Macworld
Superguide

MAC OS X
Hints
LEOPARD EDITION

By Rob Griffiths

$12.95

Foreword

Back in the fall of 2000, I was making the transition from Mac OS 9 to OS X and finding the new operating system both complex and a bit unintuitive. In particular, I kept getting tripped up by features that weren't documented on Apple's Web site or covered in OS X's help files. Being somewhat geeky by nature, I decided to create a Web site where I could keep track of all the little tips, tricks, and hidden features I was discovering in OS X. That way, I could easily access the tips from any machine I happened to be using. And because I knew I wasn't the only one out there exploring the inner workings of Apple's new operating system, I built the site so others could post their own OS X tips and insights.

I had no grand aspirations for the Web site; I merely hoped it would serve as a useful resource for OS X tidbits. Over the last eight years, however, that little site—MacOSXHints.com, in case you haven't guessed by now—has grown into a collection of more than 10,000 OS X tips, covering every major release from the initial public beta through 10.5. (Along the way, the site also changed the direction of my career; *Macworld* purchased it and hired me in 2006.) The site still focuses on demystifying OS X's hidden features and sharing useful knowledge that you won't find in any help files. And with thousands of contributors from across the globe, it offers a constantly growing collection of OS X knowledge—all freely searchable.

But the site's not perfect. Many of the tips assume a high degree of familiarity with OS X and fairly deep technical knowledge—especially tips involving Terminal. And searching through more than 10,000 hints to find the one you really want can be complicated, to say the least. That's where this book comes into play. We've scoured not just MacOSXHints.com, but also Macworld.com, to find the most useful tips and tricks for OS X 10.5 users. We've also rewritten them all in a clear, straightforward fashion, complete with screenshots, to make them as easy to use as possible.

The tips in this book cover almost every corner of Leopard, from customizing the Finder to unlocking hidden System Preferences to speeding up Safari. Whether you're a power user looking to bend OS X to your will, or a relative newcomer hoping to get more from your OS, these tips will give you the inside scoop you're craving. And we encourage you to share the wealth—post your own discoveries and tips at www.macosxhints.com.

—Rob Griffiths, Editor, MacOSXHints.com
March 2008

Table of Contents

GET THE CODE

To copy any of the Terminal commands or scripts used in this book, go to macworld.com/3443.

Contributors

Rob Griffiths is the creator and editor of MacOSXHints.com, a collection of reader-submitted tips and tricks for OS X. He is also a senior editor at *Macworld,* where he writes the popular *Mac OS X Hints* blog and column, and covers the latest Mac hardware and software.

Senior editor **Christopher Breen** answers readers' questions and offers troubleshooting advice in his *Mac 911* blog. He wrote the *Mac 911* sidebars that appear throughout this book. He is also the author of *The iPod and iTunes Pocket Guide,* second edition, and *The iPhone Pocket Guide* (both Peachpit, 2007).

Andy Ihnatko is the technology columnist for the *Chicago Sun-Times* and the author of the forthcoming *Mac OS X Leopard Book* (Wiley, 2008). He is also the creator of several of the Automator workflows in this book.

Joe Kissell is the senior editor of TidBits (www.tidbits.com) and the author of *Take Control of Easy Backups in Leopard* (Tidbits Publishing, 2007; www.takecontrolbooks.com).

Greg Knauss has been programming computers since he was 13 years old. He wrote "Learn the Terminal Basics" in the *Take Command of Terminal* chapter.

Contributing editor **Ted Landau** continues to ferret out new ways to get into and out of trouble with your Mac. His latest book, *Take Control of Your iPhone* (Take Control Books, 2007), extends this perspective to the iPhone.

Kirk McElhearn writes about Macs and much more. Visit his blog, Kirkville (www.mcelhearn.com), for information about Macs, iPods, books, music, and more.

Special thanks to the **readers of MacOSXHints.com** for their generous contributions of tips, insights, and thoughtful analysis of nearly every aspect of OS X. Without their enthusiasm and help, this book would not have been possible.

Master Your System

Learn the Secret Ins and Outs of Settings, Sharing, and Printing in Leopard

When you move into a new home, you have to clean up, arrange the furniture, do a few repairs, and tweak the lighting before you can finally settle in. Your Mac is no different. That's why OS X is overflowing with clever tricks and fixes for customizing your system and how you use it. They can make the time you spend in front of the screen infinitely more productive. And since Leopard isn't perfect, it's also good to be aware of possible system glitches and how to troubleshoot them. A little rearranging will go a long way toward making your Mac a more pleasant place to spend your time.

