LaTeX support for Open Sans
Version 2.2

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1 Introduction

Open Sans is a humanist sans serif typeface designed by Steve Matteson. Open Sans was designed with an upright stress, open forms and a neutral, yet friendly appearance. It was optimized for print, web, and mobile interfaces, and has excellent legibility characteristics in its letterforms.

The font family is available from the Google Font Directory [1] as TTF-flavored TrueType files licensed under the Apache License version 2.0 [2].

This package provides support for Open Sans in LaTeX, including XeLaTeX and LuaLaTeX. It includes the original OpenType fonts, as well as Type 1 versions, converted for this package using FontForge [3] for full support with LaTeX and Dvips.

2 Installation

These directions assume that your TeX distribution is TDS-compliant.

Once the `opensans.tds.zip` archive extracted:

1. Copy `doc/`, `fonts/`, and `tex/` directories to your `texmf/` directory (either your local or global `texmf/` directory)
2. Run `mktexlsr` to refresh the file name database and make TeX aware of the new files
3. Run `updmap-user --enable Map opensans.map`[1] to make Dvips, dvipdf and TeX aware of the new fonts

Note that this package requires the following packages to work:

- `fontaxes`
- `fontspec` (for XeLaTeX/LuaLaTeX support)
- `ifluatex`
- `ifxetex`
- `xkeyval`

3 Usage

3.1 Calling Open Sans

You can use the Open Sans font in a LaTeX document by adding the command

```
\usepackage{opensans}
```

to the preamble. The package supplies the `\opensans` command to switch the current font to Open Sans.

[1] Use the `updmap-sys` command instead for a global installation.

Feature	Description	fontspec option
liga	Standard Ligatures	Ligatures=Common
lnum	Lining Figures	Numbers=Uppercase
onum	Oldstyle Figures	Numbers=Lowercase
pnum	Proportional Figures	Numbers=Proportional
salt	Stylistic Alternates	Style=Alternate
ss01	Stylistic Set 1	Alternate=1
ss02	Stylistic Set 2	Alternate=2
ss03	Stylistic Set 3	Alternate=3
tnum	Tabular Figures	Numbers=Monospaced

Table 1: OpenType font features supported by Open Sans fonts

3.2 Options

3.2.1 Open Sans as default (sans-serif) font

You can set LaTeX to use Open Sans as standard font throughout the whole document by passing the default option to the package:

```
\usepackage[default]{opensans}
```

To set Open Sans as default sans-serif only, use the defaultsans option:

```
\usepackage[defaultsans]{opensans}
```

3.2.2 OpenType vs. Type 1

Depending on the LaTeX rendering engine used, the package will automatically use:

- OpenType fonts with XeLaTeX and LuaLaTeX (the fontspec package will be therefore loaded)
- Type 1 fonts with all other LaTeX rendering engines (especially pdfLaTeX)

The package was written to provide same features whatever the TeX rendering engine used. Notice that OpenType fonts supply more typographic features like stylistic alternatives. The table 1 describes all OpenType features supported by the Open Sans font family. Please refer to the fontspec package documentation to enable such features in your documents with XeLaTeX or LuaLaTeX.

To force Type 1 fonts with XeLaTeX or LuaLaTeX, use the type1 option. This may be useful to avoid loading the fontspec package.

	Lining figures	Old style figures
Tabular figures	+142 521 458.11 € −21 173.91 $	+142 521 458.11 € −21 173.91 $
Proportional figures	+142 521 458.11 € −21 173.91 $	+142 521 458.11 € −21 173.91 $

Table 2: Figure styles

3.2.3 Font scaling

The font can be up- and downscaled by any factor. This can be used to make Open Sans more friendly when used in company with other type faces, e.g., to adapt the x-height. The package option `scale`=*ratio* (or `scaled`=*ratio*) will scale the font according to *ratio* (1.0 by default), for example:

```
\usepackage[scale=0.95]{opensans}
```

3.2.4 Figure versions

Open Sans provides two figure styles (see table 2):

- *Lining figures*, designed to match the uppercase letters in size and color
- *Old style figures* (also known as text figures), designed to match lowercase letters

The opensans package uses lining figures by default (`lining` option). To select old style figures, use the `oldstyle` option.

Two figure widths are also available:

- *Tabular figures*, which each have the same width
- *Proportional figures*, which vary in width according to their shape

The opensans package uses tabular figures by default (`tabular` option). To select proportional figures, use the `proportional` option.

