

SYBEX Bonus Chapter

Mac[®] OS X Power Tools

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Bonus Chapter: Furthering Finder Functionality

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ISBN: 0-7821-4192-7

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Furthering Finder Functionality

*(Or: All the stuff about the Finder
that wouldn't fit in Chapter 5.)*

Chapter 5 dealt mostly with taking advantage of the Finder's existing features. In addition, you can alter or enhance the Finder's functionality, or better take advantage of its current offerings, in a number of other ways. In this chapter, I'm going to provide you with a few examples of more advanced Finder functionality. I'll also cover some of the most common problems users have with the Finder and how to fix them.

Menu Magic

Menus are wonderful things. Sounds kind of funny, doesn't it? But think about it—what would you do without menus? They make countless options easily accessible and, in the case of system-wide menus, make them accessible from within any application. Here are some ways to take better advantage of menus, and even create some of your own.

Keep in mind that most of the menu-related items discussed here aren't Finder-specific. However, since they often do Finder-related things, and there's no chapter in this book called "Cool Things That Don't Really Fit Anywhere Else," I'm including them here.

Explore Hidden Menu Options

User Level: | any
Affects: | individual user
Terminal: | no

This isn't really a major tip, but one that many users aren't aware of. In fact, you actually used it in Chapter 5 without realizing it. Many Finder and system menus in OS X have options that aren't immediately visible; in order to see them, you need to hold down the option key. (Get it? The option key for options?) For example, click on the File menu in the Finder and notice the available commands. Now press the option key; you'll see that a few of the commands change. "Open With" becomes "Always Open With"; "Get Info" becomes "Show Inspector"; and "Close Window" becomes "Close All" (meaning close all open windows). This isn't the only menu that works this way. Nor is such behavior limited to menus. (In iTunes, if you press the option key when you click the New Playlist button, you get a new "smart" playlist instead.) The moral of the story is to experiment with the option key—you may discover options you didn't know existed.

TIP

On the topic of hidden menu options, you can actually navigate menus using the keyboard (even if Full Keyboard Access is disabled). Once you've opened a menu, use the arrow keys to move up or down (or even to go to sub-menus). Once you've highlighted the appropriate menu item, press return to select it.

Make the Apple Menu Fruitful

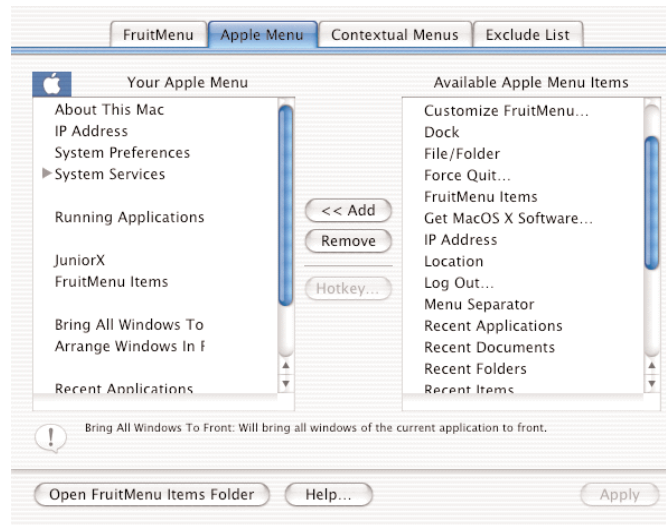
User Level: | normal or admin
Affects: | individual user or computer
Terminal: | no

Under Mac OS 9 and earlier, the Apple Menu was completely configurable. In fact, apart from a few system items, it was simply a folder on your hard drive; anything you put in that folder showed up in the menu. Users used this feature to great advantage, creating elaborate hierarchical menus full of applications, documents, and even mounted volumes for quick access. However, the Apple Menu in OS X is a much different animal; its contents are entirely determined by the OS and appear to be set in stone. What a waste of good menu space, right?

Not necessarily. The shareware FruitMenu (<http://www.unsanity.com>) performs a bit of magic and combines the system-oriented Apple Menu of OS X with the flexible one found in OS 9. Using FruitMenu, you get all the features of the standard OS X Apple Menu but you can customize it to show exactly what you want in the way you want. After installing FruitMenu, you access its settings from System Preferences (Figure 1). Drag standard items from the box on the right to the Apple Menu configuration on the left and they'll be added to the menu. You can rearrange items in any order, and you can even drag files, folders, and volumes from the Finder to the configuration box. FruitMenu also has a FruitMenu Items folder in ~/Library. Anything you place in that folder will show up in the "Fruit Menu Items" submenu in the new Apple Menu.