Preferences

The cornerstone of any good Mac-user relationship is personalized preferences. Train Leopard to meet all of your unique needs and whims.

ACCESS INVISIBLE LOGIN BUTTONS

If you have little kids around who love to click on buttons, consider disabling the login window's Restart, Sleep, and Shut Down options. To do so, go to the Accounts preference pane and click on Login Options. (You might need to click on the lock at the bottom of the dialog box first and enter your password.) Deselect the Show The Restart, Sleep, And Shut Down Buttons option.

But what if you want to put your machine to sleep, restart it, or shut it down from the login window after you've disabled the buttons? No problem—just make sure your login window is in Name And Password mode (see "Childproof"). You can set this permanently in the Login Options window by selecting the Name And Password option. Another trick is to switch the window in real time: go to the login window, use the arrow keys to highlight a user, and press shift-option-return. The window will show the list of users. In the Name field, type `>sleep`, `>restart`, or `>shutdown`. Click on Log In or just press return. It'll take a while before the munchkins figure that one out.

REVEAL LOGIN ITEMS IN THE FINDER

Ever wondered where some of those items in your Login Items list (in Accounts preferences) came from? In Tiger, you could hold your cursor over an item to see its path. In Leopard, just right-click (or control-click) on any login item and then choose Reveal In Finder from the resulting contextual menu.
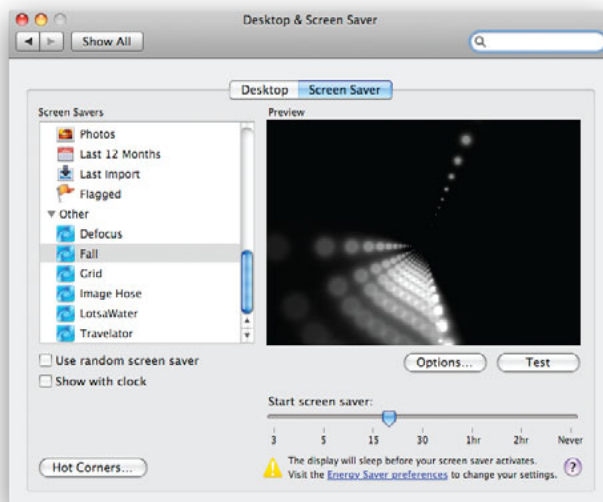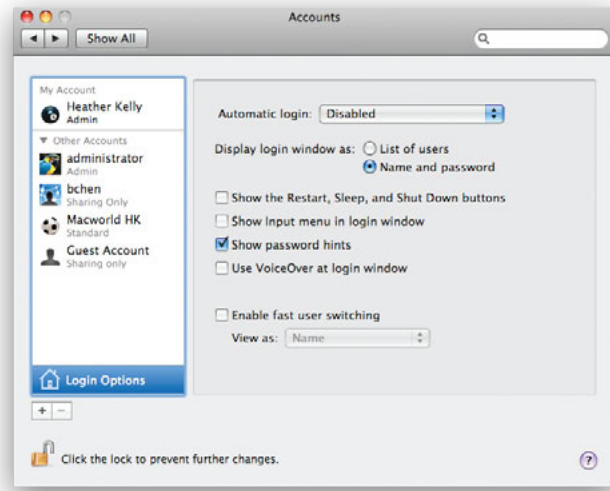
Childproof Once you've deselected the Show The Restart, Sleep, And Shut Down Buttons option, your baby (computer) will be much safer from your babies (children).

COPY AND PASTE PARENTAL CONTROL SETTINGS

If you have more than one child at home, this is an easy way to create multiple user accounts with identical Parental Control settings. First, set up one account. Then, in the Parental Controls list, select that account, click on the Action button at the bottom of the window, and choose Copy Settings For *Account*. Then, to apply those settings to another account, select that other account, click on the Action button, and choose Paste Settings To *Account*. Even if you don't plan on configuring each account identically; you can use this technique to copy settings and then edit them as necessary rather than starting from scratch.

UNCOVER SECRET SCREEN SAVERS

Tired of Leopard's built-in screen savers? A slew of hidden Quartz Composer compositions can add visual variety to your Mac's dozing screen. To try them, first quit System Preferences if it's running. Go to /System/Library/Compositions and drag as many of these files as you like from there to *your user folder*/Library/ Screen Savers. (Create this folder yourself if it doesn't already exist.) Not all of these Quartz compositions will work as screen savers. In general, if you can see a moving image in the Finder's preview pane, the file should work. Defocus.qtz, Fall.qtz, Grid.qtz, Image Hose.qtz, Moving Shapes.qtz, Travelator.qtz, and Wall.qtz are some neat ones. Once you've copied the files, open System Preferences, select Desktop & Screen Saver, scroll down to the Other section of the left pane, and select a new screen saver (see "Fresh Saver"). Clicking on the Options button will let you tweak the settings on some screen savers.

