

# L<sup>A</sup>T<sub>E</sub>X support for Fedra Sans Pro

Michael Ummels

v1.0 – 2015/12/20

## Abstract

This document describes the fedrasans package, which provides L<sup>A</sup>T<sub>E</sub>X support for the commercial Fedra Sans Pro fonts in both text and math mode.

## Contents

<b>1</b>	<b>Overview</b>	<b>2</b>
<b>2</b>	<b>Interferences with other packages</b>	<b>2</b>
<b>3</b>	<b>Options</b>	<b>3</b>
<b>4</b>	<b>Font selection</b>	<b>3</b>
4.1	Variants . . . . .	3
4.2	Encodings . . . . .	4
4.3	Weights . . . . .	4
4.4	Shapes . . . . .	4
4.5	Figures . . . . .	5
4.6	Footnotes . . . . .	6
4.7	Dingbats . . . . .	6
4.8	Additional notes . . . . .	6
<b>5</b>	<b>Math support</b>	<b>7</b>
5.1	Letters . . . . .	7
5.2	Digits . . . . .	8
5.3	Blackboard characters . . . . .	8
<b>6</b>	<b>NFSS classification</b>	<b>8</b>

<b>7 Implementation</b>	<b>8</b>
7.1 Options . . . . .	8
7.2 Font selection . . . . .	12
7.3 Math font setup . . . . .	14
7.4 Greek and Hebrew letters . . . . .	15
7.5 Bullet figures . . . . .	17
7.6 Superior and inferior figures . . . . .	18
7.7 Logos . . . . .	19
<b>8 Microtype configuration file</b>	<b>20</b>
<b>9 Font definition support package</b>	<b>23</b>
9.1 Options . . . . .	24
9.2 Font configuration . . . . .	25
<b>10 Font definition files</b>	<b>28</b>

## 1 Overview

The fedrasans package provides L<sup>A</sup>T<sub>E</sub>X support for the commercial Fedra<sup>®</sup> Sans Pro fonts<sup>1</sup> from Typotheque<sup>2</sup>. You can load this package by adding

```
\usepackage[<options>]{fedrasans}
```

to the preamble of your document. If no options are specified, this will change the default sans-serif font to Fedra Sans Pro; use the option `alt` to select Fedra Sans Alt Pro. In order to use Fedra Sans as the main font for the document (not only when `\sffamily` is selected), you can use the option `sfdefault`. For all available options, see Section 3.

### Acknowledgements

See the acknowledgements for the fedraserif package, on which this package is based.

## 2 Interferences with other packages

In order to use Fedra Sans as a math font, you need to have the `fdsymbol` package (version 0.7 or higher) installed. Apart from `fdsymbol`, the `fedrasans` package automatically loads the packages `textcomp` and (if math support is enabled) `amsmath`. Additionally, the `fontaxes` package is loaded if it is present in your L<sup>A</sup>T<sub>E</sub>X installation. If you want to

<sup>1</sup>Fedra is a registered trademark of Typotheque VOF.

<sup>2</sup><http://www.typotheque.com/fonts/>

Table 1: Summary of options

Key	Values	Section
<code>alt</code>	<code>true</code> , <code>false</code> *	4.1
<code>boldweight</code>	<code>Medium</code> *, <code>Bold</code> , <code>auto</code>	4.3
<code>fedrabb</code>	<code>true</code> , <code>false</code> *	5.3
<code>footnotemarks</code>	<code>true</code> , <code>false</code> *	4.6
<code>figures</code>	<code>lining</code> *, <code>lf</code> ), <code>text</code> ( <code>osf</code> )	4.5
<code>math-style</code>	<code>tex</code> *, <code>iso</code> , <code>french</code>	5.1
<code>math</code>	<code>true</code> , <code>false</code> *	5
<code>normalweight</code>	<code>Book</code> *, <code>Demi</code> , <code>auto</code>	4.3
<code>sfdefault</code>	<code>true</code> , <code>false</code> *	1
<code>stdmathdigits</code>	<code>true</code> , <code>false</code> *	5.2

pass options to these packages, you can either load these packages beforehand, or you can include the options in the `\documentclass` command. If the `math` option is used, the `fedrasans` package is *not* compatible with `amssymb` and `amsfonts` (since `fdsymbol` is not).

### 3 Options

All package options are set using a `<key>=<value>` syntax. Boolean options accept `true` and `false` as values, and setting a Boolean key without a value is equivalent to setting it to `true`. Table 1 lists all option keys of the `fedrasans` package with their possible values; values that are marked with an asterisk correspond to the default behaviour of the package.

## 4 Font selection

### 4.1 Variants

Fedra Sans Pro comes in two variants: the alternative variant (Fedra Sans Alt Pro) shown here is a bit more conservative than the original variant, which has a lowercase `f` that extends under the baseline and dots that look like diamonds, to name a few of its features. By default, the package use the original variant. If you prefer the alternative variant, you can select it by passing the option `alt`.

Table 2: Summary of font weights

Weight	Series	Example
Light	l	A Quick Brown Fox Jumps Over The Lazy Dog.
Book	sl	A Quick Brown Fox Jumps Over The Lazy Dog.
Demi	md	<b>A Quick Brown Fox Jumps Over The Lazy Dog.</b>
Medium	sb	<b>A Quick Brown Fox Jumps Over The Lazy Dog.</b>
Bold	ub	<b>A Quick Brown Fox Jumps Over The Lazy Dog.</b>

## 4.2 Encodings

The package currently supports the OT1, T1, LY1, QX and T5 encodings for typesetting text with Latin characters, as well as the TSI encoding for typesetting text symbols. For typesetting text with accented characters, it is strongly recommended to change the default font encoding from OT1 to T1 or one of the other encodings. This can be achieved by putting `\usepackage[T1]{fontenc}` in the preamble of your document.

## 4.3 Weights

All fonts of the Fedra Sans Pro family come in five weights, which are (in increasing order) Light, Book, Demi, Medium and Bold, shown in Table 2. Of these, Book and Demi can be used as the standard text font, while Medium and Bold can be used for bold text. The option keys `normalweight` and `boldweight` allow to control which weights are used for the standard L<sup>A</sup>T<sub>E</sub>X font series `m` and `b` (or `bx`), selected by `\mdseries` and `\bfseries`, respectively. For example, to use the Demi weight as the standard text font, use the option `normalweight=Demi`. By default, only the Book and the Medium weights are used. Additionally, both keys can be set to the value `auto`, which selects a weight depending on the font size (Book and Medium for normal and large sizes, Demi and Bold for small sizes). Independently of these options, all weights can be accessed using `\fontseries`. For instance, the Light weight can be accessed using the command `\fontseries{1}`.

## 4.4 Shapes

In addition to the normal small caps shapes `sc` and `scit`, there are letterspaced versions `ssc` and `sscit` (see Table 3).

If the `fontaxes` package is available, you can use the commands `\sscshape` and `\textssc{<text>}` to switch to letterspaced small caps.

Table 3: Summary of font shapes

Shape	Example
n	A Quick Brown Fox Jumps Over The Lazy Dog.
it	<i>A Quick Brown Fox Jumps Over The Lazy Dog.</i>
sc	A QUICK BROWN FOX JUMPS OVER THE LAZY DOG.
ssc	A QUICK BROWN FOX JUMPS OVER THE LAZY DOG.
scit	<i>A QUICK BROWN FOX JUMPS OVER THE LAZY DOG.</i>
sscit	<i>A QUICK BROWN FOX JUMPS OVER THE LAZY DOG.</i>

Table 4: Summary of figure versions

	Lining figures	Text figures
Proportional	0123456789	o123456789
Tabular	0123456789	o123456789

## 4.5 Figures

Fedra Sans Pro offers four main figure versions (see 4). On the one hand, one can choose between *lining figures* and *text figures*, also known as *old-style figures*. On the other hand, one can choose between *proportional figures* and *tabular figures*.

