



Demos of Net Barrier X, Dave 3.1.1, Font Reserve 3.0, Super Get Info 1.0.7, FontDoctor X 5.1, ON THE Synchronize X Plus, and Synchronize Pro X; plus Firewall X 2.1.1, USB Overdrive X beta 4, Pacifist 1.0b4.1, TinkerTool 2.11, MacJanitor 1.2, BrickHouse 1.1b6, PocketBackup 1.1, Default Folder X 3.1.3, and OmniDiskSweeper 1.3

by Todd Stauffer

illustrations by Oliver Wolfson • photograph by Mark Madeo

et's face it: In Mac OS 9, you were king of the hill, master of your domain. When a problem arose, you usually knew what went wrong, how to fix it, and what to do to keep it from happening again. Mac OS X is a different beast.

For all but the truly geeky among us, OS X is foreign territory, and the spectrum of bugs and problems ranges from the somewhat familiar to the utterly insane. When something goes wrong in Mac OS X, bumping up memory allocation ain't going to fix what's ailing you. Last year, we gave you "50 Biggest Mac Problems (and How to Squash 'Em!)." In this year's AnnualTroubleshooting Superguide, we're going (almost) exclusively Mac OS X with 50 all-new bugs we hope you'll never encounter. But we all know better than that.

Troubleshooting Caveats

A troubleshooting article, especially one about a fairly new operating system, necessitates a few cover-our-butts statements. First, we wrote our article based on Mac OS 10.1.4 the latest version at press time. Mac OS X is a moving target, and as so inadvertently introduce more so problems and solutions may change over time. Also, troubleshooting is an inexact science—a particular fix may not work for you or your Mac model. For further help, keep an eye on the Mac Web community and Apple's constantly mutating support site (www.apple.com/support).

THE**BIG**UH-OHS

Kernel panics, flashing question marks, the scary dead Mac. These aren't your ordinary problems—these are the problems that make you reach for your heart pills. But before you decide that the only solution is a soothing cup of chamomile tea and a good cry, read on—there might be another answer.

Dead Mac

PROBLEM: My Mac won't start up. No lights. No startup sound. No nothing.

SOLUTION: Before you flip out, take a deep breath. Relax. Your problem may be a minor one. Or not.

First, check all of your plugs, power outlets, and power strips. Make sure your keyboard and mouse are plugged in, unplug all other peripherals (just in case a device is interfering with the startup signal), and try booting up using the power button on your Mac, not the one on your keyboard.

If you have a laptop, remove and reinstall the batteries and try again; if that's a no-go, reset the laptop's Power Manager (check your user's guide to find out how—practically every PowerBook does it differently). For desktop models, particularly Macs that are a few years old, suspect a bad PRAM battery—replace it (you can get one from an Apple service center) or have a pro do so. You can also take a stab at pressing the reset button on your motherboard (usually located next to the PRAM battery). If all else fails, it's off to an authorized Mac repair shop for you.

2 Flashing Question Mark

PROBLEM: All I see when I start up is a folder with a flashing question-mark icon alternating with a flashing Finder icon.

SOLUTION: A flashing question-mark icon means the Mac can't find a valid System Folder, Mac OS X or otherwise, from which to boot. You may have accidentally selected Network Volume rather than the

startup disk in the Mac OS 9 Startup Disk control panel. If that's the case, chill out—the Mac should start up after a couple minutes.

If the Mac doesn't start up on its own, the quickest solution is to boot off a Mac OS 9 CD-ROM (or a recovery CD from Norton Utilities). To do

Select the Mac OS system folder to start up your

Name

MacIntosh HD

MacIntosh HD.System Folder:

Mediatosh HD.System:

Mediatosh HD.System:

Mediatosh HD.System:

If you inadvertently select Network Disk, you'll have to wait a while before your Mac finds a real System Folder. that, simply reset the Mac (see Problem 4, "Reset Your Mac," p18), insert the CD when you start up, and hold down the C key after hearing the startup tone. Keep holding it down until you see the "Welcome to Macintosh" screen. Once you've booted up, launch the Startup Disk control panel, select a valid system disk, and restart.

If you're still having trouble starting up—especially if you can't see the disk on the desktop when you start up using a CD—run Alsoft DiskWarrior (see "Troubleshooting Toolkit." p24) to see if it can rebuild the disk's directory. If that doesn't work, move on to Norton Utilities or TechTool Pro for disk doctoring and/or file recovery. Hopefully one of those tools will bring your System folder back from the dead. (You do have a good backup, right?)

3 Broken Startup Folder

PROBLEM: After I hear the startup tone, I see a broken-folder icon flashing.

solution: A broken-folder icon probably stems from a corrupt or missing Mac OS X system component. It's possible that someone moved or messed up the Mach kernel files, which are usually invisible in Mac OS X but show up when you're running Mac OS 9.

applications entertain. She's special contents of the US 9; Special forms of the US 9; Special forms of the US 9 shows you the

Mac OS 9 shows you the invisible—and essential—Mach files, which might be tempting Trash fodder for the uninitiated.

The official (Apple-blessed)

Solution is to back up important files, reformat the disk, reinstall

OS X from the CD, and finally initiate Software Update for a round of

updates. (Didn't we read that exact procedure in a Windows handbook somewhere?)

The intrepid, however, can start up in Mac OS 9 and root around on the hard disk to see if the hidden files are missing (particularly the Mach files, but look for any evidence of System folder tampering). You could try copying missing files from



Trashing your Extensions.mkext file may repair that broken startup folder that's plaguing you. Or maybe not.

a system running the same OS X version, then restarting. Back up important files first. If you have a CD with exactly the same Mac OS X version as the one you're running, you can run the OS X Installer again to replace the files.

If no system files are actually missing, delete the Extensions.mkext file from the Library folder in the System folder via Mac OS 9, then restart (don't worry, the file automatically regenerates). That procedure clears the extension cache, which is designed to shorten startup time but can sometimes get corrupted and cause trouble.

Reset Your Mac

PROBLEM: Help! My Mac has crashed, and I can't access the Restart or Shut Down commands.

SOLUTION: Sure, sure, sure—Mac OS X never freezes. Riiiight.

If you can't force-quit the frozen application (Command-Option-Escape), you'll have to reset your Mac. For a soft reset, press Control-Command and the power key, if your Mac has one on the keyboard or if you have a laptop. On newer Apple USB Pro keyboards, press Control-Command-Eject to restart or Control-Command-Option-Eject to shut down. (Those commands actually attempt to save files before shutting down.)

For a hard reset, hold down the Power button on your Mac's front or side; on some early iMac and Power Mac models, you'll need to press the special reset button, sometimes using a straightened paper clip. A hard reset tosses unsaved documents.

Here's another alternative if you're a geek: If you happen to have another Mac on the same network and the frozen Mac has Allow Remote Login turned on, you can log on to the frozen Mac using Terminal. (Type man ssh at the command line to learn how.) Then you can use the shutdown command sudo shutdown -h now to shut down, or the top and kill commands (see the sidebar "10 Terminal Tricks," p28) to quit the problem app and keep computing.