FIGURE 1:

The FruitMenu preference pane

**FIGURE 2:**

The stock Apple Menu (left) and one customized using FruitMenu (right)

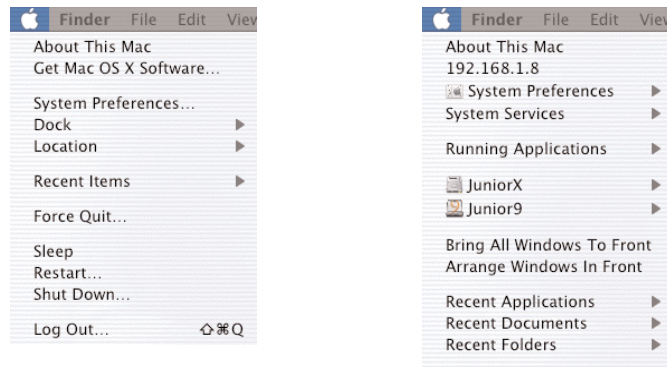


Figure 2 shows a comparison of the stock Apple Menu with my FruitMenu version. I've placed all the standard system-level actions (Sleep, Restart..., Location, etc.) in a sub-menu called System Services. System Preferences are now listed individually in a sub-menu, so I can open a particular preference pane directly. I've also got both of my hard drives in the Apple Menu, so I can quickly access any file or folder via hierarchical menus, and I've added a few special menu items that control windows in applications and the Finder. Finally, I've included a FruitMenu item that shows my current IP address.

As a bonus, FruitMenu also allows you to access similar options from a system-wide contextual menu that you build in the same way you build your personalized Apple Menu. FruitMenu has become another of my “must have” utilities.

NOTE

If you're a fan of the Mac OS 9 Apple Menu, you'll find solace in Appendix A, "A Tale of Two Systems." I'll show you how to get the "classic" Apple Menu back.

Extra Menus: Menu Extras

User Level: | any
Affects: | individual user
Terminal: | no

In Chapter 2, I showed you how to add a battery indicator, a volume control, and a displays menu to the menu bar from within various System Preferences panes. The appeal to such menu items is that the menu bar is always visible, so anything in the menu bar is accessible from within any application. It turns out that these menu bar extras aren't part of the OS; they're little pieces of software called *menu extras*, and are located in `/System/Library/CoServices/Menu Extras`. If you open this folder, you'll find a bunch of different menu extras, all ending in the file extension `.menu`. Looking through the list, you'll find that even the menu bar clock is a menu extra.

You can install any of these extras by simply double-clicking on it to launch it; in fact, when you "turn on" the volume menu in Sound preferences, for example, you're simply telling OS X to launch the `Volume.menu` menu extra. But you can also activate a menu extra by simply dragging it to the right side of the menu bar; as with Finder toolbars, the existing menu extras will move out of the way to let you place the new one exactly where you want it. Also as with Finder toolbars, you can rearrange menu extras by command-dragging them left or right in the menu bar. Finally, if you change your mind about a menu extra, simply command-drag it out of the menu bar and then release the mouse; it will disappear in a charming poof of smoke.

Script Menu

User Level: | any
Affects: | individual user
Terminal: | no

One especially neat menu extra, provided by Apple but not located in the Menu Extras folder, is the Script Menu. You can find it at `/Applications/AppleScript/Script Menu.menu`; drag it to your menu bar and you'll see a new menu that looks like a script icon. The Script Menu has corresponding scripts folders, located at `/Library/Scripts` and `~/Library/Scripts`. You can place Perl, shell, and AppleScript scripts in these folders (keeping in mind the difference between `/Library` and `~/Library` folders) and then instantly access those scripts from the Script Menu.

Apple has included a bunch of AppleScript scripts with OS X; using these scripts you can perform various actions in the Finder and in applications like Mail and Internet Explorer. You can also download other scripts from Apple (http://www.apple.com/applescript/script_menu/) and from third-party developers.

Third-Party Menu Extras

User Level:	normal or admin
Affects:	individual user or computer
Terminal:	no

In addition to OS X's own menu extras, there are many, many third-party menu extras floating around. I'll actually be talking about a few in subsequent chapters, as menu extras can provide specific functionality that enhances applications and the OS; for example, there are some great menu extras that make connecting to remote servers much more convenient.

Some of these menu extras are installed just like the standard Apple-provided ones: you simply drag them to the menu bar. However, some require software installers. This is generally because the menu extra requires additional support files, or because it doesn't use Apple's menu extra framework.

Why would a menu extra not use Apple's own menu extra system? In OS X 10.2, Apple decided that the menu bar should only be used by Apple, so they made it much more difficult for third-party developers to implement menu extras that worked. This means that a lot of third-party menu extras that worked fine under earlier versions of OS X no longer function in 10.2. Some developers have been able to get around this roadblock and have released updated versions of their software that work fine (most of these no longer use Apple's Menu Extra framework). Others (especially those that still rely on Apple's framework) require a bit of help; the freeware Menu Extra Enabler (<http://www.unsanity.com/haxies/>) is a little piece of software that lets menu extras work in OS X 10.2 and later. If your menu extra isn't working properly, see if Menu Extra Enabler helps.

Third-Party Menus: MaxMenus

In addition to the Apple Menu and Menu Extras, you can also use third-party software to add your own menus. Anyone who used Now Menus under older versions of the Mac OS understands the appeal of custom menus: quick access to files and folders from within any application. Using the commercial software MaxMenus (<http://www.proteron.com/maxmenus/>), you can add hundreds of custom menus—if you really wanted—to your system, invoked by keyboard commands. If you're the type who wants to click somewhere to get a menu, you can still add up to 25 of them. I mentioned MaxMenus in Chapter 5 when I showed you how to use it to set up a Desktop menu, but it can do a lot more. You can place a menu in each corner of your screen and/or in the menu bar, and choose whether that menu appears with a mouse click or a mouse click and some combination of modifier keys. What's more, these custom menus are hierarchical and even support Mac OS X's spring-loaded folders mechanism—you can drag items *onto* the custom menus to move them or launch them!

