



XSL:FO Reference Guide

OmniUpdate Training Conference 2018

Formatting Object Elements

fo:root

The fo:root is the top node of the formatting object tree and wraps the entire Formatting Object document.

```
<fo:root>
</fo:root>
```

fo:layout-master-set

The fo:layout-master-set is a wrapper around all masters used in the document. This element specifies the page layout the formatter will be used in a document.

```
<fo:layout-master-set>
  <fo:simple-page-master master-name="sing-page"
    page-height="11in"
    page-width="8.5in"
    margin="2cm">
    <fo:region-body/>
  </fo:simple-page-master>
</fo:layout-master-set>
```

fo:simple-page-master

The fo:simple-page-master is used to define the page geometry, for example the size, margins etc.

```
<fo:simple-page-master master-name="sing-page"
  page-height="11in"
  page-width="8.5in"
  margin="2cm">
  <fo:region-body/>
</fo:simple-page-master>
```

Argument – master-name (mandatory): A master-name must be unique across all page-masters and page-sequence-masters.

Argument – page-height (optional): Defines the height of the page.

Argument – page-width (optional): Defines the width of the page.

Argument – margin (optional): Defines the margin of the page

fo:region-body

fo:region-body specifies a viewport/reference pair that is located in the "center" of the fo:simple-page-master

```
<fo:simple-page-master master-name="sing-page"
    page-height="11in"
    page-width="8.5in"
    margin="2cm">
  <fo:region-body margin-top="1pt"
    margin-bottom="1pt"
    column-count="2"
    column-gap="2pt" />
  <fo:region-after />
</fo:simple-page-master>
```

Argument – margin-top (optional): Defines the margin of the top of the region.
Argument – margin-bottom (optional): Defines the margin of the bottom of the region.

Argument – column-count (optional): Defines the number of columns in region-body.

Argument – column-gap (optional): Specifies the width of the separation between adjacent columns.

fo:region-before

fo:region-before specifies a region that is located on the "before" side of the page-reference-area. This can be considered as the header of the document.

```
<fo:simple-page-master master-name="sing-page"
    page-height="11in"
    page-width="8.5in"
    margin="2cm">
  <fo:region-before extent="0.25in" />
</fo:simple-page-master>
```

Argument – extent (optional): Specifies the width of the region-start or region-end or the height of the region-before or region-after.

fo:region-after

fo:region-after specifies a region that is located on the "after" side of the page-reference-area. This can be considered as the footer of the document.

```
<fo:simple-page-master master-name="sing-page"
  page-height="11in"
  page-width="8.5in"
  margin="2cm">
  <fo:region-after extent="0.25in"/>
</fo:simple-page-master>
```

Argument – extent (optional): Specifies the width of the region-start or region-end or the height of the region-before or region-after.

fo:region-start

fo:region-start specifies a region that is located on the "start"(left) side of the page-reference-area. This region is the starting edge of the document.

```
<fo:simple-page-master master-name="sing-page"
  page-height="11in"
  page-width="8.5in"
  margin="2cm">
  <fo:region-start extent="0.25in"/>
</fo:simple-page-master>
```

Argument – extent (optional): Specifies the width of the region-start or region- end or the height of the region-before or region-after.

fo:region-end

fo:region-end specifies a region that is located on the "end" side of the page-reference-area. This region is the end edge of the document.

```
<fo:simple-page-master master-name="sing-page"
  page-height="11in"
  page-width="8.5in"
  margin="2cm">
  <fo:region-end extent="0.25in"/>
</fo:simple-page-master>
```

Argument – extent (optional): Specifies the width of the region-start or region- end or the height of the region-before or region-after.

fo:page-sequence

The fo:page-sequence element is used to specify how to create a sequence of pages within a document. The element contains the content to fill a sequence of pages.

```
<fo:page-sequence master-reference="sing-page">
  <fo:flow flow-name="xsl-region-body">
    <xsl:apply-templates select="ouc:div[@label='maincontent']/node()"/>
  </fo:flow>
</fo:page-sequence>
```