Unfinished Startup

PROBLEM: Mac OS X gets stuck and refuses to start up completely.

SOLUTION: If Mac OS X halts the startup before it gets to the Mac OS X screen, and all you get is a blue screen, gray screen, or spinning ball, your system may be having a problem with external peripherals. Unplug them all and try starting up again. If that does the job, plug them in one at a time, restarting each time, to single out the culprit.

If a blue screen or the Mac OS X screen with a spinning cursor puts the kibosh on your startup, suspect a bad startup item (often a special utility of some sort). Restart in Mac OS 9 (or via a Mac OS 9 CD-ROM), navigate to the main Library folder and drag any third-party items out of the StartupItems folder to your desktop. Restart in Mac OS X—if your Mac gets through log-in, add items back to your StartupItems folder one at a time, restarting and testing each time you do.

You can also get a blue screen and spinner if you've set up your Mac to access an Ethernet-based Internet connection, but the domain name server (DNS) address is invalid or missing. Likewise, other networking issues can hang startup for a few minutes, so recheck your network settings. Also, it might help to unplug your Ethernet cable and see if that enables your Mac to start up.

Finally, Apple notes that you might see a blue screen if you have a damaged Mac OS 9 font (since Mac OS X reviews fonts in the Mac OS 9 System Folder at startup). Start up from a Mac OS 9 CD, drag the Fonts folder from the Mac OS 9 System Folder onto the desktop, and restart in Mac OS X. If that works, drag the folder back to the System Folder,

checking the fonts one at a time for the misfit—or use a font-checking utility (see Problem 25, "Font Difficulties," p22).

© Errant Log-in Items

PROBLEM: My Mac is trying to launch an item at log-in that's crashing my machine.

problematic log-in item, hold down the Shift key immediately after you see Mac OS X's status bar and until the Finder appears.
During this process, if you see the log-in window, release the Shift key, log in, then immediately hold down the Shift key again.
Disable the item for good in the Login system preference.

These Items will open automatically when you log in:

Hide Item Kind

Palm Desktop Background Application

Transport Monitor Document

Ti TunesHelper Application

Default Folder X Application

Drag Items to specify the order in which they open.

To hide an application when you log in, click its Hide checkbox.

Disable misbehaving log-in items in the Login preferences pane.

6 Kernel Panics

PROBLEM: I'm getting a kernel panic! Sometimes my Mac just freezes, other times some 1970s-style, DOS-looking text appears onscreen.

SOLUTION: First, a quick message from the colonel: The kernel is the low-level core of Mac OS X that communicates directly with your hardware, and a kernel extension

with your hardware, Running Disk First Aid might root out the and a kernel extension cause of your kernel panic.

is driver software that lets the kernel talk to a third-party device. Kernel panics often result from an errant kernel extension. Other times, corrupt files, conflicts, or general errors cause kernel panics.

To deal with a kernel panic, restart your Mac. Hold down Shift after hearing the startup tone—that launches Mac OS X without kernel extensions. See if you can reproduce the same error that led to the kernel panic. If you can't reproduce the error, then the problem probably lies with the most recent driver you installed; run its uninstaller or contact the manufacturer.

If you can reproduce the error with kernel extensions off, it might be a problem with the application or device you were using when the error occurred—possibly a bug or a known issue. Check Apple's (or the application author's or device manufacturer's) support site for hints.

Occasionally the problem is file corruption; run fsck (see "10 Terminal Tricks," p28), Disk First Aid (part of Apple's Disk Utility), or a third-party disk doctor.

Objection of the property of the second o

PROBLEM: I can't start up from the Mac OS X CD-ROM.

SOLUTION: Try booting up from a third-party startup-utility CD, like Norton Utilities or TechTool Pro. If this works and the OS X disc isn't

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damaged, Apple recommends checking for a firmware update for your Mac model (www.info.apple.com/support/downloads.html). If your firmware is up to date, then suspect a problem with a non-Apple expansion card, a peripheral, or a RAM module that isn't Apple certified and/or that did not ship with the Mac originally. Pull any or all of those out and try starting up from the CD again.

If you can't boot from *any* CD-ROM, you may have an Open Firmware password set. See Problem 50, "Easy Break-In," p29, for details.

Reinstallation Woes

PROBLEM: Nothing's working. Is my only choice to chuck Mac OS X and start over again? And do I have to reformat my disk to do this?

SOLUTION: If your machine's completely hosed, you probably need to reinstall Mac OS X. Under some circumstances, simply running the Mac OS X Installer application fixes problems and replaces corrupted or missing files, sometimes bringing a Mac back to life.

But there's a caveat—if you've installed Mac OS X updates that are newer than the Mac OS version on your installation CD, do *not* run the CD-based installer (for instance, don't run the 10.1 installer if you have Mac OS X 10.1.4 installed). If your CD doesn't match your current installation, Apple recommends that you back up important files, delete the existing installation, reformat the disk (which, don't forget, erases the *entire* disk), and reinstall the whole enchilada from the CD-ROM (start by installing the Mac OS 9 installer if you want to run Classic). Once you're up and running, use Software Update to install updates. No problem, eh? As long as you've been backing up...

SYSTEMSHORTCOMINGS

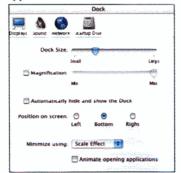
Mac OS X is all about performance, right? Yeah, right. Oftentimes, it seems as if Mac OS X is here to slow you down, not speed you up. Fortunately, you can fight back—a little.

Application Crawl

PROBLEM: As the day goes on, I notice that it takes longer to switch between applications or to access application commands.

SOLUTION: Because of the improved, dynamic way Mac OS X handles memory, you don't get out-of-memory messages as often as you did with Mac OS 9. That's a mixed blessing, though, because Mac OS X can slow to a crawl under the burden of running applications before it pops up an alert.

The first step when things slow down is to close some applications. You'll also notice



Turn off animation and you'll be at your destination a touch sooner.

slowdowns if the Dock animates icons while launching apps, but you can turn off this feature in the Dock preferences pane. Also, turning off Web Sharing and File Sharing frees up some RAM for better performance.

The best long-term solution is to install more RAM. It's also a good idea to restart individual applications every now and then, particularly e-mail, Web browsers, word processors, and programs that tend to stay open and process a lot of different documents. An app's memory can leak and fragment, causing it to slow down.

Spinning Beach-Ball Bingo

PROBLEM: You know what? I'm really sick of watching that spinning beach ball.



The nefarious beach ball spins again.

SOLUTION: The beach ball generally signifies that a computational task is taking up processor time. Usually, the beach ball is more prominent in Carbon applications, which do not take advantage of multithreading to the extent that Cocoa apps do. Remember that you can often switch to other applications (via Command-Tab or the Dock) while one app is stuck "thinking," then return to your original app.

When beach-ball encounters become chronic, restart the offending application; it may have confronted its own memory fragmentation. Likewise, a corrupt document could be causing the problem, so test different documents. If the problem persists, look for an update to that application and/or an update to the Mac OS itself. Consider upgrading a Carbon or Classic application to a Cocoa application or one with a better reputation for stability.