Setting up menus in MaxMenus works much like FruitMenu: you create a menu in the MaxMenus preference pane, then drag items—standard or custom—to the menu box. I personally

have three custom menus that I've created: a Desktop menu in the lower-right corner of my screen; a Documents menu in the upper-right corner; and a menu that appears when I click in an empty area of the menu bar. The contents of this last menu are mounted volumes and my home directory.

TIP

Using the tip I mentioned in Chapter 5 about window title bar icons, you can actually drag the title bar icon from a Finder window or a document to a MaxMenus menu, and then drop it on any folder or application at any level.

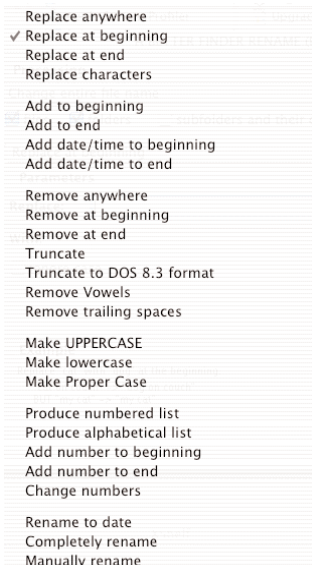
Filenames (and Renames)

Renaming files is a pretty common task on any computer; it's become even more common with the proliferation of digital cameras and MP3s (picture names like IMG00754.JPG just aren't very informative). You can rename files individually using the Finder, but when you have a lot of files, your keyboard and hands will thank you if you use one of the great utilities available for such a task.

Arguably the best file renaming utility on the market for OS X is A Better Finder Rename (<http://www.publicspace.net/ABetterFinderRename/>). It allows you to rename multiple files simultaneously using an incredible number of rules and replacement options. You can choose to change just the filename, just the file extension, or both. You can replace, add, or remove text in filenames using various renaming options (Figure 3). And if you find yourself performing the same renaming actions over and over, you can create a renaming “droplet”—drag a bunch of files or folders over the droplet and it will do its thing using your selected options.

FIGURE 3:

A few of A Better Finder Rename's renaming options



Automating Actions

If you find yourself doing the same tasks over and over, you're in the market for automation. You can take advantage of automation in OS X in a few ways. You can use Mac OS X's built-in scripting power, or you can install software that lets you perform set actions on your command.

Mac OS X: A Scripter's Dream

Mac OS X has built-in or easily-added support for a number of scripting languages: AppleScript, Perl, PHP, Python, Ruby, and Tcl. In fact, it's been said the OS X is the most scriptable operating system ever. Unfortunately, each of these scripting languages deserves its own book (and in fact each has its own book, or several of them), so I can't go into detail about them here. However, if you're interested in becoming a super-duper power user, you should look into scripting. Here are a few places to start:

AppleScript <http://www.apple.com/applescript/>. AppleScript is the most accessible scripting option in OS X, mainly because there are hundreds, if not thousands, of scripts already in existence that you can download and use without any knowledge of how to create them. It's also one of the simpler scripting languages, so the learning curve isn't as steep as with some of the other options. Finally, since it's the longtime Mac OS standard, many Mac applications have built-in AppleScript support. A good place to find AppleScripts is <http://www.applescriptcentral.com/>. (You can also get some great AppleScripts for iTunes from <http://www.malcolmadams.com/itunes/>.)

Just as an example, here's a simple AppleScript that lets you print any document from the Finder. Open Apple's Script Editor application, type in the following code, and then save the file to `~/Library/Scripts` (select Compiled Script from the Format pop-up menu in the Save dialog).

```
tell application "Finder"
  print selection
end tell
```

The script will show up in the Finder's Script Menu (which I showed you how to enable earlier in the chapter). Select a document in the Finder and choose the script from the Script Menu; the document will be printed using your default printer.

Perl <http://www.perl.com/>. Perl has been around for a long time, and is one of the most common Unix scripting languages.

PHP <http://www.php.net/>. PHP scripts are generally used for websites, due to the fact that they can be embedded in HTML; if you run a website from your Mac, you may find it quite useful. A bunch of PHP scripts are available at <http://php.resourceindex.com/>.

Python <http://www.python.org/>. Mac-specific Python information can be found at <http://www.cwi.nl/~jack/macpython.html>.

Ruby <http://www.rubycentral.com/>. Ruby is a newer Unix scripting language that is growing in popularity.

Apache Scripting <http://www.apache.org/foundation/projects.html>. Mac OS X includes a full installation of the Apache web server. Many of the scripting languages listed here can be used to customize Apache.

Shell The command-line shell built into OS X can also be used to script many tasks. In fact, shell scripts are one of the most common ways of *starting* many of the other scripting languages listed here. Reciprocally, most of these other languages can start shell scripts, making the shell the “common denominator” of automation. You’ll learn more about the shell in Chapter 15.

Tcl <http://www.tcl.tk/scripting/>. Tcl is another popular scripting language that claims to be easier to learn than languages like Perl and Python.

Folder Actions

One very cool feature of Mac OS X is Folder Actions. You can attach AppleScripts to folders, and the attached script(s) will be executed automatically whenever the folder is opened or closed, the folder’s window is moved, or the contents of the folder change (an item is added or removed).

