left position of the label.

## **Sub-Directives**

**label** (*ZeroOrMore*)

## **Examples**

```
<lineLabels font="Roman-Bold" fontSize="10"/>
```

(Extracted from file *tag-linePlot.rml*, line 31)

[\[PDF\]](#)

## lineMode

Set the line mode for the following graphics elements.

### Attributes

**width** - Measurement

*Width:* The line width.

**dash** - Sequence of Measurement

*Dash-Pattern:* The dash-pattern of a line.

**miterLimit** - Measurement

*Miter Limit:* The ???.

**join** - Choice of ('round', 'mitered', 'bevelled')

*Join:* The way lines are joined together.

**cap** - Choice of ('default', 'butt', 'round', 'square')

*Cap:* The cap is the description of how the line-endings look.

### Examples

```
<lineMode width="4" dash="3 2"/>
```

(Extracted from file *tag-lineMode.rml*, line 8)

[\[PDF\]](#)

## linePlot

A line plot.

### Attributes

**dx** - Measurement

*Drawing X-Position:* The x-position of the entire drawing on the canvas.

**dy** - Measurement

*Drawing Y-Position:* The y-position of the entire drawing on the canvas.

**dwidth** - Measurement

*Drawing Width:* The width of the entire drawing

**dheight** - Measurement

*Drawing Height:* The height of the entire drawing

**angle** - Float

*Angle:* The orientation of the drawing as an angle in degrees.

**x** - Measurement

*Chart X-Position:* The x-position of the chart within the drawing.

**y** - Measurement

*Chart Y-Position:* The y-position of the chart within the drawing.

**width** - Measurement

*Chart Width:* The width of the chart.

**height** - Measurement

*Chart Height:* The height of the chart.

**strokeColor** - Color

*Stroke Color:* Color of the chart border.

**strokeWidth** - Measurement

*Stroke Width:* Width of the chart border.

**fillColor** - Color

*Fill Color:* Color of the chart interior.

**debug** - Boolean

*Debugging:* A flag that when set to True turns on debug messages.

**reversePlotOrder** - Boolean

*Reverse Plot Order:* When true, the coordinate system is reversed.

**lineLabelNudge** - Measurement

*Line Label Nudge:* The distance between the data point and its label.

**lineLabelFormat** - Text

*Line Label Format:* Formatting string for data point labels.

**joinedLines** - Boolean

*Joined Lines:* When true, connect all data points with lines.

**inFill** - Boolean

*Name:* Flag indicating whether the line plot should be filled, in other words converted to an area chart.

**Sub-Directives**

**data** (One)

**lines** (ZeroOrOne)

**xValueAxis** (ZeroOrOne)

**yValueAxis** (ZeroOrOne)

**lineLabels** (ZeroOrOne)

**texts** (ZeroOrOne)

**Examples**

```

<linePlot dx="2in" dy="7in" dwidth="6in" dheight="4in" x="0" y="0" width="5in"
  height="3in" joinedLines="true" lineLabelFormat="%2.0f">
  <lines>
    <line strokeColor="red" symbol="FilledCircle"/>
    <line strokeColor="blue" symbol="FilledDiamond"/>
  </lines>
  <xValueAxis valueMin="0" valueMax="5" valueStep="1">
    <labels fontName="Helvetica"/>
  </xValueAxis>
  <yValueAxis valueMin="0" valueMax="7" valueStep="1">
    <labels fontName="Helvetica"/>
  </yValueAxis>
  <lineLabels font="Roman-Bold" fontSize="10"/>
  <data>
    <series>
      1 1
      2 2
      2.5 1
      3 3
      4 5
    </series>
    <series>
      1 2
      2 3
      2.5 2
      3.5 5
      4 6
    </series>
  </data>
</linePlot>

```

(Extracted from file *tag-linePlot.rml*, line 19)

[\[PDF\]](#)

**linePlot3D**

Creates a three-dimensional line plot.

**Attributes**

**dx** - Measurement

*Drawing X-Position:* The x-position of the entire drawing on the canvas.

**dy** - Measurement

*Drawing Y-Position:* The y-position of the entire drawing on the canvas.

**dwidth** - Measurement

*Drawing Width:* The width of the entire drawing

**dheight** - Measurement

*Drawing Height:* The height of the entire drawing

**angle** - Float

*Angle:* The orientation of the drawing as an angle in degrees.

**x** - Measurement

*Chart X-Position:* The x-position of the chart within the drawing.

**y** - Measurement

*Chart Y-Position:* The y-position of the chart within the drawing.

**width** - Measurement

*Chart Width:* The width of the chart.

**height** - Measurement

*Chart Height:* The height of the chart.

**strokeColor** - Color

*Stroke Color:* Color of the chart border.

**strokeWidth** - Measurement

*Stroke Width:* Width of the chart border.

**fillColor** - Color

*Fill Color:* Color of the chart interior.

**debug** - Boolean

*Debugging:* A flag that when set to True turns on debug messages.

**reversePlotOrder** - Boolean

*Reverse Plot Order:* When true, the coordinate system is reversed.

**lineLabelNudge** - Measurement

*Line Label Nudge:* The distance between the data point and its label.

**lineLabelFormat** - Text

*Line Label Format:* Formatting string for data point labels.

**joinedLines** - Boolean

*Joined Lines:* When true, connect all data points with lines.

**inFill** - Boolean

*Name:* Flag indicating whether the line plot should be filled, in other words converted to an area chart.

**thetaX** - Float

*Theta-X:* Fraction of dx/dz.

**thetaY** - Float

*Theta-Y:* Fraction of dy/dz.

**zDepth** - Measurement

*Z-Depth:* Depth of an individual series/bar.

**zSpace** - Measurement

*Z-Space:* Z-Gap around a series/bar.

## ***Sub-Directives***

**data** (*One*)

**lines** (*ZeroOrOne*)

**xValueAxis** (*ZeroOrOne*)

**yValueAxis** (*ZeroOrOne*)

**lineLabels** (*ZeroOrOne*)

**texts** (*ZeroOrOne*)

## ***Examples***

```

<linePlot3D dx="2in" dy="7in" dwidth="6in" dheight="4in" x="0" y="0"
            width="5in" height="3in" joinedLines="true" lineLabelFormat="%2.0f"
            zDepth="0.3in" zSpace="0.3in">
  <lines>
    <line strokeColor="red" symbol="FilledCircle"/>
    <line strokeColor="blue" symbol="FilledDiamond"/>
  </lines>
  <xValueAxis valueMin="0" valueMax="5" valueStep="1">
    <labels fontName="Helvetica"/>
  </xValueAxis>
  <yValueAxis valueMin="0" valueMax="7" valueStep="1">
    <labels fontName="Helvetica"/>
  </yValueAxis>
  <lineLabels font="Roman-Bold" fontSize="10"/>
  <data>
    <series>
      1 1
      2 2
      2.5 1
      3 3
      4 5
    </series>
    <series>
      1 2
      2 3
      2.5 2
      3.5 5
      4 6
    </series>
  </data>
</linePlot3D>

```

(Extracted from file *tag-linePlot3D.rml*, line 20)

[\[PDF\]](#)

## lineStyle

Define the border line style of each cell.

### Attributes

**start** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*Start Coordinates:* The start table coordinates for the style instruction

**stop** (*required*) - Sequence of Combination of Integer, Choice of ('splitfirst', 'splitlast')

*End Coordinates:* The end table coordinates for the style instruction

**kind** (*required*) - Choice of ('grid', 'box', 'outline', 'innergrid', 'linebelow', 'lineabove', 'linebefore', 'lineafter')

*Kind:* The kind of line actions to be taken.

**thickness** (*required*) - Measurement

*Thickness:* Line Thickness

**colorName** (*required*) - Color

*Color:* The color of the border line.

**cap** (*required*) - Choice of ('default', 'butt', 'round', 'square')

*Cap:* The cap at the end of a border line.

**dash** - Sequence of Measurement

*Dash-Pattern:* The dash-pattern of a line.

**join** - Choice of ('round', 'mitered', 'bevelled')

*Join:* The way lines are joined together.

**count** - Integer

*Count:* Describes whether the line is a single (1) or double (2) line.

## Examples

```
<lineStyle start="0,0" stop="-1,-1" kind="BOX" thickness="0.25"
           colorName="black"/>
```

(Extracted from file *tag-blockTable-5.rml*, line 27)

[\[PDF\]](#)

## lines

The set of all line descriptions in the line plot.

### Attributes

**strokeWidth** - Measurement

*Stroke Width*: The width of the plot line.

**strokeColor** - Color

*Stroke Color*: The color of the plot line.

**strokeDashArray** - Sequence of Float

*Stroke Dash Array*: The dash array of the plot line.

**symbol** - Symbol

*Symbol*: The symbol to be used for every data point in the plot.

### Sub-Directives

**line** (*OneOrMore*)

## Examples

```
<lines>
  <line strokeColor="red" symbol="FilledCircle"/>
  <line strokeColor="blue" symbol="FilledDiamond"/>
</lines>
```

(Extracted from file *tag-linePlot.rml*, line 20)

[\[PDF\]](#)

## lines

A path of connected lines drawn on the canvas.

### Content

TextNodeGrid with 4 cols of Measurement (*required*)

*Line List*: A list of lines coordinates to draw.

## Examples

```
<lines>
  1in 7in 6in 7in
  1in 5in 6in 4in
  1in 3in 1in 1in
</lines>
```

(Extracted from file *tag-lines.rml*, line 9)

[\[PDF\]](#)

## link

Place an internal link around a set of flowables.

### Attributes

**destination** - Text

*Destination*: The name of the destination to link to.

**url** - Text

*URL*: The URL to link to.

**boxStrokeWidth** - Measurement

*Box Stroke Width*: The width of the box border line.

**boxStrokeDashArray** - Sequence of Float

*Box Stroke Dash Array*: The dash array of the box border line.

### **boxStrokeColor** - Color

*Box Stroke Color*: The color in which the box border is drawn.

### **Examples**

```
<link destination="PAGE_1" boxStrokeColor="red" boxStrokeWidth="1"
      boxStrokeDashArray="1 2">
  <para>Go to page 1 now!</para>
</link>
```

(Extracted from file *tag-bookmark.rml*, line 23) [\[PDF\]](#)

```
<link url="http://www.reportlab.org">
  <para>Link to ReporLab Web Site.</para>
</link>
```

(Extracted from file *tag-bookmark.rml*, line 45) [\[PDF\]](#)

## **listStyle**

Defines a list style and gives it a name.

### **Attributes**

#### **leftIndent** - Measurement

*Left Indentation*: General indentation on the left side.

#### **rightIndent** - Measurement

*Right Indentation*: General indentation on the right side.

#### **bulletColor** - Color

*Bullet Color*: The color in which the bullet will appear.

#### **bulletFontName** - Text

*Bullet Font Name*: The font in which the bullet character will be rendered.

#### **bulletFontSize** - Measurement

*Bullet Font Size*: The font size of the bullet character.

#### **bulletOffsetY** - Measurement

*Bullet Y-Offset*: The vertical offset of the bullet.

#### **bulletDedent** - StringOrInt

*Bullet Dedent*: Either pixels of dedent or auto (default).

#### **bulletDir** - Choice of ('ltr', 'rtl')

*Bullet Layout Direction*: The layout direction of the bullet.

#### **bulletFormat** - Text

*Bullet Format*: A formatting expression for the bullet text.

#### **bulletType** - Choice of ('I', 'i', '1', 'A', 'a', 'L', 'O', 'o', 'R', 'r', 'bulletchar', 'bullet', 'circle', 'square', 'disc', 'diamond', 'arrowhead', 'diamondwx', 'sparkle', 'squarelrs', 'blackstar')

*Bullet Type*: The type of number to display.

#### **start** - Combination of Integer, Choice of ('bulletchar', 'bullet', 'circle', 'square', 'disc', 'diamond', 'arrowhead', 'diamondwx', 'sparkle', 'squarelrs', 'blackstar'), Text

*Start Value*: The counter start value.

#### **name** (*required*) - Text

*Name*: The name of the style.

#### **parent** - Style

*Parent*: The list style that will be used as a base for this one.

### **Examples**

```
<listStyle name="MyList" bulletFontName="Helvetica-Bold" bulletFontSize="8"
      bulletColor="green" start="diamond" />
```

(Extracted from file *tag-ul-ol-li.rml*, line 22) [\[PDF\]](#)

```
<listStyle name="MyEnum" bulletFontName="Helvetica-Bold" bulletFontSize="8"
bulletFormat="(%s)" bulletType="a"/>
```

(Extracted from file *tag-ul-ol-li.rml*, line 30)

[\[PDF\]](#)

## log

Log message at DEBUG level.

### Attributes

**level** (*required*) - Choice of ('DEBUG', 'INFO', 'WARNING', 'ERROR', 'CRITICAL')

*Level*: The default log level.

### Content

RawXMLContent (*required*)

*Message*: The message to be logged.

### Examples

```
<log level="WARNING">Log message with level WARNING.</log>
```

(Extracted from file *tag-log.rml*, line 32)

[\[PDF\]](#)

## logConfig

Configure the render logger.

### Attributes

**level** - Choice of ('DEBUG', 'INFO', 'WARNING', 'ERROR', 'CRITICAL')

*Level*: The default log level.

**format** - Text

*Format*: The format of the log messages.

**filename** (*required*) - File

*File Name*: The path to the file that is being logged.

**filemode** - Choice of ('write', 'append')

*File Mode*: The mode to open the file in.

**datefmt** - Text

*Date Format*: The format of the log message date.

### Examples

```
<logConfig level="DEBUG" format="%(asctime)s %(levelname)s - %(message)s"
datefmt="%Y-%m-%dT%H:%M:%S" filename="[z3c.rml.tests]/render.log"
filemode="APPEND"/>
```

(Extracted from file *tag-log.rml*, line 15)

[\[PDF\]](#)

## mergePage

Merges an existing PDF Page into the one to be generated.

### Attributes

**filename** (*required*) - File

*File*: Reference to the PDF file to extract the page from.

