

Bonus Chapter 1

Converting from OS 9 and Other Operating Systems

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Most of *Switching to a Mac For Dummies*, 2nd Edition, is aimed at Windows users. But users of the older Mac operating systems, the ones before OS X, also may find conversion daunting. In this chapter, you find switching tips if you're looking to upgrade from Mac OS 9 (or even earlier versions) to OS X, and you find out how to navigate the key differences in the interface and file structure and how to transfer files. You also find tips if you're moving from Linux to a Mac or you want to run Linux and your Mac together. And last but not least, this chapter offers pointers to game lovers who want to hold on to their favorite games while moving up to the latest Mac OS.

Switching from Mac OS 9 and Earlier

Millions of users of older Macs still run Mac OS 9 and even earlier versions. The Apple introduction of OS X in 2001 was potentially more traumatic to its loyal users than the switch from PowerPC to Intel. Apple made provisions for software developers to build OS 9 applications that would also work in OS X — the Carbon package. But some developers weren't in a position to incur that expense, and other vendors were by then defunct. Nonetheless, some users relied on these programs.

Apple softened the blow by incorporating a facility to allow a version of the older operating system, Mac OS 9, that runs in OS X on PowerPC Macs. This feature, named Classic, allowed most, but not all, older Mac applications to run on the newer machines.

That safety net was removed for the Intel Macs. Classic doesn't run on the Intel versions of OS X. Apple presumably assumed that most users have migrated to newer applications with OS X-compatible versions. Unlike the situation for Windows, no commercial solution lets OS 9 or earlier versions of Mac OS run on an Intel Mac. Open source emulators are available, and I talk about them later in this chapter, but they require some messy steps that limit their utility.

Evaluating the differences between OS 9 and OS X

Moving from OS 9 to OS X is like moving to a new city from a town you really, really liked. You'll miss familiar places and faces, but you'll find new things you like and make new friends. Just keep an open mind and maintain a positive attitude.

The biggest difference between OS 9 and OS X is that OS X is based on a version of the Unix operating system, FreeBSD. The presence of Unix isn't normally visible to OS X users — unless they look for it, as I describe in Chapter 19. However, Unix influences many aspects of OS X indirectly.

User accounts

One concept that is foreign to pre-OS 9 users is individual user accounts. Before OS 9, only one user existed, and all files belonged to that user. OS X can also have multiple users, but the feature is organized the way Unix does it: All users have their own home directory, and all their files are stored in that directory. All home directories are in the directory named Users.

Users normally own their files. Each file in OS X has a set of permissions that control who can read the file, write to the file, or execute the file as a program — another concept that comes from Unix.

OS X knows which user you are by asking you to log on when you boot the machine. If you're the only user on the system, you don't have to log on, but from a security standpoint, you should require a logon. See Chapter 10.

File system structure

One big difference between OS 9 and OS X is how files are organized. In OS 9, your personal organizing touches start at your hard drive. In OS X, your playpen is your User directory. Outside of installing system-wide applications, you normally don't mess with files at the top level. Although you can see other users' folders, you normally can't poke around within them. Users get a certain amount of privacy in OS X, though if you have admin privileges, you can override most measures.

I discuss the OS X file structure in greater detail at the beginning of Chapter 15. I realize that it seems awfully restrictive compared to the total freedom you're used to in OS 9. Some of the structure is arbitrary and goes back to the early days of Unix. But the Unix file system structuring has logic, and the ability to have separate user accounts requires something along these lines.

Interface differences

Apple made some small but annoying changes to the classic Mac OS interface when it created OS X. I outline some of them in this list:

- ✔ The Apple menu (🍏) is still on the far left end of the menu bar, but its contents are almost totally different.
- ✔ You can no longer easily add items to the Apple menu.
- ✔ The cute little mini-applications that used to live on the Apple menu have been moved to a more elaborate Dashboard (press F4, on new Macs, F12 on some older models.).
- ✔ An application-specific menu now exists between the Apple menu and the File menu. It's where the Preferences, Hide, and Quit commands are located. This menu was the hardest thing to get used to when switching to OS X. I've used every Mac OS since 4.1, and my muscle memory is deeply imprinted with where the File menu is *supposed* to be. And, I still look for Quit on the File menu. T'aint there.
- ✔ The good news is that ⌘+Q still works, as do most of the command key shortcuts you're used to. One big exception is the shortcut that makes an alias for a selected file or folder, which is now ⌘+L. Also, ⌘+N now creates a new Finder window rather than a new folder. Finder windows are handy in OS X, so this change makes some sense. Shift+⌘+N makes a new folder.