By default, proportional lining figures are used throughout the document. If you want to use text figures instead, use the option `figures=text` or `figures=osf`.

Assuming that the `fontaxes` package is installed on your system, you can use the command `\figureversion` to switch between different figure versions inside the document. Possible arguments are `text` or `osf` for text figures, `lining` or `lf` for lining figures, `tabular` or `tab` for tabular figures, and `proportional` or `prop` for proportional figures. Note that you can combine several arguments. For example, the command `\figureversion{osf, tabular}` selects tabular text figures.

Small and slanted fractions are fractions with a height matching the font's body size; they can be accessed via:

`\smallfrac{⟨numerator⟩}{⟨denominator⟩}`     $\frac{3}{17}$   
`\slantfrac{⟨numerator⟩}{⟨denominator⟩}`     $\frac{3}{17}$

Note that only figures can be used for `⟨numerator⟩` and `⟨denominator⟩`.

Finally, Fedra Sans Pro offers so-called bullet figures, which are enclosed by a circle; they can be accessed via:

`\openbullet{⟨number⟩}`    ① 234  
`\closedbullet{⟨number⟩}`    ⑤ 678

As for small and slanted fractions, only figures can be used for `⟨number⟩`.

Table 5: Dingbats available with the fedrasans package

number	glyph	number	glyph	number	glyph	number	glyph
100	·	120	⦿	140	✎	160	📄
101	■	121	⊙	141	✎	161	📄
102	□	122	♥	142	✎	162	📄
103	■	123	♡	143	✎	163	📄
104	□	124	Ⓢ	144	✎	164	📄
105	▶	125	Ⓢ	145	✎	165	📄
106	◀	126	Ⓢ	146	✓	166	📄
107	▷	127	Ⓢ	147	□	167	📄
108	◁	128	Ⓢ	148	☑	168	📄
109	▶	129	☺	149	☒	169	📄
110	◀	130	★	150	✉	170	📄
111	▷	131	●	151	📄	171	📄
112	◁	132	→	152	📄	172	📄
113	▶	133	←	153	📄	173	📄
114	◀	134	↑	154	📄	174	📄
115	▷	135	↓	155	📄	175	📄
116	◁	136	↗	156	📄	176	📄
117	●	137	↖	157	📄		
118	○	138	✓	158	✎		
119	●	139	↘	159	🕒		

## 4.6 Footnotes

By setting the option `footnotemarks`, footnote marks are set using special characters designed for this purpose, i.e. <sup>1,a</sup> instead of <sup>1,a</sup>. However, this only works for footnote marks that consist of figures and the lowercase letters a–z.

## 4.7 Dingbats

Assuming that the `pifont` package is loaded, you can access Fedra Serif's ornamental characters via:

```
\Pisymbol{FedraSansPro-Pi}{\langle number \rangle}
```

The available glyphs are listed in Table 5.

## 4.8 Additional notes

Fedra Sans Pro implements a large subset of the glyphs made available by the TSI encoding. However, the following glyphs are missing:

<code>\textdblhyphen</code>	<code>\textlangle</code>	<code>\textrangle</code>
<code>\textdivorced</code>	<code>\textdied</code>	<code>\textleaf</code>
<code>\textmarried</code>	<code>\textmusicalnote</code>	<code>\textdblhyphenchar</code>
<code>\textdollaroldstyle</code>	<code>\textcentoldstyle</code>	<code>\textacutedbl</code>
<code>\textgravedbl</code>	<code>\textguarani</code>	<code>\textrecipe</code>
<code>\textpertenthousand</code>	<code>\textpilcrow</code>	<code>\textbaht</code>
<code>\textdiscount</code>	<code>\textopenbullet</code>	<code>\textlquill</code>
<code>\textrquill</code>	<code>\textcopyleft</code>	<code>\textreferencemark</code>

In addition to the monetary symbols defined by the TSI encoding, the following currency symbols are available:

₧	<code>\textcruzeiro</code>	₣	<code>\textfranc</code>	₭	<code>\textmill</code>
₨	<code>\textpeseta</code>	₮	<code>\textrupee</code>	₪	<code>\textsheqel</code>
₹	<code>\textkip</code>	₴	<code>\texttugrik</code>	₺	<code>\textthryvnia</code>

## 5 Math support

By default, we only change the math font to Fedra Sans Pro (with mathematical symbols taken from FdSymbol) if the option `sfdefault` has been selected. In order to allow for a more fine-grained control, you can enable or disable using the `math` option. Note that all other options described in this section only have an effect if `math` support is enabled.

### 5.1 Letters

In  $\text{T}_{\text{E}}\text{X}$  and  $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ , uppercase Greek letters are traditionally set upright in math mode, even when they are used as variables. This differs from the ISO standards ISO31-0:1992 to ISO31-13:1992, which mandate italics in this case. While the package employs the  $\text{T}_{\text{E}}\text{X}$  tradition by default, you can select the ISO behaviour by setting the option `math-style=iso`. Independently of this option, you can always select upright and italic greek letters using the commands `\upalpha`, `\italpha`, `\upGamma`, `\itGamma`, etc. Additionally, the `math-style` key can take the value `french`, in which case all Greek and uppercase roman letters are typeset upright. For an illustration of the differences between the three values for `math-style`, see Table 6.

The `fedrasans` package provides all letters available in math mode with the Computer Modern fonts, with the exception of `\varpi` and `\varrho`, which have the same shape as `\pi` and `\rho`, respectively. Additionally, the following letters and letter-like symbols are can be typeset:

Table 6: The different styles for letters in math mode

math-style	example
tex	$a, b, \dots, A, B, \dots, \alpha, \beta, \dots, \Gamma, \Delta, \dots$
iso	$a, b, \dots, A, B, \dots, \alpha, \beta, \dots, \Gamma, \Delta, \dots$
french	$a, b, \dots, A, B, \dots, \alpha, \beta, \dots, \Gamma, \Delta, \dots$

$\beta$	<code>\varbeta</code> <sup>3</sup>	$f$	<code>\digamma</code> <sup>3</sup>	$\varepsilon$	<code>\backepsilon</code> <sup>3</sup>
$\mathfrak{z}$	<code>\varbackepsilon</code> <sup>3</sup>	$h$	<code>\hslash</code>	$\lambda$	<code>\lambdabar</code>
$\lambda$	<code>\lambdaslash</code>	$\eth$	<code>\eth</code> <sup>3</sup>	$\emptyset$	<code>\slashedzero</code>
$\mathfrak{U}$	<code>\mho</code>	$\ell$	<code>\upell</code>	$\hbar$	<code>\uphbar</code>

## 5.2 Digits

By default, digits in math mode are typeset in the default figure version for text mode (as selected by the `figures` key). To use lining figures in math mode even if `figures=text` is active, set the option `stdmathdigits`.

Apart from the standard math versions `normal` and `bold`, the package introduces two new math versions `tabular` and `boldtabular`, in which digits are typeset as tabular figures.

## 5.3 Blackboard characters

If you also have the `fedraserif` package installed, you can use the option `\mathbb` to change the math blackboard alphabet to Fedra Serif. See the documentation of the `fedraserif` package for more information.

# 6 NFSS classification

Table 7 lists all fonts made available with this package. Parenthesised combinations are provided via substitutions.

# 7 Implementation

## 7.1 Options

We use `xkeyval`'s key mechanism to declare all options.

<sup>1</sup> `{*package}`

<sup>3</sup>The shape of the symbol is different if the option `math-style=french` is selected. Upright and italic shapes are also available directly via the commands `\up{cmd}` and `\it{cmd}`, respectively.