**page** (*required*) - Integer

*Page Number*: The page number of the PDF file that is used to merge..

## moveto

Move the path cursor to the specified location.

### Content

TextNodeSequence of Measurement (*required*)



*Position*: Position to which the path pointer is moved to.

### Examples

```
<moveto>
  2cm 15cm
</moveto>
```

(Extracted from file *tag-path.rml*, line 44)

[\[PDF\]](#)

## name

A category name

### Content

TextNode (*required*)

*Text*: The text value that is the name.

### Examples

```
<name>Category 1</name>
```

(Extracted from file *tag-barChart.rml*, line 30)

[\[PDF\]](#)

## name

Defines a name for a string.

### Attributes

**id** (*required*) - Text

*Id*: The id under which the value will be known.

**value** (*required*) - Text

*Value*: The text that is displayed if the id is called.

### Examples

```
<name id="DocTitle" value="The Document Title"/>
```

(Extracted from file *tag-name.rml*, line 16)

[\[PDF\]](#)

## namedString

Defines a name for a string.

### Attributes

**id** (*required*) - Text

*Id*: The id under which the value will be known.

### Content

XMLContent (*required*)

*Value*: The text that is displayed if the id is called.

## nextFrame

Switch to the next frame.

### Attributes

**name** - StringOrInt

*Name*: The name or index of the next frame.

### Examples

```
<nextFrame/>
```

(Extracted from file *tag-nextFrame.rml*, line 16)

[\[PDF\]](#)

## nextPage

Switch to the next page.

### Examples

```
<nextPage/>
```

(Extracted from file *tag-nextPage.rml*, line 16)

[\[PDF\]](#)

## ol

An ordered list.

### Attributes

**leftIndent** - Measurement

*Left Indentation:* General indentation on the left side.

**rightIndent** - Measurement

*Right Indentation:* General indentation on the right side.

**bulletColor** - Color

*Bullet Color:* The color in which the bullet will appear.

**bulletFontName** - Text

*Bullet Font Name:* The font in which the bullet character will be rendered.

**bulletFontSize** - Measurement

*Bullet Font Size:* The font size of the bullet character.

**bulletOffsetY** - Measurement

*Bullet Y-Offset:* The vertical offset of the bullet.

**bulletDedent** - StringOrInt

*Bullet Dedent:* Either pixels of dedent or auto (default).

**bulletDir** - Choice of ('ltr', 'rtl')

*Bullet Layout Direction:* The layout direction of the bullet.

**bulletFormat** - Text

*Bullet Format:* A formatting expression for the bullet text.

**start** - Combination of Integer, Choice of ('bulletchar', 'bullet', 'circle', 'square', 'disc', 'diamond', 'arrowhead', 'diamondwx', 'sparkle', 'squarelrs', 'blackstar'), Text

*Start Value:* The counter start value.

**style** - Style

*Style:* The list style that is applied to the list.

**bulletType** - Choice of ('I', 'i', '1', 'A', 'a', 'l', 'L', 'O', 'o', 'R', 'r')

*Bullet Type:* The type of bullet formatting.

### Sub-Directives

**li** (*ZeroOrMore*)

### Examples

```
<ol bulletColor="orange" bulletFontName="Times-Roman">
  <li bulletColor="gray" bulletFontName="Helvetica">
    <para>Item 1</para>
  </li>
  <li>
    <para>Item 2</para>
  </li>
</ol>
```

(Extracted from file *tag-ul-ol-li.rml*, line 94)

[\[PDF\]](#)

## option

An option in the select field.

## Content

TextNode (*required*)

*Value:* The value of the option.

## Examples

```
<option>Option 1</option>
```

(Extracted from file *tag-selectField.rml*, line 20)

[\[PDF\]](#)

## outlineAdd

Add a new entry to the outline of the PDF.

## Attributes

**key** - Text

*Key:* The unique key of the item.

**level** - Integer

*Level:* The level in the outline tree.

**closed** - Boolean

*Closed:* A flag to determine whether the sub-tree is closed by default.

## Content

TextNode (*required*)

*Title:* The text displayed for this item.

## Examples

```
<outlineAdd>Top Level</outlineAdd>
```

(Extracted from file *tag-outlineAdd.rml*, line 14)

[\[PDF\]](#)

```
<outlineAdd level="1" closed="no">Item 1-1</outlineAdd>
```

(Extracted from file *tag-outlineAdd.rml*, line 15)

[\[PDF\]](#)

## pageDrawing

Draws directly on the content of one page's canvas. Every call of this directive creates a new page.

## Sub-Directives

**saveState** (*ZeroOrMore*)

**restoreState** (*ZeroOrMore*)

**drawString** (*ZeroOrMore*)

**drawRightString** (*ZeroOrMore*)

**drawCenteredString** (*ZeroOrMore*)

**drawCentredString** (*ZeroOrMore*)

**drawAlignedString** (*ZeroOrMore*)

**ellipse** (*ZeroOrMore*)

**circle** (*ZeroOrMore*)

**rect** (*ZeroOrMore*)

**grid** (*ZeroOrMore*)

**lines** (*ZeroOrMore*)

**curves** (*ZeroOrMore*)

**image** (*ZeroOrMore*)

**place** (*ZeroOrMore*)

**textAnnotation** (*ZeroOrMore*)

**path** (*ZeroOrMore*)

**fill** (*ZeroOrMore*)

**stroke** (*ZeroOrMore*)

**setFont** (*ZeroOrMore*)

**setFontSize** (*ZeroOrMore*)

**scale** (*ZeroOrMore*)

**translate** (*ZeroOrMore*)

**rotate** (ZeroOrMore)  
**skew** (ZeroOrMore)  
**transform** (ZeroOrMore)  
**lineMode** (ZeroOrMore)  
**barCode** (ZeroOrMore)  
**textField** (ZeroOrMore)  
**buttonField** (ZeroOrMore)  
**selectField** (ZeroOrMore)  
**barChart** (ZeroOrMore)  
**barChart3D** (ZeroOrMore)  
**linePlot** (ZeroOrMore)  
**linePlot3D** (ZeroOrMore)  
**pieChart** (ZeroOrMore)  
**pieChart3D** (ZeroOrMore)  
**spiderChart** (ZeroOrMore)  
**bookmark** (ZeroOrMore)  
**plugInGraphic** (ZeroOrMore)

## Examples

```
<pageDrawing>  
  <drawString x="4.1in" y="5.8in">Hello World.</drawString>  
</pageDrawing>
```

(Extracted from file *tag-drawString.rml*, line 8)

[\[PDF\]](#)

## pageGraphics

Define the page graphics for the page template.

### Sub-Directives

**saveState** (ZeroOrMore)  
**restoreState** (ZeroOrMore)  
**drawString** (ZeroOrMore)  
**drawRightString** (ZeroOrMore)  
**drawCenteredString** (ZeroOrMore)  
**drawCentredString** (ZeroOrMore)  
**drawAlignedString** (ZeroOrMore)  
**ellipse** (ZeroOrMore)  
**circle** (ZeroOrMore)  
**rect** (ZeroOrMore)  
**grid** (ZeroOrMore)  
**lines** (ZeroOrMore)  
**curves** (ZeroOrMore)  
**image** (ZeroOrMore)  
**place** (ZeroOrMore)  
**textAnnotation** (ZeroOrMore)  
**path** (ZeroOrMore)  
**fill** (ZeroOrMore)  
**stroke** (ZeroOrMore)  
**setFont** (ZeroOrMore)  
**setFontSize** (ZeroOrMore)  
**scale** (ZeroOrMore)  
**translate** (ZeroOrMore)  
**rotate** (ZeroOrMore)  
**skew** (ZeroOrMore)  
**transform** (ZeroOrMore)  
**lineMode** (ZeroOrMore)  
**barCode** (ZeroOrMore)  
**textField** (ZeroOrMore)  
**buttonField** (ZeroOrMore)  
**selectField** (ZeroOrMore)

[barChart](#) (*ZeroOrMore*)  
[barChart3D](#) (*ZeroOrMore*)  
[linePlot](#) (*ZeroOrMore*)  
[linePlot3D](#) (*ZeroOrMore*)  
[pieChart](#) (*ZeroOrMore*)  
[pieChart3D](#) (*ZeroOrMore*)  
[spiderChart](#) (*ZeroOrMore*)  
[bookmark](#) (*ZeroOrMore*)  
[plugInGraphic](#) (*ZeroOrMore*)

### Examples

```
<pageGraphics>  
  <setFont name="Helvetica-BoldOblique" size="18"/>  
  <drawString x="1cm" y="28cm">Graphic Line</drawString>  
</pageGraphics>
```

(Extracted from file *tag-pageGraphics.rml*, line 9) [\[PDF\]](#)

## pageInfo

Set's up page-global settings.

### Attributes

**pageSize** (*required*) - PageSize  
*Page Size*: The page size of all pages within this document.

### Examples

```
<pageInfo pageSize="LEGAL"/>
```

(Extracted from file *tag-pageInfo-2.rml*, line 7) [\[PDF\]](#)

```
<pageInfo pageSize="(4in, 6in)"/>
```

(Extracted from file *tag-pageInfo.rml*, line 7) [\[PDF\]](#)

## pageNumber

Inserts the current page number into the text.

## pageTemplate

Define a page template.

### Attributes

**id** (*required*) - Text  
*Id*: The id of the template.

**pagesize** - PageSize  
*Page Size*: The Page Size.

**autoNextTemplate** - Text  
*Auto Next Page Template*: The page template to use automatically for the next page.

### Sub-Directives

[frame](#) (*OneOrMore*)  
[pageGraphics](#) (*ZeroOrOne*)  
[mergePage](#) (*ZeroOrOne*)

### Examples

```
<pageTemplate id="main">  
  <frame id="first" x1="1cm" y1="1cm" width="19cm" height="26cm"/>  
</pageTemplate>
```

(Extracted from file *tag-document-story.rml*, line 9) [\[PDF\]](#)

```
<pageTemplate id="main">
  <frame id="first" x1="1cm" y1="1cm" width="19cm" height="26cm"/>
</pageTemplate>
```

(Extracted from file *tag-document-annotations.rml*,  
line 13)

[\[PDF\]](#)

## para

Lays out an entire paragraph.

### Attributes

**name** (*required*) - Text

*Name*: The name of the style.

**alias** - Text

*Alias*: An alias under which the style will also be known as.

**parent** - Style

*Parent*: The paragraph style that will be used as a base for this one.

**fontName** - Text

*Font Name*: The name of the font for the span.

**fontSize** - Measurement

*Font Size*: The font size for the text of the span.

**textTransform** - Choice of ('none', 'uppercase', 'lowercase', 'capitalize')

*Text Transform*: Text transformation.

**underline** - Boolean

*Underline Text*: A flag, when set, causes text to be underlined.

**underlineColor** - Color

*Underline Color*: The color in which the underline will appear.

**underlineWidth** - FontSizeRelativeMeasurement

*Underline Width*: The width/thickness of the underline.

**underlineOffset** - FontSizeRelativeMeasurement

*Underline Offset*: The offset of the underline with respect to the baseline.

**underlineGap** - FontSizeRelativeMeasurement

*Underline Gap*: The gap between lines for double and triple underlines.

**underlineKind** - Choice of ('single', 'double', 'triple')

*Underline Kind*: The kind of the underline to use.

**strike** - Boolean

*Strike-through Text*: A flag, when set, causes text to be struck out.

**strikeColor** - Color

*Strike Color*: The color in which the strike line will appear.

**strikeWidth** - FontSizeRelativeMeasurement

*Strike Width*: The width of the strike line.

**strikeOffset** - FontSizeRelativeMeasurement

*Strike Offset*: The offset of the strike line with respect to the baseline.

**strikeGap** - FontSizeRelativeMeasurement

*Strike Gap*: The gap between lines for double and triple strike lines.

**strikeKind** - Choice of ('single', 'double', 'triple')

*Strike Kind*: The kind of the strike to use.

**textColor** - Color

*Text Color*: The color in which the text will appear.

**backgroundColor** - Color

*Background Color*: The background color of the span.

**linkUnderline** - Boolean

*Underline Links*: A flag, when set indicating that all links should be underlined.

**leading** - Measurement

*Leading*: The height of a single paragraph line. It includes character height.

**leftIndent** - Measurement

*Left Indentation*: General indentation on the left side.

**rightIndent** - Measurement

*Right Indentation*: General indentation on the right side.

**firstLineIndent** - Measurement

*First Line Indentation*: The indentation of the first line in the paragraph.

**alignment** - Choice of ('left', 'right', 'center', 'centre', 'justify')

*Alignment*: The text alignment.

**spaceBefore** - Measurement

*Space Before*: The vertical space before the paragraph.

**spaceAfter** - Measurement

*Space After*: The vertical space after the paragraph.

**bulletFontName** - Text

*Bullet Font Name*: The font in which the bullet character will be rendered.

**bulletFontSize** - Measurement

*Bullet Font Size*: The font size of the bullet character.

**bulletIndent** - Measurement

*Bullet Indentation*: The indentation that is kept for a bullet point.

**bulletColor** - Color

*Bullet Color*: The color in which the bullet will appear.

**wordWrap** - Choice of ('cjk', 'rtl', 'ltr')

*Word Wrap Method*: When set to "CJK", invoke CJK word wrapping. LTR RTL use left to right / right to left with support from pyfribi2 if available

**borderWidth** - Measurement

*Paragraph Border Width*: The width of the paragraph border.

**borderPadding** - Padding

*Paragraph Border Padding*: Padding of the paragraph.

**borderColor** - Color

*Border Color*: The color in which the paragraph border will appear.

**borderRadius** - Measurement

*Paragraph Border Radius*: The radius of the paragraph border.

**allowWidows** - Boolean

*Allow Widows*: Allow widows.

**allowOrphans** - Boolean

*Allow Orphans*: Allow orphans.

**endDots** - Text

*End Dots*: Characters/Dots at the end of a paragraph.

**splitLongWords** - Boolean

*Split Long Words*: Try to split long words at the end of a line.