For example, say you’re...oh, I don’t know...working on a book on Mac OS X. At the end of each day, you want to back up the document you’ve been working on, but you don’t want to have to navigate to your backup volume, make a copy of the document, and rename it with the day’s date. You could create an AppleScript that renames all items in a folder to the current date and time, and then moves those items to a folder on a different volume. If you create a folder on the Desktop called Archive and then attach your new script to it, at the end of each day you simply copy your document to the Archive folder, and the script will do the rest.

To enable Folder Actions, you should install the Script Menu menu extra as described earlier in the chapter. From the Script Menu, select Folder Actions > Enable Folder Actions. To attach a script to a folder, select Folder Actions > Attach Script to Folder, then choose the script you want to attach, and the folder to which it should be attached. (You can detach scripts and disable Folder Actions system-wide from the same menu.)

You can get more information on Folder Actions from Apple’s website: http://www.apple.com/applescript/folder_actions/.

Third-Party Automation

In addition to the automation built into Mac OS X, a number of third-party utilities provide automation functionality. These utilities haven’t necessarily become as popular as they are because they’re more powerful than what is already available in Mac OS X; rather, they’re better for many users simply because they don’t require you to learn any kind of programming or scripting language.

A few of the most popular automation utilities for OS X are the commercial software QuicKeys (<http://www.cesoft.com/>), the shareware HotApp (<http://www.trufsoft.com/HotApp.html>) and Keyboard Maestro (<http://www.keyboardmaestro.com/>), and the freeware Youpi Key (<http://perso.club-internet.fr/phupe/english/index.html>). These utilities allow you to do simple tasks such as opening a file or application using a keyboard command. However, they also allow you to automate repeated tasks such as typing your address or opening groups of files and folders, or more complex tasks that involve combinations of actions.

If all you need is basic automation, HotApp and Youpi Key are both excellent choices that provide good feature sets for a low (or free) price; both are configurable via simple interfaces that even a beginner will master quickly. However, Keyboard Maestro and QuicKeys offer substantial additional functionality. Both allow you to create automated tasks—or complex sequences of tasks—that can be triggered by various events such as keyboard combinations or event times. Tasks can also be set to run at specific intervals (every two hours, for example). In addition to more flexibility in scheduling and sequencing, the possible tasks that can be automated by Keyboard Maestro and QuicKeys include many not available in other utilities, such as emulating mouse movements, selecting items in menus, and issuing commands in Terminal. QuicKeys even allows tasks to be run manually from the menu bar or contextual menus. Keyboard Maestro is clearly the bang-for-the-buck winner in this category; QuicKeys offers a few more options, but costs a bit more, as well.

TIP

For a nice list of OS X automation utilities, check out the Xclickers website at <http://www.thexclickers.com/>.

Finder Alternatives

User Level:	admin
Affects:	computer
Terminal:	no

In addition to augmenting the Finder’s features, you can also replace it. A number of alternate file browsers aim to take the place of the Finder and Finder windows in your day-to-day Mac use. Some of the most polished are Path Finder (formerly called SNAX, <http://cocoatech.com/products/>) and Macintosh Explorer (<http://www.ragesw.com/explorer.php>). Both provide an interface to browse and work with files; Macintosh Explorer emulates the Explorer utility in Windows, while Path Finder looks like standard OS X Finder windows on steroids. If you’re not completely satisfied with the Finder, give these a try.

In addition to these utilities, I talk about a number of other ways to access files, folders, and applications in Chapter 6 when I discuss alternatives to the Dock.

Replace the Finder Altogether

User Level:	normal or admin
Affects:	individual user or computer
Terminal:	yes

If you find that you prefer one of the available Finder alternatives to the Finder itself, it's possible to replace the Finder with it! The procedure is actually fairly simple:

1. Open Terminal and type **defaults write com.apple.loginwindow Finder 'PathToFinderReplacement'** <RETURN>. Provide your admin password when requested. (For example, on my system, the path to Path Finder would be `'/Applications/Path Finder/Path Finder'`.)
2. Log out and then back in. The Finder will not launch, but your chosen alternative will.

NOTE

If you want to replace the Finder for all users (not recommended), you need to use the above Terminal command as root.

If you want to go back to using the Finder again, open Terminal and type **defaults delete com.apple.loginwindow Finder** <RETURN>, then log out and back in.

Altering Appearances

One of the major features of Mac OS X is its Aqua interface (that's the white/blue/newfangled way everything looks in OS X, in case you're wondering). Apple is quite proud of Aqua, and, truth be told, it is pretty nice to look at. However, you may find that a few things just aren't perfect for your tastes. Or you may simply not like Aqua—different strokes for different folks, they say. In previous chapters I talked about changing the Desktop picture and using Desktop effects. Here are a few other ways you can change the look and feel of the OS X interface.

WARNING

Most of the techniques you can use to alter OS X's interface are not supported by Apple (especially changing system-level icons and changing the Aqua interface as a whole using themes). This has two ramifications. First, if you experience problems while one of these modifications is being used (even if the modification is not responsible for the problem), Apple will probably refuse to help you fix things. But more importantly, some Mac OS updates may not work properly when these modifications are active. You should be sure to remove any modifications and restore your Mac to its original interface *before* attempting to update Mac OS X.