Burn, Interrupted

PROBLEM: I'm getting disk-space errors when burning a CD. Plus, I've noticed that I lose a lot of disk space from bad burns.

SOLUTION: If you receive an error message when burning a disc (usually Error -36), you may have run out of disk space while burning. Try deleting some files from your hard disk to make additional room for temporary files, then burning again. Also, whenever a CD burn session gets interrupted, run Disk First Aid (part of Apple's Disk Utility application) to recover some disk space that burning routines may take up temporarily.

Disappearing Disk Space

PROBLEM: Disk space on my Mac seems to dwindle rapidly. The amount of disappearing space easily outpaces how many apps and

files I'm installing and storing on my drive.

SOLUTION: You may have an out-of-control log file (a file that stores error or other system messages), particularly if you've

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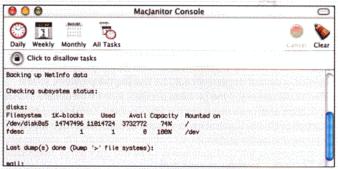
Check your log folders for bloated logs.

turned on Web file sharing or another networking server. This can also happen if you turn your Mac off every evening instead of letting it run all night. That's because the Unix subsystems of Mac OS X typically run system maintenance tasks between 3 a.m. and 5 a.m. If these

maintenance tasks never run, log files sometimes grow extremely large.

First, check your log folders. From the Go menu, choose Go To Folder and type the following folder paths to these invisible files: /private/var/log/ and /private/var/log/httpd/. Look for abnormally large files. If you find any, use the program MacJanitor (free, http://personalpages.tds.net/~brian_hill/macjanitor.html; on the Disc) to clean up your log files and run the kind of maintenance tasks that usually get done in the middle of the night.

Other potential munchers of hard drive space are the cache files for your Web browser (stored in your personal preferences folder). You can generally delete these safely. To take a gander at which files are eating up hard drive space, use OmniDiskSweeper (\$15, www.omnigroup.com/applications/omnidisksweeper; on the Disc), which will show you the biggest files on your disks and tell you which files your system uses so you don't delete them.



The freeware MacJanitor runs maintenance tasks for those of you who shut down your computers every evening.

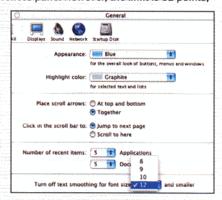
Fuzzy Fonts

PROBLEM: The fonts on my display look fuzzy.

SOLUTION: Your problem is most likely the result of font smoothing. We know that sounds weird, but smoothing works by purposefully making the edges of letters a bit fuzzy. Smoothing of certain point sizes on certain screens may not look right to some people.

Mac OS X allows you to change the smallest font for smoothing in the General system preferences pane. However, the limit is 12 points,

and Mac OS X continues to smooth all fonts that are larger than 12. You can get around this hitch by installing TinkerTool 2 (free, www.bresink.de/osx /TinkerTool2.html; on the Disc), which gives you much greater control over font smoothing. See "Troubleshooting Toolkit," p24, for more on this utility.



Change the font-smoothing setting in the General system preferences pane.

PRIVILEGE PROBLEMS

Two fundamental issues are completely new and different in Mac OS X: Unix-style privileges and the reliance on multiple user accounts. As a result, new and different troubleshooting issues abound...and abound.

Forgotten Passwords

PROBLEM: I, uh, I mean my friend forgot his password.

solution: You, uh, we mean your friend is not alone. If you know the password for an administrative account, log on to Mac OS X using that account and open the Users preferences pane. Now reassign your friend's password. If the problem is the root or your Admin account, boot up using the



Change passwords in the Users preferences pane.

Mac OS X CD. From the Installer menu, choose Reset Password.

6 Obstinate Files

PROBLEM: I'm trying to move a file, but I get an error message saying that I don't have the privileges.

SOLUTION: In Mac OS X, privileges (and ownership) are everything. If you can't delete or move a file, even with an Admin account, that means the file has a different owner. This happens a lot with files other users create in the Shared folder or elsewhere on your disk. The solution is to either log on as the file's owner and move the file, or ask the file's owner to log on and move or delete it.

If those are not options, you can use the Terminal application to remove files (using the rm command) or change file privileges (using chmod), but the most user-friendly way to exorcise these files is to boot into Mac OS 9, which doesn't observe ownership issues and will let you move or delete files at your whim.

Trash Trouble

PROBLEM: I can't even empty my own Trash. What gives?

SOLUTION: If you can't delete a file that's in the Trash, it's probably locked. To delete this file (after you make sure you want to delete it), hold down Shift-Option while selecting Empty Trash. Apple also notes that you may run into problems with trying to delete too many aliases at once; if you have a number of aliases in the Trash, drag them out and trash a few at a time.

If you don't have privileges for the files you want to dump, you can delete them from the command line by entering sudo rm -rf ~/.Trash/.

Mysterious Changing Privileges

PROBLEM: After I use the Package Installer to install something, privileges for my Applications folder and other items change, sometimes making it impossible to use certain applications or files.

SOLUTION: A bug in the Package Installer (Mac OS X's installer application) makes it possible for packages to accidentally change the permissions of important files and folders on your system.

Unfortunately, the only easy solution, if you can call it that, is to run an updated version of the installation package for the app, driver, or update you were trying to install (if one is available). Otherwise, you can change the permissions back manually by using chown and chmod in the command line (see "10 Terminal Tricks," p28). If your problem is that



The Package Installer has been known to mangle privileges it's not supposed to be playing with.

untitled Info

Apply to all enclosed folders

Apply

Ignore privileges on this volume

if you're having trouble

accessing your own

Choose to ignore privileges

privileges for the Applications folder changed after you installed Mac OS 10.1, Apple has a utility application that can fix the problem (http://docs.info.apple.com/article.html?artnum=106609).

Disk Access Denied

PROBLEM: I'm having major problems accessing a secondary hard disk.

SOLUTION: According to Apple, a secondary disk can become unusable if you format your startup disk and reinstall Mac OS X. Even though you create the same user-account name in the Setup Assistant, the installer doesn't necessarily reassign privileges on the secondary disk to your new user account, so you end up unable to access files on that disk.

The solution is to select the disk, choose File > Show Info in the Finder, select Privileges from the menu, activate the Ignore Privileges On This Volume option, then restart your Mac. Select the disk again after you log in, and set privileges the way you want them using Show Info.

Here's a similar problem: You can access the secondary disk, but it won't save information about file privileges. For instance, you create a file on a FireWire drive and assign limited privileges, but that file remains accessible to everyone. That's because Mac OS X treats external drives as if they were removable, ignoring privileges and ownership. To change that, select the disk and disable the Ignore Privileges option via the Show Info dialog box. Now you can set privileges that Mac OS X will heed—but remember that you may have problems accessing these files if you connect the drive to a different Mac.

Deleting a Deleted User

PROBLEM: I've deleted a user from my Mac, but I can't delete that user's home folder.

SOLUTION: This, my friend, is a job for Terminal!