Table 7: NFSS classification

Encoding	Family	Series	Shape
OTI, TI, TSI, LYI, QX, T5	FedraSansPro-LF, FedraSansPro-OsF, FedraSansPro-TLF, FedraSansPro-TOsF	l, sl, m, md, b (bx), sb, ub	n, it (sl), sc, scit (scsl), ssc, sscit (sscs)
OML	FedraSansPro-TOsF (FedraSansPro-LF, FedraSansPro-OsF, FedraSansPro-TLF)	sl, m, md, b (bx), sb, ub	n, it
U	FedraSansPro-Extra	l, sl, m, md, b (bx), sb, ub	n, it (sl)
U	FedraSansPro-Pi	l, sl, m, md, b (bx), sb, ub	n

```

2 \RequirePackage{xkeyval}
3 \newcommand*\fdrss@boolkey[2]{%
4   \define@boolkey{fedrasans.sty}[fdrss@]{#1}[true]{#2}%
5 }
6 \newcommand*\fdrss@choicekey[3]{%
7   \define@choicekey*{fedrasans.sty}{#1}[\@tempa\@tempb]{#2}{#3}%
8 }
9 \newif\iffdrss@text
10 \fdrss@texttrue
11 \newif\iffdrss@math
12 \fdrss@mathfalse

```

### Font selection

The package `fedrasans-fd` adapts the font definitions to the requested font set (see Section 9). So we simply pass on the relevant options. Additional care has to be taken to pass the right options to `fdsymbol`.

```

13 \fdrss@boolkey{alt}{%
14   \PassOptionsToPackage{alt=#1}{fedrasans-fd}%
15 }
16 \fdrss@choicekey{normalweight}{book,demi,auto}{%
17   \PassOptionsToPackage{normalweight=#1}{fedrasans-fd}%
18   \ifcase\@tempb\relax
19     \PassOptionsToPackage{normalweight=book}{fdsymbol}%

```

```

20 \or
21 \PassOptionsToPackage{normalweight=regular}{fdsymbol}%
22 \or
23 \PassOptionsToPackage{normalweight=auto}{fdsymbol}%
24 \fi
25 }
26 \fdrss@choicekey{boldweight}{medium,bold,auto}{%
27 \PassOptionsToPackage{boldweight=#1}{fedrasans-fd}%
28 \PassOptionsToPackage{boldweight=#1}{fdsymbol}%
29 }

```

The next option sets the default font to a sans-serif font.

```

30 \fdrss@boolkey{sfdefault}{%
31 \iffdrss@sfdefault\renewcommand{\familydefault}{\sfdefault}\fdrss@mathtrue\fi%
32 }

```

The next option toggles the math font setup.

```

33 \fdrss@boolkey{math}{%
34 \iffdrss@math\fdrss@mathtrue\else\fdrss@mathfalse\fi%
35 }

```

### Figure style

```

36 \newcommand\fdrss@family{FedraSansPro}
37 \newcommand\fdrss@textfig{LF}
38 \newcommand\fdrss@mathfig{\fdrss@textfig}
39 \newcommand\fdrss@textfamily{\fdrss@family-\fdrss@textfig}
40 \newcommand\fdrss@mathfamily{\fdrss@family-\fdrss@mathfig}
41 \newcommand\fdrss@mathtfamily{\fdrss@family-T\fdrss@mathfig}
42 \newcommand\fdrss@mathshape{it}

43 \fdrss@choicekey{figures}{text,osf,lining,lf}{%
44 \ifcase\@tempb\relax
45 \renewcommand\fdrss@textfig{OsF}%
46 \or
47 \renewcommand\fdrss@textfig{OsF}%
48 \or
49 \renewcommand\fdrss@textfig{LF}%
50 \or
51 \renewcommand\fdrss@textfig{LF}%
52 \fi
53 }
54 \fdrss@boolkey{stdmathdigits}{%
55 \iffdrss@stdmathdigits
56 \renewcommand\fdrss@mathfig{LF}%
57 \fi
58 }

```

## Math styles

```
59 \newif\iffdrss@greek@upper@upright
60 \newif\iffdrss@greek@lower@upright
61 \fdrss@choicekey{math-style}{tex,iso,french}{%
62   \ifcase\@tempb\relax
63     \fdrss@greek@upper@uprighttrue
64     \fdrss@greek@lower@uprightfalse
65   \or
66     \fdrss@greek@upper@uprightfalse
67     \fdrss@greek@lower@uprightfalse
68   \or
69     \fdrss@greek@upper@uprighttrue
70     \fdrss@greek@lower@uprighttrue
71   \renewcommand\fdrss@mathshape{n}
72 \fi
73 }
```

## Other options

This options redefines the blackboard bold alphabet to use Fedra Serif's blackboard letters.

```
74 %
75 \fdrss@boolkey{fedrabb}{%
76   \iffdrss@fedrabb
77   \renewcommand\fdrss@load@bb{%
78     \DeclareMathAlphabet\mathbb{U}{\fdrss@family-BB}{m}{n}%
79     \renewcommand\Bbbk{\mathbb{k}}}%
80   }%
81 \fi
82 }
83 \newcommand\fdrss@load@bb{}
```

This option allows to use superior figures for footnote marks. If possible, we use the commands `\deffootnotemark` and `\deffootnote` provided by the KOMA-Script classes to change the formatting of footnote marks. Otherwise, we need to redefine `\@makefnmark`.

```
84 \fdrss@boolkey{footnotemarks}{%
85   \iffdrss@footnotemarks
86   \@ifundefined{deffootnotemark}{%
87     \def\@makefnmark{%
88       \begingroup
89       \usefont{U}{\fdrss@family-Extra}{m}{n}%
90       \@thefnmark\kern0.1em%
91     \endgroup
92   }%
```

```

93   }{%
94     \deffootnotemark{%
95       \begingroup
96       \usefont{U}{\fdrss@family-Extra}{m}{n}%
97       \thefootnotemark
98       \endgroup
99     }%
100  }%
101  \@ifundefined{deffootnote}{}{%
102    \deffootnote[1em]{1.5em}{1em}{%
103      \begingroup
104      \usefont{U}{\fdrss@family-Extra}{m}{n}%
105      \thefootnotemark\kern0.1em%
106      \endgroup
107    }%
108  }%
109  \fi
110 }

```

## Defaults

```

111 \ExecuteOptionsX{math-style=tex}
112 \ProcessOptionsX\relax

```

## 7.2 Font selection

```

113 \RequirePackage[scale=0.9]{fedrasans-fd}
114 \@ifpackageloaded{textcomp}{}{\RequirePackage{textcomp}}
115 \iffdrss@text
116 \renewcommand\sfddefault{\fdrss@textfamily}
117 \DeclareEncodingSubset{TS1}{\fdrss@family-LF}{1}
118 \DeclareEncodingSubset{TS1}{\fdrss@family-TLF}{1}
119 \DeclareEncodingSubset{TS1}{\fdrss@family-OsF}{1}
120 \DeclareEncodingSubset{TS1}{\fdrss@family-TOsF}{1}

```

In order to accomodate ligatures and glyph variants, we had to remove some glyphs from the standard encodings, but most of them can still be accessed through the TS1 encoding.

```

121 \AtBeginDocument{
122   \UndeclareTextCommand{\textcompwordmark}{T1}
123   \UndeclareTextCommand{\textvisiblespace}{T1}
124   \UndeclareTextCommand{\textperthousand}{T1}
125   \UndeclareTextCommand{\textpertenthousand}{T1}
126   \UndeclareTextCommand{\textsterling}{T1}
127   \UndeclareTextCommand{\textsection}{T1}
128   \UndeclareTextCommand{\textmu}{QX}

