PART I

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Mac Fundamentals

CHAPTER 1
A Tour of the Mac

CHAPTER 2
Backing Up

CHAPTER 3
Useful Utilities



A Tour of the Mac

So you've decided to use a Mac at work. Great decision. Once you get your hands on the fantastic Mac-only applications in this book, you are going to dazzle your bosses, co-workers, and clients. Now you just need to decide which Mac is right for you.

The Mac Family

There was a time when Apple had so many different Mac models that you needed a slide ruler to pick the right one for you. Fortunately, that is no longer the case. The current Apple product line is streamlined, with each Mac designed to serve a different role. Apple sells both laptop and desktop Macs.

The desktops

If you work at a desk and don't need the portability of a laptop, you get the most bang for your buck with the Mac desktop line. There are three categories of desktop Macs: the Mac Pro, the iMac, and the Mac Mini.

The Mac Pro

The Mac Pro, shown in Figure 1-1, is Apple's top-of-the-line desktop machine. It features an industrial aluminum design and looks like it came off the set of a science fiction movie. Apple let its hardware engineers go nuts with the Mac Pro. Every new Mac Pro model gets the latest and fastest processors. The Mac Pro has options for the most processing cores and memory of any Mac available.

If you've ever worked on the inside of a computer, you will be surprised the first time you open a Mac Pro. The inside looks like it was laid out by a very small, very skilled city planner. Gone is the usual spaghetti jumble of wires and plugs. The Mac Pro is the most upgradable desktop Mac.

But with high-end performance comes a high-end price: The Mac Pro starts at $2,499. Once you begin upgrading, that price goes up. You can customize your Mac Pro to include faster components — and end up spending more than $10,000 on a Mac Pro. You will also need to buy a monitor.

As wonderful and shiny as the Mac Pro is, it is also delicious overkill for most of this book's readers. The Mac Pro is ideal for heavy video editing, 3D graphics, intense gaming, and other heavy, processor-draining tasks. If you want to make

FIGURE 1-1

The Mac Pro



FIGURE 1-2

The iMac



the next *Avatar*, the Mac Pro is for you. For most mere mortals, however, an iMac better suits your desktop needs.

The iMac

The iMac was the computer that saved Apple (see the sidebar "A Macintosh History Lesson"). The current iMac, shown in Figure 1-2, features an aluminum-and-glass design and is an "all-in-one" computer. It includes the computer, an LED monitor, and an optical drive all in one nifty design that is not much bigger than a standard flat-screen monitor. The high-end iMacs pack a lot of punch and can do complex computing tasks. Even the lower-end iMacs can handle less-complex video and photo editing.

Apple has three models of iMacs, ranging from $1,199 to $1,999. The first has a 21.5-inch display and the other two have a 27-inch display. Apple lets you configure the iMac when you buy it at the Apple Store; options include faster processors, better graphics, and more memory. Except for adding memory, the iMac is difficult to upgrade, so make sure to get it with the options you'll want for the entire lifetime of the machine. Whatever options you get, note that the entire line of iMacs is fully able to run all the software mentioned in this book.

The Mac Mini

The Mac Mini, shown in Figure 1-3, is Apple's least expensive Mac, starting at $699. You have to add your own display, keyboard, and mouse. The device itself more closely resembles a space-age cigar box than a computer. Although the Mac Mini is not as powerful as the iMac or Mac Pro, it can handle typical computing tasks, such as word processing, spreadsheets, e-mail, and the Internet with no troubles. Mac Mini upgrade options are limited to memory and hard drive. (The newest Mac Mini opens from the bottom — much easier!) Apple recommends any upgrades or repairs to a Mac Mini be done by an Apple-authorized technician.

FIGURE 1-3

The Mac Mini



A MACINTOSH HISTORY LESSON

Once upon a time, people said that if you wanted a computer, you needed a multimillion dollar budget and a team of engineers. Then two guys named Steve (Steve Jobs and Steve Wozniak) started selling the first personal computer, the Apple I. It came in a plywood case.

