

# The verdana font package\*

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## 1 Introduction

'Verdana' is a common font that can be downloaded from: <http://prdownloads.sourceforge.net/corefonts/verdan32.exe?download>

The font is readily available on machines with a Microsoft operating system.

The wrapper provides a T1 encoded font.

The wrapper would be most straightforward weren't it for the ligature problems that Verdana exhibits. The core of the problem is that over the years, Microsoft removed several glyphs from the font, including the ligatures 'fi' and 'fl' (on the T1 octal positions 34 and 35). The font version 2006 (as it can be downloaded from sourceforge), still has the ligatures. In version 2008 they have been removed. In version 2010, even more glyphs have been removed. The reason for removing these glyphs is unclear to me.

To overcome these issues, the wrapper provides an option 'nofligs' (shorthand for 'no f-ligatures'), that disables the invocation of these ligatures involving f.

If a testpage, or a testfont page generated with T<sub>E</sub>X shows missing ligatures, then just use the options 'nofligs'.

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\*This document corresponds to verdana ?, dated ?.

Most standard T<sub>E</sub>X installations do embed fonts in PDF files. However, in case your PDF document does not contain embedded fonts, make sure, when handing over a PDF document containing Verdana to your publishing company, to check whether their version of Verdana contains the fi and fl glyphs. E.g., send them a document generated without the 'nofligns' option, containing the sentence: "the flying fish fled finally", and ask them to send you a print-out of the document. If it reads "the ying sh ed nally", then you'd better turn on the 'nofligns' option when generating your print-ready PDF (or make sure you create PDFs with embedded fonts).

## 2 Installation

The following excellent webpages tell you everything there is to know about installing fonts: <http://tug.org/fonts/fontinstall.html>

You will find a procedure for:

- TeX Live
- MiKTeX
- MacTeX

Of course, you have to make sure the Verdana ttf files are available in your T<sub>E</sub>X search path. The TDS tree of the package (available in the verdana.tds.zip package) contains an indication of a common place to put your ttf files.

## 3 Usage

The macro package verdana loads the verdana font for use with L<sup>A</sup>T<sub>E</sub>X:

```
\usepackage{verdana}
```

or one can selectively enable the verdana fonts using:

```
\fontfamily{vna}\selectfont
```

In case your Verdana exhibits the f-ligature problems mentioned before, use the option 'nofligs':

```
\usepackage[nofligs]{verdana}
```

or one can selectively enable the verdana fonts without f-ligatures using:

```
\fontfamily{vnax}\selectfont
```

## 4 Demo

Below, one can find the four variants of the verdana font, corresponding to the four ttf flavours.

Sans serif:

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

0123456789-{}';/.,@%><&\*()

Ligature test: ff fi fl ffi ffl - - —

Italics:

*ABCDEFGHIJKLMNOPQRSTUVWXYZ*

*abcdefghijklmnopqrstuvwxyz*

*0123456789-{}';/.,@%><&\*()*

*Ligature test: ff fi fl ffi ffl - - —*

Boldface:

**ABCDEFGHIJKLMNOPQRSTUVWXYZ**

**abcdefghijklmnopqrstuvwxyz**

**0123456789-{}';/.,@%><&\*()**

**Ligature test: ff fi fl ffi ffl - - —**

Boldface italics:

***ABCDEFGHIJKLMN**OP**QRSTUVWXYZ***

***abcdefghijklmnopqr**stuv**wxyz***

***0123456789-**{}**’;/.,@%><&\*()***

***Ligature test: ff fi fl ffi ffl - - —***

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## 5 Implementation

TeX font metric files (.tfm) and Adobe font metric files (.afm), virtual font files and map files have been generated using the simple script below:

```
<*genfonts>
#!/bin/bash

export FONTID='vna'
export TTFBASE='verdana'

function createtfm {
    BASE='basename $1 .ttf'
    # create TeX Font Metrics (tfm)
    ttf2tfm ${BASE}.ttf -q -T T1-WGL4.enc $2 ${BASE}.vpl ${BASE}.tfm

    # the tfm files with disabled ligatures have been obtained by
    # manually editing the vpl files at this moment

    # create virtual fonts (vf)
    vptovf ${BASE}.vpl ${BASE}.vf ${BASE}.tfm

    # generate the Adobe Font Metrics (afm)
```

```

    ttf2afm -e T1-WGL4.enc -o ${BASE}.afm ${BASE}.ttf

    # store the tfm file under a new name
    mv ${BASE}.tfm $3.tfm
    mv ${BASE}.vf $3.vf
    mv ${BASE}.afm $3.afm
}

# generate medium normal font metrics (m)(n)
createtfm ${TTFBASE}.ttf '-v' ${FONTID}mn8t

# generate bold normal font metrics (b)(n)
createtfm ${TTFBASE}b.ttf '-v' ${FONTID}bn8t

# generate medium italics font metrics (m)(it)
createtfm ${TTFBASE}i.ttf '-v' ${FONTID}mit8t

# generate bold italics font metrics (b)(it)
createtfm ${TTFBASE}z.ttf '-v' ${FONTID}bit8t
</genfonts>

```

This script was inspired by the information found on <http://www.radamir.com/tex/ttf-tex.htm> by Damir Rakityansky.

The file T1-WGL4.enc is part of the ttf2tfm package.

## 5.1 Font description

The font description file is straightforward, but exists in two flavors: one with f-ligatures (t1vna.fd) and one without ligatures (t1nvax.fd).