Other cute OS 9 features you've grown to love are missing in action, including the Window Shade feature and tab folders. They've been replaced by the less handy Dock. Fortunately, the Dock stack feature replaces tab folders, and the shareware program WindowShade X restores the Window Shade trick.

Some things OS 9 users won't miss include system extensions and rebuilding the desktop. Neither is needed in OS X.

Transferring files from older Macs

If your new Mac and your older Mac both have FireWire ports, you can transfer your files without much fuss. You need a FireWire cable of the right type at both ends — 400 or 800 MHz plugs to match the Macs.

When you start up OS X for the first time, you're asked "Do you already own a Mac?" If you say yes, OS X offers to "transfer your info from another Mac with a FireWire port." The transfer can copy files, network settings, and user accounts — including preferences and e-mail documents.

If you're way past the initial OS X startup, you can still transfer your files. Macs with FireWire start up in FireWire disk mode if you hold down the T key while rebooting. Then you can plug the FireWire cable into your new Mac, which should see the new machine as an external hard drive. Then run the Migration Assistant, found in the Utilities folder, and you get the transfer capabilities even later in the game. Or, you can just copy everything over to your Documents folder and sort things out later.

Transferring files without FireWire

If one of your Macs lacks FireWire, you still have ways to transfer files. Your best option may be transferring data by writing to disk. Decide which files you care about and write them to disk. Your choices depend on what drives are usable on your older Mac:

- ✔ **If your older Mac has an optical drive that can write CDs:** It's your first choice. CDs can hold 650MB of data or more.
- ✔ **If your older Mac has a Zip drive:** Look for a used USB Zip drive on eBay.com or Craigslist.com. You can use it with your new Mac to read Zip cartridges written on the older Mac. Zip cartridges hold 100MB or more, so you have fewer copy steps than would be required when using floppies. Check out the entire process first by copying a few files.
- ✔ **If your older Mac only has a floppy drive:** Check whether it can write high-density (HD) floppies — the kind that are PC-compatible. The original Lisa, Mac 128, Mac 512, Mac Plus, some SEs, and Mac IIs cannot. Get a USB floppy drive for your new Mac and clear a few hours from your schedule for copying stuff from it. Again, it's worth trying the process all the way through on one floppy disk's worth of files first.

If you have an ancient Mac that can write only single-sided or low-density double-sided disks, your best bet is to find a later-model used Mac that has a floppy drive. An Apple Macintosh with a built-in floppy drive can read the older disks. If possible, get a used Mac that has a drive that can write CDs. You can also connect the two old Macs by using AppleTalk.

For more information on older Macs and ways to keep them working, visit lowendmac.com.

Using e-mail to transfer files

If your older Mac connects to the Internet and can send e-mail, you can send important documents to your new Mac as e-mail attachments. Older Mac utilities such as ZipIt and StuffIt can be used to compress entire folders into a single file.

Converting older Mac files

Although current commercial applications, such as TextEdit and Microsoft Office, can read older Mac file formats, most applications cannot. Several solutions are worth considering:

- ✓ **Try OpenOffice.org and GraphicConverter:** Both products, discussed in Chapter 7, can read a number of older Mac formats.
- ✓ **Check out MacLinkPlus Deluxe:** This software package (from DataViz.com) runs on OS X and can translate files from a wide variety of older Mac and Windows formats. It's a little hard to find on the DataViz Web site. Try www.dataviz.com/products/maclinkplus/mlp_xlators.html.
- ✓ **Save files in a newer format:** Open files on your older Mac and save them in a format that's more likely to be read by newer applications. For example, you can save word processing files as RTF files. TextEdit and any other word processor worth its salt can read RTF files. The content and most formatting are preserved. Other file formats that are still widely readable include SYLK files for spreadsheets and comma-separated value files (.csv) for spreadsheets and databases. Text files (.txt) are also universally readable, but you lose all formatting.