Next, Apple released the Apple II and started a revolution. Computers of that era ran on the command line using obscure textual codes, which was empowering for nerds and baffling to everyone else. In 1986, Apple started another revolution with the Macintosh, the first consumer computer with a graphical user interface. In other words, it gave us the mouse.

Although the Macintosh changed the world, Apple soon fell on hard times and the two Steves left the company. By the early 1990s everyone was predicting Apple's demise.

In 1997 Steve Jobs came back to Apple and kicked off a reboot of the company, including the release of the iMac. The company is now more successful than ever with Macs, iPhones, iPods, and iPads. The Mac's market share is on an upward march. Indeed, the Mac is now entrenched at work.

The laptops

Laptop usage increases every year. Computers have evolved to a point that laptops have enough power to satisfy the computing needs of most people. Apple has three categories of laptops: the MacBook, MacBook Pro, and MacBook Air.

The MacBook

The MacBook is Apple's entry-level laptop. Shown in Figure 1-4, the MacBook starts at $999 and features a 13-inch screen. The MacBook is the only plastic computer in Apple's laptop line. Although it is technically the low-end Mac, that isn't a fair description. The MacBook is enough computer for most Mac workers. Indeed, much of this book was written on a MacBook.

FIGURE 1-4

The MacBook



FIGURE 1-5

The MacBook Pro



The MacBook Pro

The MacBook Pro line starts at $1,199 and includes three aluminum-and-glass notebooks in 13-, 15-, and 17-inch varieties. The MacBook Pro, shown in Figure 1-5, is carved out of a single piece of aluminum and is thus extremely rigid. The MacBook Pro also includes better video performance for video editing, 3D gaming, graphics, and advanced photo editing. As with the MacBook, the memory and disk storage are both user-upgradable in the MacBook Pro.

The MacBook Air

The MacBook Air series, shown in Figure 1-6, starts at $999 and is the ultimate traveling Mac: One model weighs just 2.3 pounds and the other 2.9 pounds. With its slim design and light weight, a MacBook Air takes very little space in your bag. But to get this small size, the MacBook Air has performance compromises and so is not as powerful as the MacBook or MacBook Pro.

The MacBook Air's thinness also creates physical compromises: Not all USB cables can plug into their USB ports due to the cramped space around them, and

FIGURE 1-6

The MacBook Air series



the MacBook Air requires a separate adapter for an Ethernet cable (a big issue for older models that had just one USB port). For basic computing tasks — e-mail, Internet, word processing, spreadsheets, and presentations — the MacBook Air can do the job. If you are planning to do video editing, however, move along. Nothing in the MacBook Air can be upgraded, so be sure to order enough RAM and storage.

Which Mac is right for you?

Picking the right Mac depends on your particular needs. Do you want the mobility of a laptop or the luxury of a 27-inch iMac screen? Do you revel in owning the fastest, screamingest computer money can buy, or do you want the least-expensive machine to satisfy your needs. The best way to decide is to get your hands on a few Macs and figure out what model fits you the best.

Although this book is about the Macintosh, I'd be remiss not to mention that Apple has a few other products that complement your Mac. The iPhone, iPad, and iPod Touch all synchronize with your Mac and, to a limited extent, become an extension of your computer. You can learn more about your Mac and mobile devices in Chapter 7.

Installing, Removing, and Updating Applications

This book covers a lot of Mac OS X applications. So let's review installing, removing, and updating applications on the Mac.

Installing applications

Mac applications install from disk image (`.dmg`) files. Sometimes, Mac OS X developers compress the installation files into a Zip compression package. The Zip file needs to be decompressed to get the disk image file. To do that, just double-click the Zip file, and Mac OS X will extract the disk image file.

Once you have the disk image file, you are ready to install the application. There are two ways to install software from a disk image: an installation bundle and a Mac OS X installer.

Installers are the easiest. You double-click the installer icon and the installer walks you through each step of the process. When completed, the application and its supporting files are all where they need to be. Installers are normally used by more complicated applications, such as Adobe Creative Suite.