With f-ligatures:

```

1 <*t1vna>
2 \DeclareFontFamily{T1}{vna}{}
3 \DeclareFontShape{T1}{vna}{m} {n} {<-> vnamn8t} {}
4 \DeclareFontShape{T1}{vna}{m} {sc}{<-> ssub * vna/m/n} {}
5 \DeclareFontShape{T1}{vna}{m} {sl}{<-> ssub * vna/m/it} {}
6 \DeclareFontShape{T1}{vna}{m} {it}{<-> vnamit8t} {}
7
8
9 \DeclareFontShape{T1}{vna}{b} {n} {<-> vnabn8t} {}

```

```

10 \DeclareFontShape{T1}{vna}{b}{sc}{<-> ssub * vna/b/n }{}
11 \DeclareFontShape{T1}{vna}{b}{sl}{<-> ssub * vna/b/it}{}
12 \DeclareFontShape{T1}{vna}{b}{it}{<-> vnabit8t      }{}
13
14
15 \DeclareFontShape{T1}{vna}{sb}{n}{<-> ssub * vna/b/n }{}
16 \DeclareFontShape{T1}{vna}{sb}{sc}{<-> ssub * vna/b/sc}{}
17 \DeclareFontShape{T1}{vna}{sb}{sl}{<-> ssub * vna/b/sl}{}
18 \DeclareFontShape{T1}{vna}{sb}{it}{<-> ssub * vna/b/it}{}
19
20 \DeclareFontShape{T1}{vna}{bx}{n}{<-> ssub * vna/b/n }{}
21 \DeclareFontShape{T1}{vna}{bx}{sc}{<-> ssub * vna/b/n }{}
22 \DeclareFontShape{T1}{vna}{bx}{sl}{<-> ssub * vna/b/it}{}
23 \DeclareFontShape{T1}{vna}{bx}{it}{<-> ssub * vna/b/it}{}
24
25 </t1vna>

```

#### Without f-ligatures:

```

26 <*t1vnax>
27 \DeclareFontFamily{T1}{vnax}{}
28 \DeclareFontShape{T1}{vnax}{m}{n}{<-> vnaxmn8t      }{}
29 \DeclareFontShape{T1}{vnax}{m}{sc}{<-> ssub * vnax/m/n }{}
30 \DeclareFontShape{T1}{vnax}{m}{sl}{<-> ssub * vnax/m/it}{}
31 \DeclareFontShape{T1}{vnax}{m}{it}{<-> vnaxmit8t    }{}
32
33
34 \DeclareFontShape{T1}{vnax}{b}{n}{<-> vnaxbn8t      }{}
35 \DeclareFontShape{T1}{vnax}{b}{sc}{<-> ssub * vnax/b/n }{}
36 \DeclareFontShape{T1}{vnax}{b}{sl}{<-> ssub * vnax/b/it}{}
37 \DeclareFontShape{T1}{vnax}{b}{it}{<-> vnaxbit8t    }{}
38
39
40 \DeclareFontShape{T1}{vnax}{sb}{n}{<-> ssub * vnax/b/n }{}
41 \DeclareFontShape{T1}{vnax}{sb}{sc}{<-> ssub * vnax/b/sc}{}
42 \DeclareFontShape{T1}{vnax}{sb}{sl}{<-> ssub * vnax/b/sl}{}
43 \DeclareFontShape{T1}{vnax}{sb}{it}{<-> ssub * vnax/b/it}{}
44
45 \DeclareFontShape{T1}{vnax}{bx}{n}{<-> ssub * vnax/b/n }{}
46 \DeclareFontShape{T1}{vnax}{bx}{sc}{<-> ssub * vnax/b/n }{}
47 \DeclareFontShape{T1}{vnax}{bx}{sl}{<-> ssub * vnax/b/it}{}
48 \DeclareFontShape{T1}{vnax}{bx}{it}{<-> ssub * vnax/b/it}{}
49
50 </t1vnax>

```

## 5.2 Map file

The PS/PDF mapping file is also straightforward. It contains two identical sections, for the variants with and without f-ligatures.

With f-ligatures:

```
51 ⟨*map⟩
52 vnamn8t Verdana <verdana.ttf <T1-WGL4.enc
53 vnमित8t VerdanaItalic <verdanai.ttf <T1-WGL4.enc
54 vnabn8t VerdanaBold <verdanab.ttf <T1-WGL4.enc
55 vnabit8t VerdanaBoldItalic <verdanaz.ttf <T1-WGL4.enc
56 ⟨/map⟩
```

Without f-ligatures:

```
57 ⟨*map⟩
58 vnaxmn8t Verdana <verdana.ttf <T1-WGL4.enc
59 vnaxmit8t VerdanaItalic <verdanai.ttf <T1-WGL4.enc
60 vnaxbn8t VerdanaBold <verdanab.ttf <T1-WGL4.enc
61 vnaxbit8t VerdanaBoldItalic <verdanaz.ttf <T1-WGL4.enc
62 ⟨/map⟩
```

## 5.3 Macro package

First, we define the `nofligs` option.

```
63 ⟨*package⟩
64 \newif\if@nofligs
65 \DeclareOption{nofligs}{\@nofligstrue}
66 \ProcessOptions
67 ⟨/package⟩
```

The style file makes the sans serif font the family default and loads the appropriate Verdana font as sans serif font, and the computer modern typewriter light font as the typewriter font.

```
68 ⟨*package⟩
69 \renewcommand{\familydefault}{\sfdefault}
70 \if@nofligs
71   \renewcommand{\sfdefault}{vnax}
72 \else
73   \renewcommand{\sfdefault}{vna}
74 \fi
```

```
75 \renewcommand{\ttdefault}{cmtl}  
76 \endinput  
77 </package>
```