



FONT MANAGEMENT IN OS X BEST PRACTICES GUIDE

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Why do you need to manage fonts?

If you are a design professional—if you create documents or graphics or do any of the 1,001 other things that designers do on computers—you probably have hundreds or even thousands of fonts. You probably use the same group of fonts for a specific set of projects, and you may have different versions of the same font for different clients.

You need to be aware of your fonts, know where they are, and know how and when to use them.

Here are some of the reasons that you need to manage your fonts:

- ▶ Different projects may require different versions of the same font. This can be especially true if you are working on projects for multiple clients.
- ▶ Fonts use system resources, so the more fonts you have loaded, the less you can do with your computer.
- ▶ Applications that you install could make changes to your fonts without your knowledge.
- ▶ Tracking down corrupt fonts can take valuable production time.
- ▶ When you have a lot of fonts, the **Font** menus in your applications can take a long time to scroll through. (Some people would put this at the top of this list.)

If you have a large collection of fonts, effective font management is critical.

Using a font manager can help with all these and provide additional benefits, such as:

- ▶ You can search and compare fonts to find the best one for the job at hand.
- ▶ You can quickly build font previews for client approval.
- ▶ See how new fonts will work within existing web projects.

About this guide

This guide is designed to help Macintosh users understand more about managing their fonts. It contains recommendations and instructions that can help you configure your system to minimize font problems and improve your work efficiency. It covers:

- ▶ Choosing a font manager
- ▶ Collecting your fonts
- ▶ Dealing with duplicate and corrupt fonts
- ▶ Planning ahead for new fonts

Conventions

Because much of the information in this guide is technical in nature, it is important to present that information clearly and unambiguously. We use the following conventions to help convey exact meaning:

- ▶ Code font: text that you are to type (such as in a Terminal session) is shown in this typeface.
- ▶ File names: When possible, we'll give exact file names, including their extensions.
- ▶ Files and folders: File and folder name and paths are shown in **this typeface**. When we present a full path, it will start with a slash character / indicating the root of the hard disk, such as **/Library/Fonts/**. A relative path will start with a base folder name, such as **My Fonts/System Fonts/**. Paths that start in the current user's home directory are given using the tilde ~ character: **~/Library/Fonts/** is equivalent to **/Users/currentUser/Library/Fonts/**. A path that ends with a folder name will end with a slash, whereas a path that ends with a filename will not. Individual file and folder names will be identified in the text (the **Fonts** folder; the file **Andale Mono**).

Is there more than one of you?

If you manage multiple users in a workgroup, you may benefit significantly from the use of a server-based font management system, such as Universal Type Server. To download white papers, documentation and related information about the benefits of server-based font management solutions, please visit the Extensis website at <http://www.extensis.com/universal-type-server-3/>.

Font management best practices

A good font manager should be almost invisible in your workflow, so that font activation and deactivation takes place without your intervention.

Most of the remainder of this guide is devoted to discussing the following Best Practices.

Use a font management application

A good font manager can address all of the aforementioned issues and provide additional utility as well. Depending on your needs, you can get a font manager for an individual computer or a server-based solution that can manage fonts for groups or teams within your organization.

Collect your fonts

To effectively manage your fonts, you should strip down your system to the basic required fonts, eliminate duplicates, identify and replace corrupt fonts, upgrade very old fonts, and add them to your font manager.

Plan for new font installations

When you buy new fonts or software that includes fonts, you should take steps to add the fonts to your font management solution.

Choosing a font management application

There are several professional font management applications available. You should evaluate what you need a font manager to do. Although OS X has basic font management functionality available through its Font Book application, for design professionals, the Mac's built-in font management capabilities don't go far enough.

Basic functionality of a font manager

A font manager's main purpose is to make fonts available when they are needed, and remove them from use when you are done with them.

When a font is available for use, it is called an *active* font, and the process of making it available is called *activation*. When the font is removed from availability, it is *deactivated*. This is the major feature of a font manager and other capabilities revolve around the notion of activating and deactivating—or *managing*—fonts.

Some important features to look for in a font manager are:

- ▶ Ability to manage fonts in System font folders
- ▶ Ability to manage user-specified sets of fonts
- ▶ Ability to automatically activate fonts used in a document you open
- ▶ Ability to handle special required System fonts
- ▶ Works in the background with no user intervention necessary

Other features that can help your workflow include:

- ▶ Ability to preview fonts in multiple configurations
- ▶ Ability to print font specimens
- ▶ Ability to search for fonts based on any of several criteria
- ▶ Ability to store fonts in a common, protected location
- ▶ Ability to activate fonts in place, without moving them
- ▶ Ability to collect fonts for redistribution
- ▶ Ability to troubleshoot fonts
- ▶ Ability to clean system and application font caches

What about Font Book?

While Font Book provides basic font management capabilities, it doesn't have the flexibility of a professional font manager.

However, even though you won't use it for your font management needs, don't delete it. Font Book is integrated with OS X.

See Adding fonts to your font manager on page 10 for details on disabling Font Book's font management to avoid conflict with your chosen font manager.

Manage fonts in OS font folders

The Mac OS has several locations where it normally stores and looks for fonts. On a typical system, there will be three folders where fonts may be stored:

- ▶ The System fonts folder, **/System/Library/Fonts/**
- ▶ The Local fonts folder, **/Library/Fonts/**
- ▶ The User fonts folder, **~/Library/Fonts/**

The System fonts folder is generally reserved for fonts required by the Mac OS and shouldn't be modified casually. The Local fonts folder is where other generally available fonts are stored. The User fonts folder holds fonts that are private for each user; if your computer has two user accounts Joe and Mary, there can be fonts in **/Users/Joe/Library/Fonts/** that are only available to Joe, and fonts in **/Users/Mary/Library/Fonts/** that are only available to Mary.

A good font manager will identify and separately manage fonts in these locations.

Note: OS X Lion and Mountain Lion hide the user **Library** folder (and hence the **Fonts** folder as well). For more information, see *Appendix B: The User Library under Lion and Mountain Lion* on page 20.

Manage sets of fonts

By the time you get your computer set up and software installed, you will have several hundred—and possibly thousands—of fonts.

Many designers find it convenient to group fonts they use for certain tasks, either by client or by job. This makes it easy to activate, deactivate, and collect the fonts you need when you need them.

Automatic font activation

One of the nicer features of font managers is the ability to detect the fonts used in a document and automatically activate them when you open that document.

This type of activation is based on the font information available in the document—usually the font's PostScript name. While this is convenient, it can occasionally activate a different version of a font than the one you expect.

Most commercial font managers include a second, more robust form of automatic activation that relies on plug-ins installed for certain applications—typically design applications like Photoshop and QuarkXPress. The plug-in looks at additional information about fonts used in the document in order to determine the correct font to activate. This makes it possible for the font manager to activate the same font (and more importantly, the correct font) consistently in each document.

Conflicting System fonts

The operating system identifies fonts by a name that is internal to the font. A conflict occurs if there are two fonts that are active that have the same internal name.

Two required System fonts on OS X, Helvetica and Helvetica Neue, have the same internal name as their PostScript Type 1 counterparts. Many designers need to use PostScript Type 1 fonts, but OS X goes to great lengths to see to it that it versions of these fonts don't get disabled or removed.

A good font manager will recognize the need to use different versions of these System fonts and correctly handle the activation for you.

Background operation

To make font management a mostly hands-off process, most font managers include a background component that is always running; it does all the font activation and

Other System font folders

There is a fourth location where fonts can be stored on OS X: in **/Network/Library/Fonts/**. This location is for fonts shared on a network that are managed manually. If you find that you need to share fonts on a network, rather than install local copies, you would most likely benefit immensely from a server-based font management solution.

In older versions of Mac OS X that supported the Classic environment (which allowed running programs designed for Mac OS 9), fonts could also be located in **/System Folder/Fonts/**. Classic was only available for Macs with a PowerPC processor; support ended for PowerPC Macs with OS X v10.5. (Note that later versions of OS X—including Mountain Lion—can still use fonts designed for the Classic Mac environment; they just need to be added to your font manager, or installed in the User or Local fonts folder.)

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deactivation work automatically. You only need to use the application's interface to perform specific tasks like creating sets or comparing fonts side by side.

Font preview and printing

When you choose a font for a project, one consideration is how the font looks and acts: the shape and relative size of the glyphs, character and line spacing, and so on. A good font manager will let you look at font samples under many conditions: with your own sample text, in multiple sizes and styles, and even in the context of your project.

In addition to previewing fonts, many designers like to keep a type specimen book, both for their own use and for clients to peruse. An added benefit of some font managers is the ability to print custom font specimens.

