FogLamp 2.0

for Windows/Mac

User Manual

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About FogLamp

Thank you for purchasing FogLamp, a small utility that converts Fontographer database files (.fog) into OpenType fonts or FontLab VFB files.

FogLamp for Mac reads Fontographer source files (database files with the .fog file extension) made with both Mac and Windows versions of Fontographer 3.x and 4.x. FogLamp for Windows reads the same formats except .fog files made with Fontographer 3.x for Mac.

FogLamp outputs files in the FontLab VFB format that is compatible with FontLab Studio 5, FontLab 4.x, TypeTool 2, AsiaFont Studio 4 and other software applications from Fontlab Ltd.

In addition, FogLamp 2 can convert .fog files straight into OpenType PS (.otf) or Win TrueType / OpenType TT (.ttf) fonts. This makes FogLamp a perfect companion to Fontographer, our classic font editor. Simply speaking, FogLamp 2 adds OpenType support to Fontographer.

FogLamp converts one or several files at a time and puts the result in the specified folder.

This manual covers both the Mac and Windows versions of FogLamp 2.0. We will describe the Mac version here in the Manual making special note of anything specific for the Windows version.

System Requirements

The Mac version of FogLamp requires the following hardware and software configurations:

- a PowerPC-based Apple computer
- one of the following versions of Mac OS:

  Mac OS 9.1 or later classic operating system (version 9.2.2 is recommended) with CarbonLib 1.6 or later, or

  Mac OS X 10.2 or later (Mac OS X 10.2 or later is recommended).

Intel-based Apple computers are not directly supported. However, the software should run properly on Intel-based Mac OS X systems using the Rosetta environment.

The Windows version of FogLamp requires a PC computer running one of the following versions of Windows: Windows 98, Windows ME, Windows NT 4.0, Windows 2000 or Windows XP.

Installing FogLamp

To install FogLamp on Mac OS:

1. Quit all open applications and disable any antiviral utilities that may prevent proper installation.
2. Run the FogLamp Installer.
3. The Mac OS X may ask you for your login password:

   Enter your login password and click **OK**. Then follow the installer's on-screen instructions.

By default, the installer will put the utility into the "Applications" folder on your hard drive. If you wish, you may set another destination folder by pressing the **Choose** button.

Note that you must have sufficient user privileges to install software on Mac OS X. For example, you might want to log in as Administrator when installing the software.

To install FogLamp on Windows:

1. Quit all open applications and disable any antiviral utilities that may prevent proper installation.
2. Run the FogLamp Installer.
3. Follow the on-screen instructions.

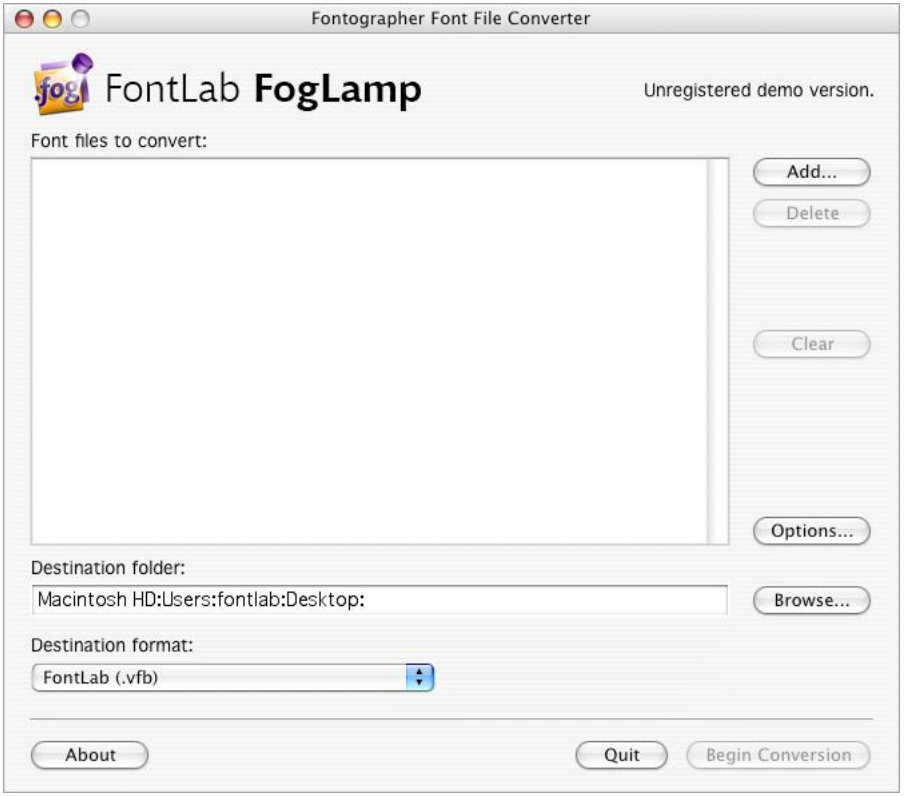
By default, the installer will put the utility into the *C:\Program Files\FontLab\FogLamp* folder on your hard drive.