Say that person's user name was mookie. Although you've deleted mookie, his home folder, now named *mookie*.



Even though we excommunicated mookie from our machine, the Finder won't let us trash his folder.

Deleted, remains. To get rid of that extra baggage, make sure you're logged into an Admin account, open Terminal, type sudo rm -R /Users/'mookie Deleted', and press Return. Then enter your Admin password and press Return again. Magically, Mac OS X will delete mookie's folder and its contents.

WHENCLASSIC GOESBAD

So you miss Mac OS 9? Luckily for you, the Classic environment lets you reminisce about the simpler days of Mac OS 9 troubleshooting.

SuperUser Complaints

PROBLEM: I'm encountering an error message telling me that I am running Classic without SuperUser (root) privileges.

SOLUTION: If you see this message in Mac OS 10.0 x, it means the volume that contains your Classic startup folder has its Ignore Privileges option turned on. Turn it off (see Problem 19, "Disk Access Denied," left).

In version 10.1.x, the fix, which comes straight from Apple, is slightly odd. In System Preferences, open the Startup Disk pane and select a valid Mac OS 9



To fix your Classic SuperUser problem, select your Mac OS 9 volume (top) and then start up Classic (above).

volume, then choose the Classic pane and click Start. Return to the Startup Disk pane and select your Mac OS X volume again. Classic should work correctly for the foreseeable future.

② Classic Crashes

PROBLEM: Classic crashes or freezes as it's starting up. It gives me a bus error message or a blank white dialog box that I can't move, or it simply won't finish launching.

SOLUTION: What you've encountered is a standard Mac OS 9 startup problem, only here it appears in the Classic environment.

The best plan is to restart in Mac OS 9, then troubleshoot for an extension conflict (remember those?) or a driver problem (that's often what the bus error message indicates). When you start up in Mac OS 9, check to see if a dialog box requiring a response appears at the very end of the startup process (this may happen, for instance, if you've saved an AppleShare server alias in Mac OS 9's Startup Items folder).

If you can't figure out the exact source of your problem, have Mac OS 9 launch fewer extensions or startup items; hopefully that will eliminate the offender. Once you fix Mac OS 9, switch back to Mac OS X and cross your fingers that Classic will start up without trouble.

No Copy, No Paste

PROBLEM: I should be able to copy and paste between a Classic application and a Carbon or Cocoa application, but it's not working.

SOLUTION: Apple says this bug generally pops up when you choose to have Classic start up at log-in. Open the Classic preferences pane and turn off the Start Up Classic On Login To This Computer option. Also, note that copying and pasting between Classic and native applications can cause some slowdowns and beach-ball spinning as the system synchronizes the clipboard between the two environments. Shutting down and restarting Classic will sometimes improve copy-and-paste performance—that is, if you want to deal with the headache of shutting down and restarting Classic.

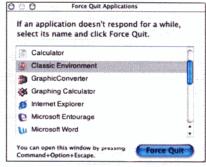
Classic Freezes

PROBLEM: All of my running Classic applications appear to be frozen.

SOLUTION: Unlike native Mac OS X applications, Classic applications can affect (freeze) one another, since they still do cooperative

multitasking and share a memory space à la Mac OS 9.

The first step is to make sure you don't have an unattended dialog box in one of your Classic applications. Wait to see if the freeze clears up (in the meantime you can work in Carbon or Cocoa applications). If it doesn't, switch to the



Force-quit Classic to get out of a jam.

Finder, press Command-Option-Escape, and then force-quit the offending Classic application. If that frees up the other Classic apps, save changes in them and quit *all* of your Classic apps. Otherwise, force-quit Classic, if it's listed, and start over again.

If your Classic problems are chronic, try starting up in Mac OS 9 and troubleshooting for extension conflicts and corrupt preferences or

other corrupt documents. Ultimately, you'll want to upgrade to native Carbon or Cocoa applications and leave Classic behind forever. Your life will be the better for it.

INEPTAPPS

As much as Apple may try to downplay them, application freezes, crashes, and conflicts aren't completely gone in Mac OS X—although they do have a decidedly different flavor. Here's how to deal with these troublemakers.

5 Font Difficulties

PROBLEM: My application crashes as it's starting up or whenever I try to change fonts.

SOLUTION: Your problem may be a corrupt font, which can cause all kinds of problems in Microsoft Word, Adobe Illustrator, and other apps that check for fonts as they launch.

To fix wayward fonts, start by removing third-party fonts from the Fonts folder in your Library

Fortis

The Fonts folder may hold the source of your application's woes.

folder (or the Fonts folder in your home folder's Library folder), then restarting and testing the app. If it still crashes, remove nonessential fonts from that same Fonts folder, as well as from the Fonts folder inside your Mac OS 9 System Folder (which Mac OS X also uses).

You can use a utility like DiamondSoft's Font Reserve (\$89.95 electronic version, www.fontreserve.com; demo on the Disc) or MorrisonSoftDesign's FontDoctor X (\$69.99, http://morrisonsoftdesign.com; demo on the Disc) to track down corruption. If your problem is with Office, download the latest versions of Microsoft's fonts from www.microsoft.com/typography/free.htm.

25 Troubled Preferences

PROBLEM: An application freezes when it's starting up or when I

change its preferences.

solution: Problems that aren't font related may stem from a corrupt preferences file. Quit the application, open your personal Library folder, then open the Preferences folder and



Preferences reside in your personal Library folder. Look there for possible corruption.

move that application's preferences file to your desktop. Now restart the application—if everything runs smoothly, trash the preferences file and reset your preferences within the application.

If that doesn't work, the genesis of your problem could be file corruption. See if you can re-create the problem with a different

ICOSX BOGS

document. If you can't, the problem lies in the original document. Otherwise, run Disk First Aid or a third-party disk doctor. If the problem doesn't appear to be a corrupt file, consult the application's author to see if your problem is a known issue—or it's always possible that you have uncovered a new bug.

Trant Microsoft Menus

PROBLEM: My menus in Microsoft Word are exhibiting some very bizarre behavior—commands alter or disappear, and keyboard

& Word file

shortcuts change.

SOLUTION: Sometimes mutating menu commands constitute a feature, not a bug. In Word, the menus and toolbars can change depending on whether you're using a special document template, which you can select under Tools > Templates And Add-ins.

Copy SC Copy SC Copy State of Sc Copy St

Word is supposed to have a Clear > Formats command in here...somewhere. Dumping the preferences file restores the menu.

If you're not working with an alien template, the problem may be that you upgraded to Office v. X from Office 2001, bringing forward some bad preferences from Office 2001's preferences file. To fix the glitch, open the Microsoft folder inside your personal Preferences folder and trash the Word and/or Office settings files; if that doesn't work, we've had luck trashing the whole Microsoft folder and letting Office rebuild all of its preferences. You can also try deleting the Normal template (in Office's Templates folder), which stores some preferences such as customized toolbars and commands.

Reinstalling Installer Apps

PROBLEM: I want to reinstall one of the apps that comes with Mac OS X. Can I do that without reinstalling Mac OS X?

