

Elstob

Peter S. Baker

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I Introduction

This package supports Elstob, the variable font for medievalists (though it is useful to scholars in a number of fields). The package requires Lua^ATeX, since LuaTeX is the only flavor of TeX that supports variable fonts. Elstob is not in CTAN, so you must install the font in your system in order to use it (be sure to get “Elstob,” the variable version, not “ElstobD,” the static font). This package loads fontspec, so it is not necessary to load that package separately, even if you are using other fonts alongside Elstob.

A variable font is one with glyphs that can change not only their size, but also their shape. These changes in shape are defined in one or more **axes**—for example, **Weight** (Light, Bold, etc.) and **Width** (Condensed, Expanded). A traditional “static” font family also has axes, but as every style requires a separate font file, the number of available styles is severely constrained. A variable font, by contrast, offers a limitless number of styles in a single file: you select from these styles with number values from the axes.

Elstob has four axes (five in the italic):

Weight Possible weights run from ExtraLight (200) to ExtraBold (800).

Optical Size Optical size is a complex adjustment of a glyph’s shape to optimize for particular sizes. For small sizes (e.g. footnotes), glyphs are usually a little heavier and wider, and the xheight is higher. Values (corresponding to point sizes) run from 6 to 18.

Slant Italic only. The axis has values from 0 to 15, where 0 is most slanted and 15 is least slanted.

Grade Increases the weight of glyphs without changing their width. This axis is most useful to web application and likely will not interest \LaTeX Users much. Possible values are 0–1 (and fractional values are permitted).

Spacing Increases the width of space characters. In combination with Stylistic Set 18 “Old-Style Punctuation Spacing,” this can approximate the spacing used by early printed books, which was generally more generous than now. Possible values are 0–1.

You can access all these axes through this package, but especially those most appropriate for printed documents: Weight, Optical Size, Spacing, and Slant.

2 Loading Elstob

Load the package in the usual way, with `\usepackage{UnicodeVF}`. By default, the main font is not a set of static outlines whose proportions remain the same though they can be scaled, but rather a set of *variable* outlines that change their Weight and Optical Size as the text size increases or decreases. You can see the difference if we scale a line of fine print and a line of header text to the same `\large` size:

Here is some sample fine print (6pt).

Here is some sample header text (18pt and up).

The letter-shapes are markedly different, but on the page they look pretty much the same, because the purpose of these changes in shape, in addition to promoting legibility, is to allow blocks of text in different sizes (headers, main text, block quotations, footnotes) to coexist on a page without any of them looking too dark or too light.¹ Evenness of texture makes text in different point sizes *look* the same.

¹For example, on a typical \LaTeX page a footnote like this, looked at as a block of gray, is usually a little lighter than the main text. But on this page, the “color” of the footnote matches

Elstob can be customized in an enormous number of ways, which will be explained in later sections, but the `\usepackage` command takes a few simple options as well:

light The weight of the type for the main text is Light. As with the default style (and all styles defined by these options), “Light” is a set of outlines differing in weight and optical size.

medium The weight of the type for the main text is Medium—that is, darker than Regular but lighter than Bold.

semibold The weight of bold type is somewhat lighter than the usual bold. This may be a good choice if you have selected the **light** option.

opszadjust Adjusts the optical size. By default, the value of this axis is 8 for 8pt text, 12 for 12pt, etc. (within the range 6–18). But if you pass the option `opszadjust=-2`, the optical size axis will have 6 for 8pt type, 10 for 12pt, etc. Because the value of the optical size axis must be between 6 and 18, the value of the optical size axis for 6- and 7pt type will be 6.

slant A number from 0 to 15, specifying the slant of the italic face. A value of 0 is *most slanted*, 15 *most upright*.

oldspacing Word-spacing and spacing around punctuation will approximate the conventions observed by typesetters of early printed books, which are more spaciouly set than modern books.

proportional Numbers in the document will be proportionally spaced. This is the default.

tabular Numbers will be tabular (monospaced).

oldstyle Numbers will be old-style, harmonizing with lowercase letters. This is the default.

lining Numbers will be lining, harmonizing with uppercase letters.

that of the main text. The variation in glyph shape responsible for this effect approximates the way letters in metal type were typically wider and heavier at small sizes.