Fresh Saver Access the collection of trippy, secret screen savers hidden in your /System/Library/Compositions folder.
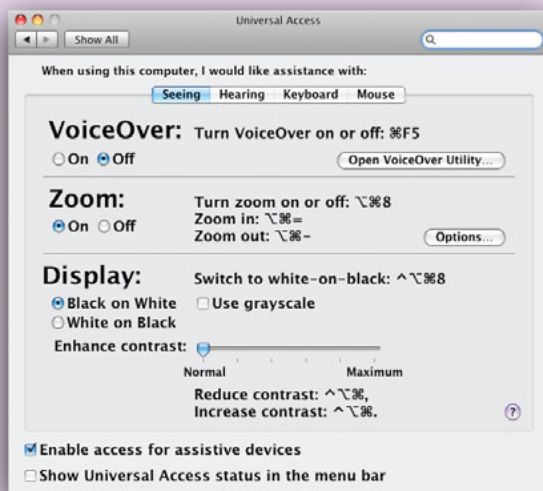
Big Picture Universal Access provides a way to zoom in on tiny text.

ENLARGE YOUR SCREEN

If you find interface elements too small to read comfortably, OS X will let you zoom in for a better look. Choose System Preferences from the Apple menu, click on Universal Access, and, in the Seeing tab, enable the Zoom option. Now when you press ⌘-option–equal sign (=), whatever is on your display will be enlarged. (Use the equal sign that appears at the top of the regular keyboard rather than the one on the keypad.) Press ⌘-option-hyphen (–) and the display zooms out. If your mouse has a scroll wheel or scroll ball, you can also zoom in and out by simply holding down the control key while moving the scroll wheel up and down.

By clicking on the Options button next to the Zoom entry, you can set the maximum and minimum zoom levels and decide how you want the display to react to your cursor; whether it should scroll only when the cursor reaches the edge of the screen, follow the cursor continuously, or keep the cursor centered.

To quickly turn the zoom feature on or off, press ⌘-option-8.

EASILY REMOVE THIRD-PARTY SCREEN SAVERS

In Tiger, if you installed third-party screen savers and later wanted to remove one, you had to navigate to ~/Library/Screen Savers and then find and delete the unwanted plug-in. In Leopard, you can just go to the Desktop & Screen Saver preference pane, right-click (or control-click) on the offending screen saver, and choose Move To Trash in the resulting contextual menu.

MAKE YOUR ALERTS VISUAL

One alternative to the aural alert is a visual alert—a screen flash. This is handy if you'd rather not have your music interrupted by system beeps or if you keep your volume off. In the Universal Access preference pane, which Apple provides for people with physical disabilities, you can opt to see system alerts. Open the Universal Access preference pane, select the Hearing tab, and then click on the Flash Screen button. If you like what you see, select the Flash The Screen When An Alert Sound Occurs option (see "Silent Flash").

With this option selected, you'll hear an audio alert in addition to seeing the screen flash, unless you've muted your Mac's sound. So how can you have a screen-flash alert without having to mute your system's audio? Go to the Sound preference pane, click on the Sound Effects tab, and adjust the Alert volume slider to mute. From now on, any system alerts will result in a screen flash that will get your attention without making a sound.
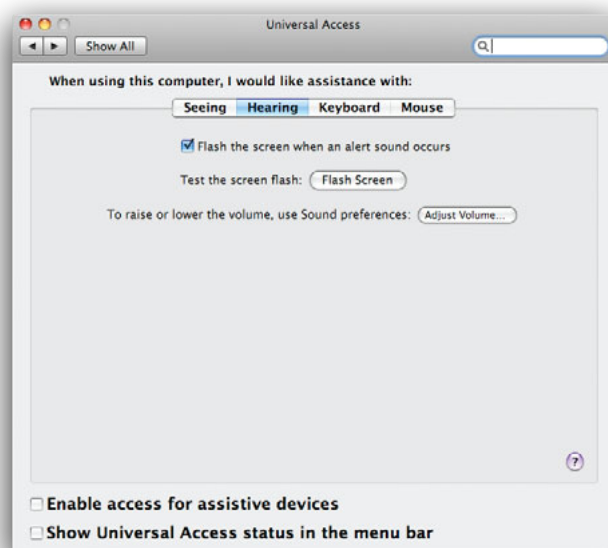
Silent Flash The flashing alert, available in the Universal Access preference pane, is a good alternative for the noise averse or people with hearing impairments.