Using FogLamp

After you have installed FogLamp you can start using it immediately.

When you run FogLamp for the first time you will be asked to enter your name and the serial number. If you do not have the serial number just click on the **Run in demo mode** button.

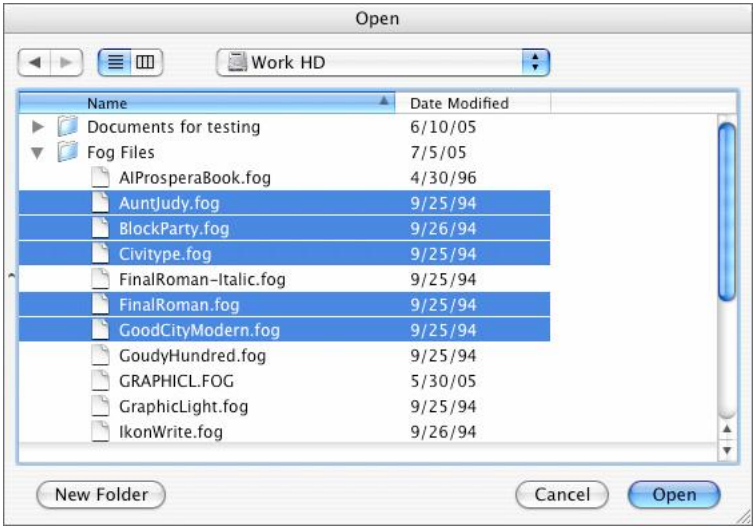
FogLamp will present its Main window:



The Main window of FogLamp contains the list of files for conversion (it is empty when you run FogLamp), the edit box for destination folder, the pop-up menu for destination format, and a number of buttons.

There are two ways to select and add Fontographer font files for conversion:

1. Click on the **Add** button at the right of the files list and choose the files in the standard Mac/Windows **Open** dialog:



   Use the **Shift** and **Cmd** keys (Mac) or **Shift** and **Ctrl** keys (Win) to select several files.

2. Use the drag-and-drop method – just select files in the Finder (or Windows Explorer) and drag-drop them onto the Main window of FogLamp. On Mac, you can also drag-and-drop .fog files right onto the FogLamp's icon in the Finder or in the dock.

In both cases, the files that you selected will be added to FogLamp's file conversion list.

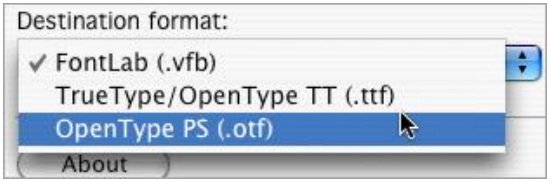
Note that it is possible to add one file twice or even more. FogLamp won't check files for duplicates and will just convert them one by one asking for permission to overwrite the previously converted version of the output file.

To remove a file from the list, select it and click on the **Delete** button (only the list entry will be removed from the list, the actual file will not be deleted from the disk).

