

## ABOUT THE 8.62 DISTRIBUTION

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### 1. INTRODUCTION

The MacTeX distribution of TeX for OS X installs three packages which come directly from Gerben Wierda's i-Installer packages: Ghostscript, ImageMagick, and Font Utilities (primarily FontForge and the Fondu Mac Font cli Tools). In the lull before the storm of making MacTeX 2008, I've been worrying about the packages, since Gerben does not distribute the latest versions of the software.

The most important package is Ghostscript. I have constructed an experimental install package for the most recent release, ghostscript 8.62 released on February 29, 2008.

I'd like users to test this release, particularly since ten different installations need to be tested: PPC on systems 10.3, 10.4, 10.5 and Intel on systems 10.4 and 10.5; each installation has a version compiled with X11 support and a version compiled without X11 support.

Gerben installs two versions of the ghostscript binary: gs-X11 with X11 support and gs-noX11 without X11 support. At install time, he sets the symbolic link "gs" to point to the appropriate binary, depending on whether the user has installed X11 or not. This package does the same.

### 2. WHAT IS INSTALLED

Ghostscript binaries are installed in `/usr/local/bin`, Ghostscript support files are installed in `/usr/local/share/ghostscript/8.62` and Ghostscript fonts are installed in `/usr/local/share/ghostscript/fonts`. Man pages are placed in `/usr/local/share/man`.

### 3. THE BINARIES

When making the package, I discovered that Ghostscript compiled on Leopard Intel will not run on Tiger Intel, ghostscript compiled on Leopard PPC will not run on Tiger PPC, ghostscript compiled on Tiger PPC will not run on Panther PPC, and ghostscript compiled on Panther PPC will not compile unless the optional cups package is disabled. I could have made the package by compiling ghostscript on Tiger Intel and Panther PPC and using lipo to combine these into a universal binary. I was reluctant to do that.

Thus the install package contains four binaries, each universal, and so eight copies of the code! Consider `gs-X11`, for example. This binary in the install package was constructed by compiling `ghostscript` with X11 support on Leopard Intel and on Leopard PPC, and using `lipo` to combine them. The binary `gs-noX11` was constructed similarly. But the package also contains `gs-X11-tiger`, which is made by compiling `ghostscript` with X11 support on Tiger Intel and on Panther PPC, and using `lipo` to combine them. The final binary `gs-noX11-tiger` was made in a similar way.

During installation, the install package determines whether the user has Leopard or an earlier system. If the computer is running Leopard, `gs-X11-tiger` and `gs-noX11-tiger` are removed. If the computer is running an earlier system, `gs-X11` and `gs-noX11` are removed and `gs-X11-tiger` and `gs-noX11-tiger` are renamed. So at the end of installation, all machines will contain `gs-X11` and `gs-noX11` and a symbolic link `gs` to the appropriate binary. Notice that a user who does not have X11 but later installs it can reset the `gs` link and get a `ghostscript` with X11 support.

All of this means that a user with Leopard will get the latest stuff compiled with full Leopard support.

#### 4. PRELIMINARY TESTING

I have actually tested this briefly on 10.3, 10.4, 10.5 PPC and on 10.4 and 10.5 Intel, using the binary with X11 support and the binary without X11 support. Thus I already know that typesetting in “TeX and Ghostscript” mode using Ghostscript to convert a ps file to pdf works, and I already know that `xdvi` under X11 with Ghostscript displaying the eps illustrations works.

But more extensive testing, particularly on Leopard systems, would be useful.