Searching for fonts

When you have thousands of fonts available, it can seem overwhelming to try to find the right one, or to decide between a few. A good starting point can be to narrow the field using a search with multiple criteria.

A font manager can limit the list of fonts by name, classification, style, foundry, or other criteria, so that you can easily see a subset of your fonts.

Private font storage and in-place activation

In order to keep your fonts safe as well as easy to maintain, font managers offer the option of copying your fonts to a private folder, where the application can activate them but where they are safe from casual outside access. This gives the advantage of keeping all your fonts in one place and keeping them separate from required OS fonts.

There may be times when you need to make sure that some fonts are not added to your main collection, for instance if you have a client that requires segregating their fonts from others. In this case, your font manager also needs to provide the ability to activate fonts that remain outside of the private font store, usually called *in-place activation*.

Collecting fonts

Font managers will usually allow you to select fonts and copy them to another folder for use elsewhere, either to install on another computer or to deliver to a print shop with a document. (Carefully read your font or software license to determine what you can and cannot do with fonts.)

Font troubleshooting

Fonts, like any other file on your computer, can become corrupted even though you do everything "right." If you experience odd behavior related to how text is displayed, you could have a corrupt font.

Font managers can look inside a font to determine if it has gone bad. Some will even scan fonts for issues when you install them, rather than let you find out later that a font is corrupt.

Cleaning font caches

OS X and many applications use a font cache for both of these reasons: to quickly access fonts that are frequently used, but to keep the files inaccessible to other applications. Files in a font cache can become damaged just as any other file can. If a font appears garbled or you start to have other font-related issues, you may have a corrupt cache.

A good font manager will be able to clear the font caches for OS X as well as your design applications.

Gathering your fonts

Before you start managing your fonts, it is a good idea to get them together, separate the wheat from the chaff, and make backup copies. The process you use will be similar whether you are starting from a “clean” system (either a new purchase or a computer that has been wiped and had the operating system re-installed), or you are working with a production system that already has software and fonts installed.

The steps in preparing your fonts to be managed are:

- ▶ Back up your system
- ▶ Pare down your system fonts
- ▶ Upgrade old fonts
- ▶ Add fonts to your font manager
- ▶ Find and remove duplicate fonts
- ▶ Find and replace corrupt fonts

Back up your system

Before embarking on any project that requires you to move or delete files or install new software, you should make sure that your computer is adequately backed up so that, if something goes wrong, you can return your system to its previous state.

You should also make a backup of your system fonts as a secondary precaution.

1. Make a folder on the Desktop named **System Fonts** and another folder named **Local Fonts**.
2. Open the **/System/Library/Fonts/** folder.
3. Select all the fonts, hold down the **Option** key, and drag the fonts to the **System Fonts** folder on the desktop.
4. Open the **/Library/Fonts/** folder and **Option**-drag all the fonts to the **Local Fonts** folder on the desktop.
5. Select the **System Fonts** and **Local Fonts** folders on the desktop and choose **File > Compress 2 Items**.
This will create a compressed file named **Archive.zip** on the desktop.
6. Rename the file **Archive.zip** to **Original Fonts.zip**.
7. Copy the **Original Fonts.zip** file to two external devices (CD, DVD, USB hard drive, network volume, thumb drive, cloud storage, etc.).
Two backups of important data are better than one.

Once you have copied your archive to backup media, you can delete the **Original Fonts.zip** file and the **System Fonts** and **Local Fonts** folders from your Desktop.

Pare down your system fonts

The first step in getting your fonts ready to be managed is to remove all unnecessary fonts from your computer's System font folders.

Unless you are using software that depends on a very specific version of OS X, you should make sure that your operating system and its included applications are up-to-date. Click the **Apple** menu and choose **Software Update**; if any updates are found, install them. This will ensure that, among other things, your system fonts are all up-to-date.

We are going to separate the fonts on your computer into the following categories:

- ▶ Fonts required by OS X or one of its integral applications
- ▶ Fonts required by OS X under uncommon circumstances
- ▶ Fonts required by Apple-supplied applications that come with OS X
- ▶ Core web fonts
- ▶ Optional fonts

What extension, please?

Often, you will need to differentiate between font files that have an extension (such as the **.ttf** in **Arial.ttf**) and those that do not. To do this, you will need to enable file extensions in the Finder:

1. Choose **Finder > Preferences**.
2. Click the **Advanced** icon.
3. Enable **Show all filename extensions** (**Show all file extensions** in OS X 10.5).
4. Close the Finder Preferences window.

This shows the extensions of all your files, not just your font files: **.doc** or **.docx** for Word files, **.app** for applications, and so on. If you find this distracting, you can disable filename extensions in the Finder Preferences when you have finished gathering your fonts.

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If you have installed Adobe Creative Suite applications, we'll separate those fonts out, and deal with some Microsoft Office fonts as well.

Create four folders on your Desktop: **Other OS fonts**, **Apple app fonts**, **Core web fonts**, and **Optional fonts**. You will move fonts into these folders from other locations on your hard drive.

Selecting and moving non-critical OS fonts

Important: It is generally not required that you move any fonts from **/System/Library/Fonts/**, as these are the fonts Apple deems necessary for the system in all languages.

If you are only using English or another Western European language, moving the suggested fonts should not be a problem.

If you want to be cautious, feel free to skip this step.

Open the System fonts folder, **/System/Library/Fonts/** and select all the files *except* those listed below. (Some of these fonts may not be present depending on the version of OS X that you are running.)

- ▶ **AppleGothic.ttf**
- ▶ **Geneva.dfont**
- ▶ **HelveLTMM**
- ▶ **Helvetica LT MM**
- ▶ **Helvetica.dfont**
- ▶ **HelveticaLight.ttf**
- ▶ **HelveticaLightItalic.ttf**
- ▶ **HelveticaNeue.dfont**
- ▶ **HelveticaNeueDeskUI.ttc**
- ▶ **Keyboard.dfont, Keyboard.ttf**
- ▶ **LastResort.dfont or LastResort.ttf**
- ▶ **LucidaGrande.dfont or LucidaGrande.ttc**
- ▶ **Menlo.ttc**
- ▶ **Monaco.dfont**
- ▶ **Symbol.dfont or Symbol.ttf**
- ▶ **Times LT MM**
- ▶ **Times.dfont**
- ▶ **TimesLTMM**
- ▶ **ZapfDingbats.dfont or ZapfDingbats.ttf**

Drag the selected files to the **Other OS fonts** folder on the Desktop.

Once the files have been copied, choose **File > Move to Trash** to move the selected files from **/System/Library/Fonts/** to the Trash. When prompted, enter your administrator password.

Moving fonts used by Apple applications

Some applications that come with OS X rely on fonts installed in the System fonts folder, the Local fonts folder, or both.

If you did not move fonts from the System fonts folder, then skip this paragraph. Open the **Other OS fonts** folder on the desktop. Select the following fonts and drag them to the **Apple app fonts** folder (note that some of these are not included in every version of OS X):

- ▶ **Apple Color Emoji.ttf**
- ▶ **Apple Symbols.ttf**
- ▶ **MarkerFelt.ttc**

Open the Local fonts folder, **/Library/Fonts/**. Select the font file **MarkerFelt.dfont** or **MarkerFelt.ttc** and drag it to the **Apple app fonts** folder.

Collecting the Core web fonts

Many websites were designed around a common set of “web-safe” fonts that are widely available and are assumed to be installed on most users’ systems. It is important to keep these fonts available for web browsing and especially if you are a web designer.

Open the **/Library/Fonts/** folder and move the following files into the **Core web fonts** folder:

- ▶ **Andale Mono.ttf**
- ▶ **Arial Black.ttf**
- ▶ **Arial Bold Italic.ttf**
- ▶ **Arial Bold.ttf**
- ▶ **Arial Italic.ttf**
- ▶ **Arial.ttf**
- ▶ **Brush Script.ttf**
- ▶ **Comic Sans MS Bold.ttf**
- ▶ **Comic Sans MS.ttf**
- ▶ **Courier New Bold Italic.ttf**
- ▶ **Courier New Bold.ttf**
- ▶ **Courier New Italic.ttf**
- ▶ **Courier New.ttf**
- ▶ **Georgia Bold Italic.ttf**
- ▶ **Georgia Bold.ttf**
- ▶ **Georgia Italic.ttf**
- ▶ **Georgia.ttf**
- ▶ **Impact.ttf**
- ▶ **Tahoma Bold.ttf**
- ▶ **Tahoma.ttf**
- ▶ **Times New Roman Bold Italic.ttf**
- ▶ **Times New Roman Bold.ttf**
- ▶ **Times New Roman Italic.ttf**
- ▶ **Times New Roman.ttf**
- ▶ **Trebuchet MS Bold Italic.ttf**
- ▶ **Trebuchet MS Bold.ttf**
- ▶ **Trebuchet MS Italic.ttf**
- ▶ **Trebuchet MS.ttf**
- ▶ **Verdana Bold Italic.ttf**
- ▶ **Verdana Bold.ttf**
- ▶ **Verdana Italic.ttf**
- ▶ **Verdana.ttf**
- ▶ **Webdings.ttf**

If you have installed a version of Microsoft Office, then it may have moved some of your fonts. Look inside the **/Library/** folder for a folder named **Fonts Disabled**; if it exists, then open it and move any fonts that are on the Core web fonts list above into the Core web fonts folder. If you are prompted that one of the fonts already exists, replace that font; the one that Office disabled is the more desirable Apple font.

