

# L<sup>A</sup>T<sub>E</sub>X Support For Linotype Sabon

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2015/08/22, v1.2

## Abstract

This package provides L<sup>A</sup>T<sub>E</sub>X support for the Linotype Sabon Fonts. It has everything you need to typeset in this font - except the fonts themselves.

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Table 1: PFB Files

File	Font
SabonLTRom.pfb	Sabon Regular
SabonLTIta.pfb	Sabon Italic
SabonLTBol.pfb	Sabon Bold
SabonLTBolIta.pfb	Sabon Bold Italic

## 1 Introduction

While such engines as `xetex` and `luatex` can use native system fonts, the installation base of `pdftex` is large enough to justify its continuing support with new fonts.

This package provides support files for the Linotype Sabon font family. According to the Fontname scheme [1], this corresponds to the family `lsb`. We provide the necessary font files—everything but the fonts.

## 2 Installation

First, you need to purchase the fonts themselves: the `pfb` files are *not* included in the package. Check that the names of the fonts are those listed in Table 1. If your  $\TeX$  system is TDS-compliant, install the files into `$TEXMF/fonts/type1/linotype/lsabon`. Download <http://ctan.tug.org/install/fonts/psfonts/lsabon.tds.zip> and unzip this file in `$TEXMF`. Add `+lsb.map` to the configuration files of `dvips`, `pdftex` and your `dvi` previewer. Run `updmap` and `texhash` programs to update the configuration files and file names database.

The style `lsabon.sty` provides a number of commands for using the font family (see Section 3)

## 3 Using $\LaTeX$ Style

To use the package, add to the preamble of your document the usual incantation `\usepackage[options]{lsabon}`.

The package supports several options. The option `rmdefault` makes Sabon your default Roman family. The option `normdefault` does not do this. The options `scaled=...` scales Sabon fonts to the given scale.

The package provides fonts in four shapes: upright, italic, small caps and italic small caps, and in two weights: medium (`m`) and bold (`b`). They can be selected by setting font family to `lsb`, e.g.

```
\fontfamily{lsb}\fontshape{it}\fontseries{b}\selectfont
```

```
\sabonfamily
\textsabon
```

Alternatively you can use a declaration `\sabonfamily` and a command

`\textsabon` to set the family.

`\itshape`      The small caps shape is “faked”: it is obtained by combining capitals of different sizes of the upright font. Italic small caps shape is obtained from the italic font. This shape is useful for titling. It can be selected with `\fontshape{it}`, or commands `\itshape` and `\textit`.

## 4 Implementation

### 4.1 Identification

We start with the declaration who we are. Most `.dtx` files put driver code in a separate driver file `.drv`. We roll this code into the main file, and use the pseudo-guard `<gobble>` for it.

```
1 (style)\NeedsTeXFormat{LaTeX2e}
2 <*gobble>
3 \ProvidesFile{lsabon.dtx}
4 </gobble>
5 (style)\ProvidesClass{lsabon}
6 (lsb-drv)\ProvidesFile{lsb-drv.tex}
7 (lsb-map)\ProvidesFile{lsb-map.tex}
8 [2015/08/22 v1.2 Using Linotype Sabon Fonta in LaTeX]
```

And the driver code:

```
9 <*gobble>
10 \documentclass{ltxdoc}
11 \usepackage{booktabs}
12 \usepackage{url}
13 \usepackage[tableposition=top]{caption}
14 \usepackage{hypdoc}
15 \PageIndex
16 \CodelineIndex
17 \RecordChanges
18 \EnableCrossrefs
19 \begin{document}
20   \DocInput{lsabon.dtx}
21 \end{document}
22 </gobble>
```

### 4.2 Fontinst Driver

This follows [2].

First, the preamble

```
23 <*lsb-drv>
24 \input fontinst.sty
25 \substitutesilent{bx}{b}
```

Starting recording transforms:

```
26 \recordtransforms{lsb-rec.tex}
```

A bunch of fonts:

```
27 \transformfont{lsbr8r}{\reencodefont{8r}{\fromafm{SabonLTRom}}}
28 \transformfont{lsbri8r}{\reencodefont{8r}{\fromafm{SabonLTIIta}}}
29 \transformfont{lsbb8r}{\reencodefont{8r}{\fromafm{SabonLTBo1}}}
30 \transformfont{lsbbi8r}{\reencodefont{8r}{\fromafm{SabonLTBo1Ita}}}
```