Check whether you have a later copy of pre-OS X Microsoft Word, particularly Word 5.1. It can read many older Mac formats, including MacWrite 4.5, and save them in RTF format. Also, Microsoft Office can read Word 5.1 files directly.



Purging your older Mac's hard drive

If you plan to dispose of your older Mac and you have files on the hard drive that you consider sensitive, always be wise and securely erase them and wipe the drive clean.

If your new and older Macs have a FireWire port, you can try booting it in FireWire disk mode (hold down the T key) and connect it to your new Mac. After all files are copied and backed up, you can delete your files from the old Mac and then use Disk Utility on the new Mac to erase free space.

If that approach doesn't work, you need another plan. Unfortunately, shareware programs for older Mac operating systems that erase files and wipe free space clean are increasingly hard to find. One commercial solution is ShredIt for Mac, from Mireth.com. Download it for about \$20; versions are available for older Mac operating systems as well as for OS X.

Here's a quick-and-dirty solution that isn't as secure as a proper file wipe utility, but provides some protection:

- 1. After erasing your sensitive files, make a duplicate of a large folder, such as your Applications or System folder, by highlighting it and pressing ⌘+D.**
- 2. Keep doing this until the hard drive is full.**
- 3. Delete all copies and repeat the procedure, preferably with a different starting folder.**

Another solution is to remove the hard drive from the old Mac before disposing of the rest of the machine and bury the hard drive in your basement.

Emulating older Macs on your Intel Mac

I'm not aware of any commercial products that enable you to run pre-OS X Macintosh operating systems on Intel Macs. But several open source efforts have developed emulators for older Macs that can run older operating systems and software with some caveats:

- ✓ The software has been developed by volunteers who offer no guarantee that it will work.

- ✔ You need to obtain a copy of the firmware that is built into older Macs — the system ROM (read-only memory). To do this properly, you need to own an older Mac. The sites that provide the emulators also provide a small software program that can copy the ROM to a file, which you must then transfer to your Intel Mac.
- ✔ After you have the emulator up and running, you still must install a version of Mac OS. You can download it from the Apple Web site at www.info.apple.com/support/oldersoftwarelist.html.

See the following emulator download sites for complete instructions:

- ✔ **Mini vMac:** Emulates older 68K Macs: minivmac.sourceforge.net
- ✔ **Basilisk II for Mac:** Emulates more recent models: www.users.bigpond.com/pear_computers/BasiliskII.html
- ✔ **SheepShaver:** Emulates PowerPC Macs: gwenole.beauchesne.info/en/projects/sheepshaver

Trying to get one of these emulators working takes some time and effort. After you have everything working, make a backup of the disk image. That way, if your emulated software crashes and the emulated disk is damaged, you can simply replace it with a fresh copy.

An alternative for older Mac upgraders

If you are a heavy user of an older Mac and are ready to upgrade to OS X, but have dreaded the prospect, you might want to consider buying a used PowerPC Mac rather than move directly to an Intel machine. A late-model PowerPC Mac (G4 or G5) can run the latest OS X 10.5 release while at the same time supporting OS 9 software in Classic mode. Most of the information in this book applies to PowerPC versions of OS X as well.

Unless you have a need to read old 800KB or, worse, 400KB floppy disks and want a Mac with an internal drive, I suggest buying a late-model

PowerPC, such as a flat-panel iMac, an eMac, or a G4 PowerBook.

Buying a G4 or G5 PowerPC model could make it easier for you to make the transition to the newer generation of Macs because much of your existing software may still run on the PowerPC. Although the PowerPC Macs aren't as fast as the newer Intel Core Duo models, you should still see a significant speed improvement over the older Mac you've been using. When you feel comfortable with OS X and no longer depend on Classic applications, you can purchase a newer Intel Mac and move your computing environment to the new machine.

Converting from Linux

I've dealt with switching from Windows and from older Macs. What's left? The other popular personal operating system is Linux. It might seem surprising that Linux users switch to Macs, but it makes sense if you think about it. OS X is based on the Unix architecture — primarily BSD — so Linux users can easily transition to it. Apple hardware is elegant and reliable, and Mac customers aren't forced to buy Windows and then uninstall it from their new computers to make way for Linux. And, OS X is the only platform that supports Linux/Unix applications and Microsoft Office.