Gathering Adobe fonts

Create a folder on your Desktop named **Adobe CS x fonts**, but replace **x** with the version of your installed Creative Suite. (The original version of Creative Suite was not numbered but we will refer to it as Creative Suite 1.)

Did somebody say “web fonts?”

The days of web-safe fonts are not gone, but they are fast becoming a speck in our rear view mirror, thanks to web font services like WebINK.

WebINK lets you design your website using high-quality fonts from dozens of foundries, and serves those fonts to all your visitors regardless of the computer and browser they are using. (Within reason, of course; but most recent browsers that run on three-to-five year old computers or phones should work just fine.)

WebINK is also integrated into Suitcase Fusion 4, so you can try out fonts and do your prototyping in Photoshop.

Now you can finally ditch Arial and Comic Sans and show the world how you really feel.

Visit the **WebINK website** (<http://www.webink.com>) for more information.

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If you have Creative Suite 1:

- Open **/Library/Fonts/** and move all font files whose name starts with **WarnockPro** to the **Adobe CS 1 fonts** folder.

If you have Creative Suite 1 or 2:

- Open **/Library/Application Support/Adobe/Fonts/** and move all font files to the **Adobe CS 1 fonts** or **Adobe CS 2 fonts** folder.

Be careful to leave the folder named **Reqrd** where it is; this folder contains fonts that the Adobe applications need in order to run.

Adobe CS 3 and later install fonts to the Local fonts folder. This means the Adobe fonts are mixed in among other installed fonts. They should still be easy to identify: all the Creative Suites include a version of Adobe Caslon Pro, whose filenames all start with **ACaslonPro**, and they would have all been installed at approximately the same time.

If you have Creative Suite 3 or later:

1. Open the Local fonts folder, **/Library/Fonts/**.
2. Choose **View > As List**.
3. Click the head of the column labeled Date Modified.
This sorts the files by their modification date, which for font files is usually the date they were installed.
4. Find one of the fonts whose name starts with **ACaslonPro**. Select all the fonts whose Date Modified fall within a couple of minutes of this file and move them to the **Adobe CS x fonts** folder.

If you want to be more precise, check your Adobe Creative Suite CD for a list of included fonts, or visit these pages on Adobe's web site:

- **Fonts Installed by Adobe's Creative Suite** (<http://blogs.adobe.com/typblography/fonts-installed-by-adobes-creative-suite>)

This includes lists for CS1, CS2, CS3, CS4, CS5, and CS5.5

- **Fonts included with Adobe's Creative Suite 6 and Creative Suite 6 Applications** (<http://www.adobe.com/type/browser/fontinstall/cs6installedfonts.html>)

Keeping Office up-to-date

Be sure you update your copy of Microsoft Office to the latest version available. For Office X, the last supported updater is available at <http://www.microsoft.com/en-us/download/details.aspx?id=2415>. You can update Office 2004, 2008, and 2011 by choosing **Help > Check for Updates** in any Office application, or you can download updaters from <http://www.mactopia.com>.

Microsoft Office fonts

Microsoft Office installs a lot of fonts that you can use with the Office applications and in other projects.

Note: Microsoft Office applications build a list of available fonts when they start. To ensure that your documents and templates display the appropriate fonts, be sure to activate any required fonts using your font manager before you start an Office application.

Office X

The Office X applications do not require any fonts other than System fonts to run, though the included templates may rely on included fonts.

The Microsoft Office Installer places a set of optional fonts inside **/Applications/Microsoft Office X/Office/Fonts/**; open this folder and move the fonts into the **Optional fonts** folder on the Desktop.

The Value Pack Installer places fonts in your User fonts folder. In a later step you will move these into the **Optional fonts** folder; see *Gathering optional fonts* on page 9.

Office 2004

There are two situations with Office 2004 that need to be addressed:

- ▶ The first time you run an Office application, Office 2004 installs its fonts in the User fonts folder.
- ▶ PowerPoint 2004 presents a “Missing Default Fonts” dialog if some fonts are not installed; unfortunately, this dialog appears because one of the missing fonts was included with earlier versions of OS X but not more recent versions.

To address the first issue, open the folder **/Applications/Microsoft Office 2004/Office/** and delete the file **Do Fonts**. (If you have already run one of the Office applications, you should also see *Gathering optional fonts* on page 9.)

To address the issue with PowerPoint, the first time you see the “Missing Default Fonts” dialog select “Don’t show me this again.”

Office 2008 and 2011

Office 2008 and 2011 install fonts in **/Library/Fonts/Microsoft/** and move existing fonts with conflicting names to **/Library/Fonts Disabled/**.

These versions of Office do not require any fonts other than System fonts, so you can move the **Microsoft** folder from **/Library/Fonts/** to the **Optional fonts** folder.

Gathering optional fonts

After the above steps, there may be fonts left in the following locations:

/Library/Fonts/
/Library/Fonts Disabled/
~/Library/Fonts/
/Library/Application Support/

Open **/Library/Fonts/** and move any files into the **Optional fonts** folder on the Desktop.

Do the same with files in the **/Library/Fonts Disabled/** folder.

Open your User fonts folder; choose **Library** from the **Go** menu in the Finder, then open the **Fonts** folder. (On OS X 10.7 Lion and 10.8 Mountain Lion, the User Library folder is normally hidden; hold down the **Option** key when you click the **Go** menu to reveal the **Library** menu item.)

Select all font files and move them to the **Optional fonts** folder.

Open **/Library/Application Support/**. Some software vendors store fonts that they want to be accessible to their applications here. For example, on OS X v10.6 and later, Apple stores fonts in **/Library/Application Support/Apple/Fonts/**.

Open the **Apple/Fonts/** folder if it is present. You may see a folder named **iWork** and a folder named **iOS**. The **iWork** folder contains fonts that are also included with the **iWork** suite of programs; Apple installs fonts here even if you don’t have **iWork**. The **iOS** folder contains some fonts that are used on the iPhone, iPad, and iPod Touch.

If you have iWork installed, then you should archive the **Apple/Fonts/iWork/** folder, since those fonts are already installed. (To archive the folder, drag it to the Desktop, compress it, and copy the compressed archive to a suitable backup storage medium.)

Copy the **iOS** and **iWork** folders to the **Optional fonts** folder on the Desktop.

Look in the **/Library/Applications/** folder for other vendors who may have included a **Fonts** folder and move those fonts to the **Optional fonts** folder as well. (Skip the Adobe

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The Times, they are a-changin'

So are the Helveticas, the Garamonds, and even the Arians. In fact, the past few versions of OS X (and Windows, too) have shown a distinct move towards using OpenType fonts instead of some of the older digital font formats.

Font foundries are embracing this format almost exclusively. When you shop for new fonts, you will almost definitely be able to find what you want in the OpenType bin, while the PostScript and TrueType bins have fewer and fewer to choose from.

The reasons for this are inherent in the construction of OpenType: Adobe and Microsoft designed it to combine the features of existing font technologies like PostScript and TrueType, and expanded it with features needed by digital designers, like ligatures, contextual letterforms, and most importantly, support for the Unicode character set.

For an in-depth comparison of OpenType with other font formats, see Appendix D: Font formats on page 23.

Disabling OS X font management using Terminal

You can use the command line alternative from any account (provided you have the system root password). The advantage to using this method is that the “Alert me if system fonts change” setting will be applied to all user accounts, so you only need to do this once.

1. Start **/Applications/Utilities/Terminal.app**.
2. Type **atsutil autoactivation -d** and press Return. (This disables auto-activation for the current user account.)
3. Type **sudo atsutil fontprotection -off** and press Return. (This turns off system font alerts for all users.)
You'll be prompted for a password; enter the password for the root user on the computer and press Return again.
4. Type **exit** and press Return, then quit Terminal.

folder if it is present; locating Adobe CS fonts is discussed under *Gathering Adobe fonts* on page 7.)

Prepare to share

We recommend moving your new font folders from the Desktop to the **/Users/Shared/** folder. This way, the fonts will be available to any user account on your computer, present or future.