There is no hook in `fontinst.sty` for writing our own preamble to `.fd` file. However, we need to add scaling commands to the preamble. OK, we will patch `fontinst`:

```

31 \fontinstcc
32 \def\fd_family#1#2#3{
33   \a_toks{#3}
34   \edef\lowercase_file{\lowercase{
35     \edef\noexpand\lowercase_file{#1#2.fd}}}
36   \lowercase_file
37   \open_out{\lowercase_file}
38   \out_line{\percent_char~Filename:~\lowercase_file}
39   \out_line{\percent_char~Created~by:~\tex~\jobname}
40   \out_line{\percent_char~Created~using~fontinst~v\fontinstversion}
41   \out_line{}
42   \out_line{\percent_char~THIS~FILE~SHOULD~BE~PUT~IN~A~TEX~INPUTS~
43     DIRECTORY}
44   \out_line{}
45   \out_line{\string\ProvidesFile{\lowercase_file}}
46   \out_lline{[
47     \the\year/
48     \ifnum10>\month0\fi\the\month/
49     \ifnum10>\day0\fi\the\day\space
50     Fontinst~v\fontinstversion\space
51     font~definitions~for~#1/#2.
52   ]}
53   \out_line{}

```

Here is our patch:

```

54   \out_line{\string\expandafter\string\ifx\string\csname\space
55     LSB@scale\string\endcsname\string\relax}
56   \out_line{\space\string\let\string\LSB@@scale\string\@empty}
57   \out_line{\string\else}
58   \out_line{\space\string\edef\string\LSB@@scale\left_brace_char
59     s*[\string\csname\space LSB@scale\string\endcsname]
60     \right_brace_char\percent_char}
61   \out_line{\string\fi\percent_char}
62   \out_line{}

```

End of the patch.

```

63   \out_line{\string\DeclareFontFamily{#1}{#2}{\the\a_toks}}
64   {
65     \csname #1-#2\endcsname
66     \out_line{}
67     \let\do_shape=\substitute_shape
68     \csname #1-#2\endcsname
69     \let\do_shape=\remove_shape
70     \csname #1-#2\endcsname
71   }
72   \x_cs\g_let{#1-#2}\x_relax
73   \out_line{}

```

```

74 \out_line{\string\endinput}
75 \close_out{Font~definitions}
76 }
77 \normalcc

Now we install the fonts. First T1

78 \installfonts
79 \installfamily{T1}{lsb}{}
80 \installfont{lsbr8t}{lsbr8r,newlatin}{t1}{T1}{lsb}{m}{n}{
81 <->\string\LSB@scale}
82 \installfont{lsbri8t}{lsbri8r,newlatin}{t1}{T1}{lsb}{m}{it}{
83 <->\string\LSB@scale}
84 \installfont{lsbb8t}{lsbb8r,newlatin}{t1}{T1}{lsb}{b}{n}{
85 <->\string\LSB@scale}
86 \installfont{lsbbi8t}{lsbbi8r,newlatin}{t1}{T1}{lsb}{b}{it}{
87 <->\string\LSB@scale}
88 \installfont{lsbrc8t}{lsbr8r,newlatin}{t1c}{T1}{lsb}{m}{sc}{
89 <->\string\LSB@scale}
90 \installfont{lsbbc8t}{lsbb8r,newlatin}{t1c}{T1}{lsb}{b}{sc}{
91 <->\string\LSB@scale}
92 \installfont{lsbic8t}{lsbri8r,newlatin}{t1c}{T1}{lsb}{m}{itsc}{
93 <->\string\LSB@scale}
94 \installfont{lsbbic8t}{lsbbi8r,newlatin}{t1c}{T1}{lsb}{b}{itsc}{
95 <->\string\LSB@scale}
96 \endinstallfonts

Then TS1

97 \installfonts
98 \installfamily{TS1}{lsb}{}
99 \installfont{lsbr8c}{lsbr8r,textcomp}{ts1}{TS1}{lsb}{m}{n}{
100 <->\string\LSB@scale}
101 \installfont{lsbri8c}{lsbri8r,textcomp}{ts1}{TS1}{lsb}{m}{it}{
102 <->\string\LSB@scale}
103 \installfont{lsbb8c}{lsbb8r,textcomp}{ts1}{TS1}{lsb}{b}{n}{
104 <->\string\LSB@scale}
105 \installfont{lsbbi8c}{lsbbi8r,textcomp}{ts1}{TS1}{lsb}{b}{it}{
106 <->\string\LSB@scale}
107 \installfontas{lsbrc8c}{TS1}{lsb}{m}{sc}{}
108 \installfontas{lsbbc8c}{TS1}{lsb}{b}{sc}{}
109 \installfontas{lsbic8c}{TS1}{lsb}{m}{itsc}{}
110 \installfontas{lsbbic8c}{TS1}{lsb}{b}{itsc}{}
111 \endinstallfonts

And OT1

112 \installfonts
113 \installfamily{OT1}{lsb}{}
114 \installfont{lsbr7t}{lsbr8r,newlatin}{ot1}{OT1}{lsb}{m}{n}{
115 <->\string\LSB@scale}
116 \installfont{lsbri7t}{lsbri8r,newlatin}{ot1}{OT1}{lsb}{m}{it}{
117 <->\string\LSB@scale}
118 \installfont{lsbb7t}{lsbb8r,newlatin}{ot1}{OT1}{lsb}{b}{n}{