**justifyLastLine** - Integer

*Justify Last Line*: Justify last line if there are more than this number of words. Otherwise, don't bother.

**justifyBreaks** - Boolean

*Justify Breaks*: A flag, when set indicates that a line with a break should be justified as well.

**spaceShrinkage** - Float

*Allowed Whitespace Shrinkage Fraction*: The fraction of the original whitespace by which the whitespace is allowed to shrink to fit content on the same line.

**bulletAnchor** - Choice of ('start', 'middle', 'end', 'numeric')

*Bullet Anchor*: The place at which the bullet is anchored.

**keepWithNext** - Boolean

*Keep with Next*: When set, this paragraph will always be in the same frame as the following flowable.

**pageBreakBefore** - Boolean

*Page Break Before*: Specifies whether a page break should be inserted before the directive.

**frameBreakBefore** - Boolean

*Frame Break Before*: Specifies whether a frame break should be inserted before the directive.

**style** - Style

*Style*: The paragraph style that is applied to the paragraph. See the ``paraStyle`` tag for creating a paragraph style.

**bulletText** - Text

*Bullet Character*: The bullet character is the ASCII representation of the symbol making up the bullet in a listing.

**dedent** - Integer

*Dedent*: Number of characters to be removed in front of every line of the text.

## Content

XMLContent (*required*)

*Text*: The text that will be layed out.

## Sub-Directives

**b** (*ZeroOrMore*)

**i** (*ZeroOrMore*)

**u** (*ZeroOrMore*)

**br** (*ZeroOrMore*)

**pageNumber** (*ZeroOrMore*)

## Examples

`<para>Paragraph</para>`

(Extracted from file *tag-para.rml*, line 27)

[\[PDF\]](#)

## paraStyle

Defines a paragraph style and gives it a name.

## Attributes

**fontName** - Text

*Font Name*: The name of the font for the span.

**fontSize** - Measurement

*Font Size*: The font size for the text of the span.

**textTransform** - Choice of ('none', 'uppercase', 'lowercase', 'capitalize')

*Text Transform*: Text transformation.

**underline** - Boolean

*Underline Text*: A flag, when set, causes text to be underlined.

**underlineColor** - Color

*Underline Color*: The color in which the underline will appear.

**underlineWidth** - FontSizeRelativeMeasurement

*Underline Width*: The width/thickness of the underline.

**underlineOffset** - FontSizeRelativeMeasurement

*Underline Offset*: The offset of the underline with respect to the baseline.

**underlineGap** - FontSizeRelativeMeasurement

*Underline Gap*: The gap between lines for double and triple underlines.

**underlineKind** - Choice of ('single', 'double', 'triple')

*Underline Kind*: The kind of the underline to use.

**strike** - Boolean



*Strike-through Text:* A flag, when set, causes text to be struck out.

**strikeColor** - Color

*Strike Color:* The color in which the strike line will appear.

**strikeWidth** - FontSizeRelativeMeasurement

*Strike Width:* The width of the strike line.

**strikeOffset** - FontSizeRelativeMeasurement

*Strike Offset:* The offset of the strike line with respect to the baseline.

**strikeGap** - FontSizeRelativeMeasurement

*Strike Gap:* The gap between lines for double and triple strike lines.

**strikeKind** - Choice of ('single', 'double', 'triple')

*Strike Kind:* The kind of the strike to use.

**textColor** - Color

*Text Color:* The color in which the text will appear.

**backColor** - Color

*Background Color:* The background color of the span.

**linkUnderline** - Boolean

*Underline Links:* A flag, when set indicating that all links should be underlined.

**leading** - Measurement

*Leading:* The height of a single paragraph line. It includes character height.

**leftIndent** - Measurement

*Left Indentation:* General indentation on the left side.

**rightIndent** - Measurement

*Right Indentation:* General indentation on the right side.

**firstLineIndent** - Measurement

*First Line Indentation:* The indentation of the first line in the paragraph.

**alignment** - Choice of ('left', 'right', 'center', 'centre', 'justify')

*Alignment:* The text alignment.

**spaceBefore** - Measurement

*Space Before:* The vertical space before the paragraph.

**spaceAfter** - Measurement

*Space After:* The vertical space after the paragraph.

**bulletFontName** - Text

*Bullet Font Name:* The font in which the bullet character will be rendered.

**bulletFontSize** - Measurement

*Bullet Font Size:* The font size of the bullet character.

**bulletIndent** - Measurement

*Bullet Indentation:* The indentation that is kept for a bullet point.

**bulletColor** - Color

*Bullet Color:* The color in which the bullet will appear.

**wordWrap** - Choice of ('cjk', 'rtl', 'ltr')

*Word Wrap Method:* When set to "CJK", invoke CJK word wrapping. LTR RTL use left to right / right to left with support from pyfribi2 if available

**borderWidth** - Measurement

*Paragraph Border Width:* The width of the paragraph border.

**borderPadding** - Padding

*Paragraph Border Padding:* Padding of the paragraph.

**borderColor** - Color

*Border Color:* The color in which the paragraph border will appear.

**borderRadius** - Measurement

*Paragraph Border Radius:* The radius of the paragraph border.

**allowWidows** - Boolean

*Allow Widows:* Allow widows.

**allowOrphans** - Boolean

*Allow Orphans:* Allow orphans.

**endDots** - Text

*End Dots:* Characters/Dots at the end of a paragraph.

**splitLongWords** - Boolean

*Split Long Words:* Try to split long words at the end of a line.

**justifyLastLine** - Integer

*Justify Last Line:* Justify last line if there are more then this number of words. Otherwise, don't bother.

**justifyBreaks** - Boolean

*Justify Breaks:* A flag, when set indicates that a line with a break should be justified as well.

**spaceShrinkage** - Float

*Allowed Whitespace Shrinkage Fraction:* The fraction of the original whitespace by which the whitespace is allowed to shrink to fit content on the same line.

**bulletAnchor** - Choice of ('start', 'middle', 'end', 'numeric')

*Bullet Anchor:* The place at which the bullet is anchored.

**keepWithNext** - Boolean

*Keep with Next:* When set, this paragraph will always be in the same frame as the following flowable.

**pageBreakBefore** - Boolean

*Page Break Before:* Specifies whether a page break should be inserted before the directive.

**frameBreakBefore** - Boolean

*Frame Break Before:* Specifies whether a frame break should be inserted before the directive.

**name** (*required*) - Text

*Name:* The name of the style.

**alias** - Text

*Alias:* An alias under which the style will also be known as.

**parent** - Style

*Parent:* The apragraph style that will be used as a base for this one.

### Examples

```
<paraStyle name="large" fontSize="3cm" textColor="red"/>
```

(Extracted from file *simple-layout.rml*, line 14) [\[PDF\]](#)

## param

Sets one paramter for the text annotation.

### Attributes

**name** (*required*) - Text

*Name:* The name of the paramter.

### Content

TextNode (*required*)

*Value:* The parameter value.

### Examples

```
<param name="Rect">0,0,1,1</param>
```

(Extracted from file *tag-textAnnotation.rml*, line 9) [\[PDF\]](#)

## path

Create a line path.

## Attributes

**x** (*required*) - Measurement

*X-Coordinate*: The X-coordinate of the lower-left position of the shape.

**y** (*required*) - Measurement

*Y-Coordinate*: The Y-coordinate of the lower-left position of the shape.

**fill** - Boolean

*Fill*: A flag to specify whether the shape should be filled.

**stroke** - Boolean

*Stroke*: A flag to specify whether the shape's outline should be drawn.

**close** - Boolean

*Close Path*: A flag specifying whether the path should be closed.

**clip** - Boolean

*Clip Path*: A flag specifying whether the path should clip overlapping elements.

## Content

TextNodeGrid with 2 cols of Measurement (*required*)

*Points*: A list of coordinate points that define the path.

## Sub-Directives

**moveto** (*ZeroOrMore*)

**curveto** (*ZeroOrMore*)

**curvesto** (*ZeroOrMore*) (*Deprecated*)

## Examples

```
<path x="2cm" y="15cm" fill="true">
  8cm 15cm
  <curvesto>
    10cm 15cm 10cm 12cm 8cm 12cm
  </curvesto>
  2cm 12cm
  <moveto>
    2cm 15cm
  </moveto>
</path>
```

(Extracted from file *tag-path.rml*, line 38)

[\[PDF\]](#)

```
<path x="8cm" y="12cm" fill="true">
  <curveto>
    10cm 12cm 10cm 9cm 8cm 9cm
  </curveto>
</path>
```

(Extracted from file *tag-path.rml*, line 50)

[\[PDF\]](#)

## pieChart

A pie chart.

## Attributes

**dx** - Measurement

*Drawing X-Position*: The x-position of the entire drawing on the canvas.

**dy** - Measurement

*Drawing Y-Position*: The y-position of the entire drawing on the canvas.

**dwidth** - Measurement

*Drawing Width*: The width of the entire drawing

**dheight** - Measurement

*Drawing Height*: The height of the entire drawing

**angle** - Float

*Angle:* The orientation of the drawing as an angle in degrees.

**x** - Measurement

*Chart X-Position:* The x-position of the chart within the drawing.

**y** - Measurement

*Chart Y-Position:* The y-position of the chart within the drawing.

**width** - Measurement

*Chart Width:* The width of the chart.

**height** - Measurement

*Chart Height:* The height of the chart.

**strokeColor** - Color

*Stroke Color:* Color of the chart border.

**strokeWidth** - Measurement

*Stroke Width:* Width of the chart border.

**fillColor** - Color

*Fill Color:* Color of the chart interior.

**debug** - Boolean

*Debugging:* A flag that when set to True turns on debug messages.

**startAngle** - Integer

*Start Angle:* The start angle in the chart of the first slice in degrees.

**direction** - Choice of ('clockwise', 'anticlockwise')

*Direction:* The direction in which the pie chart will be built.

**checkLabelOverlap** - Boolean

*Check Label Overlap:* When true, check and attempt to fix standard label overlaps

**pointerLabelMode** - Choice of ('none', 'leftright', 'leftandright')

*Pointer Label Mode:* The location relative to the slice the label should be placed.

**sameRadii** - Boolean

*Same Radii:* When true, make x/y radii the same.

**orderMode** - Choice of ('fixed', 'alternate')

*Order Mode:*

**xradius** - Measurement

*X-Radius:* The radius of the X-directions

**yradius** - Measurement

*Y-Radius:* The radius of the Y-directions

## ***Sub-Directives***

**data** (One)

**slices** (ZeroOrOne)

**labels** (ZeroOrOne)

**texts** (ZeroOrOne)

## ***Examples***

```
<pieChart dx="2in" dy="7in" dwidth="6in" dheight="4in" x="0" y="0" width="3in"
  height="3in">
  <labels>
    <label>a</label>
    <label>b</label>
    <label>c</label>
    <label>d</label>
    <label>e</label>
    <label>f</label>
  </labels>
  <slices strokeWidth="0.5">
```

```

    <slice fillColor="darkcyan"/>
    <slice fillColor="blueviolet"/>
    <slice fillColor="blue"/>
    <slice fillColor="cyan" popout="10" strokeWidth="2" strokeDashArray="2 2"/>
    <slice fillColor="aquamarine"/>
    <slice fillColor="cadetblue"/>
    <slice fillColor="lightcoral"/>
  </slices>
  <data>
    <series>10 20 30 40 50 60</series>
  </data>
</pieChart>

```

(Extracted from file *tag-pieChart.rml*, line 18)

[\[PDF\]](#)

## pieChart3D

A 3-D pie chart.

### Attributes

**dx** - Measurement

*Drawing X-Position:* The x-position of the entire drawing on the canvas.

**dy** - Measurement

*Drawing Y-Position:* The y-position of the entire drawing on the canvas.

**dwidth** - Measurement

*Drawing Width:* The width of the entire drawing

**dheight** - Measurement

*Drawing Height:* The height of the entire drawing

**angle** - Float

*Angle:* The orientation of the drawing as an angle in degrees.

**x** - Measurement

*Chart X-Position:* The x-position of the chart within the drawing.

**y** - Measurement

*Chart Y-Position:* The y-position of the chart within the drawing.

**width** - Measurement

*Chart Width:* The width of the chart.

**height** - Measurement

*Chart Height:* The height of the chart.

**strokeColor** - Color

*Stroke Color:* Color of the chart border.

**strokeWidth** - Measurement

*Stroke Width:* Width of the chart border.

**fillColor** - Color

*Fill Color:* Color of the chart interior.

**debug** - Boolean

*Debugging:* A flag that when set to True turns on debug messages.

**startAngle** - Integer

*Start Angle:* The start angle in the chart of the first slice in degrees.

**direction** - Choice of ('clockwise', 'anticlockwise')

*Direction:* The direction in which the pie chart will be built.

**checkLabelOverlap** - Boolean

*Check Label Overlap:* When true, check and attempt to fix standard label overlaps

**pointerLabelMode** - Choice of ('none', 'leftright', 'leftandright')

*Pointer Label Mode:* The location relative to the slace the label should be placed.

**sameRadii** - Boolean

*Same Radii:* When true, make x/y radii the same.

**orderMode** - Choice of ('fixed', 'alternate')

*Order Mode:*

**xradius** - Measurement

*X-Radius:* The radius of the X-directions

**yradius** - Measurement

*Y-Radius:* The radius of the Y-directions

**perspective** - Float

*Perspectice:* The flattening parameter.

**depth\_3d** - Measurement

*3-D Depth:* The depth of the pie.

**angle\_3d** - Float

*3-D Angle:* The view angle in the Z-coordinate.