SILENCE THE VOLUME-CHANGING BEEP

Usually the point of lowering your computer volume is to make *less* noise, not more. To silence the volume-changing beep, hold down the shift key while pressing the volume-down or volume-up key. (This doesn't work when you use your mouse to select the volume menu on the right side of your menu bar.) If you're using a portable Mac and you've set the Keyboard & Mouse preference pane to require the fn key in addition to the volume-changing key, don't worry: adding the shift key still silences the beep and doesn't require too much in the way of finger gymnastics.

FIND OUT WHAT'S ON

Sometimes, when you have Universal Access turned on, your Mac starts doing all sorts of strange things—using its display to impersonate an X-ray machine, reciting the name of the currently selected item, that sort of thing. Usually this is the result of a slip of the fingers combined with a Universal Access feature being mistakenly switched on. Leopard can help you quickly identify the problem. Open the Universal Access preference pane, and the Show Universal Access Status In The Menu Bar option at the bottom of the window. That done, you should see a Universal Access icon in the Mac's menu bar (see "Instant Access"). Click on that and you'll see a list of Universal Access options as well as their current state—Mouse Keys On, for example. Note that this truly is a status menu: it only shows what's on and off. To fix the problem, you'll have to go back to the Universal Access preference pane.

USE MOUSE KEYS ON A LAPTOP

The Universal Access preference pane's Mouse tab (called Mouse & Trackpad on Apple laptops) has long offered Mouse Keys, a way to use the numeric keypad to control the mouse. But how do you use this feature on a laptop that has no keypad? Press your Mac's number lock key (F6) and use keys 7, 8, 9, U, I, O, J, K, and L as the numeric keypad.
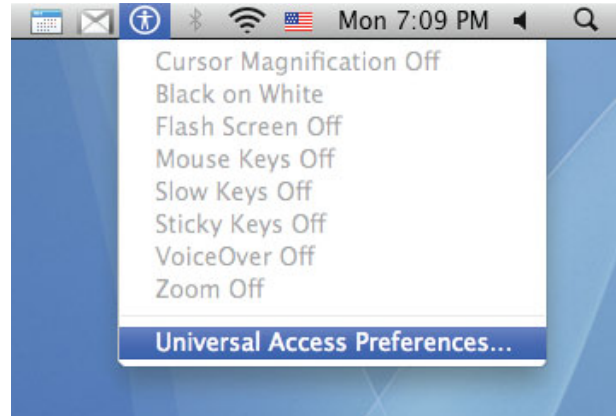
Instant Access A menu-bar icon offers a fast way to see what Universal Access settings you have enabled at any time.

ZOOM WITH THE TRACKPAD

By default you can just hold down the control key and use your mouse's scroll wheel to zoom in and out on your display. But how can this be accomplished on a laptop that offers no scroll wheel? Universal Access offers this cool zooming feature: on Apple laptops that allow two-finger scrolling, press control and use your two fingers on the trackpad. Drag them up and the screen zooms; drag them down and the image shrinks back to normal size.

TRASH TALKING

That little crumpling sound your Mac makes when you empty the Trash may sound satisfyingly final, but don't be lulled into a false sense of security. Traces of your personal information and even entire files can easily be left behind on your machine. Follow these steps to make sure your Trash is gone for good.

Securely Erase Your Hard Disk Before you sell or give away a Mac, make sure that no personal data remains on it. After you've copied all your files to your new Mac, restart the old one from the Mac OS X installation disc. Open Disk Utility and select your hard disk from the list on the left. Click on the Erase tab and then on Security Options. Next, choose one of the several erasure methods that are offered. The 7-Pass Erase option is probably sufficient for most people, but if you're truly paranoid, select 35-Pass Erase, which will make it nearly impossible for anyone, even James Bond, to recover your files. If you're using a laptop, make sure it's plugged in. This process can take a long time.

Delete Stubborn Files Have a file that just won't delete? There are third-party solutions, such as Marco Balestra's handy and free Super Empty Trash (donations accepted; www.faqintosh.com). Or you can use the `rm -rf` command in Terminal to remove the file. Unfortunately, if you mess up with that command, you might erase your hard drive.
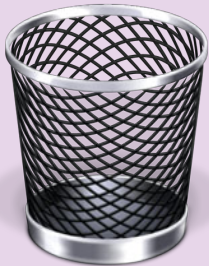
Here's a third method to try. It may take longer, but it's very safe and will work on files that seem immune to all other attempts. Start by creating a new user in the Accounts preference pane. It doesn't matter what name or access level you give the new account; it's going to have a very short life. Once the account is created, move the troublesome file from the Trash into the /Users/Shared folder. Now go to the Apple menu and choose Log Out *user name,* and then log in as the new user. Open the /Users/Shared folder, and move the pesky file into the new user's Trash.