```

```

129 \UndeclareTextCommand{\texteuro}{QX}
130 \UndeclareTextCommand{\textEuro}{QX}
131 \let\textEuro\texteuro
132 \UndeclareTextCommand{\textdagger}{QX}
133 \UndeclareTextCommand{\textdaggerdbl}{QX}
134 \UndeclareTextCommand{\textdegree}{QX}
135 \UndeclareTextCommand{\textsection}{QX}
136 \UndeclareTextCommand{\textregistered}{QX}
137 \UndeclareTextCommand{\copyright}{QX}
138 \let\copyright\textcopyright
139 \UndeclareTextCommand{\textdiv}{QX}
140 \UndeclareTextCommand{\textminus}{QX}
141 \UndeclareTextCommand{\texttimes}{QX}
142 \UndeclareTextCommand{\textpm}{QX}
143 \UndeclareTextCommand{\textbullet}{QX}
144 \UndeclareTextCommand{\textcurrency}{QX}
145 \UndeclareTextCommand{\textperthousand}{QX}
146 \UndeclareTextCommand{\textanglearc}{QX}
147 \UndeclareTextCommand{\textvisiblespace}{T5}

```

Additional currency symbols are stored in empty slots of the TS1 encoding.

```

148 \DeclareTextSymbol{\textcruzeiro}{TS1}{192}
149 \DeclareTextSymbol{\textfranc}{TS1}{193}
150 \DeclareTextSymbol{\textmill}{TS1}{194}
151 \DeclareTextSymbol{\textpeseta}{TS1}{195}
152 \DeclareTextSymbol{\textrupee}{TS1}{196}
153 \DeclareTextSymbol{\textsheqel}{TS1}{197}
154 \DeclareTextSymbol{\textkip}{TS1}{198}
155 \DeclareTextSymbol{\texttugrik}{TS1}{199}
156 \DeclareTextSymbol{\texthryvnia}{TS1}{200}
157 \DeclareTextSymbolDefault{\textcruzeiro}{TS1}
158 \DeclareTextSymbolDefault{\textfranc}{TS1}
159 \DeclareTextSymbolDefault{\textmill}{TS1}
160 \DeclareTextSymbolDefault{\textpeseta}{TS1}
161 \DeclareTextSymbolDefault{\textrupee}{TS1}
162 \DeclareTextSymbolDefault{\textsheqel}{TS1}
163 \DeclareTextSymbolDefault{\textkip}{TS1}
164 \DeclareTextSymbolDefault{\texttugrik}{TS1}
165 \DeclareTextSymbolDefault{\texthryvnia}{TS1}
166 }
167 \fi

```

The font selection commands such as `\figureversion` and `\textssc` are provided by the `fontaxes` package.

```

168 \IfFileExists{fontaxes.sty}{
169 \RequirePackage{fontaxes}[2007/03/31]
170 \let\oldstylenums\textfigures

```

```
171 }{}
```

### 7.3 Math font setup

We use FdSymbol for most mathematical symbols.

```
172 \iffdrss@math
173 \RequirePackage[scale=0.9,opstyle=sans]{fdsymbol}[2011/11/01]
```

Some math symbols are taken from the text font by fdsymbol. Use the correct math figure version for these.

```
174 \renewcommand\fdsy@text[1]{%
175   \ifx\fdsy@bold\math@version
176     \text{\usefont{T1}{\fdrss@mathfamily}{b}{n}#1}%
177   \else
178     \text{\usefont{T1}{\fdrss@mathfamily}{m}{n}#1}%
179   \fi
180 }
```

Redefine the standard math versions normal and bold.

```
181 \DeclareSymbolFont{operators}{T1}{\fdrss@mathfamily}{m}{n}
182 \SetSymbolFont{operators}{bold}{T1}{\fdrss@mathfamily}{b}{n}
183 \DeclareSymbolFont{letters}{OML}{\fdrss@family-T0sF}{m}{\fdrss@mathshape}
184 \SetSymbolFont{letters}{bold}{OML}{\fdrss@family-T0sF}{b}{\fdrss@mathshape}
185 \DeclareMathAlphabet{\mathrm}{T1}{\fdrss@mathfamily}{m}{n}
186 \SetMathAlphabet{\mathrm}{bold}{T1}{\fdrss@mathfamily}{b}{n}
187 \DeclareMathAlphabet{\mathit}{T1}{\fdrss@mathfamily}{m}{it}
188 \SetMathAlphabet{\mathit}{bold}{T1}{\fdrss@mathfamily}{b}{it}
189 \DeclareMathAlphabet{\mathbf}{T1}{\fdrss@mathfamily}{b}{n}
```

Extra math versions tabular and boldtabular, which use tabular figures instead of proportional ones. These math versions can be useful in tables.

```
190 \DeclareMathVersion{tabular}
191 \SetSymbolFont{operators}{tabular}{T1}{\fdrss@mathtfamily}{m}{n}
192 \SetMathAlphabet{\mathrm}{tabular}{T1}{\fdrss@mathtfamily}{m}{n}
193 \SetMathAlphabet{\mathit}{tabular}{T1}{\fdrss@mathtfamily}{m}{it}
194 \SetMathAlphabet{\mathbf}{tabular}{T1}{\fdrss@mathtfamily}{b}{n}
195 \DeclareMathVersion{boldtabular}
196 \SetSymbolFont{operators}{boldtabular}{T1}{\fdrss@mathtfamily}{b}{n}
197 \SetSymbolFont{letters}{boldtabular}{OML}{\fdrss@family-T0sF}{b}{\fdrss@mathshape}
198 \SetMathAlphabet{\mathrm}{boldtabular}{T1}{\fdrss@mathtfamily}{b}{n}
199 \SetMathAlphabet{\mathit}{boldtabular}{T1}{\fdrss@mathtfamily}{b}{it}
200 \SetMathAlphabet{\mathbf}{boldtabular}{T1}{\fdrss@mathtfamily}{b}{n}

201 \DeclareMathAccent{\grave}{\mathalpha}{operators}{"00}
202 \DeclareMathAccent{\acute}{\mathalpha}{operators}{"01}
203 \DeclareMathAccent{\hat}{\mathalpha}{operators}{"02}
204 \DeclareMathAccent{\tilde}{\mathalpha}{operators}{"03}
```

```

205 \DeclareMathAccent{\ddot}{\mathalpha}{operators}{ "04}
206 \DeclareMathAccent{\mathring}{\mathalpha}{operators}{ "06}
207 \DeclareMathAccent{\check}{\mathalpha}{operators}{ "07}
208 \DeclareMathAccent{\breve}{\mathalpha}{operators}{ "08}
209 \DeclareMathAccent{\bar}{\mathalpha}{operators}{ "09}
210 \DeclareMathAccent{\dot}{\mathalpha}{operators}{ "0A}
211 \let\hbar\undefined
212 \DeclareMathSymbol{\hbar}{\mathord}{letters}{ "AE}
213 \DeclareMathSymbol{\uphbar}{\mathord}{letters}{ "B5}
214 \DeclareMathSymbol{\partial}{\mathord}{letters}{ "40}
215 \DeclareMathSymbol{\ell}{\mathord}{letters}{ "60}
216 \DeclareMathSymbol{\upell}{\mathord}{letters}{ "B9}
217 \DeclareMathSymbol{\slashedzero}{\mathord}{letters}{ "B8}
218 \let\mho\undefined
219 \DeclareMathSymbol{\mho}{\mathord}{letters}{ "BA}
220 \DeclareMathSymbol{\nabla}{\mathord}{letters}{ "BB}
221 \DeclareRobustCommand{\lambdabar}{\middlebar\lambda}
222 \DeclareRobustCommand{\lambdaslash}{\middleslash\lambda}

```

Execute the hook set up above to redefine the mathbb alphabet.

```

223 \fdrss@load@bb