### Sub-Directives

**slices** (*One*)

**texts** (*ZeroOrOne*)

### Examples

```
<pieChart3D dx="2in" dy="7in" dwidth="6in" dheight="4in" x="0" y="0"
  width="3in" height="3in">
  <labels>
    <label>a</label>
    <label>b</label>
    <label>c</label>
    <label>d</label>
    <label>e</label>
    <label>f</label>
  </labels>
  <slices strokeWidth="0.5">
    <slice fillColor="darkcyan"/>
    <slice fillColor="blueviolet"/>
    <slice fillColor="blue"/>
    <slice fillColor="cyan" popout="10" strokeWidth="2" strokeDashArray="2 2"/>
    <slice fillColor="aquamarine"/>
    <slice fillColor="cadetblue"/>
    <slice fillColor="lightcoral"/>
  </slices>
  <data>
    <series>10 20 30 40 50 60</series>
  </data>
</pieChart3D>
```

(Extracted from file *tag-pieChart3d.rml*, line 18)

[\[PDF\]](#)

## place

Draws a set of flowables on the canvas within a given region.

### Attributes

**x** (*required*) - Measurement

*X-Coordinate:* The X-coordinate of the lower-left position of the place.

**y** (*required*) - Measurement

*Y-Coordinate:* The Y-coordinate of the lower-left position of the place.

**width** - Measurement

*Width:* The width of the place.

## **height** - Measurement

*Height:* The height of the place.

### **Examples**

```
<place x="1cm" y="10cm" width="13cm" height="4cm">
  <para>A paragraph within the place.</para>
</place>
```

(Extracted from file *tag-place.rml*, line 52)

[\[PDF\]](#)

## **plugInFlowable**

Inserts a custom flowable developed in Python.

### **Attributes**

**module** (*required*) - Text

*Module:* The Python module in which the flowable is located.

**function** (*required*) - Text

*Function:* The name of the factory function within the module that returns the custom flowable.

### **Content**

TextNode

*Parameters:* A list of parameters encoded as a long string.

### **Examples**

```
<plugInFlowable module="z3c.rml.tests.flowable" function="TestFlowable">
  Some text.
</plugInFlowable>
```

(Extracted from file *tag-plugInFlowable.rml*, line 22)

[\[PDF\]](#)

## **plugInGraphic**

Inserts a custom graphic developed in Python.

### **Attributes**

**module** (*required*) - Text

*Module:* The Python module in which the flowable is located.

**function** (*required*) - Text

*Function:* The name of the factory function within the module that returns the custom flowable.

### **Content**

TextNode

*Parameters:* A list of parameters encoded as a long string.

### **Examples**

```
<plugInGraphic module="z3c.rml.tests.module" function="symbols">
  n=4,x="1in",y="7in",name="StarFive",dx="15pt",dy="0",
  size="10pt",fillColor="red",strokeColor="blue",
  strokeWidth="1.5pt"
</plugInGraphic>
```

(Extracted from file *tag-plugInGraphic.rml*, line 8)

[\[PDF\]](#)

## **pointer**

A pointer to a slice in a pie chart.

### **Attributes**

**strokeColor** - Color

*Stroke Color:* The color of the pointer line.

**strokeWidth** - Measurement

*Stroke Width*: The width of the pointer line.

**elbowLength** - Measurement

*Elbow Length*: The length of the final segment of the pointer.

**edgePad** - Measurement

*Edge Padding*: The padding between between the pointer label and box.

**piePad** - Measurement

*Pie Padding*: The padding between between the pointer label and chart.

**Examples**

```
<pointer strokeColor="darkred"/>
```

(Extracted from file *tag-pieChart.rml*, line 52)

[\[PDF\]](#)

**pre**

A preformatted text, similar to the `<pre>` tag in HTML.

**Attributes****bulletText** - Text

*Bullet Character*: The bullet character is the ASCII representation of the symbol making up the bullet in a listing.

**dedent** - Integer

*Dedent*: Number of characters to be removed in front of every line of the text.

**style** - Style

*Style*: The paragraph style that is applied to the paragraph. See the ```paraStyle``` tag for creating a paragraph style.

**maxLineLength** - Integer

*Max Line Length*: The maximum number of characters on one line.

**newLineChars** - Text

*New Line Characters*: The characters placed at the beginning of a wrapped line

**Content**

RawXMLContent (*required*)

*Text*: The text that will be layed out.

**Examples**

```
<pre>Preformatted <b>text</b> only.</pre>
```

(Extracted from file *tag-para.rml*, line 28)

[\[PDF\]](#)

**pto**

A container for flowables decorated with trailer & header lists. If the split operation would be called then the trailer and header lists are injected before and after the split. This allows specialist "please turn over" and "continued from previous" like behaviours.

**Sub-Directives**

**pto\_header** (*ZeroOrOne*)

**pto\_trailer** (*ZeroOrOne*)

**Examples**

```
<pto>
  <pto_header>
    <spacer length="1cm"/>
    <para><b>... let's go on</b></para>
  </pto_header>
  <pto_trailer>
    <spacer length="1cm"/>
    <para><b>... please continue on the next page.</b></para>
```



```
</pto_trailer>
<para>
  Main text. Main text. Main text. Main text. Main text. Main text. Main
  text. Main text. Main text. Main text. Main text. Main text. Main
  text. Main text. Main text. Main text.
</para>
</pto>
```

(Extracted from file *tag-pto.rml*, line 70)

[\[PDF\]](#)

## pto\_header

A container for flowables used at the beginning of a frame.

### Sub-Directives

**spacer** (*ZeroOrMore*)  
**illustration** (*ZeroOrMore*)  
**pre** (*ZeroOrMore*)  
**xpre** (*ZeroOrMore*)  
**codesnippet** (*ZeroOrMore*)  
**plugInFlowable** (*ZeroOrMore*)  
**barCodeFlowable** (*ZeroOrMore*)  
**outlineAdd** (*ZeroOrMore*)  
**title** (*ZeroOrMore*)  
**h1** (*ZeroOrMore*)  
**h2** (*ZeroOrMore*)  
**h3** (*ZeroOrMore*)  
**h4** (*ZeroOrMore*)  
**h5** (*ZeroOrMore*)  
**h6** (*ZeroOrMore*)  
**para** (*ZeroOrMore*)  
**blockTable** (*ZeroOrMore*)  
**nextFrame** (*ZeroOrMore*)  
**setNextFrame** (*ZeroOrMore*)  
**nextPage** (*ZeroOrMore*)  
**setNextTemplate** (*ZeroOrMore*)  
**condPageBreak** (*ZeroOrMore*)  
**keepInFrame** (*ZeroOrMore*)  
**keepTogether** (*ZeroOrMore*)  
**img** (*ZeroOrMore*)  
**imageAndFlowables** (*ZeroOrMore*)  
**indent** (*ZeroOrMore*)  
**fixedSize** (*ZeroOrMore*)  
**bookmarkPage** (*ZeroOrMore*)  
**bookmark** (*ZeroOrMore*)  
**link** (*ZeroOrMore*)  
**hr** (*ZeroOrMore*)  
**showIndex** (*ZeroOrMore*)  
**name** (*ZeroOrMore*)  
**namedString** (*ZeroOrMore*)  
**log** (*ZeroOrMore*)  
**debug** (*ZeroOrMore*)  
**info** (*ZeroOrMore*)  
**warning** (*ZeroOrMore*)  
**error** (*ZeroOrMore*)  
**critical** (*ZeroOrMore*)  
**docAssign** (*ZeroOrMore*)  
**docExec** (*ZeroOrMore*)  
**docPara** (*ZeroOrMore*)  
**docIf** (*ZeroOrMore*)  
**docElse** (*ZeroOrMore*)

**docWhile** (ZeroOrMore)  
**ol** (ZeroOrMore)  
**ul** (ZeroOrMore)  
**includePdfPages** (ZeroOrMore)  
**storyPlace** (ZeroOrMore)

## Examples

```
<pto_header>  
  <spacer length="1cm" />  
  <para><b>... let's go on</b></para>  
</pto_header>
```

(Extracted from file *tag-pto.rml*, line 71)

[\[PDF\]](#)

## pto\_trailer

A container for flowables used at the end of a frame.

### Sub-Directives

**spacer** (ZeroOrMore)  
**illustration** (ZeroOrMore)  
**pre** (ZeroOrMore)  
**xpre** (ZeroOrMore)  
**codesnippet** (ZeroOrMore)  
**plugInFlowable** (ZeroOrMore)  
**barCodeFlowable** (ZeroOrMore)  
**outlineAdd** (ZeroOrMore)  
**title** (ZeroOrMore)  
**h1** (ZeroOrMore)  
**h2** (ZeroOrMore)  
**h3** (ZeroOrMore)  
**h4** (ZeroOrMore)  
**h5** (ZeroOrMore)  
**h6** (ZeroOrMore)  
**para** (ZeroOrMore)  
**blockTable** (ZeroOrMore)  
**nextFrame** (ZeroOrMore)  
**setNextFrame** (ZeroOrMore)  
**nextPage** (ZeroOrMore)  
**setNextTemplate** (ZeroOrMore)  
**condPageBreak** (ZeroOrMore)  
**keepInFrame** (ZeroOrMore)  
**keepTogether** (ZeroOrMore)  
**img** (ZeroOrMore)  
**imageAndFlowables** (ZeroOrMore)  
**indent** (ZeroOrMore)  
**fixedSize** (ZeroOrMore)  
**bookmarkPage** (ZeroOrMore)  
**bookmark** (ZeroOrMore)  
**link** (ZeroOrMore)  
**hr** (ZeroOrMore)  
**showIndex** (ZeroOrMore)  
**name** (ZeroOrMore)  
**namedString** (ZeroOrMore)  
**log** (ZeroOrMore)  
**debug** (ZeroOrMore)  
**info** (ZeroOrMore)  
**warning** (ZeroOrMore)  
**error** (ZeroOrMore)  
**critical** (ZeroOrMore)  
**docAssign** (ZeroOrMore)

**docExec** (*ZeroOrMore*)  
**docPara** (*ZeroOrMore*)  
**docIf** (*ZeroOrMore*)  
**docElse** (*ZeroOrMore*)  
**docWhile** (*ZeroOrMore*)  
**ol** (*ZeroOrMore*)  
**ul** (*ZeroOrMore*)  
**includePdfPages** (*ZeroOrMore*)  
**storyPlace** (*ZeroOrMore*)

### Examples

```
<pto_trailer>  
  <spacer length="1cm" />  
  <para><b>... please continue on the next page.</b></para>  
</pto_trailer>
```

(Extracted from file *tag-pto.rml*, line 75)

[\[PDF\]](#)

## rect

Draws an ellipse on the canvas.

### Attributes

**x** (*required*) - Measurement

*X-Coordinate*: The X-coordinate of the lower-left position of the shape.

**y** (*required*) - Measurement

*Y-Coordinate*: The Y-coordinate of the lower-left position of the shape.

**fill** - Boolean

*Fill*: A flag to specify whether the shape should be filled.

**stroke** - Boolean

*Stroke*: A flag to specify whether the shape's outline should be drawn.

**width** (*required*) - Measurement

*Width*: The width of the rectangle.

**height** (*required*) - Measurement

*Height*: The height of the rectangle.

**round** - Measurement

*Corner Radius*: The radius of the rounded corners.

**href** - Text

*Link URL*: When specified, the rectangle becomes a link to that URL.

**destination** - Text

*Link Destination*: When specified, the rectangle becomes a link to that destination.

### Examples

```
<rect x="8cm" y="20cm" width="5cm" height="3cm" />
```

(Extracted from file *tag-rectangle.rml*, line 9)

[\[PDF\]](#)

## registerCidFont

Register a new CID font given the face name.

### Attributes

**faceName** (*required*) - Text

*Face Name*: The name of the face the font uses. The face has to be previously registered.

**encName** - Text

*Encoding Name*: The name of the encoding to use for the font.

### Examples

```
<registerCidFont faceName="HeiseiMin-W3"/>
```

(Extracted from file *tag-registerCidFont.rml*, line 8) [\[PDF\]](#)

```
<registerCidFont faceName="HeiseiMin-W3" encName="90ms-RKSJ-H"/>
```

(Extracted from file *tag-registerCidFont.rml*, line 10) [\[PDF\]](#)

## registerFont

Register a new font based on a face and encoding.

### Attributes

**name** (*required*) - Text

*Name*: The name under which the font can be used in style declarations or other parameters that lookup a font.

**faceName** (*required*) - Text

*Face Name*: The name of the face the font uses. The face has to be previously registered.

**encName** (*required*) - Text

*Encoding Name*: The name of the encoding to be used.

### Examples

```
<registerFont name="DarkGardenMK" faceName="DarkGardenMK"
             encName="WinAnsiEncoding"/>
```

(Extracted from file *tag-registerType1Face.rml*, line 14)

[\[PDF\]](#)

## registerFontFamily

Register a new font family.

### Attributes

**name** (*required*) - Text

*Name*: The name of the font family.

**normal** - Text

*Normal Font Name*: The name of the normal font variant.

**bold** - Text

*Bold Font Name*: The name of the bold font variant.

**italic** - Text

*Italic Font Name*: The name of the italic font variant.

**boldItalic** (*required*) - Text

*Bold/Italic Font Name*: The name of the bold/italic font variant.

## registerTTFont

Register a new TrueType font given the TT file and face name.

### Attributes

**faceName** (*required*) - Text

*Face Name*: The name of the face the font uses. The face has to be previously registered.

**fileName** (*required*) - File

*File Name*: File path of the of the TrueType font.

### Examples

```
<registerTTFont faceName="Vera" fileName="[z3c.rml.tests]/input/Vera.ttf"/>
```

(Extracted from file *tag-registerTTFont.rml*, line 10) [\[PDF\]](#)

```
<registerTTFont faceName="VeraMono"
                 fileName="[z3c.rml]/tests/input/VeraMono.ttf"/>
```

(Extracted from file *tag-registerTTFont.rml*, line 13) [\[PDF\]](#)

## registerType1Face

Register a new Type 1 font face.

### Attributes

**afmFile** (*required*) - File

*AFM File:* Path to AFM file used to register the Type 1 face.

**pfbFile** (*required*) - File

*PFB File:* Path to PFB file used to register the Type 1 face.

### Examples

```
<registerType1Face afmFile="DarkGardenMK.afm" pfbFile="DarkGardenMK.pfb"/>
```

(Extracted from file *tag-registerType1Face.rml*, line 9) [\[PDF\]](#)

## restoreState

Saves the current canvas state.