Upgrade old fonts

While it isn't always feasible to move clients from using one font to another, there is a case to be made for migrating to OpenType fonts when possible:

- ▶ OpenType fonts can include thousands of characters, while PostScript Type 1 fonts can only include 256.
- ▶ OpenType fonts can be used on both Macs and PCs, making cross-platform document management easier.
PostScript Type 1 and Classic Mac TrueType fonts can only be used on a single platform, and if you open a Mac document that uses these fonts on Windows, some characters—like curly quotes—may be mapped to different characters.
- ▶ Most font foundries produce OpenType fonts; some do so exclusively.
- ▶ OpenType fonts use a single file, so installation and management is easier. Older PostScript fonts use two files: a screen font and a printer font.

Using your font manager, you can keep legacy fonts available and activate them when a project calls for them.

Identifying fonts to upgrade

Open each of the font folders on your Desktop. View the folder as a list, and sort the list by Kind. Any of the following font Kinds are candidates for upgrades:

- ▶ **Font Suitcase:** This Kind can be either a Classic Mac TrueType font suitcase, or the bitmap screen font that accompanies a PostScript Type 1 outline font.
- ▶ **PostScript Type 1 outline font.**
- ▶ **TrueType font:** This is a Classic Mac TrueType font.

Create a folder on the Desktop named **Legacy fonts** and move these fonts to it. Make a shopping list of these fonts so that you can upgrade them in the future.

Move the **Legacy fonts** folder to **/Users/Shared/** so that it is with all your other font folders.

Note: Some of the legacy fonts will be old versions of Core web fonts; compare the contents of the **Legacy fonts** folder with the **Core web fonts** folder to determine which of the legacy fonts you won't need to upgrade, and remove those from your shopping list.

Adding fonts to your font manager

Important: Before using your font manager, you need to disable some of OS X's built-in font management features.

1. Start Font Book (located in the **Applications** folder on your hard disk).
2. Choose **Font Book > Preferences**.
3. Clear the box labeled “Automatic font activation.”
4. Clear the box labeled “Alert me if system fonts change.”
If there are multiple user accounts on your Mac, you will need to clear this setting for each user.
5. Close the Preferences dialog and quit Font Book.

After disabling these features, install your font manager.

Where to keep fonts

Font managers will generally have two options for storing fonts: by copying to a private folder, or by leaving them in their original folder. There are benefits to both options, and usually you can use both simultaneously.

For most of your workflow, we recommend letting the font manager copy fonts to its own private folder, and only keeping fonts in their original folders for special cases, such as clients who require font segregation, or using fonts on a temporary basis.

Set the default for your font manager to use its private folder. In Suitcase Fusion 4:

1. Choose **Suitcase Fusion 4 > Preferences**.
2. Under Font Vault Options, select “Copy added fonts to the Vault.”
3. Close the Preferences window.

Note: While these examples use Suitcase Fusion 4 to illustrate processes, most font managers will have similar features.

Grouping fonts

In its most basic configuration, your font manager will have two groups of fonts that form the basis of your font activity: fonts in the System folders, and fonts outside these folders.

OS X restricts what font managers can do with fonts that are in the System fonts folders, which is why we had you move most fonts to other folders, so that they can be managed easily.

In Suitcase Fusion 4, non-System fonts are listed in a *library*; the default library is called Font Library.

Your font manager should have a way to create sub-groupings of fonts within its “library” for easier recognition. (In Suitcase Fusion 4, these groups are called *sets*.)

We want to create a set for each of the font folders you created earlier (except the **Legacy fonts** folder), then add the fonts from each folder to the set.

In Suitcase Fusion 4, you can create the set and add the fonts for it in one step: drag the desired folder from the Finder into the Font Library. Suitcase creates a set with the same name as the folder, and adds all the fonts in the folder to the set.

If your font manager has a similar feature, use it; otherwise, make a “set” with the same name as each folder, then add the fonts from the folder into the set. (You may need to add the fonts to the general “library” first, then move them to the “set.”)

Adding fonts in place

For those times when you don’t want to add fonts to the font manager’s private folder (for a quick fix to a job or to keep a client’s fonts segregated from your other fonts), you will need to add fonts “in place,” so that the font manager works with them where they are.

To add fonts that are managed in place, you will need to switch the setting that tells your font manager whether to copy fonts, then add the fonts in question, then switch the setting back.

We’ll add a folder of fonts named **Big client fonts** using this method.

Important: When you add fonts in place, you should be sure to have a backup of the fonts first.

OS X Font Management

1. Copy the **Big client fonts** folder to the Desktop or other convenient location.
2. Open Suitcase Fusion 4.
3. Choose **Suitcase Fusion 4 > Preferences**.
4. Under Font Vault Options, select “Add fonts leaving them in place.”
5. Close the Preferences window.
6. Drag the **Big client fonts** folder from the Desktop into the Font Library.
7. Choose **Suitcase Fusion 4 > Preferences**.
8. Under Font Vault Options, select “Copy added fonts to the Vault.”
9. Close the Preferences window.

Suitcase Fusion 4 also allows you to add fonts in place on a *temporary* basis. To use this feature, drag the fonts or folder to the Suitcase Fusion 4 Dock icon. The fonts will only be available until you log out of your Mac account, or shut down or restart your computer.

This feature allows you to quickly use a set of fonts, such as for a quick job for a client, without adding them to the Font Vault and without needing to change your preferences temporarily.

Keeping duplicate fonts at bay

The easiest way to deal with duplicate fonts is to not let them in. If you use Suitcase Fusion 4 and keep your fonts exclusively in the Font Vault, it will never add a font that is identical to one that is already in the Vault.

Identifying duplicates

The bane of font management is having duplicate fonts. Part of the reason for this is that “duplicate” has two different meanings: it can mean two fonts that may have different names but identical internal structures, and it can also mean two fonts that have the same name yet which may have different metrics, available glyphs, and other internal differences.

If you have two fonts with the same name (such as the two Helveticas shown below), you probably have different projects that rely on one or the other version. If you delete one version, you may end up with a project that looks like the second example: text wraps differently and ultimately may cause pagination differences. For this reason, you should keep these duplicates but identify each so that you know which is which.

HELVETICA HELVETICA

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A tale of two Helveticas

If you allow your font manager to always keep fonts in its private store (the Font Vault in Suitcase Fusion 4), you should never have identical fonts with different names. If you do keep some fonts outside the Vault, it is possible that you can see this type of duplicate, but it is a minor problem: once identified, all such duplicates can be eliminated and will never be a problem again.

Finding duplicate fonts is relatively easy; in Suitcase Fusion 4, you can use the following methods. If you use another font manager, see its documentation.

Finding duplicate fonts by PostScript name

1. Open Suitcase Fusion 4 and click on Font Library.
2. Choose **Edit > Find Fonts**.
3. In the second line of the Find panel, select **Duplicates** from the first pop-up menu, then select **PostScript Name** from the second pop-up menu.

The list now shows fonts that have the same PostScript name. If the list is empty, then you have no conflicting fonts.

Click the **View** menu. If **Group Fonts by Family** is checked, then select it, so that fonts are now listed individually and not in folders.

Choose **View > Columns > PostScript Name** to show the PostScript Name for each font listed, then click the header of that column to sort the fonts by their PostScript Name.

Since it is possible that you have used these fonts in projects, you should keep them all, but you should find some way to identify each one. For example, you might create keywords of your client names, then assign those keywords to the fonts that each client uses.

The most important thing to keep in mind with duplicate PostScript names is that only one of these fonts can be active at a time. The result is that font substitutions will occur if the wrong font is active.

Font managers include activation plug-ins for professional design applications to ensure 100% accuracy. Global activation techniques are used to ensure correct font usage in other applications such as word processors and spreadsheets.

Finding identical duplicates

This method is possible because Suitcase assigns a unique Font Sense ID to each font based on internal font information. The only way that two fonts will be assigned the same Font Sense ID is if those two fonts are identical.

1. Open Suitcase Fusion 4 and click on Font Library.
2. Choose **Edit > Find Fonts**.
3. In the second line of the Find panel, select **Duplicates** from the first pop-up menu, then select **Font Sense ID** from the second pop-up menu.

The list of fonts below the Find panel now shows all fonts that have identical Font Sense IDs. If the list is empty, then you have no identical fonts.

Note: The only way that you could have identical fonts in Suitcase Fusion 4 is if you add fonts in place. When you keep your fonts in the Font Vault, Suitcase scans each font when you add it and won't allow duplicates.

Click the **View** menu. If **Group Fonts by Family** is checked, then select it, so that fonts are now listed individually and not in folders.

Choose **View > Columns > Font Sense** to show the Font Sense ID for each font listed, then click the header of the Font Sense column to sort the fonts by their Font Sense ID.