Argument – master-reference (mandatory): The names need not be unique, but may not be empty and must refer to a master-name that exists within the document.

fo:flow

The fo:flow element is a sequence of flow objects that provides the flowing text content that is distributed into pages. The element contains the content, primarily in the body region.

```
<fo:flow flow-name="xsl-region-body">
  <xsl:apply-templates select="ouc:div[@label='maincontent']/node()"/>
</fo:flow>
```

Argument – flow-name (mandatory): The flow-names reserved in XSL are: xsl-region-body, xsl-region-before, xsl-region-after, xsl-region-start, xsl-region-end, xsl-before-float-separator, xsl-footnote-separator.

fo:block

Blocks are the building blocks of a page. A simple fo:block element will produce a standard block area. Blocks are quite flexible elements and they include the following sub elements:

- fo:block
- fo:block-container (a container for fo:blocks)

```
<fo:block font-size="12pt" text-align="justify">
  Hello World!
</fo:block>
```

Argument – font-size (optional): Defines the font size of the rendered output.

Argument – text-align (optional): Defines the text alignment of the rendered output.

fo:inline

Inline elements are used to create standard inline areas. Inline content can be defined as content that, when formatted, does not wrap into a new line. Unlike, standard HTML documents, inline elements are not a pure subset of a block element.

```
<fo:block font-size="12pt" text-align="justify">
  Hello <fo:inline font-weight="bold">World!</fo:inline>
</fo:block>
```

fo:list-block

The fo:list-block is the wrapper list elements and are composed of list items, which are composed of some sort of prefix character and then the body of the list item.

```
<fo:list-block provisional-distance-between-starts="3mm"
  start-indent="from-parent(start-indent) + 0.12in"
  end-indent="from-parent(start-indent) + 0.12in">
  <fo:list-item>
    <fo:list-item-label>
      <fo:block>1.</fo:block>
    </fo:list-item-label>
    <fo:list-item-body start-indent="body-start() + 3mm">
      <fo:block>First List Item.</fo:block>
    </fo:list-item-body>
  </fo:list-item>
</fo:list-block>
```

fo:table

The fo:table is the wrapper for a table elements and are composed of table rows, which are composed of table-cells.

```

<fo:table space-after="11.00px" table-layout="fixed">
  <fo:table-body>
    <fo:table-row>
      <fo:table-cell border="1pt solid black"
        display-align="before"
        padding="4px"
        font-weight="bold">
        <fo:block>Country</fo:block>
      </fo:table-cell>
      <fo:table-cell border="1pt solid black"
        display-align="before"
        padding="4px"
        font-weight="bold">
        <fo:block>Total area</fo:block>
      </fo:table-cell>
    </fo:table-row>
    <fo:table-row>
      <fo:table-cell border="1pt solid black"
        display-align="before"
        padding="4px"
        font-weight="bold">
        <fo:block>Denmark</fo:block>
      </fo:table-cell>
      <fo:table-cell border="1pt solid black"
        display-align="before"
        padding="4px">
        <fo:block>43,070</fo:block>
      </fo:table-cell>
    </fo:table-row>
  </fo:table-body>
</fo:table>

```

fo:external-graphic

fo:external-graphic is element that is used to include media images into the pdf document

```

<fo:external-graphic content-width="scale-to-fit"
  content-height="100%"
  scaling="uniform"
  src="/path-to-image.jpg">
</fo:external-graphic>

```

Argument - scaling - will scale the graphic in the defined way specified

Argument - content-width - the width of the graphic

Argument - content-height - the height of the graphic

Argument - src - an absolute path to the graphic

Additional FO elements

fo:leader

Generates leaders consisting either of a rule or of a row of a repeating character or cyclically repeating pattern of characters that may be used for connecting two text formatting objects.

```
<fo:leader leader-length="0.5in" leader-pattern="dots"/>
```

Argument – leader-pattern (optional) – how to fill the leader

Argument – leader-length (optional) – the length of the leader

fo:page-number

Generates the numerical page number of the current page on output.

```
<fo:page-number/>
```