3 Customizing the Main Font

The simple options listed in the previous section provide a rough and ready way to vary Elstob's look, but with this package's more advanced options you can choose from a virtually infinite number of styles. Do this by passing OpenType features for your document's main text *or* for one or more of the four main styles (Regular, Italic, Bold, Bold Italic), and also by supplying custom values for the font's four axes.

For example, if you want your document to use the conventions observed by early English typesetters for the distribution of s and f, load the package this way:

```
\usepackage[MainFeatures={  
  Language=English,  
  StylisticSet=8  
}]{Elstob}
```

If you want to use these conventions only for italic text, use **MainItalicFeatures** instead of **MainFeatures**. All of the features you pass via these options must be valid for fontspec: indeed, they are passed straight through to fontspec.

If you want to customize the four basic styles of the main text, use **MainRegularSizeFeatures**, **MainItalicSizeFeatures**, and so on. For example, here are the default **SizeFeatures** for Elstob's Regular face:

```
MainRegularSizeFeatures={  
  SizeFeatures={  
    {Size={-6.5},      RawFeature={  
      axis={wght=490,opsz=6}  
    }},  
    {Size={6.5-7.5},   RawFeature={  
      axis={wght=477.5,opsz=7}  
    }},  
    {Size={7.5-8.5},   RawFeature={  
      axis={wght=465,opsz=8}  
    }},  
    {Size={8.5-9.5},   RawFeature={  
      axis={wght=452.5,opsz=9}  
    }},  
    {Size={9.5-10.5},  RawFeature={  
      axis={wght=440,opsz=10}  
    }}  
  }  
}
```

```

    }},
    {Size={10.5-11.5}, RawFeature={
        axis={wght=415,opsz=11}
    }},
    {Size={11.5-12.5}, RawFeature={
        axis={wght=390,opsz=12}
    }},
    {Size={12.5-13.5}, RawFeature={
        axis={wght=370,opsz=13}
    }},
    {Size={13.5-14.5}, RawFeature={
        axis={wght=365,opsz=14}
    }},
    {Size={14.5-15.5}, RawFeature={
        axis={wght=360,opsz=15}
    }},
    {Size={15.5-16.5}, RawFeature={
        axis={wght=355,opsz=16}
    }},
    {Size={16.5-17.5}, RawFeature={
        axis={wght=350,opsz=17}
    }},
    {Size={17.5-}, RawFeature={
        axis={wght=345,opsz=18}
    }}
}
}

```

This package defines thirteen size records for each of the main styles, but if you define your own size records, you won't need so many. Instead, define size records only for the sizes your document will actually be using. Suppose, for example, you are using Elstob only for main text and footnotes (you're using another font for headers). Then your customization for **MainRegularSizeFeatures** might look like this:

```

MainRegularSizeFeatures={
  SizeFeatures={
    {Size={-10}, RawFeature={
      axis={wght=425,opsz=8}
    }},

```

```

        {Size={10-}, RawFeature={
            axis={wght=400,opsz=12}
        }}
    }
}

```

That is, for sizes up to 10pt, you set the weight axis at 425 and optical size at 8. For sizes greater than 10pt, you set the weight axis at 400 and optical size at 12. Repeat this (experimenting to find the right settings) for **MainItalicSizeFeatures**, **MainBoldSizeFeatures**, and **MainBoldItalicSizeFeatures** (be sure to include the Slant (**slnt**) axis for the italic faces, and the Space (**SPAC**) axis if you want to customize word-spacing).

4 Selecting Alternate Styles

In addition to the document’s main font, you can choose from fifty predefined styles, most of which match the instances defined in the font. The commands for shifting to these styles are as follows (of the italic styles, only the base “eItalic” is listed; append “Italic” to any of the others, except “eRegular”):

<code>\eRegular</code>	<code>\eTenPtLight</code>
<code>\eItalic</code>	<code>\eFourteenPtLight</code>
<code>\eSixPt</code>	<code>\eEighteenPtLight</code>
<code>\eEightPt</code>	<code>\eMedium</code>
<code>\eTenPt</code>	<code>\eSixPtMedium</code>
<code>\eFourteenPt</code>	<code>\eEightPtMedium</code>
<code>\eEighteenPt</code>	<code>\eTenPtMedium</code>
<code>\eExtraLight</code>	<code>\eFourteenPtMedium</code>
<code>\eSixPtExtraLight</code>	<code>\eEighteenPtMedium</code>
<code>\eEightPtExtraLight</code>	<code>\eSemibold</code>
<code>\eTenPtExtraLight</code>	<code>\eSixPtSemibold</code>
<code>\eFourteenPtExtraLight</code>	<code>\eEightPtSemibold</code>
<code>\eEighteenPtExtraLight</code>	<code>\eTenPtSemibold</code>
<code>\eLight</code>	<code>\eFourteenPtSemibold</code>
<code>\eSixPtLight</code>	<code>\eEighteenPtSemibold</code>
<code>\eEightPtLight</code>	<code>\eBold</code>