SOLUTION: While the Mac OS X Installer can reinstall individual apps, only try it if you're running the same version of the OS as the one on

your installer CD (for more info, see Problem 9, "Reinstallation Woes," p19). The easiest solution is Pacifist, a utility program from CharlesSoft (free, http://homepage.mac.com/csrstka; on the Disc), which enables you to extract an individual item such as Mail or TextEdit from Package files on the Mac OS X CD.



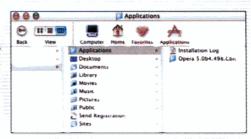
Pacifist allows you to extract individual files, like Mail, from your Mac OS X CD.

Dude, Where's My App?

PROBLEM: I can't find an application I just installed. Why are my apps playing hide-and-seek?

SOLUTION: If you installed the application via an installer (instead of drag-and-drop), your installer may have placed the program in your

home folder instead of the main Applications folder. Check for a new Applications folder inside your home folder, or look around and see if the application's installer created its own folder.



The Opera Web browser likes to stray from the beaten path sometimes and create an Applications folder in your home folder.

Wrong App!

PROBLEM: I can't get my files to open in the correct application.

SOLUTION: That's easy enough to fix. To open a document in the application you want, select the document and choose File > Show Info. In the Info window, select Open With Application and choose a new application from the pull-down menu. If you'd like all applications with this extension to launch in the newly chosen application, click Change All. (To blow creator and owner issues out of the water, check out SuperGetInfo. See "Troubleshooting Toolkit," p24.)



Open docs in the correct application by hitting up the Show Info window.

HARDWARE HEARTACHES

Many of the loudest user complaints about Mac OS X boil down to hardware and compatibility—or lack of compatibility. Consider yourself lucky when a driver for your peripheral is available—even luckier still when it actually does what it should.

3 USB Printer Perplexities

PROBLEM: My USB printer works, shall we say, erratically.

SOLUTION: The printer subsystem in Mac OS 10.1.x leaves something to be desired, to put it politely.

One problem that plagues many users is that printers stop working after you launch the Classic environment. In that case, your options include avoiding Classic or restarting the Mac OS after using a Classic application.

Also, Apple suggests that you not connect a USB printer to a USB port on your Mac's keyboard; use a port connected directly to your Mac or a powered hub for best results.

If you're getting printer errors, such as Error -108, or the Print Center crashes, Apple recommends deleting the printer driver folders (you'll find these in the Printers folder in the main Library folder). Start by trashing the Canon folder, which can be troublesome, and then

testing your printer.
Do this even if you don't have a Canon printer (if you do, you'll need to download a new driver from Canon's Web site).

If that doesn't work, delete the Printers folder altogether, then



Your printer driver folders should go on the chopping block if your printer is error prone.

reinstall your third-party printer driver or use the Mac OS X CD-ROM to rerun the installer and reinstall the printer drivers. Of course, if you've updated beyond the OS version on your CD-ROM, you shouldn't run the CD-based installer (see Problem 9, "Reinstallation Woes," p19). Instead, it's best to download the drivers from the manufacturer's Web site and install them directly. Sometimes a compatible driver isn't even available via a Mac OS CD or Software Update session, so the manufacturer's site is usually your best option.

AppleTalk Printer Failure

PROBLEM: I can't connect to an AppleTalk printer.

SOLUTION: Apple notes that AppleTalk printers only work when one—and only one—network port (like Ethernet) is using AppleTalk at a time. If you've got an AppleTalk printer connected via Ethernet and your Mac can't talk to the printer, make sure you don't have AppleTalk active for another port, such as AirPort. In that case, open the Network

pane, select AirPort from the Show menu, click the AppleTalk tab, and make sure AppleTalk's not already active.

Failed Print Jobs

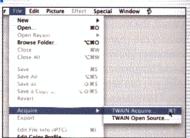
PROBLEM: I keep sending print jobs, but they keep failing. I don't even get the courtesy of an error message!

SOLUTION: Make sure you haven't moved or renamed the Utilities folder inside the Applications folder. According to Apple, if you have, applications can't find the Print Center to complete print jobs.

Oriver Incompatibilities

PROBLEM: Neither my scanner nor my joystick works with Mac OS X. I'm very annoyed.

SOLUTION: Stand in line. With a new operating system come driver headaches, understandably. Still, scanner owners are sick of seeing messages like "XYZ Corp is committed to Mac OS X" and "Drivers are due any day now."



You may be able to use the TWAIN command to get scans from your scanner—but this requires some sort of driver and the device must be TWAIN compliant.

Well, keep hanging in there. Microtek, Canon, HP, and others are currently working on drivers—look for them at VersionTracker

TROUBLESHOOTING TOOLKIT

If you want to troubleshoot like the pros, check out the following apps:

EMERGENCY SOFTWARE

Keep these within arm's reach for when a good Mac goes bad.

ALSOFT DISKWARRIOR

\$69.95, www.alsoft.com

You should run this near-miraculous utility first thing after a catastrophic disk failure, because it creates a replacement desktop directory to recover your data. DiskWarrior runs in OS 9 but can fix a Mac OS X disk.

SYMANTEC NORTON UTILITIES

\$99.95, www.symantec.com
The OS X version of Norton Utilities doesn't
do everything previous versions could (for
example, it's missing disk defragmenting), but
it's great at fixing disks and finding lost files.



Norton Utilities can save your hide if your Mac has a meltdown.

MICROMAT TECHTOOL PRO AND DRIVE 10

\$97.98 and \$69.95, www.micromat.com Use TechTool Pro 3 in Mac OS 9 to fix a disk, recover files (even on Mac OS X volumes), and optimize your drive. Drive 10 is a drive-repair utility that runs within Mac OS X.

BACKUP SOFTWARE

The best recovery tool, bar none, is a good backup. Here are a few to choose from:

DANTZ RETROSPECT EXPRESS (\$79) and RETROSPECT DESKTOP (\$249), www.dantz.com

POCKET SOFTWARE POCKETBACKUP

\$20, www.pocketsw.com; on the Disc

QDEA SYNCHRONIZE X PLUS (\$29.95) and SYNCHRONIZE PRO X (\$99.95), www.qdea.com; on the Disc

FIREWALL SOFTWARE

The Unix underpinnings of Mac OS X make your machine more of a target for hackers, so you should consider at least a software firewall if you spend some time connected. Here are a few options:

PLIRIS-SOFT FIREWALK X

\$34.99, www.pliris-soft.com; on the Disc

(www.versiontracker.com/macosx/drivers). For those of you who use Epson scanners and Adobe Photoshop 7, there may be a workaround (check out www.epsondevelopers.com/macscan/photoshoposx_install.jsp for more info). Plus, there is a little bit of good news in all of

this: At least you don't have to wait on scanner applications to move to Mac OS X. Photoshop 7 and Lemke Software's GraphicConverter 4.4 (\$30, www.lemkesoft.com) both offer a TWAIN Acquire command that even works with some beta drivers. Or you can opt for Hamrick Software's YueScan



Just when you felt abandoned by your input devices' manufacturers, USB Overdrive lets you regain some control.