Most Mac OS X applications don't have a full installer but instead use *application bundles*. The bundle opens a Finder window or folder that contains the application file. Quite often, as shown in Figure 1-7, the application

FIGURE 1-7

The mounted disk image for an application (in this case, OmniOutliner)



automatically opens a Finder window. Regardless, you then copy the application to its desired location, which is almost always the Applications folder.

Once the application is where it belongs, you can eject the disk image using the Eject icon next to the disk name in the Finder's Sidebar. You can also eject an image by clicking the disk image and pressing ⌘+E or dragging the disk image to the Trash.

Ejecting the image after installation is important: Novice users usually don't realize they need to put the new application in their Applications folder, and so they instead run the application from the mounted disk image. Doing so is dangerous: You can't always count on the disk image being there, and it may cause problems with the application's data files.

If you want your application to remain in the Dock, that quick-access bar at the bottom of the screen, you can drag it there from the Application folder or Control+click or right-click the icon in the Dock while the application is running and choose Options ⏵ Keep in Dock, as shown in Figure 1-8.

Removing Mac OS X applications

Mac OS X does not have a dedicated application uninstaller. This often surprises Windows switchers, but the reason for its omission is simple: It is not

FIGURE 1-8

Keeping an application icon in the Dock

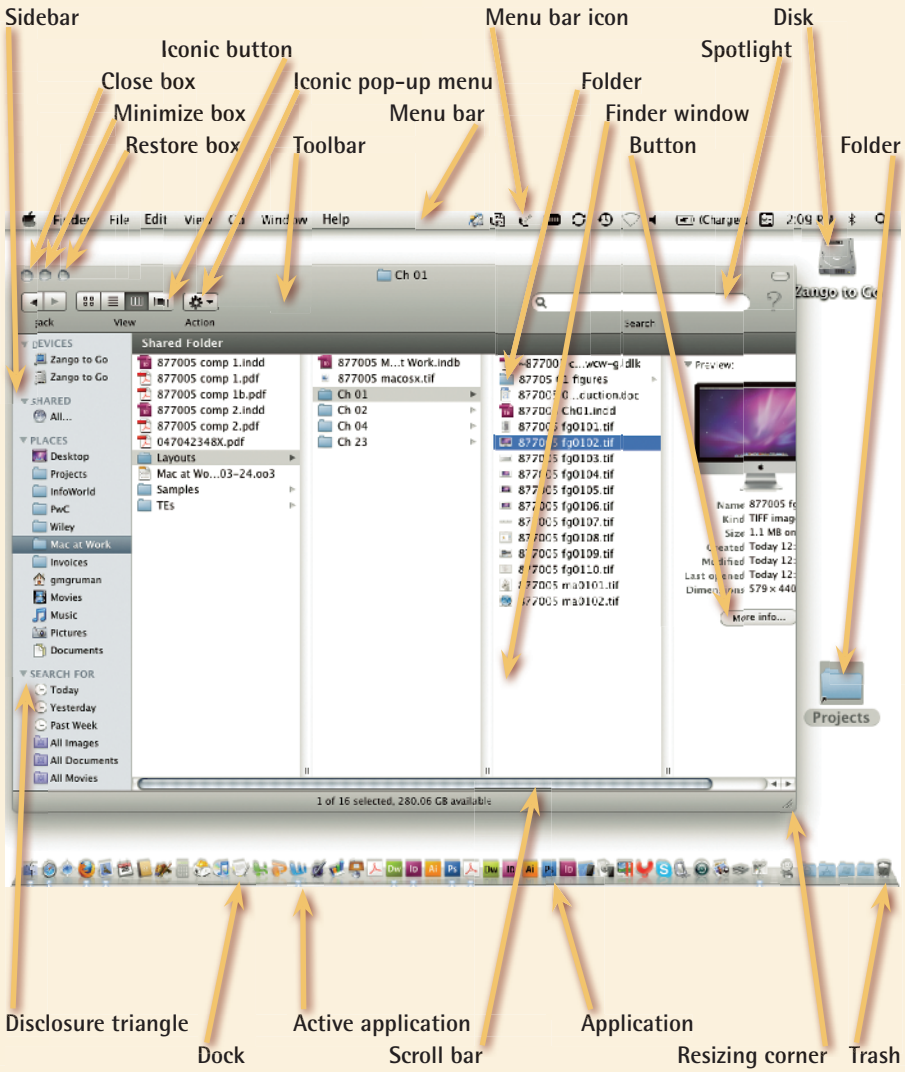


necessary. To remove most Mac OS X applications, you just drag them to the Trash. (Some applications — typically those installed via an installer — come with an uninstaller app; use that if it exists.)

Some developers have released applications that clean up after deleted applications by tracking down and deleting their support files. AppZapper ($13;

A TOUR OF THE MAC OS X USER INTERFACE

Below at left is the Finder and below at right is an application, with the most common user interface elements identified; the only common element not shown is the dialog box,

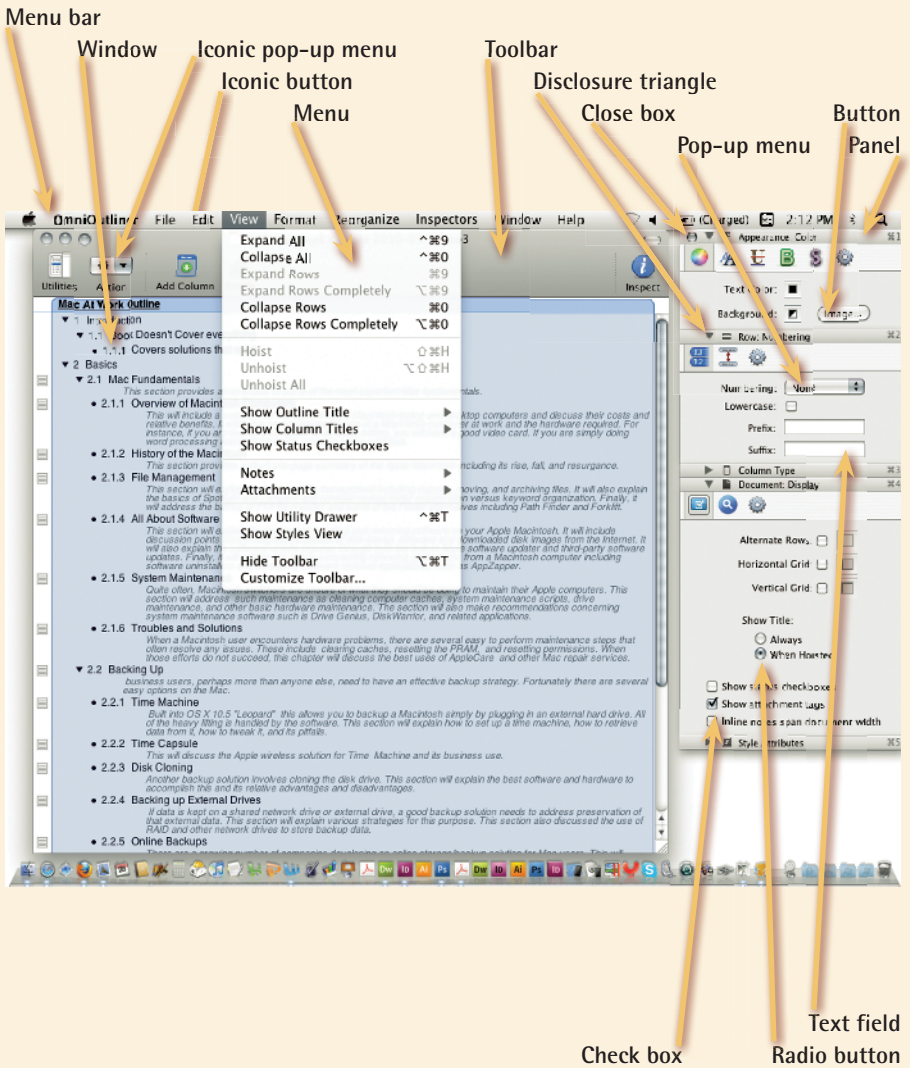


www.appzapper.com) is a good tool. Hazel (www.noodlesoft.com/hazel), covered in Chapter 3, also cleans up after deleted applications.