Files can be transferred by using standard Unix command-line tools, such as ftp or ssh or a graphical shell. On the Mac side, the command line is available through the Terminal application in the Utility folder. Terminal provides a bash shell and a complement of BSD tools, along with thousands of man pages. Other shells, including zsh, csh, ksh, and tcsh, are available.

Other packages from the Linux world are ported to OS X by the Fink project, finkproject.com. Fink uses Debian package-building tools and provides the infrastructure to install these packages on OS X. I have lots more to say about Terminal and the OS X Unix layer in Chapter 19.

Reclaiming Relics

Most of us never forget first loves, whether it's people or computers. A few of us have yet to give up our first computers. If you're stuck in the past, Macs bring hope for the future.

Older PC operating systems, such as MS-DOS, OS/2, and earlier versions of Windows, can be installed in virtual environments provided by Parallels and VMware, as discussed in Chapter 16. DataViz, described earlier in this chapter, can read many of the older formats these programs used.

Reading old media (5¼-inch floppies, cassette tapes, ½-inch magnetic tape, DECTape, or punched cards, for example) is a different story. Your best bet is to buy an old machine that can read the media and transfer the data by way of a modem or serial port connection using Kermit (www.columbia.edu/kermit). Because Macs don't have serial ports, your old PC may come in handy. Google can find data-conversion firms that can transfer your old formats to modern media, but the service is costly.

If you're into game nostalgia, www.emuscene.com, emulation.victoly.com, and MacMAME.org track a wide variety of computer and game console emulators for the Mac. You can even find Apple II, IBM System/370, and


Digital Equipment Corporation PDP-8/e emulators. The SIMH project, simh.trailing-edge.com, has simulators for most minicomputers, including the IBM 1130, DEC VAX, and Data General Nova. Software kits, including many classic minicomputer and mainframe operating systems, are available under license at the site. Source code for the simulator is also available. You can find instructions for installing SIMH in OS X at simh.darwinports.com. You can have your cake and eat it too.

Removing Data and Accounts from an Old Mac

When the time comes to get a new Mac and you want to sell the old one or give it to a friend or charity, you should erase all your data files. I discuss how to do this on old PCs in Chapter 6. Of course, you should first transfer the files to your new machine; see Chapter 9 for networking tips. You also should deauthorize your Mac from the iTunes Store if you have been using it. See Chapter 11 for instructions on how to do this and what to do if you forget. And, you should always make a backup of your most important files on a DVD-R or an external hard drive. If you use the Adobe CS applications of Filemaker Pro, deauthorize them, too. See the manufacturer's Web pages for instructions.

Then what?

If you have the original discs that came with your Mac, you can use them to restore it to its original state. Here's a different approach that lets you give away your Mac in a more updated state:

- 1. Select  → System Preferences and click the Accounts icon.**
- 2. Click the Lock icon and enter your password.**
- 3. Create a new account, maybe with the name of the person who will receive the machine. Be sure to select the Allow User to Administer This Computer check box.**

You can use your name as the password and say that you're doing this as the password hint.

- 4. Select  → Logout.**

After you see the login screen, click the new account name and enter the password you just created.

- 5. Again, select  → System Preferences and click the Accounts icon. Click the Lock icon.**



- 6. Go to your new computer and triple-check to ensure that all files for all accounts on the old machine have been transferred.**

Go have a cup of coffee and check again when you come back.

This is your last chance to copy these files to your new computer.

- 7. Back on the old machine, delete each account, except the one you just created, by clicking the old account's icon and then clicking the minus (-) button.**

Confirm that you want to erase everything, with no extra copy. Let it cook; this process can take awhile.

- 8. If you have applications you don't want to transfer, delete them from the Applications folder.**

- 9. Double-click your hard drive icon and see whether any of your files have leaked into this top-level directory. If so, drag them to the Trash.**

- 10. Select Finder  ⇨ Empty Trash.**

Regardless of whether you rebuilt OS X from scratch or deleted accounts as I suggested, your sensitive files aren't necessarily gone yet. To obliterate them permanently, erase the free space on your hard drive. See the section about securing empty trash and erasing free space in Chapter 10 and the section in Chapter 6 about disposing of hard drives that you can't fully erase.