You can now select one of each identical font, then choose **Edit > Delete from Library** to remove the identical font permanently.

What's in a (PostScript) name?

A font's PostScript name is an internal value that the system and applications use to identify and activate fonts.

OS X Font Management

Conflicting System fonts

There is another issue involving some fonts that have identical PostScript names. Some of OS X's System fonts—including some required fonts—have the same PostScript name as their Adobe Type 1 PostScript counterparts.

Some of these fonts are easily dealt with: **Courier.dfont**, **Symbol.dfont**, and **Times.dfont** are not protected by the OS and so can be easily disabled if necessary.

Helvetica.dfont and **HelveticaNeue.dfont**, however, are protected fonts: If you remove them, the OS replaces them from a hidden repository. (Under OS X versions 10.6.5 through 10.6.8, **HelveticaLight.dfont** and **HelveticaLightItalic.dfont** are also protected.)

Since the OS must have some version of these fonts active in order to run properly, it can be difficult to disable them in favor of their Adobe PostScript counterparts. It can be done manually, but this requires some modifications to your OS that, if done incorrectly, could leave your system unusable.

A good solution would be to replace your Adobe Type 1 fonts with their OpenType counterparts. This FAQ from Adobe can help you determine what changes may have been made to the fonts you are concerned about: http://www.adobe.com/type/opentype/T1_to_OTF_FAQ.htm. Before upgrading to OpenType fonts, you should definitely check with clients that rely on these fonts; intervening changes in the fonts may affect a client's documents.

Suitcase Fusion 4 allows you to override System fonts that conflict with your PostScript Type 1 fonts. Suitcase works in the background to make sure that the System fonts are not displayed in applications' **Font** menus.

However, since Apple has not shown any signs of changing these fonts (some would say "correcting" them), you should work towards a long-term goal of having your clients upgrade to OpenType fonts.

Finding corrupt fonts

A corrupt font is any font where the font resources can't be opened, the font resources contain inconsistent information, or there is incorrect values in important fields.

Fonts can be created with inconsistent font information, or can be corrupted accidentally, such as by moving a Mac PostScript font to a Windows system (see the sidebar "The fork in the road" on page 23).

A good font manager will scan fonts as you add them and identify and reject or quarantine any corrupt fonts that it finds.

However, if you are experiencing problems that lead you to believe that one of your fonts has been corrupted, use your font manager or a font utility like FontDoctor to scan your fonts.

Scanning fonts with Suitcase Fusion 4

1. Select a font, set or library to scan.
2. Choose **File > Check for Corruption**.

Any corrupt fonts are placed into a new set within the selected library.

Scanning fonts with FontDoctor

If your font manager doesn't scan fonts for corruption, you can use a font utility like FontDoctor or Font Book (included with OS X).

The Doctor is In

FontDoctor is included with Suitcase Fusion 4 and is available separately from Extensis at <http://www.extensis.com/fontdoctor>.

FontDoctor offers many options over other font utilities, including the ability to move corrupt or conflicting fonts and clean font caches.

See the FontDoctor help system for details on how to use it to diagnose font problems.

Scanning Fonts with Font Book

Font Book, the font manager included with OS X, can scan fonts for corruption without the need to install them first.

1. Open Font Book.
2. Choose **File > Validate File**.
3. Select one or more font files to scan and click Open.

Font Book performs an exhaustive scan on each font and reports any errors.

Be forewarned: Font Book will not scan PostScript outline font files, and it will also report fonts that are duplicates of installed fonts.

Planning for more fonts

Let's not kid ourselves: there is no such thing as "enough fonts." You are going to get more, and it is a good idea to be ready for them.

Where fonts come from

You usually get fonts in one of two ways: by purposefully acquiring them singly or in bunches, or by finding them installed along with a new piece of software.

Purchased fonts

When you purchase or download fonts, you should keep certain things in mind:

- ▶ Purchase or download from reputable foundries or websites.
- ▶ Don't bother with fonts in old formats (fonts for Mac OS 9 or Windows 95, for example).
- ▶ Try to get fonts in OpenType format (unless a client or job calls for a font in a specific format, and even then, question their need and explain the benefits of OpenType).
- ▶ Be wary of collections of thousands of fonts for a low price. They are often mostly display or "fun" fonts that you will rarely use, and are not of high typographic quality.
- ▶ Make sure the fonts you acquire include the styles, languages, and symbols that you need.

Before you add new fonts to your font manager, make a backup copy, then scan them for corruption. (Suitcase Fusion 4 and other font managers scan fonts as you add them, so you may not need to scan them separately.)

After you add the fonts to your font manager, double-check to make sure there aren't duplicate fonts by PostScript name. If your font manager supports sets, you may want to add new fonts as a set so that, if you need to remove any, they are already identified.

Add keywords or other unique identifying information to new fonts. If they were purchased specifically for a client or job, add that information as a keyword.

OS X Font Management

Fonts included with applications

Some applications, such as the Adobe Creative Suite, include high quality fonts for your use.

However, you may not have any options regarding font installation. The software may install fonts in your System font folders or in other locations where your font manager has less control over them.

Before installing new software, you may want to make it easier to identify which fonts “belong” in your System folders (the fonts that you purposely left there), so you can easily move those that don’t.

Note: The following process is optional. It can help you identify fonts that get installed along with other software you install, but is not absolutely necessary. If you don’t follow these steps, future installed fonts will typically show up in your System fonts.

List your current fonts

A simple and safe method of identifying System fonts is to make a list of them.

1. Open the **/Library/Fonts/** folder.
2. Choose **View > As List**.
3. If you are using OS X Lion or Mountain Lion, choose **View > Arrange By > None**.
4. Click the heading of the Name column to sort the files by name.
5. Choose **Edit > Select All**.
6. Hold down the *Option* key and choose **File > Show Inspector**.
7. In the Multiple Item Info window, make a note of how many files are present (shown next to Kind at the top of the window).
8. Close the Multiple Item Info window and choose **Edit > Copy**.
9. Open TextEdit and create a new document.
10. Type **Library Fonts: ###** files and press *Return*. Instead of ###, type the number of fonts as shown in the Multiple Item Info window.
11. Choose **Edit > Paste and Match Style**.
If you choose **Paste**, TextEdit will paste all the copied fonts into your document; choose *Undo* and try again.
12. Save the file in your **Documents** folder. Name it “Library Fonts as of” and append the date to the filename (such as, **Library Fonts as of 27 July 2012.rtf**).

Repeat the above process for the **/System/Library/Fonts/** folder; name the resulting file “System Library Fonts as of” with the date appended to the filename.

Using labels instead of lists

*Working from lists of your System fonts is usually adequate for identifying fonts installed by other applications. It can be tedious and doesn’t account for the possibility that an application might replace a system font with its own. (Microsoft Office moves fonts it replaces into **/Library/Fonts Disabled/**).*

If you want to be a little more sure of your System fonts, you can use the Finder’s built-in color labels to identify the fonts that belong. Since this involves changing file permissions, it is not a task to be undertaken lightly.

For details, see Appendix E: Color-coding fonts on page 26.

Collecting fonts installed by an application

If an application doesn’t give you options regarding installing fonts, it may install them in one of several places: one of the System font folders, the **Application Support** folder, or someplace else.

For details about finding and relocating fonts installed in the **Application Support** folder, see *Gathering optional fonts* on page 9.

If you suspect your application has installed fonts but you cannot find them, see the documentation that came with the software; sometimes fonts will be placed in a separate folder inside the application’s folder.

Some applications that install fonts into a System folder add them into a folder of their own; Microsoft Office 2008 and 2011 install their fonts into a folder named **Microsoft**. Removing these fonts is as simple as dragging this folder out of the **Fonts** folder.