Getting Mac OS X updates

Updates relating to Apple software are provided automatically in the Software Update utility (choose ▸ Software Update). Even if you don't run the updater,

which is like a panel except that when it is open, no other controls are accessible within the application.



Mac OS X periodically checks for you and reports when there are updates. You should always apply security updates as soon as they become available. With other updates, wait a few days until after Apple releases them before installing. Why? Because these upgrades are tested only with a limited number of users and so sometimes include glitches. You are better off letting someone else find out first.

Most software applications periodically check to see if there are updates for those applications. When updates exist, they prompt you to download and install them.

File Management

Moving files around Mac OS X follows the same user interface paradigms found in the first Macintosh. Indeed, if you could teleport a 1984 Mac user to the present, he would have no trouble copying files. In Mac OS X, files are objects that can be moved or copied between folders and disks, as well as to and from the Desktop. Mac OS X automatically creates folders in your user folder for the most common file types, such as Documents, Music, Pictures, and Movies. If the Finder is too constraining for you, PathFinder ($40; `www.cocoatech.com`) is a powerful replacement.

One change to Mac OS X that a 1984 time traveler would appreciate is the addition of Spotlight. Spotlight is a systemwide search that indexes your files and data. Whether you are looking up an Address Book entry, an e-mail you received last week, or a draft sales proposal, you can usually find it by typing the name in the Spotlight search bar and pressing Return or clicking the Spotlight iconic button (the magnifying glass icon) at the top-right corner of your screen. The point of Spotlight is to help you avoid having to drill through Finder windows — and it usually works.

Spotlight also is an excellent application launcher. If you type the first few letters of an application, Spotlight finds it; you can then launch it by pressing Return. To perform this magic, Mac OS X automatically indexes every file you save. Address Book, for example, adds each contact's name to the Spotlight index. Some applications, such as Default Folder X (covered in Chapter 3), let you add additional terms to the Spotlight index. You can manually add terms to a file's Spotlight index in the file's Info window (displayed by selecting the file and pressing ⌘+I).

Maintenance and Troubleshooting

One of the biggest challenges for Windows users switching to Mac OS X is accepting the fact there simply isn't much maintenance on a Mac. There are, however, some basic maintenance and troubleshooting tools worthy of a mention.

Basic maintenance

Mac OS X has three built-in scripts that run on a daily, weekly, and monthly basis. These scripts clean out system files and preferences so Mac OS X runs optimally. Most users aren't even aware they exist.

The operating system is supposed to run these scripts in the background, usually in periods of low activity, quite often in the middle of the night, if your Mac is on then. If you have a laptop or a Mac that is frequently turned off, there is a possibility your Mac will not run these scripts as often as it should.

You can check these files on your own Mac by looking at the script logs to determine the last time they were modified. You do this by choosing Go ▸ Go to Folder in the Finder and typing in `/var/log/`. Once in this folder, you can select the `daily.out`, `weekly.out`, and `monthly.out` files and open an Info window (select the file and press ⌘+I). When looking at the file information, the date last modified tells you the last time the script ran.

If your are not running on the usual daily, weekly, and monthly routines, it is not the end of the world. Your Mac won't implode and cats won't start living with dogs. Just leave your Mac on overnight. You can also manually run these scripts a variety of ways. My favorite method is using the application Maintenance (`www.titanium.free.fr`). Maintenance is a free application, although a donation is requested by the developer. (There are many such useful "donationware" applications for Mac OS X.)

