

# L<sup>A</sup>T<sub>E</sub>X Support for Adobe Caslon Open Face

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2011/01/11, v1.0a

## Abstract

This package provides L<sup>A</sup>T<sub>E</sub>X support for Adobe Caslon Open Face font.

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## 1 Introduction

Caslon Open Face font was designed by Barnhart Brothers and Spindler in 1915. It was initially called College Oldstyle and based on *Le Moreau de Jeune* from G. Peignot foundry [1]. Its relation to the classical Caslon font family is rather distant. Nevertheless it is a nice titling and display font.

Adobe sells OTF version of this font, but other versions, including Type 1 are still available from other vendors, including <http://www.fonts.com>. Note that there are many “free” variants of this font available for downloading on various sites; I chose not to use them because of unclear license status.

While modern engines like Xe<sub>T</sub>E<sub>X</sub> and Lua<sub>T</sub>E<sub>X</sub> can use system fonts directly, the installation base of the other systems is huge, so it might be worthwhile to release support files.

The name `pcar1` follows the standard Fontname scheme [2] for Adobe Caslon Open Face.

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## 2 User Guide

### 2.1 Installation

First, you need to buy the font itself. This package assumes that the font is in Type 1 format (on many sites this is mislabeled “Windows PostScript”). The file should be named `ca_.....pfb`. Put it in `$TEXMF/fonts/type1/adobe/pcarl/ca_.....pfb`. Note that this package does *not* require you to rename the file to, say, `pcarl8a.pfb` (however, on a Unix-like system you may need to downcase the file name if you downloaded it as, say, `ca_.....PFB`).

Download the file <http://ctan.tug.org/install/fonts/psfonts/pcarl.tds.zip> and unzip it in the `$TEXMF` directory. For `TeXLive` it is probably `/usr/local/texlive/texmf-local`, or `/usr/local/share/texmf-local`, or `~/texmf`, or `C:\ProgramFiles\texlive\texmf-local`, etc. For `MikTeX` it is probably `C:\miktex\texmf` or `C:\miktex\localtexmf`. Run `texhash` to update the database of file names.

Now you need to add the map file `pcarl.map` to the configuration files of `dvips` and `pdftex`. This again depends on your distribution. For `TeXLive` you create a file `$TEXMF/updmap.d/50pcarl.cfg` with just the line

```
Map pcarl.map
```

and then run `texhash` and `updmap`. If you use Debian or Ubuntu, the system-wide `updmap.d` directory is located in `/etc`, and you need to create the file `pcarl.list` in `/var/lib/tex-common/fontmap-cfg/` with the line

```
50pcarl
```

If you use `MikTeX2.6`, run

```
initexmf --edit-config-file updmap
```

Add to the config file

```
Map pcarl.map
```

save, exit and run `updmap`.

If you use `MikTeX2.5` or earlier, edit `localtexmf\web2c\updmap.cfg`, adding the line

```
Map pcarl.map
```

and run `updmap`.

Refer to your distribution documentation for the details.

## 2.2 Usage

If your installation have been successful, you can use the font with a NFSS-compatible format with the commands like

```
\def\pcarl@scale{1} % Set scaling of the font
\fontfamily{pcarl}\selectfont
```

`\offfamily`      In L<sup>A</sup>T<sub>E</sub>X you may want to add to the preamble of your document  
`\textof`            `\usepackage[options]{pcarl}`

This will enable the commands `\offfamily` and `\textof`, which switch the current font to the Open Face variant.

*option*            The package has the option `scaled=...` The font is uniformly scaled according to the numerical value of the option. The default is `scaled=1`, i.e. no scaling.