```

## 7.4 Greek and Hebrew letters

We provide three math-mode commands for each Greek letter: for italic, upright and the default.

```

224 \newcommand*{\fdrss@greek@capital}[3]{
225   \expandafter\DeclareMathSymbol%
226     \expandafter{\csname it#1\endcsname}{\mathord}{letters}{#2}
227   \expandafter\DeclareMathSymbol%
228     \expandafter{\csname up#1\endcsname}{\mathord}{letters}{#3}
229   \iffdrss@greek@upper@upright
230   \expandafter\let\csname #1\expandafter\endcsname\csname up#1\endcsname
231   \else
232     \expandafter\let\csname #1\expandafter\endcsname\csname it#1\endcsname
233   \fi
234 }
235 \newcommand*{\fdrss@greek@letter}[3]{
236   \expandafter\DeclareMathSymbol%
237     \expandafter{\csname it#1\endcsname}{\mathord}{letters}{#2}
238   \expandafter\DeclareMathSymbol%
239     \expandafter{\csname up#1\endcsname}{\mathord}{letters}{#3}
240   \iffdrss@greek@lower@upright
241   \expandafter\let\csname #1\expandafter\endcsname\csname up#1\endcsname
242   \else

```

```

243 \expandafter\let\csname #1\expandafter\endcsname\csname it#1\endcsname
244 \fi
245 }
246 \fdrss@greek@capital{Gamma}{ "00}{ "80}
247 \fdrss@greek@capital{Delta}{ "01}{ "81}
248 \fdrss@greek@capital{Theta}{ "02}{ "82}
249 \fdrss@greek@capital{Lambda}{ "03}{ "83}
250 \fdrss@greek@capital{Xi}{ "04}{ "84}
251 \fdrss@greek@capital{Pi}{ "05}{ "85}
252 \fdrss@greek@capital{Sigma}{ "06}{ "86}
253 \fdrss@greek@capital{Upsilon}{ "07}{ "87}
254 \fdrss@greek@capital{Phi}{ "08}{ "88}
255 \fdrss@greek@capital{Psi}{ "09}{ "89}
256 \fdrss@greek@capital{Omega}{ "0A}{ "8A}
257 \fdrss@greek@letter{alpha}{ "0B}{ "8B}
258 \fdrss@greek@letter{beta}{ "0C}{ "8C}
259 \fdrss@greek@letter{gamma}{ "0D}{ "8D}
260 \fdrss@greek@letter{delta}{ "0E}{ "8E}
261 \fdrss@greek@letter{epsilon}{ "0F}{ "8F}
262 \fdrss@greek@letter{zeta}{ "10}{ "90}
263 \fdrss@greek@letter{eta}{ "11}{ "91}
264 \fdrss@greek@letter{theta}{ "12}{ "92}
265 \fdrss@greek@letter{iota}{ "13}{ "93}
266 \fdrss@greek@letter{kappa}{ "14}{ "94}
267 \fdrss@greek@letter{lambda}{ "15}{ "95}
268 \fdrss@greek@letter{mu}{ "16}{ "96}
269 \fdrss@greek@letter{nu}{ "17}{ "97}
270 \fdrss@greek@letter{xi}{ "18}{ "98}
271 \fdrss@greek@letter{pi}{ "19}{ "99}
272 \fdrss@greek@letter{rho}{ "1A}{ "9A}
273 \fdrss@greek@letter{sigma}{ "1B}{ "9B}
274 \fdrss@greek@letter{tau}{ "1C}{ "9C}
275 \fdrss@greek@letter{upsilon}{ "1D}{ "9D}
276 \fdrss@greek@letter{phi}{ "1E}{ "9E}
277 \fdrss@greek@letter{chi}{ "1F}{ "9F}
278 \fdrss@greek@letter{psi}{ "20}{ "A0}
279 \fdrss@greek@letter{omega}{ "21}{ "A1}
280 \fdrss@greek@letter{varepsilon}{ "22}{ "A2}
281 \fdrss@greek@letter{vartheta}{ "23}{ "A3}
282 \fdrss@greek@letter{varpi}{ "19}{ "99}
283 \fdrss@greek@letter{varrho}{ "1A}{ "9A}
284 \fdrss@greek@letter{varsigma}{ "26}{ "A6}
285 \fdrss@greek@letter{varphi}{ "27}{ "A7}

```

Some of the following symbols are not really Greek letters, but they are treated in the



same way.

```
286 \fdrss@greek@letter{varbeta}{"A8"}{"B0}  
287 \fdrss@greek@letter{digamma}{"A9"}{"B1}  
288 \fdrss@greek@letter{backepsilon}{"AA"}{"B2}  
289 \fdrss@greek@letter{varbackepsilon}{"AB"}{"B3}  
290 \fdrss@greek@letter{eth}{"AC"}{"B4}  
291 \fi
```

## 7.5 Bullet figures

We provide two commands to access Fedra's bullet figures.

```
292 \iffdrss@text  
293 \newcommand*{\fdrss@@openbullet}[2]{%  
294   \ifx#2\end  
295     \char3#1%  
296     \let\next\@gobble  
297   \else  
298     \char2#1\kern-0.02em%  
299     \let\next\fdrss@@openbullet  
300   \fi  
301   \next#2%  
302 }  
303 \newcommand*{\fdrss@openbullet}[2]{%  
304   \ifx#2\end  
305     \char0#1%  
306     \let\next\@gobble  
307   \else%  
308     \char1#1\kern-0.02em%  
309     \let\next\fdrss@@openbullet  
310   \fi  
311   \next#2%  
312 }  
313 \DeclareRobustCommand*{\openbullet}[1]{%  
314   \begingroup  
315   \usefont{U}{\fdrss@family-Pi}{m}{n}%  
316   \edef\@tempa{#1}\expandafter\fdrss@openbullet\@tempa\end  
317   \endgroup  
318 }  
  
319 \newcommand*{\fdrss@@closedbullet}[2]{%  
320   \ifx#2\end  
321     \char7#1%  
322     \let\next\@gobble  
323   \else  
324     \char6#1\kern-0.02em%
```

```

325     \let\next\fdrss@@closedbullet
326   \fi
327   \next#2%
328 }
329 \newcommand*{\fdrss@closedbullet}[2]{%
330   \ifx#2\end
331     \char4#1%
332     \let\next@gobble
333   \else
334     \char5#1\kern-0.02em%
335     \let\next\fdrss@@closedbullet
336   \fi
337   \next#2%
338 }
339 \DeclareRobustCommand*\closedbullet[1]{%
340   \begingroup
341   \usefont{U}{\fdrss@family-Pi}{m}{n}%
342   \edef\@tempa{#1}\expandafter\fdrss@closedbullet\@tempa\end
343   \endgroup
344 }
345 \fi

```

## 7.6 Superior and inferior figures

The following command converts numbers to inferior figures.

```

346 \newcommand*{\fdrss@@inferior}[1]{%
347   \ifx#1\end
348     \let\next\relax
349   \else
350     \char"1#1%
351     \let\next\fdrss@@inferior
352   \fi
353   \next
354 }
355 \newcommand*{\fdrss@inferior}[1]{%
356   \begingroup
357   \edef\@tempa{#1}\expandafter\fdrss@@inferior\@tempa\end
358   \endgroup
359 }

```

`\fdrss@ensuretext` switches to text mode, if necessary.

```

360 \newcommand*{\fdrss@ensuretext}[1]{%
361   \ifmmode
362     \fdsy@text{#1}%
363   \else