To collect fonts that are installed in the System font folders:

1. Make a new fonts folder on your desktop, named for the application you just installed (such as **SurfWriter fonts**). This is where you will move the fonts that the new application installed.
2. Open the Library Fonts list document that you saved in your **Documents** folder.
3. Open the **/Library/Fonts/** folder and compare the number of files present with the number that you recorded at the top of your Library Fonts list.
(To quickly count the fonts in the older, choose **View > Show Status Bar**; the status bar at the bottom of the window shows how many files are in the folder.)
If the number is the same, then there are *probably* no new fonts and you can move on to checking the next folder. (It is unlikely but possible that the application removed some fonts and added others.)
4. If the number of fonts present is different from the number you recorded, then you should review the list against the folder contents. When you find a font in the folder that is not on your list, remove it to the folder that you created on the desktop (**SurfWriter fonts** in our example).
5. Open the System Library Fonts list that you saved earlier.
6. Open the **/System/Library/Fonts/** folder. (Applications shouldn't be installing fonts here, but it is a good idea to check just to make sure.) Check the folder against the list; if there are fonts here that are not on your list, select them and then choose **File > Move to Trash**. Enter your password at the prompt. Move the fonts from the Trash into the new application's fonts folder on the desktop.
7. You should also check whether the application installed fonts in your User fonts folder. Choose **Go > Library** in the Finder, then open the Fonts folder. (On OS X Lion and Mountain Lion, hold down the *Option* key while clicking **Go** to see the **Library** option on the menu.) Select all the fonts in this folder and move them to the application's fonts folder on the desktop.
8. Move the new application fonts folder (**SurfWriter fonts** in our example) into the **/Users/shared/Optional fonts/** folder

Font caches

In computer parlance, a cache is an easily-accessed store of frequently-used data. Microprocessors have a cache (or more than one) that it uses to quickly load instructions to execute, hard disk drives have caches so they can access a large block of data quickly, and many applications use a cache to quickly load frequently used data.

The Mac OS and many font-intensive applications use a cache for font data. This allows the OS and applications to use less dedicated memory. Instead, they will load font data from the cache when it is needed, then discard it when finished.

Any cache data can get out of synch, or "stale." If you start experiencing problems with fonts, either seeing garbled text on screen or experiencing slowdowns related to font changes, then you may want to clean your font caches.

The easiest way to do this is to use a cache cleaning utility. This is a feature of both Suitcase Fusion 4 and FontDoctor. Either will clean the caches of your operating system and major design software, then restart your computer.

You can also clean system and application font caches manually; see *Appendix C: Clearing font caches manually* on page 21 for instructions.

It never ends

Effective font management is an ongoing task. However, by choosing the right tools and implementing some basic processes, it can become a seamless part of your creative workflow, and can even add benefits that you hadn't imagined possible.

Appendix A: Font terminology

Some of the terminology used when talking about computer fonts can be confusing, often because some terms are used interchangeably, or are used differently by different companies. For a more complete glossary of type-related terms, see Adobe's website at <http://www.adobe.com/type/topics/glossary.html>.

Here are some common terms and what we mean when we use them.

Traditional typographic terms

character

A single letter, punctuation mark, number, space, or any other object or symbol in a font. Compare with glyph.

family

A collection of related typefaces that were designed and intended to be used together. Typefaces in a family will vary in weight, style, or width, but not in overall design.

Myriad Pro Condensed

Myriad Pro Italic

Myriad Pro Condensed Italic

Myriad Pro Semibold

Myriad Pro Regular

Myriad Pro Semibold Italic

Myriad Pro Bold Condensed

Myriad Pro Bold

Myriad Pro Bold Condensed Italic

Myriad Pro Bold Italic

The Myriad Pro family of 10 typefaces

font

A complete set of characters of a single typeface in one weight, width, and style. Times New Roman Italic is a font, as is Garamond Semibold.

glyph

The visual presentation of a character. A single character, such as the capital letter A, can have different glyphs in different fonts. Glyphs do not need to represent characters used for text (as seen in the multitude of dingbats fonts available), and in some non-Roman writing systems, a single character can be represented by multiple glyphs within a single font.



Same character, different glyphs

(Rockwell Extra Bold, Lithos Pro, Edwardian Script ITC)

style

A variation in appearance (such as bold or italic) that constitutes a typeface in a family of typefaces.

typeface

The collection of glyphs that constitute a design of type. A typeface is usually part of a family of related designs. A typeface's name includes the family name and a style designation, such as italic or condensed.

Computer typographic terms

bitmap font

A bitmap font is made up of images of each glyph. Each glyph image is a matrix or bitmap of pixels representing the glyph for a single face, style, weight, and size. Bitmap fonts are designed for a specific output resolution, typically a screen resolution. Bitmap fonts do not scale well, since their size is fixed. Compare with outline font.



12-point bitmap, 24-point bitmap, 12-point scaled to 24-point

font file

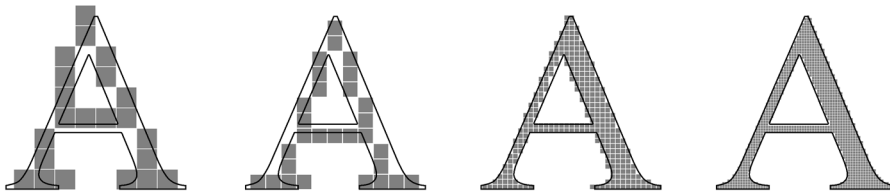
Any file containing one or more fonts that the computer can display directly.

outline font

An outline font (also called a *scalable font* or *vector font*) is a set of instructions that describe how to draw each glyph in the font. Outline fonts can be scaled to virtually any size for any type of device without loss of quality.



An outline font (Times New Roman) at multiple sizes



An outline font rasterized at 72 dpi, 96 dpi, 300 dpi, and 600 dpi

When size mattered

In early versions of the Classic Mac OS, bitmap fonts were usually shipped in 9, 10, 12, 14, 18, and 24-point sizes to accommodate most writing needs. If you tried to use a different size, the Mac OS would scale an existing bitmap. The results were often blocky and unreadable.

When is an outline not an outline?

When it's a bitmap.

Since most output devices are pixel-oriented (such as displays, laser printers, and inkjet printers), a bitmap representation of a glyph must be generated at the correct size in order to be displayed or printed. This is done by the operating system or by a printer's page layout engine in a process called "rasterizing."

Appendix B: The User Library under Lion and Mountain Lion

In OS X 10.7 (Lion) and 10.8 (Mountain Lion), the **Library** folder inside your home folder (**~/Library/**) is hidden from casual snooping, but easily unveiled.

To open the folder, in the Finder, hold down the *Option* key, click the **Go** menu, then choose **Library**.

If you hold the **Go** menu open and release the *Option* key, you'll see the **Library** menu item disappear. Press *Option*, and it reappears.

This is important because you will sometimes need to check the User fonts folder (**~/Library/Fonts/**) to see if there are fonts installed there.

You can also open the User fonts folder directly; choose **Go > Go to Folder**, type the folder path (**~/Library/Fonts/**) and press *Return*.

If you share your computer with other users, you may sometime need to examine the fonts in their User fonts folder. For example, if there is a user named Joe, you may want to look in **/Users/Joe/Library/Fonts/**. There are two problems: by default you won't have access to Joe's user folder, and Joe's **Library** folder is hidden also.

The easiest way around this is to have Joe log in, do what you need, then log out.

Another way to gain ready access to another user's **Library** folder is to give yourself read/write permissions on the user's home folder and all its contents, then unhide his **Library** folder as above. Since this involves changing file permissions for a user's entire account directory, we won't spell out how to do that here. If you are wise in these things, you can pretty quickly do this on your own; otherwise, we don't want to tempt you.

This Library never closes

*If you are tired of the hidden **Library** folder, you can show it permanently. Open Terminal, type `chflags nohidden ~/Library` and press *Return*. If you want to re-hide the folder at some point, go back to Terminal and enter `chflags hidden ~/Library`.*

Appendix C: Clearing font caches manually

If you don't have a utility that will clear font caches, or if you just want to experience it once for yourself, here are instructions for clearing the font caches for OS X, Adobe applications, QuarkXPress, Microsoft Office, and iWork.

Cleaning the system font cache

OS X includes a command line utility for cleaning the system font cache. To use the utility, you need to log in with an administrator account.

1. Close all applications. (Important!)
2. Start Terminal (located in the **Utilities** folder; press *Command-Shift-U* to open this folder).
3. Type `sudo atsutil databases -remove` and press *Return*.
4. Type your password at the prompt (no characters will echo back to the screen).
5. When the process is complete, type `exit` to end your command line session, choose **File > Quit** to exit Terminal, then restart your Macintosh.

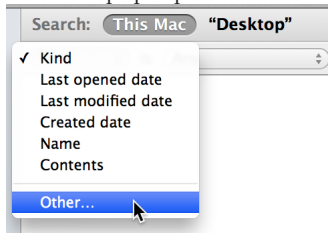
Cleaning Adobe font caches

If your font display problems are limited to Adobe applications, it may be due to a corrupt Adobe-specific font cache.

The different versions of Adobe applications create font caches with various names in several locations. Rather than exhaustively list the possible names and locations for Adobe font caches, it is simpler to use the Find feature of the Mac OS X Finder to locate these files for you, then delete them.

The following steps set up the Finder so you can locate files in System folders that are not normally included in Find operations.

1. In the Finder, press *Command-N* to open a new window.
2. Press *Command-F*.
3. Click the pop-up menu that shows **Kind** and choose **Other**.



4. Scroll down the list of search attributes to **System files**, check the box in the **In Menu** column, and click **OK**.