Get Rid of Shadows

User Level:	any
Affects:	individual user
Terminal:	no

A major part of the Aqua interface is its use of drop shadows to give everything a three-dimensional appearance. Every menu, every window, and even every text label has a shadow that makes it look like it's floating just off of the Desktop. I personally like this subtle effect, but a good number of users don't like it at all. In addition, it takes a bit of graphics horsepower to render all of those shadows, so not having them around would ease the graphics load on some older Macs. Fortunately, the freeware ShadowKiller and the shareware WindowShade X (both from <http://www.unsanity.com/>) let you disable drop shadows system-wide. ShadowKiller toggles drop shadows on and off each time you launch it, whereas WindowShade X lets you customize shadows as discussed in Appendix A.

Put the Trash on the Desktop

User Level:	any
Affects:	individual user
Terminal:	no

In Mac OS X, Apple moved the Trash from the Desktop to the Dock. This isn't a big deal if you choose to show the Dock; however, if you have the Dock set to hide when not in use, the Trash isn't visible. If you want to open the Trash or drag something to it (or even to just see if it's empty), you have to move the mouse to the edge of the screen to make the Dock appear.

In Appendix A, I show you how to create an alias to the Trash and place it on your Desktop. However, the Dock's Trash is actually a conglomeration of several Trash folders, one for each mounted volume (each called `.Trash`—so it is invisible—and located at the root level of its respective volume). The tip in Appendix A only provides access to your personal user Trash, and is only applicable to files located on the same volume as your home directory. (If you have multiple volumes, you would actually need multiple Trash aliases on the Desktop to get the same functionality as the Dock Trash icon.)

One solution to this dilemma is the shareware iCan (<http://www.kanzu.com/>). iCan runs as a background application (it can be set to automatically launch at login) and places a Trash icon on your Desktop. Dragging a file onto this icon moves the file to the appropriate Trash directory. In fact, iCan's Trash can acts just like the "real" OS X Trash: it looks full when there are items in the Trash, and empty when there aren't; you can control/right-click it to empty the Trash; and double-clicking it provides you with a Finder window listing the contents of the Trash.

In addition, iCan has a few other nice features not found in the stock OS X Trash. It can delete locked items automatically, and (via a preference setting) will allow you to move locked

items to the Trash (something OS X won't normally allow you to do). It can also overwrite deleted files—a form of “secure” deletion (see Chapter 13 for more info). Finally, iCan includes a number of themes for its Trash can, so you aren't stuck with the same old boring Trash icon.

WARNING Many “Trash on the Desktop” utilities have a major caveat: dragging an alias to their Desktop Trash icon deletes the file to which the alias points, instead of the alias! This is due to the way the Mac OS handles aliases when working with applications: normal behavior is to process the target document, not the alias. (For example, dragging an alias of a text document onto the TextEdit icon.) However, when using a utility that provides a Desktop Trash icon, this behavior is often unexpected (and possibly disastrous). Luckily, iCan handles aliases the way you want it to—it deletes the alias.

Change the Cursor

User Level:	normal
Affects:	individual user
Terminal:	no

If you're not a fan of the standard OS X cursors (the mouse pointer, the “I-beam” text cursor, and the spinning beach ball “wait” cursor), you can actually edit or change them to something more pleasing using the shareware *Mighty Mouse* (<http://www.unsanity.com/>). After installing *Mighty Mouse* (it's a standard OS X preference pane), you can edit the existing OS X cursors using the built-in *Cursor Editor*, which allows you to change the graphic used for each cursor (you can use your own TIFF images), determine the “point” of each (the exact part of the cursor that acts as the point when you click the mouse button), change the speed at which the “wait” cursor spins, and even scale the cursor size smaller or larger.

You can also replace OS X's stock cursors altogether using cursor sets like those available from <http://www.resexcellence.com/cursors/>. Simply drag a cursor set into the Available Cursors box, and the stock cursors will be replaced by the corresponding cursors in the set. (You can also click the Import Cursors... button and navigate to a set on your hard drive.) You can even edit imported cursors to fine-tune them to your preferences.

If you've edited cursors, created your own cursors, or combined cursors from different sets, you can export your newly tweaked set using the Export Cursors... button. To revert to the standard system cursors, click the Restore Defaults button and *Mighty Mouse* will remove all traces of your custom cursors.

Customize Icons

There are two kinds of file and folder icons in Mac OS X: default system icons and custom icons. By default, items are given a standard system icon (a generic folder icon, a generic application icon, etc.), or the appropriate icon for their file type (a Word document is given a

pictures and graphics. Finally, if you've installed Apple's Developer Tools, you've already got an icon creation tool on your hard drive at `/Developer/Applications/IconComposer`.

If you ever want to remove a custom icon, select the offending item and Get Info on it, click the item's icon in the General panel of the Get Info window, and then choose `Edit > Cut` (or press `command+X`). If you have a bunch of files, the freeware IconCleaner (<http://www.ziksw.com/>) lets you drop files or folders on its application icon to automatically strip *all* custom icons.

TIP

If you try to change the icon of the boot volume and it won't stick, open Terminal and type `chmod go+w .VolumeIcon.icns <RETURN>`. This provides you with Read & Write access to the volume icon file.