```

```

364     #1%
365   \fi
366 }

We provide two commands for generating numerical fractions.

367 \newcommand*{\fdrss@smallfrac}[2]{%
368   \begingroup
369   \fontencoding{U}\fontfamily{\fdrss@family-Extra}\fontshape{n}\selectfont
370   \leavevmode
371   \setbox\@tempboxa\vbox{%
372     \baselineskip\z@skip%
373     \lineskip.25ex%
374     \lineskiplimit-\maxdimen
375     \ialign{\hfil##\hfil\cr
376       \vbox to 1.25ex{\vss\hbox{#1}\vskip.25ex}\cr
377       \leavevmode\leaders\hrule height 0.91ex depth -0.87ex\hfill\cr
378       \vtop to 1ex{\vbox{}\hbox{\fdrss@inferior{#2}}\vss}\cr
379     \noalign{\vskip-1.2ex}}}%
380   \box\@tempboxa
381   \endgroup
382 }

383 \DeclareRobustCommand*{\smallfrac}[2]{%
384   \fdrss@ensuretext{\kern0.08em\fdrss@smallfrac{#1}{#2}\kern0.1em}%
385 }

386 \newcommand*{\fdrss@slantfrac}[2]{%
387   \begingroup
388   \fontencoding{U}\fontfamily{\fdrss@family-Extra}\fontshape{n}\selectfont
389   #1\kern-0.05em/\kern0em\fdrss@inferior{#2}%
390   \endgroup
391 }

392 \DeclareRobustCommand*{\slantfrac}[2]{%
393   \fdrss@ensuretext{\kern0.08em\fdrss@slantfrac{#1}{#2}\kern0.1em}%
394 }

```

## 7.7 Logos

```

395 \iffdrss@sfdefault
396 \DeclareRobustCommand{\LaTeX}{L\kern-.26em%
397   {\sbox\z@ T%
398     \vbox to\ht\z@{\hbox{\check@mathfonts
399       \fontsize\sf@size\z@
400       \math@fontsfalse\selectfont
401       A}%
402     \vss}%
403   }%
404   \kern-.05em%

```

```

405 \TeX
406 }
407 \fi

```

Make the changes take effect. This concludes the main style file.

```

408 \iffdrss@text
409 \normalfont
410 \fi
411 \</package>

```

## 8 Microtype configuration file

The microtype configuration. All four families use the same file (cf. section 9).

```

412 <*mtcfg>
413 \SetProtrusion
414 [ name = FedraSansPro-n ]
415 { }
416 {
417   . = { ,700},
418   {,}= { ,500},
419   : = { ,500},
420   ; = { ,300},
421   ! = { ,100},
422   ? = { ,100},
423   @ = {50,50},
424   ~ = {200,250},
425   \% = {50,50},
426   * = {200,200},
427   + = {250,250},
428   ( = {100, }, ) = { ,200},
429   / = {100,200},
430   - = {600,600},
431   \textendash = {450,450}, \textemdash = {260,260},
432   \textquoteleft = {300,400}, \textquoteright = {300,400},
433   \textquotedblleft = {300,300}, \textquotedblright = {300,300}
434 }
435 \SetProtrusion
436 [ name = FedraSansPro-OT1,
437   load = FedraSansPro-n ]
438 { encoding = {OT1},
439   family = {FedraSansPro-Of,FedraSansPro-LF,FedraSansPro-TOf,FedraSansPro-TLF},
440   shape = {n,sc,ssc} }
441 { }
442 \SetProtrusion
443 [ name = FedraSansPro-T1,

```

```

444     load      = FedraSansPro-n   ]
445     { encoding = {T1,LY1},
446       family   = {FedraSansPro-0sF,FedraSansPro-LF,FedraSansPro-T0sF,FedraSansPro-TLF},
447       shape    = {n,sc,ssc} }
448     {
449       _ = {100,100},
450       \textbackslash      = {100,200},
451       \quotesinglbase     = {400,400},    \quotedblbase      = {400,400},
452       \guilsinglleft      = {400,300},    \guilsinglright     = {300,400},
453       \guillemotleft      = {200,200},    \guillemotright     = {200,200},
454       \textexclamdown     = {100,   },    \textquestiondown   = {100,   },
455       \textbraceleft      = {400,200},    \textbraceright     = {200,400},
456       \textless           = {200,100},    \textgreater        = {100,200}
457     }
458 \SetProtrusion
459 [ name      = FedraSansPro-QX,
460   load      = FedraSansPro-n   ]
461   { encoding = {QX},
462     family   = {FedraSansPro-0sF,FedraSansPro-LF,FedraSansPro-T0sF,FedraSansPro-TLF},
463     shape    = {n,sc,ssc} }
464   {
465     _ = {100,100},
466     \textbackslash      = {100,200},    \textellipsis       = {100,200},
467     \textperiodcentered = {500,700},    \quotedblbase      = {400,400},
468     \textquotedbl      = {400,400},    \textquotesingle    = {400,400},
469     \guillemotleft      = {200,200},    \guillemotright     = {200,200},
470     \textexclamdown     = {100,   },    \textquestiondown   = {100,   },
471     \textbraceleft      = {400,200},    \textbraceright     = {200,400},
472     \textless           = {200,100},    \textgreater        = {100,200}
473   }
474 \SetProtrusion
475 [ name      = FedraSansPro-T5,
476   load      = FedraSansPro-n   ]
477   { encoding = {T5},
478     family   = {FedraSansPro-0sF,FedraSansPro-LF,FedraSansPro-T0sF,FedraSansPro-TLF},
479     shape    = {n,sc,ssc} }
480   {
481     _ = {100,100},
482     \textbackslash      = {100,200},
483     \quotesinglbase     = {400,400},    \quotedblbase      = {400,400},
484     \guilsinglleft      = {400,300},    \guilsinglright     = {300,400},
485     \guillemotleft      = {200,200},    \guillemotright     = {200,200},
486     \textbraceleft      = {400,200},    \textbraceright     = {200,400},
487     \textless           = {200,100},    \textgreater        = {100,200}
488   }

```

```

489 \SetProtrusion
490 [ name      = FedraSansPro-it ]
491 { }
492 {
493     . = { ,500},
494     {,}= { ,500},
495     : = { ,300},
496     ; = { ,300},
497     & = {50,50},
498     \% = {100, },
499     * = {200,200},
500     + = {150,200},
501     @ = {50,50},
502     ~ = {150,150},
503     ( = {200, }, ) = { ,200},
504     / = {100,200},
505     - = {630,630},
506     \textendash      = {200,200},    \textemdash      = {150,150},
507     \textquoteleft   = {400,200},    \textquoteright  = {400,200},
508     \textquotedblleft = {400,200},    \textquotedblright = {400,200}
509 }

510 \SetProtrusion
511 [ name      = FedraSansPro-OT1-it,
512   load      = FedraSansPro-it      ]
513 { encoding = OT1,
514   family   = {FedraSansPro-0sF,FedraSansPro-LF,FedraSansPro-T0sF,FedraSansPro-TLF},
515   shape     = {it,scit,sscit,sw,scsw,sscs} }
516 { }

517 \SetProtrusion
518 [ name      = FedraSansPro-T1-it,
519   load      = FedraSansPro-it      ]
520 { encoding = {T1,LY1},
521   family   = {FedraSansPro-0sF,FedraSansPro-LF,FedraSansPro-T0sF,FedraSansPro-TLF},
522   shape     = {it,sl,sw,scit,scsl,scsw} }
523 {
524     _ = { ,100},
525     \textbackslash      = {100,200},
526     \quotesinglbase     = {300,700},    \quotedblbase     = {400,500},
527     \guilsinglleft      = {400,400},    \guilsinglright   = {300,500},
528     \guillemotleft      = {300,300},    \guillemotright   = {300,300},
529     \textexclamdown      = {100, },    \textquestiondown = {200, },
530     \textbraceleft       = {200,100},    \textbraceright   = {200,200},
531 }

532 \SetProtrusion