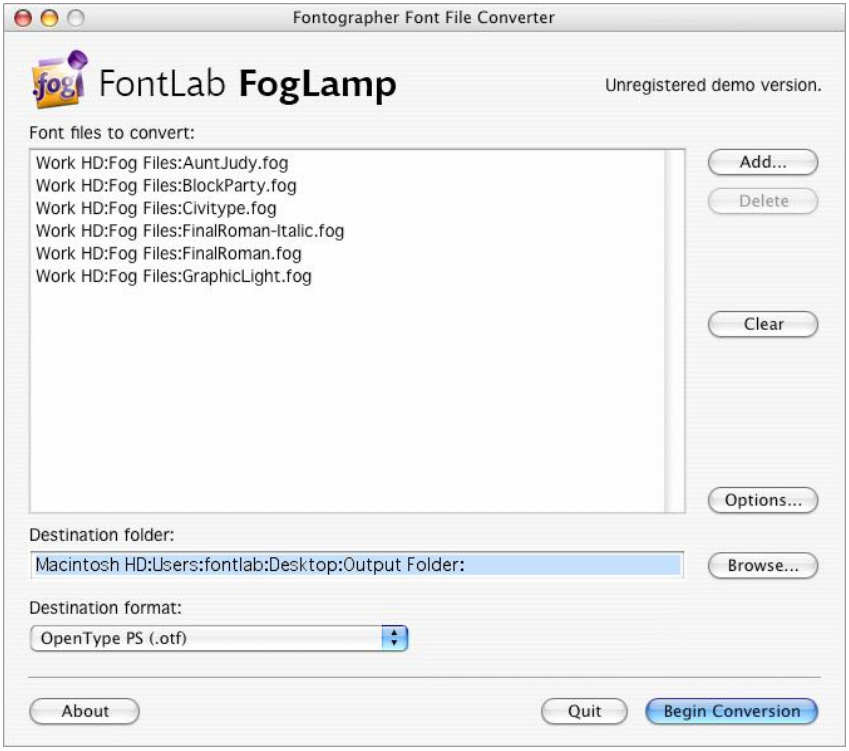
To remove all files from the list, click on the **Clear** button.

Before you begin the conversion process, you must choose the destination folder and format. Click on the **Browse** button and choose the folder where you want to put the result fonts.

Select the destination format for conversion:



Now you are ready to convert your .fog files into FontLab .vfb files or into OpenType fonts:

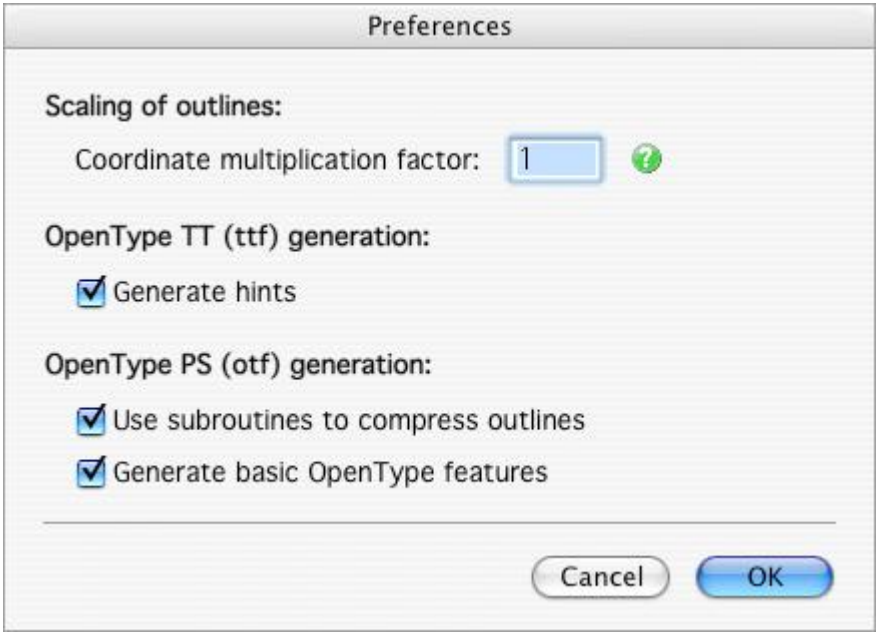


Just press the **Begin Conversion** button to start the process.

If you do not wish to convert the fonts or you wish to finish using FogLamp, click on the **Quit** (**Exit** on Windows) button.

FogLamp Options

If you click on the **Options** button in the Main window or choose the **Preferences** command in FogLamp menu, the **Preferences** (**Options** on Windows) dialog will appear on the screen:



Scaling of outlines

Normally, font formats such as Type 1, OpenType or TrueType allow the user to design glyphs on a fixed grid. The grid is defined by the UPM (units per em) size, which is typically 1000 units per em. It may be larger, going up to 16,000 UPM in OpenType TT fonts but in any case, only integer point coordinates can be used. This is very different from drawing in Illustrator or Freehand, where you can place the Bézier points on non-integer (fractional) coordinates. Therefore, it is possible to express very thin and very fine details in PostScript illustrations but for digital fonts, the precision of the glyph drawings is finite.