### Examples

```
<restoreState/>
```

(Extracted from file *tag-saveState-restoreState.rml*,  
line 14)

[\[PDF\]](#)

## rotate

Rotate the drawing counterclockwise.

### Attributes

**degrees** (*required*) - Measurement

*Angle:* The angle in degrees.

### Examples

```
<rotate degrees="15"/>
```

(Extracted from file *tag-rotate.rml*, line 13)

[\[PDF\]](#)

## saveState

Saves the current canvas state.

### Examples

```
<pageDrawing>
  <setFont name="Helvetica" size="9"/>
  <drawString x="1in" y="10in">Text in Helvetica 9</drawString>
  <saveState/>
  <setFont name="Courier" size="12"/>
  <drawString x="1in" y="9in">Text in Courier 12</drawString>
  <restoreState/>
  <drawString x="1in" y="8in">Text in Helvetica 9</drawString>
</pageDrawing>
```

(Extracted from file *tag-saveState-restoreState.rml*,  
line 8)

[\[PDF\]](#)

## scale

Scale the drawing using x and y scaling factors.

### Attributes

**sx** - Float

*X-Scaling-Factor:* The scaling factor applied on x-coordinates.

**sy** - Float

*Y-Scaling-Factor*: The scaling factor applied on y-coordinates.

### Examples

```
<scale sx="1" sy="1.5"/>
```

(Extracted from file *tag-scale.rml*, line 13)

[\[PDF\]](#)

## selectField

A selection field within the PDF

### Attributes

**title** (*required*) - Text

*Title*: The title of the field.

**x** (*required*) - Measurement

*X-Position*: The x-position of the lower-left corner of the field.

**y** (*required*) - Measurement

*Y-Position*: The y-position of the lower-left corner of the field.

**width** (*required*) - Measurement

*Width*: The width of the select field.

**height** (*required*) - Measurement

*Height*: The height of the select field.

**value** - Text

*Value*: The default value of the field.

### Sub-Directives

**option** (*ZeroOrMore*)

### Examples

```
<selectField title="select1" value="Option 2" x="4cm" y="22.9cm" width="5cm"
             height="15">
  <option>Option 1</option>
  <option>Option 2</option>
  <option>Option 3</option>
</selectField>
```

(Extracted from file *tag-selectField.rml*, line 19)

[\[PDF\]](#)

## series

A one-dimensional series.

### Content

TextNodeSequence of Float (*required*)

*Values*: Numerical values representing the series' data.

### Examples

```
<series>100 110 120 130</series>
```

(Extracted from file *tag-barChart.rml*, line 44)

[\[PDF\]](#)

## series

A two-dimensional series.

### Content

TextNodeGrid with 2 cols of Float (*required*)

*Values*: Numerical values representing the series' data.

## Examples

```
<series>
  1    1
  2    2
  2.5  1
  3    3
  4    5
</series>
```

(Extracted from file *tag-linePlot.rml*, line 33)

[\[PDF\]](#)

## setFont

Set the font name and/or size.

### Attributes

**name** (*required*) - Text

*Font Name*: The name of the font as it was registered.

**size** (*required*) - Measurement

*Size*: The font size.

**leading** - Measurement

*Leading*: The font leading.

## Examples

```
<setFont name="Helvetica" size="9" />
```

(Extracted from file *tag-setFont.rml*, line 9)

[\[PDF\]](#)

```
<setFont name="Helvetica-BoldOblique" size="18" />
```

(Extracted from file *tag-pageGraphics.rml*, line 10)

[\[PDF\]](#)

## setFontSize

Set the font size.

### Attributes

**size** (*required*) - Measurement

*Size*: The font size.

**leading** - Measurement

*Leading*: The font leading.

## Examples

```
<setFontSize size="12" />
```

(Extracted from file *tag-setFontSize.rml*, line 11)

[\[PDF\]](#)

## setNextFrame

Define the next frame to switch to.

### Attributes

**name** (*required*) - StringOrInt

*Name*: The name or index of the next frame.

## Examples

```
<setNextFrame name="three" />
```

(Extracted from file *tag-setNextFrame.rml*, line 21)

[\[PDF\]](#)

## setNextTemplate

Define the next page template to use.

## Attributes

**name** (*required*) - StringOrInt

*Name:* The name or index of the next page template.

## Examples

```
<setNextTemplate name="first"/>
```

(Extracted from file *tag-setNextTemplate.rml*, line 25) [\[PDF\]](#)

## showIndex

Creates an index in the document.

## Attributes

**name** - Text

*Name:* The name of the index.

**dot** - Text

*Dot:* The character to use as a dot.

**style** - Style

*Style:* The paragraph style that is applied to the index.

**tableStyle** - Style

*Table Style:* The table style that is applied to the index layout.

## Examples

```
<showIndex dot="." />
```

(Extracted from file *tag-index.rml*, line 40) [\[PDF\]](#)

## skew

Skew the drawing.

## Attributes

**alpha** (*required*) - Measurement

*Alpha:* The amount to skew the drawing in the horizontal.

**beta** (*required*) - Measurement

*Beta:* The amount to skew the drawing in the vertical.

## Examples

```
<skew alpha="15" beta="5" />
```

(Extracted from file *tag-skew.rml*, line 13) [\[PDF\]](#)

## slice

A 3-D slice of a 3-D pie chart.

## Attributes

**strokeWidth** - Measurement

*Stroke Width:* The width of the slice line.

**fillColor** - Color

*Fill Color:* The fill color of the slice.

**strokeColor** - Color

*Stroke Color:* The color of the pointer line.

**strokeDashArray** - Sequence of Float

*Stroke Dash Array:* The dash array of the slice borderline.

**popout** - Measurement

*Popout:* The distance of how much the slice should be popped out.



**fontName** - Text

*Font Name:* The font name of the label.

**fontSize** - Measurement

*Font Size:* The font size of the label.

**labelRadius** - Measurement

*Label Radius:* The radius at which the label should be placed around the pie.

**swatchMarker** - Symbol**fillColorShaded** - Color

*Fill Color Shade:* The shade used for the fill color.

**Sub-Directives**

**label** (ZeroOrOne)

**pointer** (ZeroOrOne)

**Examples**

```
<slice fillColor="cyan" popout="10" strokeWidth="2" strokeDashArray="2 2"/>
```

(Extracted from file *tag-pieChart3d.rml*, line 33)

[\[PDF\]](#)

**slice**

A slice in a pie chart.

**Attributes****strokeWidth** - Measurement

*Stroke Width:* The width of the slice line.

**fillColor** - Color

*Fill Color:* The fill color of the slice.

**strokeColor** - Color

*Stroke Color:* The color of the pointer line.

**strokeDashArray** - Sequence of Float

*Stroke Dash Array:* The dash array of the slice borderline.

**popout** - Measurement

*Popout:* The distance of how much the slice should be popped out.

**fontName** - Text

*Font Name:* The font name of the label.

**fontSize** - Measurement

*Font Size:* The font size of the label.

**labelRadius** - Measurement

*Label Radius:* The radius at which the label should be placed around the pie.

**swatchMarker** - Symbol**Sub-Directives**

**label** (ZeroOrOne)

**pointer** (ZeroOrOne)

**Examples**

```
<slice fillColor="cyan" popout="10" strokeWidth="2" strokeDashArray="2 2"/>
```

(Extracted from file *tag-pieChart.rml*, line 33)

[\[PDF\]](#)

**slices**

The collection of all 3-D slice descriptions.

**Attributes**

**strokeWidth** - Measurement

*Stroke Width:* The width of the slice line.

**fillColor** - Color

*Fill Color:* The fill color of the slice.

**strokeColor** - Color

*Stroke Color:* The color of the pointer line.

**strokeDashArray** - Sequence of Float

*Stroke Dash Array:* The dash array of the slice borderline.

**popout** - Measurement

*Popout:* The distance of how much the slice should be popped out.

**fontName** - Text

*Font Name:* The font name of the label.

**fontSize** - Measurement

*Font Size:* The font size of the label.

**labelRadius** - Measurement

*Label Radius:* The radius at which the label should be placed around the pie.

**fillColorShaded** - Color**Sub-Directives**

**slice** (*OneOrMore*)

**Examples**

```

<slices strokeWidth="0.5">
  <slice fillColor="darkcyan"/>
  <slice fillColor="blueviolet"/>
  <slice fillColor="blue"/>
  <slice fillColor="cyan" popout="10" strokeWidth="2" strokeDashArray="2 2"/>
  <slice fillColor="aquamarine"/>
  <slice fillColor="cadetblue"/>
  <slice fillColor="lightcoral"/>
</slices>

```

(Extracted from file *tag-pieChart3d.rml*, line 27)

[\[PDF\]](#)

**slices**

The collection of all 2-D slice descriptions.

**Attributes****strokeWidth** - Measurement

*Stroke Width:* The width of the slice line.

**fillColor** - Color

*Fill Color:* The fill color of the slice.

**strokeColor** - Color

*Stroke Color:* The color of the pointer line.

**strokeDashArray** - Sequence of Float

*Stroke Dash Array:* The dash array of the slice borderline.

**popout** - Measurement

*Popout:* The distance of how much the slice should be popped out.

**fontName** - Text

*Font Name:* The font name of the label.

**fontSize** - Measurement

*Font Size:* The font size of the label.

**labelRadius** - Measurement

*Label Radius*: The radius at which the label should be placed around the pie.

## Sub-Directives

**slice** (*OneOrMore*)

## Examples

```
<slices strokeWidth="0.5">
  <slice fillColor="darkcyan"/>
  <slice fillColor="blueviolet"/>
  <slice fillColor="blue"/>
  <slice fillColor="cyan" popout="10" strokeWidth="2" strokeDashArray="2 2"/>
  <slice fillColor="aquamarine"/>
  <slice fillColor="cadetblue"/>
  <slice fillColor="lightcoral"/>
</slices>
```

(Extracted from file *tag-pieChart.rml*, line 27)

[\[PDF\]](#)

## spacer

Creates a vertical space in the flow.

## Attributes

**width** - Measurement

*Width*: The width of the spacer. Currently not implemented.

**length** (*required*) - Measurement

*Length*: The height of the spacer.

## Examples

```
<spacer length="0.5in" width="3in"/>
```

(Extracted from file *tag-spacer.rml*, line 26)

[\[PDF\]](#)

## spanStyle

Defines a span style and gives it a name.

## Attributes

**name** (*required*) - Text

*Name*: The name of the style.

**alias** - Text

*Alias*: An alias under which the style will also be known as.

**parent** - Style

*Parent*: The apragraph style that will be used as a base for this one.

**fontName** - Text

*Font Name*: The name of the font for the span.

**fontSize** - Measurement

*Font Size*: The font size for the text of the span.

**textTransform** - Choice of ('none', 'uppercase', 'lowercase', 'capitalize')

*Text Transform*: Text transformation.

**underline** - Boolean

*Underline Text*: A flag, when set, causes text to be underlined.

**underlineColor** - Color

*Underline Color*: The color in which the underline will appear.

**underlineWidth** - FontSizeRelativeMeasurement

*Underline Width*: The width/thickness of the underline.

**underlineOffset** - FontSizeRelativeMeasurement

*Underline Offset*: The offset of the underline with respect to the baseline.

**underlineGap** - FontSizeRelativeMeasurement

*Underline Gap*: The gap between lines for double and triple underlines.

**underlineKind** - Choice of ('single', 'double', 'triple')

*Underline Kind*: The kind of the underline to use.

**strike** - Boolean

*Strike-through Text*: A flag, when set, causes text to be struck out.

**strikeColor** - Color

*Strike Color*: The color in which the strike line will appear.

**strikeWidth** - FontSizeRelativeMeasurement

*Strike Width*: The width of the strike line.

**strikeOffset** - FontSizeRelativeMeasurement

*Strike Offset*: The offset of the strike line with respect to the baseline.

**strikeGap** - FontSizeRelativeMeasurement

*Strike Gap*: The gap between lines for double and triple strike lines.

**strikeKind** - Choice of ('single', 'double', 'triple')

*Strike Kind*: The kind of the strike to use.

**textColor** - Color

*Text Color*: The color in which the text will appear.

**backColor** - Color

*Background Color*: The background color of the span.

**linkUnderline** - Boolean

*Underline Links*: A flag, when set indicating that all links should be underlined.

## Examples

```
<spanStyle name="important" textColor="red" backColor="#FFFFDD"/>
```

(Extracted from file *tag-para-span.rml*, line 20)

[\[PDF\]](#)

## spiderChart

A spider chart.

### Attributes

**dx** - Measurement

*Drawing X-Position*: The x-position of the entire drawing on the canvas.

**dy** - Measurement

*Drawing Y-Position*: The y-position of the entire drawing on the canvas.

**dwidth** - Measurement

*Drawing Width*: The width of the entire drawing

**dheight** - Measurement

*Drawing Height*: The height of the entire drawing

**angle** - Float

*Angle*: The orientation of the drawing as an angle in degrees.

**x** - Measurement

*Chart X-Position*: The x-position of the chart within the drawing.

**y** - Measurement

*Chart Y-Position*: The y-position of the chart within the drawing.

**width** - Measurement

*Chart Width*: The width of the chart.

**height** - Measurement

*Chart Height*: The height of the chart.

**strokeColor** - Color

*Stroke Color*: Color of the chart border.

**strokeWidth** - Measurement

*Stroke Width*: Width of the chart border.

**fillColor** - Color

*Fill Color*: Color of the chart interior.

**debug** - Boolean

*Debugging*: A flag that when set to True turns on debug messages.

**startAngle** - Integer

*Start Angle*: The start angle in the chart of the first strand in degrees.

**direction** - Choice of ('clockwise', 'anticlockwise')

*Direction*: The direction in which the spider chart will be built.