```

```

533 [ name      = FedraSansPro-QX-it,
534   load      = FedraSansPro-it      ]
535 { encoding = {QX},
536   family   = {FedraSansPro-0sF,FedraSansPro-LF,FedraSansPro-T0sF,FedraSansPro-TLF},
537   shape     = {it,sl,sw,scit,scsl,scsw} }
538 {
539   _ = { ,100},
540   \textbackslash      = {100,200},   \textellipsis      = {100,200},
541   \textperiodcentered = {500,700},   \quotedblbase     = {400,500},
542   \textquotedbl      = {400,400},   \textquotesingle  = {400,400},
543   \guillemotleft     = {300,300},   \guillemotright   = {300,300},
544   \textexclamdown     = {100,   },   \textquestiondown = {200,   },
545   \textbraceleft      = {200,100},   \textbraceright   = {200,200},
546 }
547 \SetProtrusion
548 [ name      = FedraSansPro-T5-it,
549   load      = FedraSansPro-it      ]
550 { encoding = {T5},
551   family   = {FedraSansPro-0sF,FedraSansPro-LF,FedraSansPro-T0sF,FedraSansPro-TLF},
552   shape     = {it,sl,sw,scit,scsl,scsw} }
553 {
554   _ = { ,100},
555   \textbackslash      = {100,200},
556   \quotesinglbase     = {300,700},   \quotedblbase     = {400,500},
557   \guilsinglleft      = {400,400},   \guilsinglright   = {300,500},
558   \guillemotleft     = {300,300},   \guillemotright   = {300,300},
559   \textbraceleft      = {200,100},   \textbraceright   = {200,200},
560 }
561 </mtcfg>

```

## 9 Font definition support package

As all font definitions look the same, we introduce macros to ease the configuration. These macros are stored in the file `fedrasans-fd.sty`, which is included by every FD file. Since `fedrasans-fd.sty` will be included several times and we do not know in which context the code is executed, we have to define all non-private commands as globals and avoid all `\preambleonly` commands.

We add a guard so that this file is executed only once even if it is included multiple times.

```

562 <*fontdef>
563 \ifx\fdrrs@ffamily\@undefined\else\endinput\fi

```

We distinguish between being loaded directly or via `\usepackage` in the preamble by

checking \@nodocument.

```
564 \ifx\@nodocument\relax\else
565   \NeedsTeXFormat{LaTeX2e}
566   \RequirePackage{xkeyval}
567 \fi
```

Reset \escapechar (which is set to -1 in FD files) to make \newcommand work. The additional group does not harm; we have to make the important commands global anyway.

```
568 \ifx\@nodocument\relax
569   \begingroup
570   \escapechar'\
571 \fi
```

The macro to make commands global is taken from the otfontdef package.

```
572 \newcommand*\fdrss@makeglobal[1]{%
573   \global\expandafter\let\csname #1\expandafter\endcsname
574   \csname #1\endcsname
575 }
```

## 9.1 Options

These are the default values if it is impossible to process options.

```
576 \newcommand\fdrss@ffamily{FedraSansPro}
577 \newcommand\fdrss@weight@normal{Book}
578 \newcommand\fdrss@weight@small{Book}
579 \newcommand\fdrss@bweight@normal{Medium}
580 \newcommand\fdrss@bweight@small{Medium}
581 \newcommand\fdrss@scale{1.0}

582 \ifx\@nodocument\relax\else
583   \newcommand*\fdrss@fd@boolkey[2]{%
584     \define@boolkey{fedrasans-fd.sty}[fdrss@fd@]{#1}[true]{#2}%
585   }
586   \newcommand*\fdrss@fd@choicekey[3]{%
587     \define@choicekey*{fedrasans-fd.sty}{#1}[\@tempa\@tempb]{#2}{#3}%
588   }
589   \fdrss@fd@boolkey{alt}{%
590     \iffdrss@fd@alt\renewcommand\fdrss@ffamily{FedraSansAltPro}\fi%
591   }
592   \fdrss@fd@choicekey{normalweight}{book,demi,auto}{%
593     \ifcase\@tempb\relax
594       \renewcommand\fdrss@weight@normal{Book}
595       \renewcommand\fdrss@weight@small{Book}
596     \or
597       \renewcommand\fdrss@weight@normal{Demi}
```



```

598     \renewcommand\fdrss@mweight@small{Demi}
599   \or
600     \renewcommand\fdrss@mweight@normal{Book}
601     \renewcommand\fdrss@mweight@small{Demi}
602   \fi
603 }
604 \fdrss@fd@choicekey{boldweight}{medium,bold,auto}{%
605   \ifcase\@tempb\relax
606     \renewcommand\fdrss@bweight@normal{Medium}
607     \renewcommand\fdrss@bweight@small{Medium}
608   \or
609     \renewcommand\fdrss@bweight@normal{Bold}
610     \renewcommand\fdrss@bweight@small{Bold}
611   \or
612     \renewcommand\fdrss@bweight@normal{Medium}
613     \renewcommand\fdrss@bweight@small{Bold}
614   \fi
615 }
616 \define@key{fedrasans-fd.sty}{scale}[0.9]{\renewcommand*\fdrss@scale{#1}}
617 \ProcessOptionsX\relax
618 \fi

619 \fdrss@makeglobal{\fdrss@ffamily}
620 \fdrss@makeglobal{\fdrss@mweight@normal}
621 \fdrss@makeglobal{\fdrss@mweight@small}
622 \fdrss@makeglobal{\fdrss@bweight@normal}
623 \fdrss@makeglobal{\fdrss@bweight@small}
624 \fdrss@makeglobal{\fdrss@scale}

```

## 9.2 Font configuration

We define commands to write to and read from the configuration database.

```

625 \newcommand*{\fdrss@addconfig}[4][[]]{%
626   \@for\@tempa:=#3\do{%
627     \expandafter
628     \gdef\csname fdrss@config@#2@#1@\@tempa\endcsname{#4}%
629   }%
630 }
631 \newcommand*{\fdrss@useconfig}[3]{%
632   \@ifundefined{fdrss@config@#2@#1@#3}{%
633     \@ifundefined{fdrss@config@#2@@#3}{}%
634     {\csname fdrss@config@#2@@#3\endcsname}%
635   }{\csname fdrss@config@#2@#1@#3\endcsname}%
636 }
637 \fdrss@makeglobal{\fdrss@useconfig}

```

Now we can build up the configuration database.

```

638 \fdrss@addconfig{weight/normal}{l}{Light}
639 \fdrss@addconfig{weight/small}{l}{Light}
640 \fdrss@addconfig{weight/normal}{sl}{Book}
641 \fdrss@addconfig{weight/small}{sl}{Book}
642 \fdrss@addconfig{weight/normal}{m}{\fdrss@emweight@normal}
643 \fdrss@addconfig{weight/small}{m}{\fdrss@emweight@small}
644 \fdrss@addconfig{weight/normal}{md}{Demi}
645 \fdrss@addconfig{weight/small}{md}{Demi}
646 \fdrss@addconfig{weight/normal}{sb}{Medium}
647 \fdrss@addconfig{weight/small}{sb}{Medium}
648 \fdrss@addconfig{weight/normal}{b}{\fdrss@bweight@normal}
649 \fdrss@addconfig{weight/small}{b}{\fdrss@bweight@small}
650 \fdrss@addconfig{weight/small}{ub}{Bold}
651 \fdrss@addconfig{weight/normal}{ub}{Bold}
652 \fdrss@addconfig{subs/series}{bx}{b}
653 \fdrss@addconfig{italic}{it,scit,sscit}{Italic}
654 \fdrss@addconfig[OML]{italic}{n}{French}
655 \fdrss@addconfig[OML]{italic}{it}{Mixed}
656 \fdrss@addconfig{shape}{sc,scit}{-sc}
657 \fdrss@addconfig{shape}{ssc,sscit}{-ssc}
658 \fdrss@addconfig{subs/shape}{sl}{it}
659 \fdrss@addconfig{subs/shape}{scsl}{scit}
660 \fdrss@addconfig{subs/shape}{sscs}{sscit}

