

Using character-by-character value of font-selection-strategy attribute

Often you need to compose text blocks with several languages mixed together or with use of special characters. In these cases there might be necessary to render such a block using multiple different fonts since neither of them have all required glyphs. XSL FO provides special property `font-selection-strategy` that targets this problem together with `font-family` property.

[XSL FO Recommendation, Chapter 7.8.2 "font-family"](#)

[XSL FO Recommendation, Chapter 7.8.3 "font-selection-strategy"](#)

The `font-family` property allows you to specify several font families (separated by comma) and `font-selection-strategy` defines how these fonts will be applied by rendering engine. When `font-selection-strategy` is set to `character-by-character`, formatter will trigger font selection process for every character rendered.

Consider following example:

```
<fo:block font-size="24pt"
          font-family="Courier, ArialMT"
          font-selection-strategy="character-by-character">
  &#1072;&#1073;ABC&#1074;
</fo:block>
```

First, second and sixth characters are Russian, the rest are basic Latin characters. Font Courier has glyphs only for Latin characters, while ArialMT covers both Latin and Russian. In this example formatter will look through all fonts in order to find one that has appropriate glyph. This process will be repeated for every character no matter which font was selected on previous step. Thus characters 3, 4 and 5 will be rendered using Courier and characters 1, 2 and 6 will be rendered using ArialMT:

аБABCВ

If we replace `font-selection-strategy="character-by-character"` with `font-selection-strategy="auto"` in the example above, formatter will restart font selecting process only when previously selected font has no required glyph. In such a case all six characters will be rendered using ArialMT font as shown below:

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