## Sub-Directives

**data** (One)

**strands** (ZeroOrOne)

**strandLabels** (ZeroOrOne)

**spokes** (ZeroOrOne)

**spokeLabels** (ZeroOrOne)

**labels** (ZeroOrOne)

**texts** (ZeroOrOne)

## Examples

```
<spiderChart dx="2in" dy="7in" dwidth="6in" dheight="4in" x="0" y="0"
  width="3in" height="3in">
  <labels>
    <label>a</label>
    <label>b</label>
    <label>c</label>
    <label>d</label>
    <label>e</label>
    <label>f</label>
  </labels>
  <strands>
    <strand strokeColor="cornsilk" fillColor="cornsilk"/>
    <strand strokeColor="cyan" fillColor="cyan"/>
    <strand strokeColor="palegreen" fillColor="palegreen"/>
  </strands>
  <spokes strokeDashArray="2 2"/>
  <data>
    <series>12 14 16 14 12</series>
    <series>6 8 10 12 9 15</series>
    <series>7 8 17 4 12 8</series>
  </data>
</spiderChart>
```

(Extracted from file *tag-spiderChart.rml*, line 18)

[\[PDF\]](#)

## spoke

A spoke in the spider diagram.

## Attributes

**strokeWidth** - Measurement

*Stroke Width*: The width of the spoke's line.

**fillColor** - Color

*Fill Color*: The fill color of the spoke's area.

**strokeColor** - Color

*Stroke Color*: The color of the spoke line.

**strokeDashArray** - Sequence of Float

*Stroke Dash Array*: The dash array of the spoke line.

**labelRadius** - Measurement

*Label Radius*: The radius of the label arounds the spoke.

**visible** - Boolean

*Visible*: When true, the spoke line is drawn.

## spokeLabels

A set of spoke labels.

### Attributes

**dx** - Measurement

*Horizontal Extension*: The width of the label.

**dy** - Measurement

*Vertical Extension*: The height of the label.

**angle** - Float

*Angle*: The angle to rotate the label.

**boxAnchor** - Choice of ('nw', 'n', 'ne', 'w', 'c', 'e', 'sw', 's', 'se', 'autox', 'autoy')

*Box Anchor*: The position relative to the label.

**boxStrokeColor** - Color

*Box Stroke Color*: The color of the box border line.

**boxStrokeWidth** - Measurement

*Box Stroke Width*: The width of the box border line.

**boxFillColor** - Color

*Box Fill Color*: The color in which the box is filled.

**boxTarget** - Text

*Box Target*: The box target.

**fillColor** - Color

*Fill Color*: The color in which the label is filled.

**strokeColor** - Color

*Stroke Color*: The color of the label.

**strokeWidth** - Measurement

*Stroke Width*: The width of the label line.

**fontName** - Text

*Font Name*: The font used to print the value.

**fontSize** - Measurement

*Font Size*: The size of the value text.

**leading** - Measurement

*Leading*: The height of a single text line. It includes character height.

**width** - Measurement

*Width*: The width the label.

**maxWidth** - Measurement

*Maximum Width*: The maximum width the label.

**height** - Measurement

*Height*: The height the label.

**textAnchor** - Choice of ('start', 'middle', 'end', 'boxauto')

*Text Anchor*: The position in the text to which the coordinates refer.

**visible** - Boolean

*Visible*: A flag making the label text visible.

**leftPadding** - Measurement

*Left Padding*: The size of the padding on the left side.

**rightPadding** - Measurement

*Right Padding:* The size of the padding on the right side.

**topPadding** - Measurement

*Top Padding:* The size of the padding on the top.

**bottomPadding** - Measurement

*Bottom Padding:* The size of the padding on the bottom.

**Sub-Directives**

**label** (*OneOrMore*)

**Examples**

```
<spokeLabels fontName="Helvetica-Bold">
  <label>U</label>
  <label>V</label>
  <label>W</label>
  <label>X</label>
  <label>Y</label>
  <label>Z</label>
</spokeLabels>
```

(Extracted from file *tag-spiderChart.rml*, line 44)

[\[PDF\]](#)

**spokes**

A collection of spokes.

**Attributes****strokeWidth** - Measurement

*Stroke Width:* The width of the spoke's line.

**fillColor** - Color

*Fill Color:* The fill color of the spoke's area.

**strokeColor** - Color

*Stroke Color:* The color of the spoke line.

**strokeDashArray** - Sequence of Float

*Stroke Dash Array:* The dash array of the spoke line.

**labelRadius** - Measurement

*Label Radius:* The radius of the label arounds the spoke.

**visible** - Boolean

*Visible:* When true, the spoke line is drawn.

**Sub-Directives**

**spoke** (*OneOrMore*)

**Examples**

```
<spokes strokeDashArray="2 2" />
```

(Extracted from file *tag-spiderChart.rml*, line 32)

[\[PDF\]](#)

**startIndex**

Start a new index.

**Attributes****name** (*required*) - Text

*Name:* The name of the index.

**offset** - Integer

*Offset:* The counting offset.

**format** - Choice of ('i', '123', 'abc')

*Format:* The format the index is going to use.

## Examples

```
<startIndex/>
```

(Extracted from file *tag-index.rml*, line 8)

[\[PDF\]](#)

## story

The story of the PDF file.

## Attributes

**firstPageTemplate** - Text

*First Page Template:* The first page template to be used.

## Sub-Directives

**pto** (*ZeroOrMore*)

**spacer** (*ZeroOrMore*)

**illustration** (*ZeroOrMore*)

**pre** (*ZeroOrMore*)

**xpre** (*ZeroOrMore*)

**codesnippet** (*ZeroOrMore*)

**plugInFlowable** (*ZeroOrMore*)

**barCodeFlowable** (*ZeroOrMore*)

**outlineAdd** (*ZeroOrMore*)

**title** (*ZeroOrMore*)

**h1** (*ZeroOrMore*)

**h2** (*ZeroOrMore*)

**h3** (*ZeroOrMore*)

**h4** (*ZeroOrMore*)

**h5** (*ZeroOrMore*)

**h6** (*ZeroOrMore*)

**para** (*ZeroOrMore*)

**blockTable** (*ZeroOrMore*)

**nextFrame** (*ZeroOrMore*)

**setNextFrame** (*ZeroOrMore*)

**nextPage** (*ZeroOrMore*)

**setNextTemplate** (*ZeroOrMore*)

**condPageBreak** (*ZeroOrMore*)

**keepInFrame** (*ZeroOrMore*)

**keepTogether** (*ZeroOrMore*)

**img** (*ZeroOrMore*)

**imageAndFlowables** (*ZeroOrMore*)

**indent** (*ZeroOrMore*)

**fixedSize** (*ZeroOrMore*)

**bookmarkPage** (*ZeroOrMore*)

**bookmark** (*ZeroOrMore*)

**link** (*ZeroOrMore*)

**hr** (*ZeroOrMore*)

**showIndex** (*ZeroOrMore*)

**name** (*ZeroOrMore*)

**namedString** (*ZeroOrMore*)

**log** (*ZeroOrMore*)

**debug** (*ZeroOrMore*)

**info** (*ZeroOrMore*)

**warning** (*ZeroOrMore*)

**error** (*ZeroOrMore*)

**critical** (*ZeroOrMore*)

**docAssign** (*ZeroOrMore*)

**docExec** (*ZeroOrMore*)



**docPara** (*ZeroOrMore*)  
**docIf** (*ZeroOrMore*)  
**docElse** (*ZeroOrMore*)  
**docWhile** (*ZeroOrMore*)  
**ol** (*ZeroOrMore*)  
**ul** (*ZeroOrMore*)  
**includePdfPages** (*ZeroOrMore*)  
**storyPlace** (*ZeroOrMore*)

## Examples

```
<story>  
  <para style="large">Hello <b>World</b>!</para>  
</story>
```

(Extracted from file *simple-layout.rml*, line 35)

[\[PDF\]](#)

## storyPlace

Draws a set of flowables on the canvas within a given region.

### Attributes

**x** (*required*) - Measurement

*X-Coordinate*: The X-coordinate of the lower-left position of the place.

**y** (*required*) - Measurement

*Y-Coordinate*: The Y-coordinate of the lower-left position of the place.

**width** - Measurement

*Width*: The width of the place.

**height** - Measurement

*Height*: The height of the place.

**origin** - Choice of ('page', 'frame', 'local')

*Origin*: The origin of the coordinate system for the story.

## Examples

```
<storyPlace x="1cm" y="0cm" width="10cm" height="1cm" origin="page">  
  <para>This is at the bottom of the page</para>  
</storyPlace>
```

(Extracted from file *tag-storyPlace.rml*, line 16)

[\[PDF\]](#)

## strand

A strand in the spider diagram

### Attributes

**strokeWidth** - Measurement

*Stroke Width*: The line width of the strand.

**fillColor** - Color

*Fill Color*: The fill color of the strand area.

**strokeColor** - Color

*Stroke Color*: The color of the strand line.

**strokeDashArray** - Sequence of Float

*Stroke Dash Array*: The dash array of the strand line.

**symbol** - Symbol

*Symbol*: The symbol to use to mark the strand.

**symbolSize** - Measurement

*Symbol Size*: The size of the strand symbol.

**name** - Text

*Name*: The name of the strand.

## Examples

```
<strand strokeColor="cornsilk" fillColor="cornsilk"/>
```

(Extracted from file *tag-spiderChart.rml*, line 28) [\[PDF\]](#)

## strandLabels

A set of strand labels.

### Attributes

**dx** - Measurement

*Horizontal Extension:* The width of the label.

**dy** - Measurement

*Vertical Extension:* The height of the label.

**angle** - Float

*Angle:* The angle to rotate the label.

**boxAnchor** - Choice of ('nw', 'n', 'ne', 'w', 'c', 'e', 'sw', 's', 'se', 'autox', 'autoy')

*Box Anchor:* The position relative to the label.

**boxStrokeColor** - Color

*Box Stroke Color:* The color of the box border line.

**boxStrokeWidth** - Measurement

*Box Stroke Width:* The width of the box border line.

**boxFillColor** - Color

*Box Fill Color:* The color in which the box is filled.

**boxTarget** - Text

*Box Target:* The box target.

**fillColor** - Color

*Fill Color:* The color in which the label is filled.

**strokeColor** - Color

*Stroke Color:* The color of the label.

**strokeWidth** - Measurement

*Stroke Width:* The width of the label line.

**fontName** - Text

*Font Name:* The font used to print the value.

**fontSize** - Measurement

*Font Size:* The size of the value text.

**leading** - Measurement

*Leading:* The height of a single text line. It includes character height.

**width** - Measurement

*Width:* The width the label.

**maxWidth** - Measurement

*Maximum Width:* The maximum width the label.

**height** - Measurement

*Height:* The height the label.

**textAnchor** - Choice of ('start', 'middle', 'end', 'boxauto')

*Text Anchor:* The position in the text to which the coordinates refer.

**visible** - Boolean

*Visible:* A flag making the label text visible.

**leftPadding** - Measurement

*Left Padding:* The size of the padding on the left side.

**rightPadding** - Measurement

*Right Padding:* The size of the padding on the right side.

**topPadding** - Measurement

*Top Padding:* The size of the padding on the top.

**bottomPadding** - Measurement

*Bottom Padding:* The size of the padding on the bottom.

**row** - Integer

*Row:* The row of the strand label

**col** - Integer

*Column:* The column of the strand label.

**format** - Text

*Format:* The format string for the label.

**Sub-Directives**

**label** (*OneOrMore*)

**Examples**

```

<strandLabels dR="-5" format="values">
  <label row="0" col="3" dx="-10">special</label>
  <label row="0" col="1" dy="5">one</label>
  <label row="0" col="0" dy="5">zero</label>
  <label row="1" col="0" dy="10">Earth</label>
  <label row="2" col="2" dx="10">Mars</label>
</strandLabels>

```

(Extracted from file *tag-spiderChart.rml*, line 59) [\[PDF\]](#)

**strands**

A collection of strands.

**Attributes****strokeWidth** - Measurement

*Stroke Width:* The line width of the strand.

**fillColor** - Color

*Fill Color:* The fill color of the strand area.

**strokeColor** - Color

*Stroke Color:* The color of the strand line.

**strokeDashArray** - Sequence of Float

*Stroke Dash Array:* The dash array of the strand line.

**symbol** - Symbol

*Symbol:* The symbol to use to mark the strand.

**symbolSize** - Measurement

*Symbol Size:* The size of the strand symbol.

**name** - Text

*Name:* The name of the strand.

**Sub-Directives**

**strand** (*OneOrMore*)

**Examples**

```

<strands>
  <strand strokeColor="cornsilk" fillColor="cornsilk"/>
  <strand strokeColor="cyan" fillColor="cyan"/>
  <strand strokeColor="palegreen" fillColor="palegreen"/>
</strands>

```

(Extracted from file *tag-spiderChart.rml*, line 27) [\[PDF\]](#)

## stroke

Set the stroke/line color.

### Attributes

**color** (*required*) - Color  
*Color*: The color value to be set.

### Examples

```
<stroke color="red"/>
```

(Extracted from file *tag-stroke.rml*, line 8)

[\[PDF\]](#)

## stylesheet

A stylesheet defines the styles that can be used in the document.

### Sub-Directives

**initialize** (*ZeroOrOne*)  
**spanStyle** (*ZeroOrMore*)  
**paraStyle** (*ZeroOrMore*)  
**blockTableStyle** (*ZeroOrMore*)  
**listStyle** (*ZeroOrMore*)

### Examples

```
<stylesheet>  
  <paraStyle name="large" fontSize="3cm" textColor="red"/>  
</stylesheet>
```

(Extracted from file *simple-layout.rml*, line 8)

[\[PDF\]](#)

## td

A table cell within a table.

### Attributes

**fontName** - Text  
*Font Name*: The name of the font for the cell.

**fontSize** - Measurement  
*Font Size*: The font size for the text of the cell.

**leading** - Measurement  
*Leading*: The height of a single text line. It includes character height.

**fontColor** - Color  
*Font Color*: The color in which the text will appear.

**leftPadding** - Measurement  
*Left Padding*: The size of the padding on the left side.

**rightPadding** - Measurement  
*Right Padding*: The size of the padding on the right side.

**topPadding** - Measurement  
*Top Padding*: The size of the padding on the top.

**bottomPadding** - Measurement  
*Bottom Padding*: The size of the padding on the bottom.

**background** - Color  
*Background Color*: The color to use as the background for the cell.

**align** - Choice of ('left', 'right', 'center', 'centre', 'decimal')  
*Text Alignment*: The text alignment within the cell.