(\$40, www.hamrick.com/vsm.html), shareware that enables scanning for unsupported models, even without drivers in some cases.

As for input devices, especially some game controllers, you may never get drivers from the company, but you might get help from Alessandro Levi Montalcini, author of USB Overdrive (\$20, www .usboverdrive.com). Using this substitute driver (the Mac OS X version is in beta as of press time; on the Disc), you can redeem quite a bit of functionality (including control over features like mouse speed and programmable buttons) for your mice, joysticks, gamepads, and other input devices.

3 Double Trouble

PROBLEM: Using two monitors is causing major problems, especially when I run Classic.

SOLUTION: Mac OS X may throw a wrench in the works for those of you who use dual monitors. For instance, Apple notes that in the Classic environment, OpenGL acceleration only works properly when you use one monitor. As a result, Classic games may slow to a crawl if you have dual monitors. The fix? Put your Mac to sleep and remove the second monitor before playing a game in Classic.

Some users have also reported trouble with dual monitors that use video cards from different manufacturers. For instance, conflicts between ATI and GeForce drivers (sometimes resulting in kernel panics) are known issues, but they may not be resolved by the time you read this. In rare cases, you can fix the problem by moving the ATI card to a different PCI slot; otherwise, you may need to replace one of the cards.

If the problem is that your Mac simply doesn't recognize your video cards (this happens more often in older Macs), you should again experiment with using different slots for your PCI-based video cards. You'll probably have the most luck with cards from the same manufacturer.

36 Blank Display

PROBLEM: In the Displays preferences pane, I unchecked the Show Modes Recommended By Display box. Then I tried to select a nonrecommended resolution and the screen went blank. Help!

SOLUTION: If you can, restart via a Mac OS 9 CD-ROM. Even without a display, you should be able to restart via the keyboard. Press the

INTEGO NET BARRIER

\$59.95, www.intego.com; on the Disc

BRIAN HILL BRICKHOUSE

\$25, http://personalpages.tds.net /~brian hill/brickhouse.html; on the Disc

POWER TOOLS

Bend OS X to your will with one of these power-user favorites.

MARCEL BRESINK TINKERTOOL

Free, www.bresink.de/osx /TinkerTool2.html

With the aid of this ultimate user-interface tool for Mac OS X, you can enable and disable a variety of features, such as hidden files in the Finder; place the Trash on the desktop; and add a Quit item to the Finder menu.

ST. CLAIR SOFTWARE DEFAULT FOLDER X

\$34.95, www.stclairsoft.com; on the Disc Default Folder X mends the open and save dialog box travesty that Apple has foisted upon us. The utility adds menus so you can quickly navigate to favorite folders, recent folders, default volumes, and even folders currently open in Finder windows.

SYMANTEC NORTON ANTIVIRUS

\$69.95, www.symantec.com
Mac OS X's Unix roots make virus checking
even more important than in the past.

APPLE DISK COPY

Included with Mac OS X

Buried within Disk Copy is not only the ability to mount disk images, but also to create them, encrypt them, and burn them to CD or DVD media. Sweet!

APPLE PROCESSYIEWER, TERMINAL, AND CONSOLE

Included with Mac OS X

Have you become truly intimate with your Unix-derived utilities? Check out Console for an easy way to read nearly indecipherable error logs, use ProcessViewer to explore the

status of currently running apps, and open
Terminal to dig into the Darwin command line.

BARE BONES SOFTWARE SUPER GET INFO

\$20, www.barebones.com; on the Disc From the BBEdit folks comes Super Get Info, a tool that extends the powers of Mac OS X's Show Info dialog box by giving you greater control over Unix-style permissions, as well as Mac creator and type codes.



Access Unix-style permissions, play with creator and type codes—and try not to look like a geek while your mom lays out your clothes for tomorrow morning.

Power key on your keyboard if it has one, or Control-Eject if not, then press R to restart. Listen for the startup tone, then quickly insert the Mac OS 9 CD-ROM.

When you see the Mac OS 9 desktop, open the Preferences folder inside the main Library folder and

lay Arrange Color 640 x 480 640 x 870 Refresh Rate: 75 Hertz 800 x 600 832 x 624 ditional modes are provided by the vio d and may not be supported by the di 1152 x 870 Show displays in menu bar

If you try to use a nonrecommended resolution, you may end up staring down a blank screen.

delete the file named com.apple.windowserver.plist. Restart your Mac (remove the CD after the startup sound so your Mac starts up in Mac OS X) to re-create a preferences file with a default monitor setting.

Finicky FireWire

PROBLEM: I'm experiencing some technical difficulties with my FireWire devices.

SOLUTION: FireWire and Mac OS X are fairly good partners, but that doesn't mean they're not prone to an occasional domestic spat.

For instance, the Classic environment won't recognize FireWire cameras, so make sure you run the OS X-native version of iMovie. Plus, if you have an older FireWire drive, you may want to use your internal disk for camcorder-to-disk transfers.

If you're using two FireWire drives and copying between them, Apple notes that large copy

operations will sometimes fail. To fix the problem, make sure you're using the latest Mac OS version, update the firmware on both FireWire drives (check with your drive's manufacturer for the latest firmware), and try copying smaller batches of files at once, if possible.

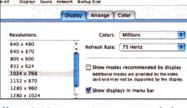
Finally, make sure you eject any FireWire drive's volume before unplugging the disk. (Drag the disk's icon to the Trash; select it and choose File > Eject; or Control-click the disk.) If you don't, you could lose data and cause Mac OS X errors or crashes.

33 Sound Advice

PROBLEM: My sound skips and sometimes I swear I'm going deaf because I can't hear anything.

SOLUTION: On some late-model Macs (such as the Gigabit Ethernet and later PowerBooks, dual USB and later iBooks, flat-panel iMacs, and QuickSilver G4s), the sound hardware powers down to save energy; for the first few seconds after your Mac awakens, you'll notice a sound delay and/or you'll see the spinning beach ball. According to Apple, the current solution is to install external USB speakers. How convenient.

If you don't hear any sounds when your Mac wakes from sleep, open the Sound pane and make sure your system volume isn't on



Help

Open

Eject FireWire and USB

external hard disks before

disconnecting them from

Show Info

Duplicate

Make Alias

Copy "FireWire 40GB"

FireWire

your Mac.

PROBLEM: I press a key and a character appears in another language (or doesn't appear at all!). I mean, I had a couple of beers, but I swear I'm not seeing things.

one is enabled.

On Keyboard

₩U.S.

🏶 한글

⇒ことまり

● 雑体中文

緊硬中文

ĕ Symbol Selection

Swedish - Pro

Swiss French

₩ Vietnamese

Swiss Cerman

Extended Roman (iii)

We want to click U.S. here, not

Unicode Hex Input

mute. If it isn't, put the Mac back to sleep and wake it up again. If that

SOLUTION: If words start appearing in a language you don't understand, you're probably not drunk. (Actually, how would we know?) More likely, your keyboard is not set to the same language as your system. Look for a keyboard menu (it has a nation's flag as its icon) on the menu bar. Open it and choose the correct keyboard layout. If you don't see a keyboard menu, open the International preferences pane, click the Keyboard Menu tab, and make sure the box next to the correct language (you know, yours) is checked.