Now log out of the new account and log in to your main account. Return to the Accounts preference pane, select the account you just created, and click on the minus sign (–), or just press the delete key. A dialog box will appear, asking you if you're sure you want to do this. Of the three options—Cancel, OK, and Delete Immediately— select Delete Immediately. The troublesome file, along with the new user account and the disk space it used, will disappear. Selecting OK will leave the file on your disk.

Productivity

Now that your Mac's settings are customized to your liking, it's time to revise how *you* operate. Dig into OS X's best shortcuts and timesaving secrets.

MAKE YOUR OWN SHORTCUTS

You know you waste time whenever you reach for the mouse to activate commonly used commands. But what if the command's keyboard shortcut is awkward, or there isn't one for something you do a lot? Open up the Keyboard & Mouse preference pane and create your own shortcuts.

CHANGE A SHORTCUT It's a snap to reassign a shortcut if it's listed in the Keyboard & Mouse preference pane's Keyboard Shortcuts tab. Just double-click on the existing shortcut and then press the combination you'd rather use. You can use the Keyboard Shortcuts tab to change not only program-specific but also systemwide shortcuts. This can be helpful if a standard shortcut is hard for you to remember, or when a shortcut in one program has a completely different function in another.

CREATE A NEW SHORTCUT The Keyboard Shortcuts pane is also useful when you want to create shortcuts for commands that don't have them—even a systemwide command such as Sleep. To make a Sleep shortcut, click on the plus sign (+) in the Keyboard Shortcuts tab and set the Applications pop-up menu to All Applications. Type **Sleep** (capitalization counts) in the Menu Title field, and then go to the Keyboard Shortcut box and press the shortcut you want to use. Click on Add.

USE 10.5'S HELP ON MENU ITEMS

OS X's help system, freshly revised for Leopard, offers a variety of ways to get assistance. Instead of simply opening a mini-browser for a given program's help files, opening Help—either by clicking on it or by using the ⌘-shift-slash (/) shortcut—now displays a drop-down menu with a search box and a list of key help topics.

But the real power of the new help system is in the search box; enter a search word or words, and Help will search both the program's help files *and* its menus for the information you've typed. You can then execute any displayed menu command by clicking on it with the mouse or using the down arrow, highlighting it, and pressing enter.

Alternatively, if you just want some help remembering where that menu command lives, either hover over (but don't click on) it, or use the down arrow to highlight it. When you do, the help system will show you the location of that command, along with a can't-miss-it colorful arrow pointing at that menu item—the arrow even shimmies around a bit to draw your attention to the right spot (see "A More Helpful Help"). Instead of wasting time looking through menus, you've found just what you wanted by typing a few keys.

LEARN NEW SCREEN–CAPTURE OPTIONS

The screen-capture tool—that's ⌘-shift-4, which turns your cursor into a draggable crosshairs—has learned quite a few new tricks in Leopard. Since the days of 10.2, if you added the control key into the mix, the capture would go to your Clipboard, instead of to a file. (This is a great way to grab a quick screenshot for an iChat session, by the way. Just press ⌘-shift-control-4, drag around the area you want to capture, release, then switch back to iChat and press ⌘-V to paste.)