```

```

119 <->\string\LSB@scale}
120 \installfont{lsbbi7t}{lsbbi8r,newlatin}{ot1}{OT1}{lsb}{b}{it}{
121 <->\string\LSB@scale}
122 \installfont{lsbrc7t}{lsbr8r,newlatin}{ot1c}{OT1}{lsb}{m}{sc}{
123 <->\string\LSB@scale}
124 \installfont{lsbbc7t}{lsbb8r,newlatin}{ot1c}{OT1}{lsb}{b}{sc}{
125 <->\string\LSB@scale}
126 \installfont{lsbic7t}{lsbri8r,newlatin}{ot1c}{OT1}{lsb}{m}{itsc}{
127 <->\string\LSB@scale}
128 \installfont{lsbbic7t}{lsbbi8r,newlatin}{ot1c}{OT1}{lsb}{b}{itsc}{
129 <->\string\LSB@scale}
130 \endinstallfonts

    And the end:
131 \endrecordtransforms
132 \bye
133 </lsb-drv>

```

### 4.3 Fontmap Generation

This is a standard procedure [\[2\]](#)

```

134 (*lsb-map)
135 \input finstmisc.sty
136 \resetstr{PSfontsuffix}{.pfb}
137 \adddriver{dvips}{lsb.map}
138 \input lsb-rec.tex
139 \donedrivers
140 \bye
141 </lsb-map>

```

### 4.4 Style File

The scaling code is from the `helvet` package:

```

142 (*style)
143 \newif\ifLSB@default
144 \LSB@defaultfalse
145 \RequirePackage{keyval}
146 \define@key{LSB}{scaled}[1.00]{%
147   \def\LSB@scale{#1}}
148 \define@key{LSB}{rmdefault}[1]{\LSB@defaulttrue}
149 \define@key{LSB}{normdefault}[1]{\LSB@defaultfalse}
150 \def\ProcessOptionsWithKV#1{%
151   \let\@tempc\relax
152   \let\LSB@tempa\@empty
153   \ifx\@classoptionslist\relax\else
154     \@for\CurrentOption:=\@classoptionslist\do{%
155       \ifundefined{KV@#1\CurrentOption}%
156         {}%
157         {%

```

```

158     \edef\LSB@tempa{\LSB@tempa,\CurrentOption,}%
159     \expandtwoargs\@removeelement\CurrentOption
160     \@unusedoptionlist\@unusedoptionlist
161   }%
162 }%
163 \fi
164 \edef\LSB@tempa{%
165   \noexpand\setkeys{#1}{%
166     \LSB@tempa\@optionlist{\@currname.\@current}%
167   }%
168 }%
169 \LSB@tempa
170 \let\CurrentOption\@empty
171 }
172 \ProcessOptionsWithKV{LSB}
173 \AtEndOfPackage{%
174   \let\@unprocessedoptions\relax
175 }
176 \ifLSB@default
177   \renewcommand{\rmdefault}{lsb}
178 \fi

```

Some new commands:

```

179 \DeclareRobustCommand\sabonfamily{\fontfamily{lsb}\selectfont}
180 \DeclareTextFontCommand{\textsabon}{\sabonfamily}
181 \DeclareRobustCommand\itscshape{\fontshape{itsc}\selectfont}
182 \DeclareTextFontCommand{\textitsc}{\itscshape}
183 </style>

```



## References

- [1] Karl Berry. *Fontname. Filenames For T<sub>E</sub>X Fonts*, September 2005. <http://mirrors.ctan.org/info/fontname>.
- [2] Philipp Lehman. *The Font Installation Guide*, December 2004. <http://mirrors.ctan.org/info/Typefonts/fontinstallationguide>.

## Change History

v1.1		v1.2	
General: Added Small Caps . . . . .	1	General: Added Italic Small Caps . . . . .	1

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