<code>\eSixPtBold</code>	<code>\eSixPtExtraBold</code>
<code>\eEightPtBold</code>	<code>\eEightPtExtraBold</code>
<code>\eTenPtBold</code>	<code>\eTenPtExtraBold</code>
<code>\eFourteenPtBold</code>	<code>\eFourteenPtExtraBold</code>
<code>\eEighteenPtBold</code>	<code>\eEighteenPtExtraBoldItalic</code>
<code>\eExtraBold</code>	

Use these commands to shift temporarily to a style other than that of the main text. For example, to shift to the 6pt Light style for a short phrase, use this code:

```
{\eSixPtLight a short phrase}.
```

The result: a short phrase.

To add features to any of these styles, use the style name (without the prefixed “e” and with “Features” appended) as a package option. To change the size features for the style, do the same, but with **SizeFeatures** instead of **Features** appended. For example:

```
\usepackage[
  EightPtSemiboldFeatures={
    Language=English,
    StylisticSet=2
  },
  EightPtSemiboldSizeFeatures={
    SizeFeatures={
      Size={5-},RawFeature={axis={wght=620,opsz=8.5}}
    }
  }
]{Elstob}
```

This will shift text in the 8pt Semibold style from default to insular letter-shapes and slightly increase the weight and optical size of all glyphs in that style. While you can supply **SizeFeatures** for any style, each roman style shares **Features** with its matching italic. So there is no **SemiboldItalicFeatures** option, but only **SemiboldFeatures**.

5 Other Commands

This package’s other commands are offered as conveniences—shorter and more mnemonic than the `fontspec` commands they invoke (though of course all `fontspec` commands remain available). Each of these commands also has a corresponding “text” command that works like `\textit{}`—that is, it takes as its sole argument the text to which the command will be applied. Each “text” command consists of the main command with “text” prefixed—for example, `\textInsularLetterForms{}` corresponding to `\InsularLetterForms`. For a fuller account of the OpenType features applied by these commands, see the *Elstob Manual*.

<code>\AltThornEth</code>	Applies sso1, Alternate thorn and eth.
<code>\InsularLetterForms</code>	Applies sso2, Insular letter-forms.
<code>\ContextualLongS</code>	Applies sso8, Contextual long s.
<code>\LanguageSpecificVariants</code>	Applies sso9, Language-Specific Variants.
<code>\EarlyEnglishFuthorc</code>	Applies ss12, Early English Futhorc.
<code>\ElderFuthark</code>	Applies ss13, Elder Futhark.
<code>\YoungerFuthark</code>	Applies ss14, Younger Futhark.
<code>\LongBranchToShortTwig</code>	Applies ss15, Long Branch to Short Twig.
<code>\ContextualRRotunda</code>	Applies ss16, Contextual r rotunda.
<code>\OldStylePunctuation</code>	Applies ss18, Old-style Punctuation.
<code>\ecv, \textcv</code>	Applies a Character Variant feature.

Table 1: Stylistic Set and Character Variant Commands

The syntax of `\ecv` is `\ecv[num]{num}`, where the second (required) argument is the number of the Character Variant feature, and the first (optional) argument is an index into the variants provided by that feature (starting with zero, the default). `\textcv` takes an additional required argument (`\textcv[num]{num}{text}`)—the text to which the feature should be applied.

Character Variant features can also be selected with mnemonics, listed below. For example, a feature for lowercase **g** can be expressed as

`\textcv[1]{\ecvg}{g}`

yielding **g**, one of the Middle English poet Orm’s phonetic characters.

\ecvD

\ecvd

\ecvF

\ecvf

\ecvG

\ecvg

\ecvi

\ecvR

\ecvr

\ecvS

\ecvs

\ecvT

\ecvt

\ecvTironianEt

\ecvquestion

NOW IS THE TIME.