These steps add the **System files** option to the pop-up search menu. You will only need to perform these steps once; after this, the **System files** option will always be in the pop-up menu.

To remove Adobe font caches:

1. Quit all Adobe applications.
2. Open a new Finder window.
3. Press *Command-F*.
4. Click **This Mac** in the Search bar.
5. Choose **System files** from the first pop-up menu, then choose **Are included** from the second pop-up menu.
6. Click the **+** button at the end of the "System files are included" criterion.
7. Choose **Name** from the first pop-up menu, then choose **contains** from the second pop-up menu, then type `fnt` into the field.
8. Click the **+** button at the end of the "Name contains fnt" criterion.

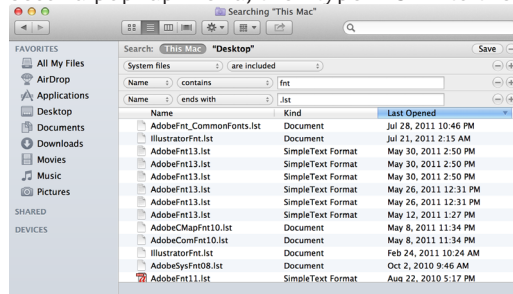
Safe Mode

Starting your Mac in Safe Mode will also clear most system font caches. The catch is that you will have to restart your Mac twice to complete the process.

For details, see the Apple support article **Mac OS X: Starting up in Safe Mode** (<http://support.apple.com/kb/HT1455>).

OS X Font Management

- Choose **Name** from the first pop-up menu, then choose **ends with** from the second pop-up menu, then type **.lst** into the field.



- Tip:** Click **Save** in the Search bar to quickly perform this search again.
- When the search is complete, select the files in the list whose name start with **Acro**, **Adobe**, and **Illustrator** and move them to the Trash, then empty the Trash.

The next time you open the affected Adobe application, it will automatically create new clean copies of the font cache files.

Deleting the QuarkXPress JAWS Font Cache

QuarkXPress uses the JAWS PDF generation engine to create PDF files from documents. This PDF creation engine places cache files on your system that can become quite large and cause stability issues. To prevent or resolve these issues, you can clear the JAWS folder. QuarkXPress will automatically regenerate any necessary files.

To clear the JAWS folder:

- Close all Quark applications.
- Remove the contents of the following folder based on the version of QuarkXPress installed:
QuarkXPress 7.1 and newer store the cache in each user's home folder:

`~/Library/Preferences/Quark/QuarkXPress 7.0/jaws/`
`~/Library/Preferences/Quark/QuarkXPress 8/jaws/`
`~/Library/Preferences/Quark/QuarkXPress 9/jaws/`

Versions earlier than QuarkXPress 7.1 store the cache in the Application folder:

`/Applications/<QuarkXPress folder>/jaws/ttfont/`

- Start QuarkXPress.

Microsoft Office font cache

If Microsoft Office applications crash or freeze, display font corruption warnings, run slowly, or if you have font menu problems, then you may need to manually clear the Office font cache.

- Close all Microsoft Office applications.
- Depending upon your version of Office, remove the following files:
`~/Library/Preferences/Microsoft/Office Font Cache (11)`
`~/Library/Preferences/Microsoft/Office 2008/Office Font Cache (12)`
`~/Library/Preferences/Microsoft/Office 2011/Office Font Cache`
- Open the affected Office application.

Apple iWork font cache

If one of the applications in Apple's iWork suite is crashing after picking a template or clicking in an editable field, clearing the iWork font cache can help.

- Close all iWork applications.
- Move the following file to the Trash:
`~/Library/Caches/com.apple.iwork.fonts`
- Open the affected iWork application.

Appendix D: Font formats

As computers and their typographical output has become more sophisticated, so have the fonts they use. The original Mac wowed us with black-and-white bitmap fonts at 72 dots per inch; today's retina displays, interactive animated websites, and million-color printers require much more.

OpenType (.otf or .tff)

OpenType is the format that OS vendors are standardizing on. The file format is based on the Windows version of TrueType, but an OpenType font can contain outline data in PostScript format (such files use the extension **.otf**) or TrueType format (using either the extension **.ttf** or **.otf**). This means that professional publishing environments can continue to use PostScript outlines if they are so inclined.

There are several advantages to OpenType. As with TrueType fonts, one font is one file. OpenType font files are cross-platform: the same file can be used on a Mac or Windows system with consistent results. An OpenType font can contain thousands of glyphs. Not only can this enable extensive language support in a single font, but ligatures, swashes, true small caps, and other advanced typographical alternate glyphs can be built into a font, and are accessible in compatible applications. Finally, OpenType fonts are based on Unicode, the universal cross-platform character encoding standard. These are significant benefits over PostScript Type 1, which is limited to 256 encoded characters, and does not directly support Unicode. Font vendors often offer information on compatibility or upgrade availability, such as this FAQ from Adobe: http://www.adobe.com/type/opentype/T1_to_OTF_FAQ.htm.

OS X natively supports OpenType fonts and Unicode information, making OpenType an excellent choice for new font purchases. However, unless your budget allows for re-licensing all your existing fonts, you may want to migrate only gradually, as you cannot simply convert your existing PostScript Type 1 or TrueType fonts to OpenType and get the same results as with freshly licensed OpenType fonts. Most font vendors now sell OpenType versions of their font collections, and some are developing only OpenType fonts at this point.

Composite Fonts (.sfont)

OS X 10.8 Mountain Lion includes support for a new ISO font standard, the Composite Font Representation (CFR).

OpenType fonts can only include some 65,000 glyphs, but the Unicode standard defines over 100,000 characters (roughly 75,000 of these are CJK Unified Ideographs).

The new standard specifies a way to concatenate glyphs from multiple fonts into one “super-font.” An application that supports CFRs can simultaneously display all glyphs in the composite font.

But the CFR doesn't stop there. It also defines fallback fonts for the various components of the CFR, so that if one of the component fonts isn't present, glyphs from another font can be used instead. (This is analogous to the notion of the fallback stack used in CSS by web designers, where a web page specifies one or more fonts to “fall back” on if the original designer's choice isn't available on the system viewing the web page.)

So far, CFRs are only supported by some of Apple's applications (notably, TextEdit). As of this August 2012, they are not yet supported by Microsoft Office, Adobe Creative Suite, any font managers, or most other applications. Whether and how quickly this changes remains to be seen. (The ISO standard was published on April 17, 2012.)

The fork in the road

Legacy Macintosh fonts, specifically PostScript Type 1 fonts and Classic TrueType fonts, are in files that include important data in a separate resource fork. With the advent of OS X, Apple has been moving away from resource files.

The most important thing to remember about these types of fonts is that the resource forks will not be recognized by Windows or any other operating system. If you copy or move these fonts to a Windows system or onto a Windows server, the copied files will not include the resource fork and will no longer be usable on your Mac.

Note: *If you do need to store your fonts on a Windows server or backup system, they will be perfectly safe if you archive them in a .ZIP file first. To create an archive in OS X, choose a file or folder, then choose **File > Compress “item name”**.*

OpenType wraps it up

*The OpenType format was designed by Adobe and Microsoft so that it could be a wrapper around fonts in either the TrueType or PostScript Type 1 format. Your font manager may differentiate these as **OpenType-TT** or **OpenType-PS**, indicating which type of font is at the core of the OpenType file.*

OS X Font Management

Adobe provides an interesting synopsis of CFRs in Mountain Lion, along with a downloadable example.

- **CJK Type / CFR Support in Mac OS X Version 10.8** (<http://blogs.adobe.com/CCJKType/2012/07/cfr-support-in-mountain-lion.html>)
- **CJK Unified Ideographs** (http://en.wikipedia.org/wiki/CJK_Unified_Ideographs)

TrueType (.tff)

Mac OS X also supports TrueType fonts with the **.tff** extension, which are a cross-platform format originally developed for Windows. Beginning with Mac OS X v10.6, many Mac system fonts are in this format. These fonts are roughly equivalent to Classic Mac TrueType fonts, but with a different file structure (they lack the resource fork and its associated data, or that data is placed inside a special table within the data fork). Each **.tff** file is a single, complete TrueType font.

Originally, TrueType fonts were not as widely accepted in professional creative, print, and publishing environments. However, most TrueType fonts will function properly in a professional workflow.

TrueType Collection (.ttc)

TrueType Collection files contain multiple **.tff** fonts in a single file. TrueType Collections allow multiple fonts to share glyphs or other tables, and can create a significant saving of file space. Windows typically uses TrueType Collections for East Asian languages, while OS X uses them for many purposes. Although this format was originally developed for Windows, beginning with Mac OS X v10.6, many Mac system fonts are in this format. Older versions of OS X have less well developed support for **.ttc** fonts.