```

This is the main macro to declare a single font shape.

```

661 \newcommand*\DeclareFedraSansShape[4]{%
662   \edef\@tempa{\fdrss@useconfig{#1}{subs/series}{#3}}%
663   \edef\@tempb{\fdrss@useconfig{#1}{subs/shape}{#4}}%
664   \ifx\@tempa\empty\ifx\@tempb\empty
665     \DeclareFontShape{#1}{FedraSansPro-#2}{#3}{#4}{%
666       <-7.1>s*[\fdrss@scale]%
667       \fdrss@ffamily-%
668       \fdrss@useconfig{#1}{weight/small}{#3}%
669       \fdrss@useconfig{#1}{italic}{#4}-#2%
670       \fdrss@useconfig{#1}{shape}{#4}-#1%
671       <7.1->s*[\fdrss@scale]%
672       \fdrss@ffamily-%
673       \fdrss@useconfig{#1}{weight/normal}{#3}%
674       \fdrss@useconfig{#1}{italic}{#4}-#2%
675       \fdrss@useconfig{#1}{shape}{#4}-#1%
676     }{}%
677   \else
678     \DeclareFontShape{#1}{FedraSansPro-#2}{#3}{#4}{%
679       <->ssub* FedraSansPro-#2/#3/\@tempb
680     }{}%

```

```

681 \fi\else
682   \DeclareFontShape{#1}{FedraSansPro-#2}{#3}{#4}{%
683     <->ssub* FedraSansPro-#2/\@tempa/#4%
684   }{}%
685 \fi
686 }
687 \fdrss@makeglobal{DeclareFedraSansShape}

```

Finally, we provide commands to declare a complete family.

```

688 \newcommand*{DeclareFedraSansFamily}[4]{%
689   \DeclareFontFamily{#1}{FedraSansPro-#2}{}%
690   \@for\fdrss@series:=#3\do{%
691     \@for\fdrss@shape:=#4\do{%
692       \DeclareFedraSansShape{#1}{#2}{\fdrss@series}{\fdrss@shape}%
693     }%
694   }%
695 }
696 \fdrss@makeglobal{DeclareFedraSansFamily}
697 \newcommand*{DeclareFedraSansLargeFamily}[2]{%
698   \DeclareFedraSansFamily{#1}{#2}{l,sl,m,md,sb,b,bx,ub}%
699   {n,it,sc,ssc,scit,sscit,sl,scsl,sscs}%
700 }
701 \fdrss@makeglobal{DeclareFedraSansLargeFamily}
702 \newcommand*{DeclareFedraSansSmallFamily}[2]{%
703   \DeclareFedraSansFamily{#1}{#2}{l,sl,m,md,sb,b,bx,ub}{n,it,sl}%
704 }
705 \fdrss@makeglobal{DeclareFedraSansSmallFamily}
706 \newcommand*{DeclareFedraSansTinyFamily}[2]{%
707   \DeclareFedraSansFamily{#1}{#2}{l,sl,m,md,sb,b,bx,ub}{n}%
708 }
709 \fdrss@makeglobal{DeclareFedraSansTinyFamily}
710 \newcommand*{DeclareFedraSansMathFamily}[1]{%
711   \def\@tempa{#1}%
712   \def\@tempb{T0sF}%
713   \DeclareFontFamily{OML}{FedraSansPro-#1}{\skewchar\font=127}%
714   \@for\fdrss@series:=sl,m,md,sb,b,bx,ub\do{%
715     \@for\fdrss@shape:=n,it\do{%
716       \ifx\@tempa\@tempb
717         \DeclareFedraSansShape{OML}{T0sF}{\fdrss@series}{\fdrss@shape}%
718       \else
719         \DeclareFontShape{OML}{FedraSansPro-#1}{\fdrss@series}{\fdrss@shape}{%
720           <->ssub* FedraSansPro-T0sF/\fdrss@series/\fdrss@shape
721         }{}%
722       \fi
723     }%
724   }%

```

```

725 }
726 \fdrss@makeglobal{DeclareFedraSansMathFamily}

    We define font family aliases so that we can place all configurations for the
    FedraSansPro family variants into one microtype file: mt-FedraSansPro.cfg. We
    use microtype's hook if microtype has not been loaded yet (which should be the case);
    otherwise we can execute the alias definitions directly.

727 \gdef\fdrss@MicroType@Aliases{%
728   \DeclareMicrotypeAlias{FedraSansPro-LF}{FedraSansPro}%
729   \DeclareMicrotypeAlias{FedraSansPro-OsF}{FedraSansPro}%
730   \DeclareMicrotypeAlias{FedraSansPro-TLF}{FedraSansPro}%
731   \DeclareMicrotypeAlias{FedraSansPro-TOsF}{FedraSansPro}%
732 }
733 \ifundefined{Microtype@Hook}{%
734   \global\let\Microtype@Hook\fdrss@MicroType@Aliases
735 }{%
736   \@addto@macro\Microtype@Hook{\fdrss@MicroType@Aliases}%
737 }%
738 \ifundefined{DeclareMicroTypeAlias}{\fdrss@MicroType@Aliases}%

739 \ifx\@nodocument\relax
740   \endgroup
741 \fi
742 \endfontdef

```

## 10 Font definition files

Using the above macros, the various FD files become simple two-liners.

```

743 {*fd}
744 \input{fedrasans-fd.sty}
745 {ot1 & lf}\DeclareFedraSansLargeFamily{OT1}{LF}
746 {ot1 & osf}\DeclareFedraSansLargeFamily{OT1}{OsF}
747 {ot1 & tlf}\DeclareFedraSansLargeFamily{OT1}{TLF}
748 {ot1 & tosf}\DeclareFedraSansLargeFamily{OT1}{TOsF}
749 {t1 & lf}\DeclareFedraSansLargeFamily{T1}{LF}
750 {t1 & osf}\DeclareFedraSansLargeFamily{T1}{OsF}
751 {t1 & tlf}\DeclareFedraSansLargeFamily{T1}{TLF}
752 {t1 & tosf}\DeclareFedraSansLargeFamily{T1}{TOsF}
753 {ts1 & lf}\DeclareFedraSansLargeFamily{TS1}{LF}
754 {ts1 & osf}\DeclareFedraSansLargeFamily{TS1}{OsF}
755 {ts1 & tlf}\DeclareFedraSansLargeFamily{TS1}{TLF}
756 {ts1 & tosf}\DeclareFedraSansLargeFamily{TS1}{TOsF}
757 {ly1 & lf}\DeclareFedraSansLargeFamily{LY1}{LF}
758 {ly1 & osf}\DeclareFedraSansLargeFamily{LY1}{OsF}
759 {ly1 & tlf}\DeclareFedraSansLargeFamily{LY1}{TLF}

```

```

760 <ly1 & tosf>\DeclareFedraSansLargeFamily{LY1}{TosF}
761 <qx & lf>\DeclareFedraSansLargeFamily{QX}{LF}
762 <qx & osf>\DeclareFedraSansLargeFamily{QX}{OsF}
763 <qx & tlf>\DeclareFedraSansLargeFamily{QX}{TLF}
764 <qx & tosf>\DeclareFedraSansLargeFamily{QX}{TosF}
765 <t5 & lf>\DeclareFedraSansLargeFamily{T5}{LF}
766 <t5 & osf>\DeclareFedraSansLargeFamily{T5}{OsF}
767 <t5 & tlf>\DeclareFedraSansLargeFamily{T5}{TLF}
768 <t5 & tosf>\DeclareFedraSansLargeFamily{T5}{TosF}
769 <oml & lf>\DeclareFedraSansMathFamily{LF}
770 <oml & osf>\DeclareFedraSansMathFamily{OsF}
771 <oml & tlf>\DeclareFedraSansMathFamily{TLF}
772 <oml & tosf>\DeclareFedraSansMathFamily{TosF}
773 <u & extra>\DeclareFedraSansSmallFamily{U}{Extra}
774 <u & orn>\DeclareFedraSansTinyFamily{U}{Pi}
775 </fd>

```