Customize Icons System-wide

User Level: admin
Affects: computer
Terminal: no

In addition to customizing individual icons, you can change the default system-level icons; this changes the icon of any file that doesn't have its own custom icon. Although, as with cursors, you could change system icons manually, the shareware CandyBar (<http://www.panic.com/>) provides a quick and easy way to change some or all at once. First you need to download new system icons; I provided a few good sites in the previous section. Once you have your new icons, launch CandyBar. You're presented with a window that lists all the standard system icons (Figure 5). For each icon you want to customize, drag the new icon over the icon it is replacing—you can change folder icons, toolbar icons, Dock icons, volume icons...even clipping file icons. (If you want to remove a custom icon, drag it out of the CandyBar window; the default icon will be restored.)

FIGURE 5:

Using CandyBar to change the Trash icons



Once you've made your changes, click the Apply Icons button; after you've authenticated with your admin username and password, the icons will be updated at the system level. In order to use the new icons, you must restart your Mac.

Change the Entire Aqua Appearance

User Level:	admin
Affects:	computer
Terminal:	no

If you're really not a fan of Aqua, or if you're just bored with it, you can actually change the entire interface of your Mac using what are called *themes*. You can obtain themes from various places on the Internet, such as <http://www.resexcellence.com/themes/>, <http://macmotiva.rocks.it/>, and <http://www.stretch.tc/aquaworld/themes/themes.html>; most of these sites include screen shots so that you can see what a theme will look like.

WARNING

Some themes were created for older versions of Mac OS X; make sure that you install a theme intended for the version of OS X you're running. If a particular theme was designed for an older version of OS X than you are running, you can often use a theme conversion utility to convert it for use with your Mac's OS. A couple of examples of such utilities are Theme Fur (<http://www.geekspiff.com/software/themefur/>) and Themer Anche (<http://www.stretch.tc/aquaworld/themes/themes.html>).

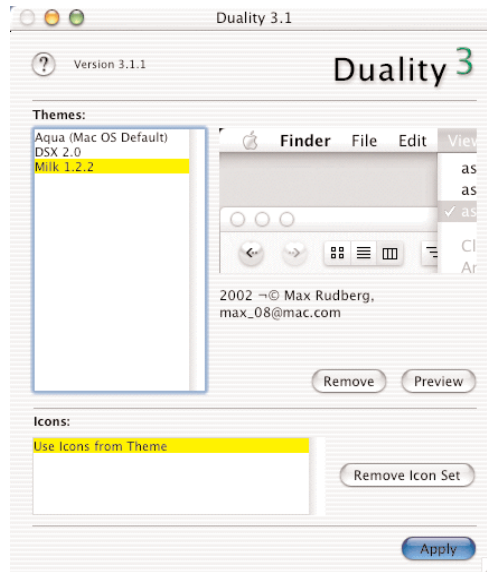
To install a theme, you use the shareware Duality (<http://conundrumsoft.com/>). When you launch the Duality application, you'll see the main Duality window (Figure 6). To add themes, drag them into the Themes box; when you select one, a preview of a themed window will be shown to the right. (There is also a Preview button that is supposed to build an interactive preview window using the selected theme; however, it didn't work properly in my testing.) To install a theme in your system, select it and press the Apply button (the process takes a bit of time). If the theme contains custom system icons, highlight "Use Icons from Theme" before applying the theme. After the theme is installed, Duality will relaunch the Finder for you in order to take advantage of the new appearance—if any other applications were running, you need to quit and relaunch them in order to take advantage of the new theme within those applications.

You can restore the standard Aqua interface by selecting "Aqua (Mac OS Default)" and clicking Apply. Be sure to select the "Use Icons from Theme" option for this process if the previous theme also included custom icons.

TIP

If you really get into the whole theme thing, you can create your own themes using utilities like Catalyst (<http://conundrumsoft.com/>) and ThemePark (<http://www.geekspiff.com/software/themepark/>).

FIGURE 6:
Changing themes
with Duality



Remove Themes and Restore Aqua

Duality and other utilities that customize the look and feel of your Mac include an option to restore your Mac's interface to its original configuration. However, it's possible that such tools may not always work properly, or that the resources used by such tools may not be complete. The freeware AquaFix (<http://gordon.sourcecod.com/sites/aquafix.php>) provides a solution, as it runs independently of other utilities and themes to restore the original Aqua interface elements to your system.

As an added (and welcome) bonus, in addition to the standard AquaFix application, the AquaFix installer also installs a command-line version of AquaFix. You can access this version of AquaFix from single-user mode at startup. So if a theme you've installed ever screws up your system so badly that you can't boot up or login, follow these procedures:

1. Start up your Mac holding down command+S.
2. At the command prompt, run the `fsck` utility to ensure that your drive is healthy (type `/sbin/fsck -y <RETURN>`, and repeat the process until it tells you your hard drive is OK).
3. Type `/sbin/mount -uw / <RETURN>` to mount the boot volume for access.
4. Type `aquafix <RETURN>` to run AquaFix.
5. After AquaFix has run, type `exit <RETURN>` to continue booting.

Fixing a Few Finder Foibles

I mentioned in the Introduction to this book that I wouldn't spend much time talking about troubleshooting. However, the Finder is such a heavily used part of the OS that issues tend to pop up now and then. I've included a few brief fixes for some very common Finder foul-ups.