Notice that tabular oldstyle figures are not available; when requesting such a combination, proportional oldstyle figures are provided as a fallback.

The package also supports and loads the `fontaxes` [4] package. This package supplies macros to individually select figure style and width locally.

3.2.5 Encodings

The following LaTeX encodings are supported:

Latin OT1, T1, TS1 (partial)

Font	Series	Shape	OpenType font file
Open Sans Light	l	n	OpenSans-Light.ttf
Open Sans Light Italic	l	it (sl)	OpenSans-LightItalic.ttf
Open Sans Condensed Light	lc	n	OpenSansCondensed-Light.ttf
Open Sans Condensed Light Italic	lc	it (sl)	OpenSansCondensed-LightItalic.ttf
Open Sans Regular	m	n	OpenSans-Regular.ttf
Open Sans Italic	m	it (sl)	OpenSans-Italic.ttf
Open Sans SemiBold	sb	n	OpenSans-SemiBold.ttf
Open Sans SemiBold Italic	sb	it (sl)	OpenSans-SemiBoldItalic.ttf
Open Sans Bold	b (bx)	n	OpenSans-Bold.ttf
Open Sans Bold Italic	b (bx)	it (sl)	OpenSans-BoldItalic.ttf
Open Sans Condensed Bold	bc	n	OpenSansCondensed-Bold.ttf
Open Sans ExtraBold	eb	n	OpenSans-ExtraBold.ttf
Open Sans ExtraBold Italic	eb	it (sl)	OpenSans-ExtraBoldItalic.ttf

Table 3: Available font styles

	Lining figures	Old style figures
Tabular figures	opensans-TLF	opensans-TOsF
Proportional figures	opensans-LF	opensans-OsF

Table 4: Available NFSS families

Cyrillic T2A, T2B, T2C, X2

Greek LGR (monotonic only)

To use one or another encoding, give the LaTeX name to the `fontenc` package as usual, as in

```
\usepackage[T1]{fontenc}
\usepackage{opensans}
```

3.3 Available weights, shapes and variants

Table 3 lists the available font series and shapes with their NFSS classification. Parenthesized combinations are provided via substitutions.

In addition, each font variant combination (figure width/figure style) corresponds to a NFSS family (see table 4).

Samples of the font are available in the `opensans-samples.pdf` file.

3.4 Math support

The opensans package doesn't provide math support. However the `mdsymbol` package [5] provides mathematical symbol fonts which fit very well with Open

Sans. In addition, the `mathspec` [6] package (for XeLaTeX or LuaLaTeX engines) or the `mathastext` [7][2] package (for other LaTeX engines) can be called to use Open Sans as math font.

4 Known bugs and improvements

Please send bug reports and suggestions about the Open Sans LaTeX support to Mohamed El Morabity.

4.1 Compatibility with previous versions

4.1.1 Legacy fos family

Previous versions of the package used to provide `fos` as default NFSS family for Open Sans, and the corresponding `\fosfamily` switch command. Such family and macro are still available in newer package versions. In particular, the `fos` family is now an alias for the `opensans-TLF` one.

4.1.2 Smallcaps

Since the Open Sans font family doesn't provide yet "real" smallcaps, faked ones were supplied by previous versions of the opensans package (by scaling down uppercase letters), with a very poor result. Furthermore, there's no convenient way to generate fake smallcaps with XeTeX or LuaTeX engines and native OpenType fonts.

For these reasons, faked small caps are no longer provided, starting with version 2.0 of the opensans package. Anyway LaTeX should automatically substitute missing smallcap shapes by normal ones.

5 License

This package is released under the LaTeX project public license, either version 1.3c or above [8]. Anyway both the TrueType and Type 1 files are delivered under the Apache License version 2.0 [2].

References

[1] http://code.google.com/webfonts/family?family=Open+Sans

[2] http://www.apache.org/licenses/LICENSE-2.0

[3] https://fontforge.github.io/

[2] In particular with the LGR option to get Greek letters from the Open Sans fonts

[4] https://www.ctan.org/pkg/fontaxes

[5] https://www.ctan.org/pkg/mdsymbol

[6] https://www.ctan.org/pkg/mathspec

[7] https://www.ctan.org/pkg/mathastext

[8] http://www.latex-project.org/lppl/lppl-1-3c.html