If your number pad isn't working correctly, vou may have inadvertently turned on Mouse Keys. Select the Universal Access preferences pane and click the Mouse tab. Make sure Mouse Keys is turned off to get the number-pad functionality back.

Swiss German or Vietnamese. Universal Access Muse keyboard shortcuts to turn universal access features on or o When using the computer, I have difficulties with: Keyboard Mouse ifficulties using the mouse Mouse Keys: 🔘 On 🍳 Off Use the numeric keypad in place of the mouse Pressing Option five times will turn mouse keys on or off To control mouse pointer movement Initial Delay: em

International

Language Date Time Numbers Keyboard Menu

Turn on the keyboard layouts and input methods to appear in the Keyboard Menu. The menu appears when more than

Roman

Roman

Roman

Roman

Roman

Unicode

Unicode

Unicode

科量

日本語

首体中文

繁體中文

Turn off Mouse Keys in the Universal Access pane if it interferes with your number keypad.

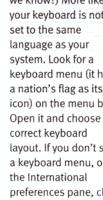
Typing Traumas

doesn't help, restart your Mac.

Closed PowerBook

PROBLEM: I'm trying to use my PowerBook G3 with a monitor, keyboard, and mouse while leaving its lid closed. But when I wake the computer, it only wakes up for a few seconds before going back to sleep. Is my PowerBook narcoleptic?

SOLUTION: Well, first you need an external keyboard that includes a power key (this rules out the latest Apple Pro USB keyboard). Shut down the PowerBook (don't just put it to sleep), and plug in the display, mouse, and keyboard. Press the power button on the keyboard to start up your PowerBook without turning on its LCD.



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NOTWORKING NETWORKING

Sure, we welcome high-end, superdeluxe networking systems like Mac OS X—but often they come with their own headaches. Before you get out the Tylenol, though, check some of the fixes below.

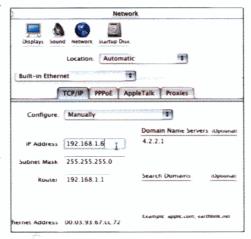
G-g-g-ghost Servers

PROBLEM: I see more than one instance of the same AppleShare server in the Connect To Server dialog box.

SOLUTION: You might see more than one of the same AppleShare or File Sharing server when your network uses DHCP to assign IP addresses dynamically. Even though the Macs on your network

constantly appear at different IP addresses, your Connect To Server feature keeps track of older IP addresses.

Unfortunately, this bug has no obvious solution, just workarounds. Apple says to cut down on this paranormal clutter (that is, to delete the files that are keeping tabs on these addresses) by opening the



If you have an Internet router, you may find it handy to just go ahead and specify static IP addresses on your LAN.

Terminal and typing sudo rm /var/slp.regfile, then pressing Return. Enter your admin password and press Return again, then restart your Mac. (Do this for any affected Macs on your network.)
The ghost servers should disappear...for now. (Mwa-ha-ha-ha!)

To avoid the issue altogether, assign manual IP addresses on your LAN, if possible; if you're using an Internet router, simply select IP addresses in your local range (for example, 192.168.1.2, 192.168.1.3, and so on) and assign them to your Macs. Use the router's IP address (often the .1 or .254 address of your IP range) as the router address in your Network pane. Or you can use AppleTalk for file sharing (turn on AppleTalk in the Network pane, then select the AppleTalk neighborhood in the Connect To Server window); this is slower but less troublesome.

AppleTalk Is Active, Yet Inactive

PROBLEM: I swear on my dog's life that AppleTalk is turned on, but I'm not seeing AppleTalk servers (or in some cases AppleTalk printers).

SOLUTION: Luckily for your dog, the problem is probably that your Mac isn't recognizing the AppleTalk zones on your network. Apple's

solution is to try turning
AppleTalk off and on again
(don't forget to click Apply
Now in the Network pane).
If that doesn't help things,
create a new location
(choose New Location
from the Location menu)
and switch to that location,
then switch back to
Automatic. You should now
see the AppleTalk Zone



If your Mac doesn't want to recognize your AppleTalk zones, try turning AppleTalk off and then on again. Don't ask us why, but sometimes that works.

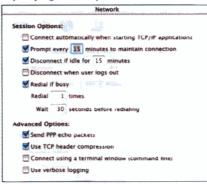
menu spring to life, enabling you to select your local AppleTalk zone.

Modem Keeps on Going...& Going

PROBLEM: My modem keeps trying to dial up, even when I'm not

asking it to. What can I do?

solution: This one's easy. Your modem is probably set for automatic connections. In the PPP tab of the Network preferences pane, click PPP Options and turn off Connect Automatically When Starting TCP/IP Applications.



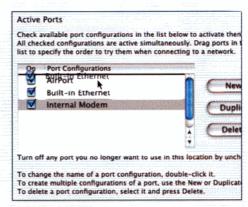
Turn off autoconnect to keep your Mac from experiencing psychodialing phenomena.

Wrong Port

PROBLEM: I want to connect via Ethernet or AirPort, but my Mac insists on dialing out through my poky modem.

SOLUTION: Mac OS X's multihoming feature (the ability to use more

than one TCP/IP port at once) is great, but it can be confusing, too. If you notice that your Mac is giving priority to the wrong port (say, your modem over Ethernet), you can change which port your Mac tries first. Open the Network pane and choose **Active Network** Ports from the



Drag ports around to change their priority.

Show pull-down menu. You can set the order of priority by dragging the items around in the list; the system tries the top port first, followed by the next, and so on.

| The state of the

Flighty IP Address

PROBLEM: I can't access the network or Internet, and when I go into the Network pane, Mac OS X has changed my IP address.

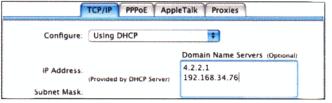
SOLUTION: There are two possible reasons for this capriciousness. If you have a networking port set to DHCP, but you don't have a DHCP server (or the connection to the DHCP server isn't established because the server is down), Mac OS X randomly assigns an IP address after a few moments. To reset the address, connect your Mac to the DHCP server (for instance, turn on your cable modem or connect to your LAN), go to the TCP/IP tab of the Network pane, select Manually from the Configure menu, and click Apply Now. Then change back to Using DHCP and click Apply Now again.

The other possibility is that you're entering IP addresses with leading 0s—for example, 192.168.001.001. That's a no-no, as your Mac converts IP addresses into octal (Base 8) numbers, and the leading 0s mess up that translation. Use 192.168.1.1 instead.

46 Where's the Web?

PROBLEM: I can access some Internet services, such as my email, but not Web or FTP sites.

SOLUTION: You need a DNS (domain name server) entry in the Network pane for the particular Internet port you're using. Without



Add a DNS entry if you're having problems accessing the Web.

access to DNS, your Web browser and other applications can't translate named resources (as in apple.com) to numbered IP addresses. If you have a direct connection to your ISP, enter the ISP's DNS address; if you're using a router that connects to DNS automatically, you'll often use a special address for the DNS entry (check your router's manual).