**vAlign** - Choice of ('top', 'middle', 'bottom')  
*Vertical Alignment*: The vertical alignment of the text within the cell.

**lineBelowThickness** - Measurement

*Line Below Thickness:* The thickness of the line below the cell.

**lineBelowColor** - Color

*Line Below Color:* The color of the line below the cell.

**lineBelowCap** - Choice of ('default', 'butt', 'round', 'square')

*Line Below Cap:* The cap at the end of the line below the cell.

**lineBelowCount** - Integer

*Line Below Count:* Describes whether the line below is a single (1) or double (2) line.

**lineBelowDash** - Sequence of Measurement

*Line Below Dash:* The dash-pattern of a line.

**lineBelowSpace** - Measurement

*Line Below Space:* The space of the line below the cell.

**lineAboveThickness** - Measurement

*Line Above Thickness:* The thickness of the line above the cell.

**lineAboveColor** - Color

*Line Above Color:* The color of the line above the cell.

**lineAboveCap** - Choice of ('default', 'butt', 'round', 'square')

*Line Above Cap:* The cap at the end of the line above the cell.

**lineAboveCount** - Integer

*Line Above Count:* Describes whether the line above is a single (1) or double (2) line.

**lineAboveDash** - Sequence of Measurement

*Line Above Dash:* The dash-pattern of a line.

**lineAboveSpace** - Measurement

*Line Above Space:* The space of the line above the cell.

**lineLeftThickness** - Measurement

*Left Line Thickness:* The thickness of the line left of the cell.

**lineLeftColor** - Color

*Left Line Color:* The color of the line left of the cell.

**lineLeftCap** - Choice of ('default', 'butt', 'round', 'square')

*Line Left Cap:* The cap at the end of the line left of the cell.

**lineLeftCount** - Integer

*Line Left Count:* Describes whether the left line is a single (1) or double (2) line.

**lineLeftDash** - Sequence of Measurement

*Line Left Dash:* The dash-pattern of a line.

**lineLeftSpace** - Measurement

*Line Left Space:* The space of the line left of the cell.

**lineRightThickness** - Measurement

*Right Line Thickness:* The thickness of the line right of the cell.

**lineRightColor** - Color

*Right Line Color:* The color of the line right of the cell.

**lineRightCap** - Choice of ('default', 'butt', 'round', 'square')

*Line Right Cap:* The cap at the end of the line right of the cell.

**lineRightCount** - Integer

*Line Right Count:* Describes whether the right line is a single (1) or double (2) line.

**lineRightDash** - Sequence of Measurement

*Line Right Dash:* The dash-pattern of a line.

**lineRightSpace** - Measurement

*Line Right Space:* The space of the line right of the cell.

**href** - Text

*Link URL:* When specified, the cell becomes a link to that URL.

**destination** - Text

*Link Destination:* When specified, the cell becomes a link to that destination.

## Content

RawXMLContent (*required*)

*Content:* The content of the cell; can be text or any flowable.

## Examples

```
<td>This</td>
```

(Extracted from file *tag-blockTable-1.rml*, line 19) [\[PDF\]](#)

## template

Define a page template.

## Attributes

**pagesize** - PageSize

*Page Size:* The Page Size.

**rotation** - Integer

*Rotation:* The rotation of the page in multiples of 90 degrees.

**leftMargin** - Measurement

*Left Margin:* The left margin of the template.

**rightMargin** - Measurement

*Right Margin:* The right margin of the template.

**topMargin** - Measurement

*Top Margin:* The top margin of the template.

**bottomMargin** - Measurement

*Bottom Margin:* The bottom margin of the template.

**showBoundary** - Boolean

*Show Boundary:* A flag to show the boundary of the template.

**allowSplitting** - Boolean

*Allow Splitting:* A flag to allow splitting over multiple templates.

**title** - Text

*Title:* The title of the PDF document.

**author** - Text

*Author:* The author of the PDF document.

## Sub-Directives

**pageTemplate** (*OneOrMore*)

## Examples

```
<template>
  <pageTemplate id="main">
    <frame id="first" x1="1cm" y1="1cm" width="19cm" height="26cm"/>
  </pageTemplate>
</template>
```

(Extracted from file *tag-document-story.rml*, line 8) [\[PDF\]](#)

```
<template>
  <pageTemplate id="main">
    <frame id="first" x1="1cm" y1="1cm" width="19cm" height="26cm"/>
  </pageTemplate>
</template>
```

(Extracted from file *tag-document-annotations.rml*, line 12) [\[PDF\]](#)

## text

Draw a text on the chart.

### Attributes

**x** (*required*) - Measurement

*X-Coordinate*: The X-coordinate of the lower-left position of the text.

**y** (*required*) - Measurement

*Y-Coordinate*: The Y-coordinate of the lower-left position of the text.

**angle** - Float

*Rotation Angle*: The angle about which the text will be rotated.

**fontName** - Text

*Font Name*: The name of the font.

**fontSize** - Measurement

*Font Size*: The font size for the text.

**fillColor** - Color

*Fill Color*: The color in which the text will appear.

**textAnchor** - Choice of ('start', 'middle', 'end', 'boxauto')

*Text Anchor*: The position in the text to which the coordinates refer.

### Content

TextNode (*required*)

*Text*: The text to be printed.

### Examples

```
<text x="2.5in" y="-0.5in" textAnchor="middle" fontName="Helvetica-Bold"
      fontSize="13" fillColor="black">
  X-Axis Label
</text>
```

(Extracted from file *tag-linePlot.rml*, line 67)

[\[PDF\]](#)

## textAnnotation

Writes a low-level text annotation into the PDF.

### Attributes

**contents** (*required*) - FirstLevelTextNode

*Contents*: The PDF commands that are inserted as annotation.

### Sub-Directives

**param** (*ZeroOrMore*)

### Examples

```
<textAnnotation>
  <param name="Rect">0,0,1,1</param>
  <param name="F">3</param>
  <param name="escape">6</param>
X : PDF
PX ( S )
MT ( PINK )
</textAnnotation>
```

(Extracted from file *tag-textAnnotation.rml*, line 8)

[\[PDF\]](#)

## textField

A text field within the PDF

## Attributes

**title** (*required*) - Text

*Title:* The title of the field.

**x** (*required*) - Measurement

*X-Position:* The x-position of the lower-left corner of the field.

**y** (*required*) - Measurement

*Y-Position:* The y-position of the lower-left corner of the field.

**width** (*required*) - Measurement

*Width:* The width of the text field.

**height** (*required*) - Measurement

*Height:* The height of the text field.

**value** - Text

*Value:* The default text value of the field.

**maxLength** - Integer

*Maximum Length:* The maximum amount of characters allowed in the field.

**multiline** - Boolean

*Multiline:* A flag when set allows multiple lines within the field.

## Examples

```
<textField title="input1" x="3.5cm" y="22.9cm" width="5cm" height="14"/>
```

(Extracted from file *tag-textField.rml*, line 19) [\[PDF\]](#)

```
<textField title="input2" value="Default Value" x="3.5cm" y="18.4cm"
width="5cm" height="3cm" multiline="yes" maxLength="30"/>
```

(Extracted from file *tag-textField.rml*, line 28) [\[PDF\]](#)

## texts

A set of texts drawn on the chart.

## Sub-Directives

**text** (*ZeroOrMore*)

## Examples

```
<texts>
  <text x="2.5in" y="-0.5in" textAnchor="middle" fontName="Helvetica-Bold"
fontSize="13" fillColor="black">
    X-Axis Label
  </text>
  <text x="1.5in" y="0.3in" angle="90" textAnchor="middle"
fontName="Helvetica-Bold" fontSize="13" fillColor="red">
    Y-Axis Label
  </text>
</texts>
```

(Extracted from file *tag-linePlot.rml*, line 64) [\[PDF\]](#)

## title

The title is a simple paragraph with a special title style.

## Attributes

**name** (*required*) - Text

*Name:* The name of the style.

**alias** - Text

*Alias:* An alias under which the style will also be known as.

**parent** - Style



*Parent*: The paragraph style that will be used as a base for this one.

**fontName** - Text

*Font Name*: The name of the font for the span.

**fontSize** - Measurement

*Font Size*: The font size for the text of the span.

**textTransform** - Choice of ('none', 'uppercase', 'lowercase', 'capitalize')

*Text Transform*: Text transformation.

**underline** - Boolean

*Underline Text*: A flag, when set, causes text to be underlined.

**underlineColor** - Color

*Underline Color*: The color in which the underline will appear.

**underlineWidth** - FontSizeRelativeMeasurement

*Underline Width*: The width/thickness of the underline.

**underlineOffset** - FontSizeRelativeMeasurement

*Underline Offset*: The offset of the underline with respect to the baseline.

**underlineGap** - FontSizeRelativeMeasurement

*Underline Gap*: The gap between lines for double and triple underlines.

**underlineKind** - Choice of ('single', 'double', 'triple')

*Underline Kind*: The kind of the underline to use.

**strike** - Boolean

*Strike-through Text*: A flag, when set, causes text to be struck out.

**strikeColor** - Color

*Strike Color*: The color in which the strike line will appear.

**strikeWidth** - FontSizeRelativeMeasurement

*Strike Width*: The width of the strike line.

**strikeOffset** - FontSizeRelativeMeasurement

*Strike Offset*: The offset of the strike line with respect to the baseline.

**strikeGap** - FontSizeRelativeMeasurement

*Strike Gap*: The gap between lines for double and triple strike lines.

**strikeKind** - Choice of ('single', 'double', 'triple')

*Strike Kind*: The kind of the strike to use.

**textColor** - Color

*Text Color*: The color in which the text will appear.

**backgroundColor** - Color

*Background Color*: The background color of the span.

**linkUnderline** - Boolean

*Underline Links*: A flag, when set indicating that all links should be underlined.

**leading** - Measurement

*Leading*: The height of a single paragraph line. It includes character height.

**leftIndent** - Measurement

*Left Indentation*: General indentation on the left side.

**rightIndent** - Measurement

*Right Indentation*: General indentation on the right side.

**firstLineIndent** - Measurement

*First Line Indentation*: The indentation of the first line in the paragraph.

**alignment** - Choice of ('left', 'right', 'center', 'centre', 'justify')

*Alignment*: The text alignment.

**spaceBefore** - Measurement

*Space Before*: The vertical space before the paragraph.

**spaceAfter** - Measurement

*Space After*: The vertical space after the paragraph.

**bulletFontName** - Text

*Bullet Font Name*: The font in which the bullet character will be rendered.

**bulletFontSize** - Measurement

*Bullet Font Size*: The font size of the bullet character.

**bulletIndent** - Measurement

*Bullet Indentation*: The indentation that is kept for a bullet point.

**bulletColor** - Color

*Bullet Color*: The color in which the bullet will appear.

**wordWrap** - Choice of ('cjk', 'rtl', 'ltr')

*Word Wrap Method*: When set to "CJK", invoke CJK word wrapping. LTR RTL use left to right / right to left with support from pyfribi2 if available

**borderWidth** - Measurement

*Paragraph Border Width*: The width of the paragraph border.

**borderPadding** - Padding

*Paragraph Border Padding*: Padding of the paragraph.

**borderColor** - Color

*Border Color*: The color in which the paragraph border will appear.

**borderRadius** - Measurement

*Paragraph Border Radius*: The radius of the paragraph border.

**allowWidows** - Boolean

*Allow Widows*: Allow widows.

**allowOrphans** - Boolean

*Allow Orphans*: Allow orphans.

**endDots** - Text

*End Dots*: Characters/Dots at the end of a paragraph.

**splitLongWords** - Boolean

*Split Long Words*: Try to split long words at the end of a line.

**justifyLastLine** - Integer

*Justify Last Line*: Justify last line if there are more than this number of words. Otherwise, don't bother.

**justifyBreaks** - Boolean

*Justify Breaks*: A flag, when set indicates that a line with a break should be justified as well.

**spaceShrinkage** - Float

*Allowed Whitespace Shrinkage Fraction*: The fraction of the original whitespace by which the whitespace is allowed to shrink to fit content on the same line.

**bulletAnchor** - Choice of ('start', 'middle', 'end', 'numeric')

*Bullet Anchor*: The place at which the bullet is anchored.

**keepWithNext** - Boolean

*Keep with Next*: When set, this paragraph will always be in the same frame as the following flowable.

**pageBreakBefore** - Boolean

*Page Break Before*: Specifies whether a page break should be inserted before the directive.

**frameBreakBefore** - Boolean

*Frame Break Before*: Specifies whether a frame break should be inserted before the directive.

**style** - Style

*Style*: The paragraph style that is applied to the paragraph. See the ``paraStyle`` tag for creating a paragraph style.

**bulletText** - Text

*Bullet Character*: The bullet character is the ASCII representation of the symbol making up the bullet in a listing.

**dedent** - Integer

*Dedent*: Number of characters to be removed in front of every line of the text.

## **Content**

XMLContent (*required*)  
Text: The text that will be layed out.

### Sub-Directives

**b** (*ZeroOrMore*)  
**i** (*ZeroOrMore*)  
**u** (*ZeroOrMore*)  
**br** (*ZeroOrMore*)  
**pageNumber** (*ZeroOrMore*)

### Examples

```
<title>Title</title>
```

(Extracted from file *tag-para.rml*, line 20) [\[PDF\]](#)

```
<title>Crop Marks Demo</title>
```

(Extracted from file *tag-cropMarks.rml*, line 20) [\[PDF\]](#)

## tr

A table row in the block table.

### Sub-Directives

**td** (*OneOrMore*)

### Examples

```
<tr>
  <td>This</td>
  <td>is</td>
</tr>
```

(Extracted from file *tag-blockTable-1.rml*, line 18) [\[PDF\]](#)

## transform

A full 2-D matrix transformation

### Content

TextNodeSequence of Float (*required*)  
Matrix: The transformation matrix.