With Leopard, Apple has found new uses for the shift, space, and option keys as well. If you start a screen capture, either with or without the control key, you can change how the selection
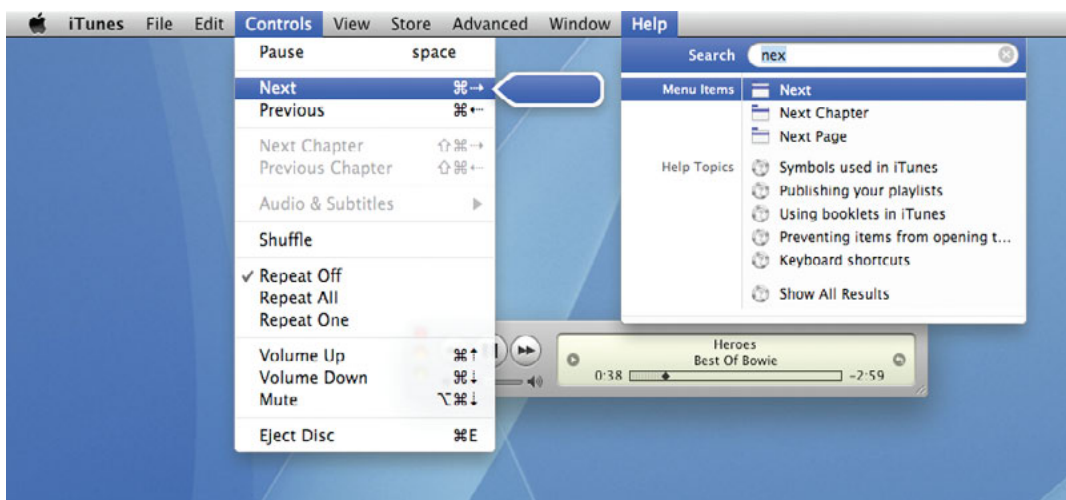
A More Helpful Help The floating arrow in the new Help menu will point out the command you're looking for.

area functions by using the following keys—note that you can release the original keys once the crosshairs appear, as long as you've started dragging, and you keep the mouse button down.

SPACEBAR Press and hold the spacebar once your region is the desired dimensions, and the size of the current region is then locked and can be dragged around the screen.

SHIFT Press and hold the shift key, and one side of the region will be locked, based on which way you then move the mouse. For instance, if you press and hold shift, and then move your mouse down, you'll only be able to resize the region vertically; the horizontal size will be fixed. Move the mouse left or right, and you can resize the region horizontally while keeping the vertical size fixed.

OPTION Press and hold option while dragging your region, and you'll change the way the region grows as you drag. By default, your region is anchored at the upper left corner; when you press option, the anchor point moves to the center of the current region, which expands in all directions from that point.

You can even combine some of these keystrokes. Shift and the spacebar together will allow a fixed-size region to be dragged in either a vertical or a horizontal direction, depending on which direction you first move the mouse after pressing the keys. If you combine shift and option, then you can expand your region from the center, restricting either the vertical or horizontal size.

REORDER FILE NAMES WITH LEADING SPACES

There's an old trick many Mac veterans use to force certain files and folders to the top of directory listings: they insert leading-spaces at the beginning of the file's or folder's name, which forces that item to the top of any view that's sorted by name. Items with more spaces at the front of their names go closer to the top of the list. With previous versions of OS X, you could select these files using the keyboard, too: you just pressed the spacebar while browsing a directory with such files in it, and the first one would be selected.

In 10.5, however, the spacebar has been assigned a new task in Finder: it invokes Quick Look. You can still use the old leading-space trick by adding the option key to the mix. When viewing a folder containing a file with a space for its first character, press and hold option, then press the spacebar. This will select the first file, without invoking Quick Look. If any of your files have multiple spaces at the start of their names, you can press the spacebar again to select them—there's no need to hold down the option key after the first press of the spacebar. If you want to preview a file with a space before its name, wait just a bit after selecting the file or folder, then press the spacebar again to invoke Quick Look.

HUNT DOWN PROCESSOR HOGS

Has your Mac suddenly become sluggish? The problem may be a hidden program that doesn't pop up in the Force Quit menu. To spot these troublemakers, launch Activity Monitor (/Applications/Utilities) and, from the pop-up menu at the top of the window, choose My Processes. This shows the activity of any currently running applications (and their associated helper programs) and widgets. Keep in mind that none of your Mac's hidden Unix processes appear in the window (which is good, because you don't want to mess with this stuff unless you know what you're doing). When you've located an item that appears to be gumming up the works (a helper program that didn't quit with its host program, for example), select it and click on the Quit Process button at the top of the window.

Activity Monitor offers an additional advantage: it can show you what's occupying your Mac's mind. Just click on the CPU column to see which applications are hammering on your Mac's CPU. Or take a look at the Real Memory column to view the RAM hogs you're running.

If quitting the hidden process doesn't solve your slowdowns, try restarting your Mac. This will usually clear out the cobwebs and get your system back up to speed.

Attention Grabber Use Activity Monitor to see which processes are taxing your Mac's processor.

FULLY UNINSTALL PROGRAMS

Installing Mac applications is a piece of cake, but what about uninstalling? Unlike the Window's OS, OS X has no strange .dll files or registry, and programs typically install everything they need to run within the application itself (excluding some settings files

in your user folder). As a result, what is almost always a laborious process on a Windows PC is a very quick operation on a Mac.