## 3 Implementation

### 3.1 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{pcarl.dtx}
4 </gobble>
5 <style>\ProvidesClass{pcarl}
6 <drv>\ProvidesFile{drv.tex}
7 <map>\ProvidesFile{map.tex}
8 <*style | drv | map>
9 [2011/01/11 v1.0a LaTeX Support for Adobe Caslon Open Face]
10 </style | drv | map>
```

And the driver code:

```
11 <*gobble>
12 \documentclass{ltxdoc}
13 \usepackage{booktabs}
14 \usepackage[tableposition=top]{caption}
15 \usepackage{url}
16 \usepackage[breaklinks,colorlinks,linkcolor=black,citecolor=black,
17             pagecolor=black,urlcolor=black,hyperindex=false]{hyperref}
18 \PageIndex
19 \CodelineIndex
20 \RecordChanges
21 \EnableCrossrefs
22 \begin{document}
23   \DocInput{pcarl.dtx}
24 \end{document}
25 </gobble>
```

### 3.2 Fontinst Driver

This follows [3].

First, the preamble

```
26 <*drv>
27 \input fontinst.sty
28 \recordtransforms{rec.tex}
29 \transformfont{pcarl8r}{\reencodefont{8r}{\fromafm{ca_}}}
```

Create the virtual fonts:  
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`:

```

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

```

Here is our patch:

```

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

```

End of the patch.

```

62   \out_line{\string\DeclareFontFamily{#1}{#2}{\the\a_toks}}
63   {
64     \csname #1-#2\endcsname
65     \out_line{}
66     \let\do_shape=\substitute_shape
67     \csname #1-#2\endcsname
68     \let\do_shape=\remove_shape
69     \csname #1-#2\endcsname
70   }
71   \x_cs\g_let{#1-#2}\x_relax
72   \out_line{}
73   \out_line{\string\endinput}
74   \close_out{Font~definitions}
75 }
76 \normalcc

```

Now we are ready to install fonts.

First, OT1:

```
77 \installfonts
78 \installfamily{OT1}{pcarl}{}
79 \installfont{pcarl7t}{pcarl8r,newlatin}{ot1}{OT1}{pcarl}{m}{n}{
80 <->\string\Pcarl@@scale}

    Then T1
81 \installfamily{T1}{pcarl}{}
82 \installfont{pcarl8t}{pcarl8r,newlatin}{t1}{T1}{pcarl}{m}{n}{
83 <->\string\Pcarl@@scale}

    Then TS1
84 \installfamily{TS1}{pcarl}{}
85 \installfont{pcarl8c}{pcarl8r,textcomp}{ts1}{TS1}{pcarl}{m}{n}{
86 <->\string\Pcarl@@scale}

    And the end:
87 \endinstallfonts
88 \endrecordtransforms
89 \bye
90 </drv>
```

### 3.3 Fontmap Generation

This is a standard procedure [3].

```
91 <*map>
92 \input finstmsc.sty
93 \resetstr{PSfontsuffix}{.pfb}
94 \adddriver{dvips}{pcarl.map}
95 \input rec.tex
96 \donedrivers
97 \bye
98 </map>
```

### 3.4 Style File

First, define the option:

```
99 <*style>
100 \RequirePackage{xkeyval}
101 \DeclareOptionX{scaled}{\gdef\Pcarl@scale{#1}}
102 \ExecuteOptionsX{scaled=1}
103 \ProcessOptionsX
```

`\offfamilydefault` This is the open face family we use:

```
104 \def\offfamilydefault{pcarl}
```

`\offfamily` Switch the text to the open family. Note that we reset shape and series here:

```
105 \def\offfamily{%
106     \fontfamily{\offfamilydefault}\fontseries{m}\fontshape{n}\selectfont}
```

```
\textof And the command version
107 \DeclareTextFontCommand{\textof}{\offamily}
108 </style>
```

**Acknowledgements** This package was commissioned by *Annals of Mathematics* <http://annals.princeton.edu/>.

## References

- [1] Adobe Systems, Inc. *Caslon Open Face Std*, 2007. <http://www.adobe.com/type/browser/html/readmes/CaslonOpenFaceStdReadMe.html>.
- [2] Karl Berry. *Fontname. Filenames For T<sub>E</sub>X Fonts*, September 2005. <http://mirrors.ctan.org/info/fontname>.
- [3] Philipp Lehman. *The Font Installation Guide*, December 2004. <http://mirrors.ctan.org/info/Type1fonts/fontinstallationguide>.



## Change History

v1.0a

General: Documentation cleanup . 1

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