### Examples

```
<transform>
  1.0  0.3
 -0.2  1.1
 10.1 15.0
</transform>
```

(Extracted from file *tag-transform.rml*, line 13) [\[PDF\]](#)

## translate

Translate the drawing coordinates by the specified x and y offset.

### Attributes

**dx** (*required*) - Measurement  
X-Offset: The amount to move the drawing to the right.

**dy** (*required*) - Measurement  
Y-Offset: The amount to move the drawing upward.

### Examples

```
<translate dx="1in" dy="0"/>
```

## **u**

Underlines the contained text.

## **ul**

And unordered list.

### **Attributes**

#### **leftIndent** - Measurement

*Left Indentation:* General indentation on the left side.

#### **rightIndent** - Measurement

*Right Indentation:* General indentation on the right side.

#### **bulletColor** - Color

*Bullet Color:* The color in which the bullet will appear.

#### **bulletFontName** - Text

*Bullet Font Name:* The font in which the bullet character will be rendered.

#### **bulletFontSize** - Measurement

*Bullet Font Size:* The font size of the bullet character.

#### **bulletOffsetY** - Measurement

*Bullet Y-Offset:* The vertical offset of the bullet.

#### **bulletDedent** - StringOrInt

*Bullet Dedent:* Either pixels of dedent or auto (default).

#### **bulletDir** - Choice of ('ltr', 'rtl')

*Bullet Layout Direction:* The layout direction of the bullet.

#### **bulletFormat** - Text

*Bullet Format:* A formatting expression for the bullet text.

#### **bulletType** - Choice of ('I', 'i', '1', 'A', 'a', 'l', 'L', 'O', 'o', 'R', 'r', 'bulletchar', 'bullet', 'circle', 'square', 'disc', 'diamond', 'arrowhead', 'diamondwx', 'sparkle', 'squarelrs', 'blackstar')

*Bullet Type:* The type of number to display.

#### **start** - Combination of Integer, Choice of ('bulletchar', 'bullet', 'circle', 'square', 'disc', 'diamond', 'arrowhead', 'diamondwx', 'sparkle', 'squarelrs', 'blackstar'), Text

*Start Value:* The counter start value.

#### **style** - Style

*Style:* The list style that is applied to the list.

#### **value** - Choice of ('bulletchar', 'bullet', 'circle', 'square', 'disc', 'diamond', 'arrowhead', 'diamondwx', 'sparkle', 'squarelrs', 'blackstar')

*Bullet Value:* The type of bullet character.

### **Sub-Directives**

#### **li** (*ZeroOrMore*)

### **Examples**

```
<ul bulletColor="red" bulletFontName="Times-Roman" bulletFontSize="8"
  rightIndent="10" bulletOffsetY="-1">
  <li value="circle" bulletFontName="Helvetica">
    <para>unordered 1</para>
  </li>
  <li value="square" bulletColor="blue">
    <para>unordered 2</para>
  </li>
  <li value="diamond" bulletColor="green">
    <para>unordered 3</para>
  </li>
</ul>
```

```

</li>
<li value="arrowhead" bulletColor="yellow">
  <para>unordered 4</para>
</li>
</ul>

```

(Extracted from file *tag-ul-ol-li.rml*, line 74)

[\[PDF\]](#)

## valueAxis

### Attributes

#### **visible** - Boolean

*Visible:* When true, draw the entire axis with all details.

#### **visibleAxis** - Boolean

*Visible Axis:* When true, draw the axis line.

#### **visibleTicks** - Boolean

*Visible Ticks:* When true, draw the axis ticks on the line.

#### **visibleLabels** - Boolean

*Visible Labels:* When true, draw the axis labels.

#### **visibleGrid** - Boolean

*Visible Grid:* When true, draw the grid lines for the axis.

#### **strokeWidth** - Measurement

*Stroke Width:* The width of axis line and ticks.

#### **strokeColor** - Color

*Stroke Color:* The color in which the axis line and ticks are drawn.

#### **strokeDashArray** - Sequence of Float

*Stroke Dash Array:* The dash array that is used for the axis line and ticks.

#### **gridStrokeWidth** - Measurement

*Grid Stroke Width:* The width of the grid lines.

#### **gridStrokeColor** - Color

*Grid Stroke Color:* The color in which the grid lines are drawn.

#### **gridStrokeDashArray** - Sequence of Float

*Grid Stroke Dash Array:* The dash array that is used for the grid lines.

#### **gridStart** - Measurement

*Grid Start:* The start of the grid lines with respect to the axis origin.

#### **gridEnd** - Measurement

*Grid End:* The end of the grid lines with respect to the axis origin.

#### **style** - Choice of ('parallel', 'stacked', 'parallel\_3d')

*Style:* The plot style of the common categories.

#### **forceZero** - Boolean

*Force Zero:* When set, the range will contain the origin.

#### **minimumTickSpacing** - Measurement

*Minimum Tick Spacing:* The minimum distance between ticks.

#### **maximumTicks** - Integer

*Maximum Ticks:* The maximum number of ticks to be shown.

#### **labelTextFormat** - Combination of ObjectRef, Text

*Label Text Format:* Formatting string or Python path to formatting function for axis labels.

#### **labelTextPostFormat** - Text

*Label Text Post Format:* An additional formatting string.

#### **labelTextScale** - Float

*Label Text Scale:* The scaling factor for the label tick values.

#### **valueMin** - Float

*Minimum Value*: The smallest value on the axis.

**valueMax** - Float

*Maximum Value*: The largest value on the axis.

**valueStep** - Float

*Value Step*: The step size between ticks

**valueSteps** - Sequence of Float

*Step Sizes*: List of step sizes between ticks.

**rangeRound** - Choice of ('none', 'both', 'ceiling', 'floor')

*Range Round*: Method to be used to round the range values.

**zrangePref** - Float

*Zero Range Preference*: Zero range axis limit preference.

## Sub-Directives

**labels** (*ZeroOrMore*)

## Examples

```
<valueAxis valueMin="0" valueMax="150" valueStep="30" visibleTicks="true"
  visibleLabels="true" forceZero="true">
  <labels fontName="Helvetica"/>
</valueAxis>
```

(Extracted from file *tag-barChart.rml*, line 39)

[\[PDF\]](#)

## warning

Log message at WARNING level.

## Content

RawXMLContent (*required*)

*Message*: The message to be logged.

## Examples

```
<warning>A WARNING message</warning>
```

(Extracted from file *tag-log.rml*, line 35)

[\[PDF\]](#)

## xValueAxis

X-Value Axis

## Attributes

**visible** - Boolean

*Visible*: When true, draw the entire axis with all details.

**visibleAxis** - Boolean

*Visible Axis*: When true, draw the axis line.

**visibleTicks** - Boolean

*Visible Ticks*: When true, draw the axis ticks on the line.

**visibleLabels** - Boolean

*Visible Labels*: When true, draw the axis labels.

**visibleGrid** - Boolean

*Visible Grid*: When true, draw the grid lines for the axis.

**strokeWidth** - Measurement

*Stroke Width*: The width of axis line and ticks.

**strokeColor** - Color

*Stroke Color*: The color in which the axis line and ticks are drawn.

**strokeDashArray** - Sequence of Float

*Stroke Dash Array*: The dash array that is used for the axis line and ticks.

**gridStrokeWidth** - Measurement

*Grid Stroke Width*: The width of the grid lines.

**gridStrokeColor** - Color

*Grid Stroke Color*: The color in which the grid lines are drawn.

**gridStrokeDashArray** - Sequence of Float

*Grid Stroke Dash Array*: The dash array that is used for the grid lines.

**gridStart** - Measurement

*Grid Start*: The start of the grid lines with respect to the axis origin.

**gridEnd** - Measurement

*Grid End*: The end of the grid lines with respect to the axis origin.

**style** - Choice of ('parallel', 'stacked', 'parallel\_3d')

*Style*: The plot style of the common categories.

**forceZero** - Boolean

*Force Zero*: When set, the range will contain the origin.

**minimumTickSpacing** - Measurement

*Minimum Tick Spacing*: The minimum distance between ticks.

**maximumTicks** - Integer

*Maximum Ticks*: The maximum number of ticks to be shown.

**labelTextFormat** - Combination of ObjectRef, Text

*Label Text Format*: Formatting string or Python path to formatting function for axis labels.

**labelTextPostFormat** - Text

*Label Text Post Format*: An additional formatting string.

**labelTextScale** - Float

*Label Text Scale*: The scaling factor for the label tick values.

**valueMin** - Float

*Minimum Value*: The smallest value on the axis.

**valueMax** - Float

*Maximum Value*: The largest value on the axis.

**valueStep** - Float

*Value Step*: The step size between ticks

**valueSteps** - Sequence of Float

*Step Sizes*: List of step sizes between ticks.

**rangeRound** - Choice of ('none', 'both', 'ceiling', 'floor')

*Range Round*: Method to be used to round the range values.

**zrangePref** - Float

*Zero Range Preference*: Zero range axis limit preference.

**tickUp** - Measurement

*Tick Up*: Length of tick above the axis line.

**tickDown** - Measurement

*Tick Down*: Length of tick below the axis line.

**joinAxis** - Boolean

*Join Axis*: Whether to join the axes.

**joinAxisMode** - Choice of ('bottom', 'top', 'value', 'points', 'none')

*Join Axis Mode*: Mode for connecting axes.

**joinAxisPos** - Measurement

*Join Axis Position*: The position in the plot at which to join the axes.

## **Sub-Directives**

**labels** (*ZeroOrMore*)

## Examples

```
<xValueAxis valueMin="0" valueMax="5" valueStep="1">  
  <labels fontName="Helvetica"/>  
</xValueAxis>
```

(Extracted from file *tag-linePlot.rml*, line 25)

[\[PDF\]](#)

## xpre

A preformatted text that allows paragraph markup.

### Attributes

**bulletText** - Text

*Bullet Character*: The bullet character is the ASCII representation of the symbol making up the bullet in a listing.

**dedent** - Integer

*Dedent*: Number of characters to be removed in front of every line of the text.

**style** - Style

*Style*: The paragraph style that is applied to the paragraph. See the ``paraStyle`` tag for creating a paragraph style.

### Content

RawXMLContent (*required*)

*Text*: The text that will be layed out.

### Sub-Directives

**b** (*ZeroOrMore*)

**i** (*ZeroOrMore*)

**u** (*ZeroOrMore*)

**br** (*ZeroOrMore*)

**pageNumber** (*ZeroOrMore*)

## Examples

```
<xpre>Preformatted with <i>markup</i>.</xpre>
```

(Extracted from file *tag-para.rml*, line 29)

[\[PDF\]](#)

## yValueAxis

Y-Value Axis

### Attributes

**visible** - Boolean

*Visible*: When true, draw the entire axis with all details.

**visibleAxis** - Boolean

*Visible Axis*: When true, draw the axis line.

**visibleTicks** - Boolean

*Visible Ticks*: When true, draw the axis ticks on the line.

**visibleLabels** - Boolean

*Visible Labels*: When true, draw the axis labels.

**visibleGrid** - Boolean

*Visible Grid*: When true, draw the grid lines for the axis.

**strokeWidth** - Measurement

*Stroke Width*: The width of axis line and ticks.

**strokeColor** - Color

*Stroke Color*: The color in which the axis line and ticks are drawn.

**strokeDashArray** - Sequence of Float

*Stroke Dash Array*: The dash array that is used for the axis line and ticks.

**gridStrokeWidth** - Measurement



*Grid Stroke Width*: The width of the grid lines.

**gridStrokeColor** - Color

*Grid Stroke Color*: The color in which the grid lines are drawn.

**gridStrokeDashArray** - Sequence of Float

*Grid Stroke Dash Array*: The dash array that is used for the grid lines.

**gridStart** - Measurement

*Grid Start*: The start of the grid lines with respect to the axis origin.

**gridEnd** - Measurement

*Grid End*: The end of the grid lines with respect to the axis origin.

**style** - Choice of ('parallel', 'stacked', 'parallel\_3d')

*Style*: The plot style of the common categories.

**forceZero** - Boolean

*Force Zero*: When set, the range will contain the origin.

**minimumTickSpacing** - Measurement

*Minimum Tick Spacing*: The minimum distance between ticks.

**maximumTicks** - Integer

*Maximum Ticks*: The maximum number of ticks to be shown.

**labelTextFormat** - Combination of ObjectRef, Text

*Label Text Format*: Formatting string or Python path to formatting function for axis labels.

**labelTextPostFormat** - Text

*Label Text Post Format*: An additional formatting string.

**labelTextScale** - Float

*Label Text Scale*: The scaling factor for the label tick values.

**valueMin** - Float

*Minimum Value*: The smallest value on the axis.

**valueMax** - Float

*Maximum Value*: The largest value on the axis.

**valueStep** - Float

*Value Step*: The step size between ticks

**valueSteps** - Sequence of Float

*Step Sizes*: List of step sizes between ticks.

**rangeRound** - Choice of ('none', 'both', 'ceiling', 'floor')

*Range Round*: Method to be used to round the range values.

**zrangePref** - Float

*Zero Range Preference*: Zero range axis limit preference.

**tickLeft** - Measurement

*Tick Left*: Length of tick left to the axis line.

**tickRight** - Measurement

*Tick Right*: Length of tick right to the axis line.

**joinAxis** - Boolean

*Join Axis*: Whether to join the axes.

**joinAxisMode** - Choice of ('bottom', 'top', 'value', 'points', 'none')

*Join Axis Mode*: Mode for connecting axes.

**joinAxisPos** - Measurement

*Join Axis Position*: The position in the plot at which to join the axes.

## **Sub-Directives**

**labels** (*ZeroOrMore*)

## **Examples**

```
<yValueAxis valueMin="0" valueMax="7" valueStep="1">  
  <labels fontName="Helvetica"/>  
</yValueAxis>
```

(Extracted from file *tag-linePlot.rml*, line 28)

[\[PDF\]](#)