Problems Deleting Files or Emptying the Trash

One of the most common problems that users experience under Mac OS X is not being able to delete files or folders, or not being able to empty the Trash. The reason this problem occurs is generally because of permissions issues. However, sometimes even when it appears that permissions are set correctly, and the user has the correct privileges to delete a file, a file cannot be deleted. Here are a few techniques to use if you find yourself in this scenario.

Make Sure the File Isn't "In Use" If you've moved a file to the Trash, but can't empty the Trash because an item is "in use," make sure that the file isn't currently being used. If the file is a document, make sure it isn't open in any application. If it is an application, make sure that the application is not still running.

Note that in addition to applications that are running, or documents that are open in an application, OS X also has a file type, "bzy" that it uses to indicate that a file is in use. (Even though the file type *bzy* is only three letters, it really is a file type, not a file extension.) As described earlier in this chapter, you can use a third-party file utility to check the file type of a troublesome file or folder; if it's set to *bzy*, and you're sure it isn't being used, you can change it to something harmless like *text*. It should then delete normally.

NOTE

Some applications include, as part of the application package, a background daemon, which is simply another application that runs invisibly in the background. When you launch one of these applications, it is often the case that even when you quit it, the background daemon remains active—the end result being you cannot delete the application. In order to do so, you need to quit the background daemon. If you know what it is called, you can use the Process Viewer utility or Terminal to quit it. If not, simply logging out and then back in will usually do the trick (assuming the application isn't one of your Login Items.)

Make Sure the File Isn't Locked Just as in earlier versions of the Mac OS, you can lock files in Jaguar from the Get Info window. If a file won't delete because it is locked, you can often force it to delete by holding down the option key as you empty the Trash. If this still doesn't work, Get Info on the offending file and uncheck the Locked setting.

NOTE

If you've locked a file under Mac OS 9, you may not be able to delete it under OS X, and in fact the Locked setting in the Get Info window may not even say that the file is locked. If this is the case, use the third-party utility method described in this section, or boot into OS 9, to delete it.

Change Permissions A solution that works most of the time is to simply change permissions on the file or folder. Select the item you wish to delete, choose File > Get Info (or press command+I), and then expand the Ownership & Permissions panel. Change the owner to your username and change access to Read & Write (you may need to authenticate first by clicking the padlock button). If the offending item is a folder, click the “Apply to enclosed items...” button. Then try to delete the item(s).

Check the Volume and Filenames If a volume’s name includes special characters (Apple notes the “bullet” and trademark characters as examples), you may not be able to delete files from that volume. The solution is to temporarily rename the volume using standard characters, empty the Trash, and then change the volume name back.

Similarly, if a file or folder name includes certain special characters (a forward or backward slash, a quotation mark, or a trademark or copyright symbol), you may not be able to delete it. If this is the case, rename the file and then delete it.

Use a Third-Party File Utility Because of some of the issues mentioned here, many of the file utilities available for Mac OS X have included functionality to delete troublesome files and force the Trash to empty. My favorite for forcing files to the Trash is XRay (<http://www.brockerhoff.net/xray/>)—you simply drag the item onto XRay (or open it from XRay’s File menu), and choose File > Move to Trash. If necessary, XRay will ask you to authenticate so that it can move the file as root. The utilities BatChmod (<http://www.macchampion.com/arbyssoft/>) and FileXaminer (<http://www.gideonsoftworks.com/>) both include menu commands to force the Trash to empty, even if it contains files that refuse to delete. Finally, both FileXaminer and File Buddy (<http://www.skytag.com/>) allow you to delete files directly, without the interim step of moving them to the Trash.

NOTE

It’s possible to use Terminal to delete troublesome files; however, third-party utilities such as those mentioned here have made it so simple to do the same thing that I never use Terminal for this purpose anymore.

Restart in Mac OS 9 If your Mac supports booting into OS 9, and none of the previous suggestions have worked, as a last resort you can often delete files that can’t be deleted in OS X from within OS 9 (not the Classic Environment, but when booted into OS 9). In fact, if you named a file or folder . or .. (a period or two periods) in OS 9, it’s impossible to delete that file or folder in OS X; you actually *must* boot into OS 9 to delete it.

Repair the Volume A common reason for not being able to delete files is that you have mild or serious corruption on the volume on which the file(s) resides. You should run Disk Utility (either from the hard drive or from the Mac OS X Install CD) to make sure the problem isn’t actually caused by problems with your hard drive.

Repair Privileges As discussed in Chapter 1, it's possible for privileges to become corrupt in Mac OS X—not being able to delete files is one manifestation of this corruption. Just to be safe, if you're having trouble deleting files, and the procedures above don't help, run the Repair Privileges function of Disk Utility to make sure you don't have privilege problems.

Ejecting a CD or DVD

There are times when a CD or DVD won't eject using the usual methods—you can't drag it to the Trash, use the Eject command in the Finder, or use the Eject button on your keyboard. Generally this is because some file or application on the disc is still in use. However, sometimes it happens even when you know nothing on the disc is being used. Other times, your CD or DVD drive is empty, but it simply won't open. Here's a list of possible ways to eject a troublesome CD or DVD drive, from easiest to most involved. (In addition, you may find one of these methods useful as a regular method for ejecting discs.)