To uninstall most programs on a Mac, go to the Applications folder. Drag the program's folder to the Trash and empty the Trash. That's it—you're done. It's true that there will still be some small bits related to the application left over. So if you really want to make sure you get everything, look in *your user folder*/Library/Application Support for any references to the program. Also check in *your user folder*/Library/Preferences for the program's preferences. If you find something related to the uninstalled program, you can drag it to the Trash. But there's really no need to—the files you find won't cause any damage if they're simply left alone.

A small number of programs require you to double-click on an installer to install them. If that was the case, try rerunning the installer first. After you launch it, you should see an uninstall

CPU Watching The CPUPalette program, located in *your user folder*/Library/Application Support/HWPrefs, provides more information than the Activity Monitor.

option that will automatically remove all the program's files. If you don't see this option, check the program's documentation or online help for uninstall instructions.

MONITOR YOUR CPU CORES

Activity Monitor's CPU pane is nice, but if you want a bigger picture of what's going on inside your Mac's CPU, navigate to *your user folder*/Library/Application Support/HWPrefs and launch the CPUPalette program. (If you don't find it there, insert your Leopard install disc, click on Optional Installs, select Xcode Tools, then Packages, and double-click on CHUD.pkg; that will install CPUPalette.) It will display two graphs showing how busy your CPU's cores are, and let you disable one or more of them (see "CPU Watching"). Click on the oblong button in the upper right corner to reveal a settings panel where you can adjust transparency, sample interval and history, and chart format. You can drag the program to your Dock, sidebar, or toolbar for fast future access; to quit it, click on the red close button.

SPEED UP FOLDER ACTIONS

Folder actions—scripts you can attach to specific folders—have been available in OS X since version 10.2. In Leopard, a Folder Action Dispatcher program triggers them, checking for modifications in a folder at a specified interval. Unfortunately, the default interval is 180 seconds, which can sometimes be way too long. Because Folder Action Dispatcher is scriptable, you can change that interval. Open Script Editor (/Applications/AppleScript), and type the following (all on one line):

```
tell application "Folder Action
Dispatcher" to set polling interval to x
```

Replace *x* with your desired polling interval in seconds. Click on the Run button in the toolbar, and voilà. If the Script Editor asks where Folder Action Dispatcher is, browse to /System/Library/CoreServices/.

TURBOCHARGE MICE AND TRACKPADS

Does your mouse or trackpad move slower than you'd like? If your desktop is spread across two 30-inch LCD monitors—or you have some other deluxe setup—reaching the File menu with a poky cursor can feel like a grueling event in the Elbow Olympics. When maxing out the settings in the Keyboard & Mouse preference pane isn't enough, you can use a simple Terminal command to give your built-in trackpad or stock Apple mouse a speed boost. Open Terminal (/Applications/Utilities) and type one of the following commands (with no spaces before the periods, and the command on one line):

If you have a mouse:

```
defaults write -g com.apple.mouse
.scaling number
```

If you have a trackpad:

```
defaults write -g com.apple
.trackpad.scaling number
```

The *number* at the end of each command must be replaced by a number indicating the speed you'd like to use. The higher the number, the faster the tracking will be. The default value for maximum mouse speed is 3.0; maximum trackpad speed is 1.5. You might try a starting value of 5.0 for your turbocharged mouse, and 2.5 or 3.0 for a turbocharged trackpad.

The easiest way to make your changes take effect is to log out and then log in again. Just take it easy with the increases, as you may find that a superfast cursor is unusable. Also note that if you ever move the speed slider in the Keyboard & Mouse preference pane again, you'll override your turbo settings.

Connections

Networking and screen sharing in Leopard are simpler (and cooler) than ever, but they're not without their glitches. Here are some useful tips so you don't miss a connection.

POWER UP SCREEN SHARING

You can add some hidden functions to the Screen Sharing tool. Quit Screen Sharing, switch to Terminal, and type the following:

```
defaults write com.apple.ScreenSharing
'NSToolbar Configuration ControlToolbar'
-dict-add 'TB Item Identifiers' '(Scale,
Control,Share,Curtain,Capture,FullScreen,
GetClipboard,SendClipboard,Quality)'
```

This code should all be entered as one line. Note that there is a space after `ControlToolbar'`. (You can also copy and paste the code directly from macworld.com/3308.)