Using Windows Type 1 fonts on a Mac

Windows PostScript Type 1 fonts are not natively supported by Mac OS X, and so are not managed by Mac font managers.

Adobe, the inventor of PostScript and PostScript fonts, knows a thing or two about the subject.

*Adobe design applications on the Mac will let you use Windows PostScript fonts just as if they were Mac fonts. You only need to copy the font files to the folder **/Library/Application Support/Adobe/Fonts/**. If this folder doesn't exist, go ahead and create it.*

*Windows PostScript fonts are comprised of two files with the same base name, one with the extension **.pfb** and the other with the extension **.pfm**. Copy both files to the above folder in order for your applications to recognize the font.*

InDesign and .dfonts

*Several Apple system fonts share names with fonts commonly used in publishing. These fonts would often override their PostScript counterparts that are usually more desirable in published output. Adobe realized this and made InDesign automatically ignore a system **.dfont** if its PostScript version was installed and active. This worked well until Mac OS X v10.6 replaced the **HelveticaNeue.dfont** with **HelveticaNeue.ttc**, a TrueType collection. Suddenly InDesign users were back in the same situation, where their PostScript font was being overridden by a system font. Apple graciously returned the **.dfont** version in a subsequent update to Snow Leopard.*

Mac PostScript Type 1

These were long the de-facto standard for professionals in creative, print, and publishing environments.

Each PostScript Type 1 font is made up of two parts, a suitcase font file containing bitmaps and metrics (sometimes called the “screen font”) and the corresponding outline font file (sometimes called the “printer font”). Both the suitcase and corresponding outline files must be in the same physical folder in order to work properly in OS X. Note that one suitcase file may contain the bitmaps and metrics for multiple outline fonts. (Older PostScript fonts sometimes also included a separate font metrics file with the **.afm** extension. This was generally extraneous.)

Mac PostScript Type 1 fonts have resource forks, which can be an issue for file transfer and backup/restore.

PostScript Type 1 fonts for Windows systems are not compatible with OS X.

Datafork Truetype font (.dfont)

With OS X, Apple introduced a new way of packaging system fonts. The **.dfont** is a font suitcase with TrueType font data stored in the file's data fork rather than the resource fork. Apple's **.dfont** fonts are generally high-quality fonts, but this format is only used by Apple. Unlike other new font formats, the **.dfont** format only works on OS X, and equivalent Windows fonts are not often available; therefore these fonts should be avoided in any potentially cross-platform workflows (for example, if your printer or service bureau is doing output from Windows).

Apple Advanced Typography (AAT)

Apple Advanced Typography (AAT) is an alternative to OpenType for encoding advanced typographic information in a font. AAT features may be coded in a Mac or Windows TrueType font, a **.dfont**, or an OpenType font. Many Apple system fonts have AAT features for advanced typography. Such features are accessible only in AAT-savvy applications. Few vendors other than Apple have created AAT fonts, and other than

Apple's own iWork applications (such as Pages and Keynote), few major applications support AAT typographic capabilities.

Classic Mac TrueType

Classic Mac TrueType fonts consist of a “suitcase” file that contains outlines and (optionally) bitmaps, as well as all the required font metrics. The fact that all required font information is in one file makes them easier to use than PostScript Type 1 fonts. A single TrueType font suitcase can contain many TrueType fonts. TrueType fonts can contain thousands of glyphs, enabling extended language support in a single font.

A TrueType font suitcase has a resource fork, which can be an issue for file transfer and backup/restore. Because of this, and because most Classic fonts use Mac-specific character encoding, these fonts can't be used on Windows systems.

Multiple Master

This special kind of PostScript Type 1 font allows modifications of one or more font parameters to create variations of the original font, such as varying weight or width. While multiple master (MM) fonts are supported by Mac OS X v10.2 and later, they are no longer sold or supported by Adobe, the original creator of the format. Uneven support for MM fonts has been known to cause various issues and problems in professional workflows, so we recommend not using them, if possible. Adobe has made OpenType equivalents of all its former MM fonts so there are alternatives available:

<http://www.adobe.com/type/browser/mmoffer.html>.

Since Mac Type 1 Multiple Master fonts have resource forks, they are subject to problems that may arise during transfer or backup/restore.

As with regular PostScript Type 1 fonts, there is a separate Windows flavor of MM fonts. Windows MM fonts are not supported on OS X.

For more details on font formats, see the following:

- **Mac OS X: Font file formats** (<http://support.apple.com/kb/TA22195>)
- **Adobe - Fonts: Type topics: Font formats** (<http://www.adobe.com/type/topics/info9.html>)
- **Font Formats** (<http://www.adobe.com/type/browser/info/formats.html>)
- **OpenType fonts | the font format and its usage** (<http://www.prepressure.com/fonts/basics/opentype>)

The sidebar on this Prepressure.com page links to other articles on font formats.

A Classic Case of Fonts

Well before OS X came along, the Mac OS stored fonts in files called “suitcases.” A font suitcase could contain any mix of TrueType and bitmap fonts, and they didn't even have to be related. (The suitcase originated with Mac System 1.0 in 1984; TrueType fonts didn't come around until System 7 in 1991.)

*Although the classic Mac OS did not require extensions to identify file types, people often added the extension **.suit** for TrueType or mixed suitcase files, and **.bmap** for suitcases that contained only bitmap fonts.*

OS X can still use TrueType fonts designed for the Classic Mac OS. However, it is a good idea to use more modern fonts in new projects; most Classic fonts do not use Unicode encoding and do not include more than 256 characters.




OS X Font Management

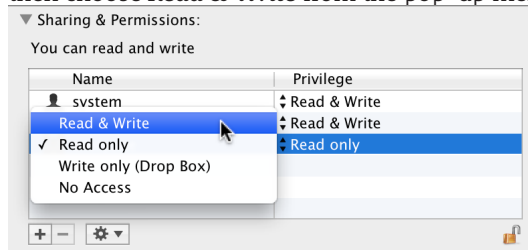
Permissions warning



Be careful when changing permissions on folders and files, especially in the **/System/Library/** folder. The process described here is useful but optional; nobody will laugh at you if you don't have fancy colored font files.

Appendix E: Color-coding fonts

The OS X Finder makes it relatively easy to label files with a color, so that you can visually differentiate them. Labeling System fonts is a little more cumbersome since you don't normally have permission to change those files. The following steps show you how to modify the permission that allows you to change the file, apply a color label, then reset the permission.

1. Open the **/Library/** folder and select the **Fonts** folder.
2. Choose **File > Get Info**, then click the lock icon  at the bottom of the Info window. Enter your password at the prompt.
3. Under Sharing & Permissions, click in the **Privilege** column next to *everyone*, then choose **Read & Write** from the pop-up menu.



4. Click the **Action** pop-up menu  and choose **Apply to enclosed items**. In the confirmation dialog, click **OK**.
5. Close the Fonts Info window, then open the **Fonts** folder.
6. Press **Command-A** to select all the fonts.
7. Choose a label color from **File** menu. All the files should have the color applied.
8. Click the back arrow  at the top of the Fonts window to return to the **/Library/** folder.
9. Select the **Fonts** folder and press **Command-I** to open the Info window again.
10. Click the lock and enter your password.
11. Set the Privilege for *everyone* to **Read Only**, then choose **Apply to enclosed items** from the **Action** menu.

Perform the same steps on the fonts in **/System/Library/Fonts/**.

By using this method, you can collect and manage all the fonts installed by other applications, and you can also identify fonts installed by new applications in the future.

Whenever you update your system software, be sure to check the fonts in **/Library/Fonts/** and **/System/Library/Fonts/**; if any have been added or updated they will not have a label, so follow the above steps to apply the label color to the new fonts.

Collecting fonts installed by an application

1. Make a new fonts folder on your desktop, named for the application you just installed (such as **SurfWriter fonts**). This is where you will move the fonts that the new application installed.
2. Open the **/System/Library/Fonts/** folder. (Applications shouldn't install fonts here, but it is a good idea to check just to make sure.) If there are fonts here that do not have the color label that you applied, select them and then choose **File > Move to Trash**. Enter your password at the prompt. Move the fonts from the Trash into the new application's fonts folder on the desktop.
3. Open **/Library/Fonts/** and move any unlabeled fonts into the new application's fonts folder.
4. You should also check your User fonts folder for application fonts. Choose **Go > Library** in the Finder, then open the **Fonts** folder. (On Lion and Mountain Lion, hold down the **Option** key to see **Library** on the menu.) Select all the fonts and move them to the application's fonts folder on the desktop.
5. Move the new application fonts folder (**SurfWriter fonts** in our example) into the **/Users/shared/Optional fonts/** folder.

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