Try the standard methods again; sometimes they won't work the first time, but will after a few tries. If a disc is in the drive, drag the CD or DVD to the Trash icon in the Dock. Select the disc in the Finder and choose File > Eject (or press command+E). Finally, if that doesn't work (or if there's no disc in the drive), if you have an Apple Pro Keyboard, press the eject button in the upper-right corner. On iBooks and PowerBooks, this is the F12 key; hold it down for a couple seconds to eject. (If you have one of the newer Macs with dual optical drives, option-eject will open the second drive.) If these methods don't work, try the solutions below.

Use the Customize Toolbar feature to add the Eject button to Finder toolbars. One advantage of this method is that if you select a disc in a Finder window, and it is actually still in use, this toolbar item will be dimmed (meaning you cannot use it). This tells you that some file or application on the CD or DVD is being used.

Enable the Eject Menu Extra as described earlier in the chapter; this will give you an eject button in the menu bar. (It's located at /System/Library/CoreServices/Menu Extras/Eject.menu.) If you have multiple optical drives, the menu will even let you choose which to eject.

Launch iTunes and choose Controls > Eject CD, or launch Disk Utility, select the CD/DVD, and choose Options > Eject.

Use the third-party utilities Eject Me! (<http://nonamescriptware.com/>) or Keyboard Maestro. The former simply runs an AppleScript to eject your CD/DVD drive; the latter has an option to create a Hot Key to Perform System Action; one of the available System Actions is to Open/Close CD Tray. Once you've created the Hot Key, use it to open the CD/DVD drive.

Open Terminal, and type `disktool -l <RETURN>`. This will give you a list of all mounted volumes. Find the CD/DVD, and make note of its device name, which will be the first bit of info after the text "Disk Appeared" and before "Mountpoint." (It will generally look like `disk#`, and be enclosed in single quotes.) Type `disktool -e devicename <RETURN>` to unmount and eject the disc. (If the drive is empty and you simply want it to open, type `disktool -o <RETURN>`.)

If the above doesn't work in Terminal, type **df <RETURN>** to get a list of all mounted volumes. Find your errant CD/DVD by its path on the right (under "Mounted on"), and note the device name, which is the text just after `/dev/` in the left-most column. Then type **hdiutil eject devicename <RETURN>** to eject the disc.

If the disc is unmounted (it no longer appears in the Finder or Finder windows) but the CD/DVD drive just won't open, straighten out a paper clip and insert it into the CD/DVD drive's manual eject hole, on the front of the drive (if your Mac has a drive cover, you may have to pull it down and out of the way to access the hole). This should force the drive to open. If the disc is still mounted in the Finder, this is generally not a good technique to use.

Restart your computer, and hold the mouse button down until the CD/DVD drive opens.

Restart your computer and invoke the Startup Manager at startup by holding the option key down (as discussed in Chapter 3). After your Mac has scanned all available drives, pressing the E key will open the CD/DVD drive.

Restart your computer and enter Open Firmware by holding down `command+option+O+F`. Type **eject cd <RETURN>**—this should open the CD/DVD drive. Then type **mac-boot <RETURN>** to continue with startup.

If none of these solution works, there's a good chance that you've got a hardware problem—mostly likely a jammed CD, but possibly a broken CD/DVD drive.

Problems with Finder Preferences

Veteran Mac users will remember that under older versions of the Mac OS, a plethora of minor glitches could be remedied by deleting the Finder Preferences file. Because the Finder is the hub of activity on your Mac, the Finder Preferences file is one of the most likely victims of file corruption. Although this doesn't happen nearly as frequently under Mac OS X (mostly because file corruption is a much less common problem under OS X), it still occurs, and deleting the Finder preferences file is still one of the first steps to take when your Finder is acting funny.

The Finder preferences file in OS X uses Apple's less-than-user-friendly-but-more-logical naming scheme. Instead of being named Finder Preferences, it's called `com.apple.finder.plist`. (How is this more logical, you ask? In OS X, all of the preferences files created by Mac OS X or Apple applications begin with `com.apple` so that they're grouped together in the preferences folder; there's less of a mystery as to what is an Apple preference file and what isn't.) So to delete the Finder preferences, delete the file `~/Library/Preferences/com.apple.finder.plist`, and then log out and back in.

In addition to the standard Finder preferences file, OS X also uses a couple of other files that are similar to the old Desktop Database files under Mac OS 9. If you experience problems such as icons not showing up properly, files launching in the wrong applications, or anything else that leads you to believe that there is a problem with files and their associations,

deleting these files may help. They are located at `/Library/Cache/com.apple.LaunchServices.LocalCache.csstore` (system-wide files) and `~/Library/Cache/com.apple.LaunchServices.UserCache.csstore` (for your personal account). You should be able to delete the personal file by simply dragging it to the Trash. However, the file in the main Library folder may resist your efforts to delete it. If so, use one of the third-party utilities I mentioned earlier in this section to remove it. After you've deleted both files, log out and then back in.

Moving On...

The Finder is and always has been the center of action on any Mac; however, in Mac OS X the Dock is its partner in crime. Chapter 6 of *Mac OS X Power Tools* covers the Dock, getting the most out of it, and using enhancements to (and alternatives for) it. If you already own the book, read on! If you're just sampling *Mac OS X Power Tools* via the online copy of Chapter 5 and this online supplement, I hope they've persuaded you to go out and get the book so that you can take advantage of the other 14 chapters!