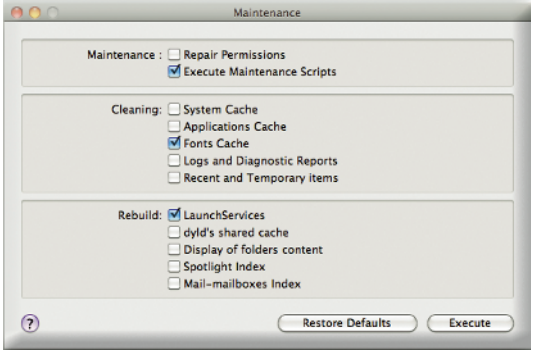


Maintenance, shown in Figure 1-9, allows you to perform several functions on your Mac, including manually running the Mac OS X daily, weekly, and monthly scripts. Maintenance can perform other useful Mac maintenance tasks:

- **Repair permissions:** Mac OS X assigns access privileges, known as *permissions*, to applications, folders, and files. The operating system manages these permissions automatically, but occasionally the permissions

FIGURE 1-9

The Maintenance application window



get corrupted. (Corruption was more of a problem with earlier versions of Mac OS X than it is today.) Errors in the permissions can manifest themselves in several ways, from slowing down your Mac to prohibiting certain applications from starting. In addition to repairing permissions in Maintenance, you can also repair permissions using Apple's Disk Utility. Repairing permissions is not a normal maintenance issue but can be used to troubleshoot odd behavior. It is also a good idea to repair permissions before doing any major software or operating system upgrade.

- **Cache cleaning:** Caches are files containing commonly used system resources. For example, the browser caches files from your most frequently visited Web sites. When you return to a site, your browser does not have to re-download every file associated with that site; it loads them from the cache and then downloads only changed or new elements for that site. Mac OS X creates caches for system files, applications, and font files. It is a common myth that cleaning cache files is necessary maintenance in Mac OS X. This is not true. Cleaning out the cache files usually slows down your Mac. When you delete them, Mac OS X must then go through the time-consuming act of rebuilding them. (Your Mac created those cache files for a reason.) Although not necessary for maintenance, cleaning caches is appropriate when experiencing problems. Cleaning the font cache, for example, often solves text-related problems.
- **Launch Services directory:** Launch Services is the directory that tracks the available applications for the Open With contextual menu option when you Control+click or right-click on a file. If you find you are getting multiple instances of applications in this menu option, use this command to rebuild the directory and remove the duplicate entries.
- **Spotlight index:** The Spotlight index is Mac OS X's index of your files and directories. Rebuilding the index should only be necessary when you detect corruption with your Spotlight searches.



To get at deeper level system repair, try Onyx (donation requested; `www.titanium.free.fr`), by the developers of Maintenance. But beware when using Onyx: It can modify essential system files, so if used improperly, Onyx could destroy data and harm your Mac. Make sure you know what you are doing before you start pushing buttons — and always back up first (see Chapter 2).

Disk defragmentation

Hard disks don't usually keep files together. When you write a file to the disk, it takes blank space wherever it may find it; thus, large files may be split up into multiple pieces. It is like reading a book where you are required to turn forward 20 pages, then back 30 pages, to continue. When files get heavily fragmented, the

disk has to work harder to read them by jumping to multiple locations, which slows performance.

Windows switchers to Mac OS X often look for defragmentation tools. Mac OS X, however, performs its own defragmentation, so user interference is generally not necessary. I don't defrag my Mac hard disks. In fact, the few times I've bothered to defrag a Mac OS X hard disk, I've never experienced any noticeable improvement in performance.

The exception is if you work with a lot of large files or routinely keep your disk nearly full. In that case, iDefrag ($30; `www.coriolis-systems.com/idefrag`) is a good tool. Before defragmenting your disk, however, make certain to back up everything.

Getting help

One advantage to buying Apple hardware is the company's excellent customer support. So many Mac workers have had such bad experience with computer repair with other computers that they sometimes overlook this advantage.

If you are having trouble with your Mac, take it into your local Apple Store or call Apple and send it in. Note, however, that Apple does not generally offer priority service. Moreover, Apple does not offer same-day service for repairs at the office like some PC manufacturers do. So you could experience longer downtimes when you need upgrades and repairs.