Fontographer 4.x gives the user a unique ability to design glyphs using non-integer (fractional) point coordinates. However, when the user generates the font, Fontographer automatically rounds the fractional coordinates into integers, therefore losing the high precision of the drawing.

Other FontLab applications such as FontLab Studio, TypeTool or AsiaFont Studio do not allow for fractional coordinates. These applications accurately reflect the constraints of the digital fonts font formats. However, some users may still find the fractional coordinates useful during the design process. Since Fontographer 4.x supports fractional point coordinates, rounding errors will not accumulate during repetitive geometric transformations such as scaling, skewing or rotating – that you may want to perform when designing the typeface.

Unlike Fontographer itself, FogLamp gives you the unique ability to increase the precision when rounding the fractional point coordinates to integer coordinates. Obviously, if a font is drawn of a finer grid, the rounding errors are less visible. If your Fontographer source file has the UPM size of 1000 and uses fractional point coordinates, the rounding errors may be visible in very fine or thin details of the letterforms if the final font has that same UPM size. But if the destination font has a UPM size of 2000 or 4000, the rounding will be more precise, and therefore, less detail will be lost during the rounding.

Note that practically, Type 1 fonts and OpenType PS (.otf) fonts should have an UPM size of 1000. Theoretically, it is possible to have OpenType PS fonts with a higher UPM size but some applications have minor display problems with such fonts. On the other hand, with Win TrueType / OpenType TT (.ttf) fonts, it is absolutely fine to have other UPM sizes such as 2000, 2048, 4000, 10 000 or even 347.

In FogLamp, you can specify an increase of the UPM size (and therefore the rounding precision) for the fonts you convert. This is done in the Preferences by setting the coordinate multiplication. By default, it is equal to 1 so a 1000 UPM .fog file will be converted to a 1000 UPM .vfb, .otf or .ttf file. If you you used non-integer point coordinates in a .fog file made with Fontographer 4.x and you would like to increase the rounding precision, you can enter an integer there from 1 to 10. For example, if the source Fontographer file has the UPM value set to 1000 and you entered 4 as the coordinate multiplication factor, the UPM of the converted font file will be set to 4000 and the fractional point coordinates will be rounded at higher precision.

OpenType TT generation

The **Generate Hints** option is on by default and allows FogLamp to generate hinted TrueType/OpenType TT (ttf) fonts if this destination format was selected.

How FogLamp Autohints TrueType/OpenType TT Fonts

When hinting is allowed FogLamp makes TrueType hints the following way. If the original glyph has Type 1 hinting information, then FogLamp converts this information to visual TrueType instructions and converts the instructions to the TrueType hinting code. If Type 1 hints are not present then FogLamp automatically generates Type 1 hints as the first step, then converts the Type 1 hints into TrueType visual instructions and converts the visual instructions into TrueType native instructions.

The process of generating TrueType hints is the same as in FontLab Studio 5. If you need more information please refer to FontLab Studio 5 Manual, Chapter 9.

OpenType PS generation

The **Use subroutines to compress outlines** option allows FogLamp to automatically generate outline subroutines if font is generated as OpenType PS (CFF-flavored). Outline subroutines store repetitive parts of glyph outlines and allow to reuse with references from outline definition code. If you disable this option, the conversion process will be faster but the resulted OpenType PS fonts will be larger.

If the **Generate basic OpenType features** option is on FogLamp will generate a basic set of pre-defined OpenType Layout features. FogLamp automatically generates “liga”, “ccmp”, “frac”, “kern” and “ordn” OpenType features if glyphs that can be used in these features are present in the source Fontographer font file. This feature works only when converting Latin fonts into OpenType PS format.

Information about **using** OpenType fonts can be found at:

http://www.myfonts.com/info/opentype/
http://store.adobe.com/type/opentype/

Information about **developing** OpenType fonts can be found at:

http://www.microsoft.com/typography/SpecificationsOverview.mspx
http://www.microsoft.com/typography/developers/opentype/
http://partners.adobe.com/public/developer/opentype/

Support

For any information about FogLamp browse to the FogLamp home page:

http://www.fontlab.com/foglamp/

Use the following address to get support information, FogLamp updates and downloads:

http://www.fontlab.com/support/

In case of any questions about FogLamp or any other of our products use the form at:

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