If you have a DNS entry, the DNS computer may be down; contact your ISP to see whether an alternate DNS address is available.

Windows Snubbing

PROBLEM: I'm on one of those annoying multiplatform networks, and my Mac crashes whenever I try to access a Windows or Windows NT server volume.

SOLUTION: Although we'd like to think this problem results from an evil Microsoft plot to rid the world of Macs, it (probably) doesn't. Two very common possibilities may explain what's going on.

First, although Mac OS X offers the native ability to log in to servers using the Windows SMB protocol, you can only log in to one such server at a time; log in to more than one, and you'll experience crashes or even kernel panics (at least in versions 10.1 to 10.1.4). Stick to one server or get a client like Thursby Software's Dave (\$149, www.thursby.com; demo on the Disc), which enables peer-topeer Windows-protocol sharing between Macs and PCs. Or grab Mac OS 10.2 once it's released.

Also, when you're working with SMB or Samba (and sometimes AppleShare), crashes can occur when the Windows share point, the named volume or folder specified for sharing on the Windows machine, has a space in its name. On the Windows machine or server, make absolutely sure the share point's name has no spaces—use underscores instead.

10 TERMINAL TRICKS

Although it may intimidate the bejesus out of you, the Terminal application offers powerful features and bailouts for many a sticky situation. Here are 10 commands you might appreciate knowing when the you-know-what hits the fan.

1 sudo

This command grants root privileges for a particular command; for instance, to delete all items in the current working folder, type sudo xm *.

2 cd and pwd

If you aren't familiar with the Unix command line, here's your crash course for looking like you know what you're doing. Use the cd command to change the current working

directory—it's sort of like clicking a folder in the Finder. Type cd / to move to the root folder on your Mac, or cd /Library/ to change to the main Library folder. Type cd -/Documents to change to the documents folder inside your home folder. Type pwd to see the current working directory, just in case you've forgotten. (It also usually appears in the title bar of the Terminal window.)

3ls -lorll

Type 1s -1 or 11 (that's the lowercase letter l, not the number 1) to see a long listing of items in the current folder. This is useful for showing hidden Unix files and the permissions for files and folders. Typing 11 -/Pictures would list all files in the Pictures folder inside your home folder.

4 chmod

Use this command to change file permissions (like those you would set in the Show Info dialog box) at the command line. This command takes either numbers (like 777) or flags (like u+x, which turns on execute permissions for users) as arguments. For example, chmod 777 myscript.pl would change the privileges for a hypothetical file called myscript.pl to read, write, and execute for all users (visit http://acm.unl.edu/resources/tutorial.php#perm to find out more about numbers and flags). You'll often need to use sudo with this command, as well as chown. Type man chmod at the command line to learn more.

5 chown

Employ this command to change the owner information for a file or folder. For instance, you might type a line like this: sudo chown



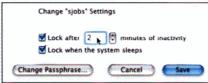
SECURITY CONUNDRUMS

With all of the viruses and hacking going on around us, computer security is on everyone's minds. Because Mac OS X has Unix at its core, it presents some slight twists on our cozy little bulletproof Mac OS of the past. For one thing, it's slightly less bulletproof.

49 Keychain Insecurity

PROBLEM: I notice that my Keychain, which stores all of my passwords, opens automatically when I log in. Um, isn't that a problem?

SOLUTION: Um, it can be, if your computer is in a high-traffic area. The solution is to set stringent self-locking preferences



Use Keychain Access to change your security preferences.

via the Keychain Settings dialog box (in the Edit menu) in the Keychain Access app. From there, you can choose to lock the Keychain after a specified amount of time and/or when your Mac goes to sleep. For even more security, use the same settings box to change your Keychain's password to something other than your log-in password.

Denied!

PROBLEM: My log-in password doesn't unlock my Keychain.

SOLUTION: This can happen when an administrator (other than yourself) changes your log-in password. You'll need to use your

previous password, either the original password assigned to your account or any subsequent passwords you assigned via the Users pane or Keychain Access application, to open the Keychain. You can then change the password via the Edit > user name Settings command in the Keychain Access app.

50 Easy Break-In

PROBLEM: I'm concerned that someone with a Mac OS startup CD can easily bypass my Mac's log-in screen.

SOLUTION: That's true. The log-in screen is only as secure as your Mac's keyboard and CD drive. You can, however, activate a more secure password scheme using the Open Firmware Password application, which works only on the latest rounds of iMacs, iBooks, PowerMacs, and PowerBooks—basically, any Mac that supports Open Firmware 4.17 or later. (See http://docs.info.apple.com/article.html?artnum=106482 for more info.)

First, make sure your firmware is up to date by checking at www.apple.com/swupdates. Next, download the Open Firmware Password software (http://docs.info.apple.com/article.html?artnum=120095). Install the application and launch it, following Apple's instructions closely. When you're done, your Mac will no longer be able to start up from a CD-ROM, as a target disk, or in various other startup modes without the proper password. Just don't forget this password, ever, or you may end up, as they say, screwed.

Todd Stauffer has written more than 25 computing books, including Mastering Mac OS X, second edition (due in early fall, Sybex). He admits to occasionally calling his favorite operating system "Mac OS XP," but only in the heat of troubleshooting woes. He swears he doesn't mean it.

stevej photol.jpg. This changes the ownership of a file called photol.jpg to a user named stevej. In a multiple-user situation, you can use chgrp to change the group associated with a file; type man chgrp to find out more.

top, ps, and kill

The command-line version of ProcessViewer is top—type it to see a list of running processes, and press Command-C to exit the application. (For a more comprehensive list, type ps —aux.) Both top and ps are useful for finding out the PID (ID number) of, say, an app that has crashed. Using the PID, you can then use the kill command to force-quit that process (as in kill 392).

Single-User Mode

When you're having trouble getting your Mac to start up or log in, hold down Command-S

immediately after your Mac starts up to boot into single-user mode (see fsck, below). If you need to alter files, mount the hard disk by typing mount -uw /. From there, regular Unix commands will work. Be careful—you're now in the root account, so you can make any change to the system and even potentially damage it.

>console Log-Ins

In the log-in window, you can directly access the command line by typing >console instead of a user name (choose the Other icon if you only see user icons in the log-in window). This is great for bypassing trouble with log-in items or the Finder; now you're free to log in and fix a problem—for instance, deleting an offending preference file (using the rm filename command) and exiting to the log-in window (type exit and press Return).

fsck

For major disk errors, you can run Apple's fsck utility. Boot into single-user mode, type /sbin/fsck -y, and press Return. Mac OS X will check and fix your disk if possible. Sometimes a single pass doesn't fix every problem on the disk; you may need to run fsck repeatedly.

ping

Along with other familiar Net utilities (nslookup, finger, whois), you can use a command-line ping to test a network connection quickly. Type something like ping apple.com to test Internet access, or ping 192.168.1.4 to test a LAN-based connection. If you get a scrolling list that shows how many milliseconds it took to receive the packet, you know the connection is working. Press Control-C to stop ping.