When you relaunch Screen Sharing, you should see five new buttons and a slider on your toolbar. (If you can't see the toolbar, use View: Show Toolbar to make it visible.) See "Customize Screen Sharing" for a rundown of what each button does. These features don't always work flawlessly, but for the most part they run just fine. You can customize the toolbar as you wish—for example, using ⌘-drag to rearrange the icons. To undo this hint, go back to View: Customize Toolbar and drag the default set back up onto the toolbar.
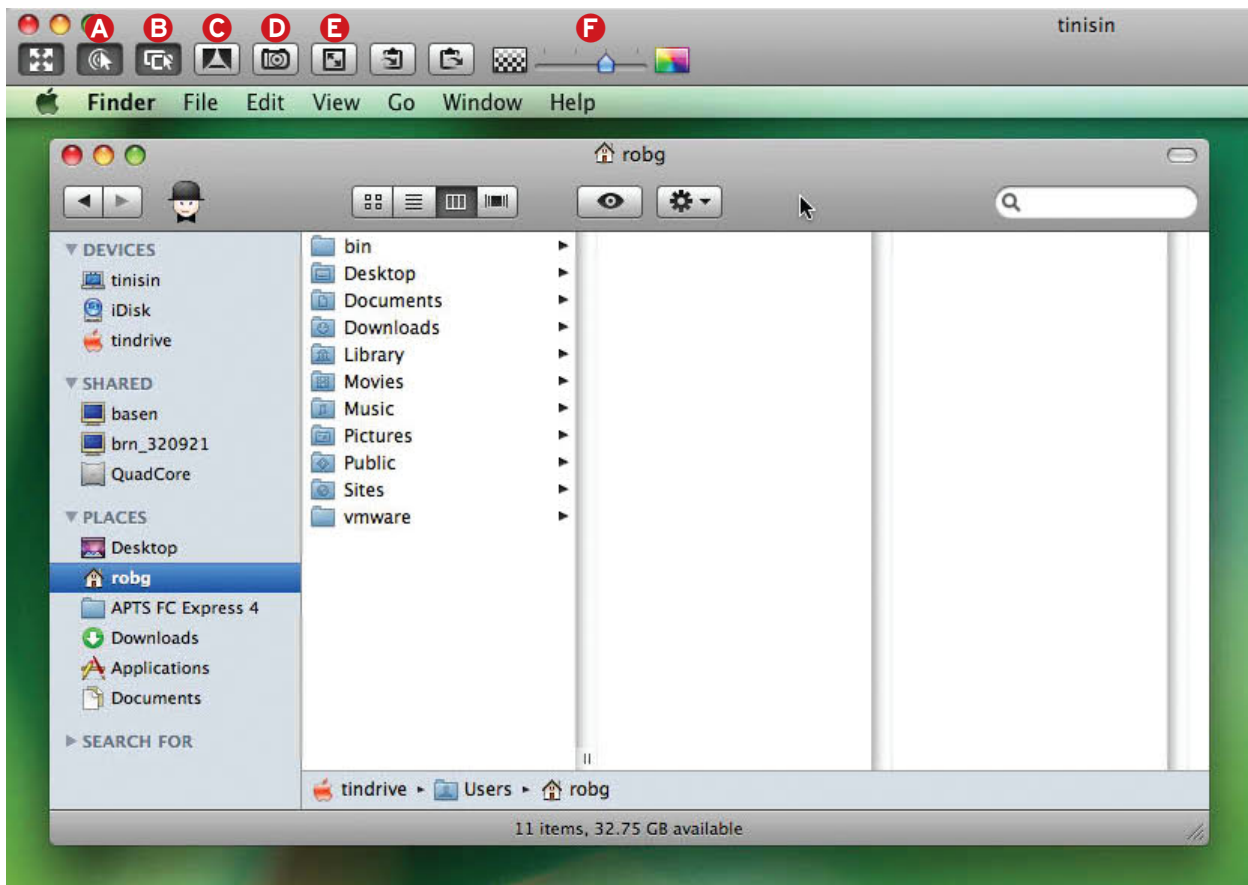
Customize Screen Sharing The second button in the row **A** switches between letting you control the remote Mac (the default) and simply observing the other machine. The third one **B** switches between allowing the person at the remote Mac to use its keyboard and mouse (the default) and locking him or her out. The fourth button **C** locks the other Mac's screen, displaying an all-black background, a huge lock icon, and any text you enter after clicking on the button. The fifth button **D** captures the remote Mac's full screen to a local file; the system will ask you to pick a name and a save location. The sixth button **E** toggles between windowed (the default) and full-screen modes. In full-screen mode, the toolbar floats in the upper left corner of the screen. To exit full-screen mode, click on the X that appears in the floating toolbar. If screen updates are going slowly, you can use the slider **F** to reduce the image quality—all the way down to a badly dithered black-and-white view—and speed things up.
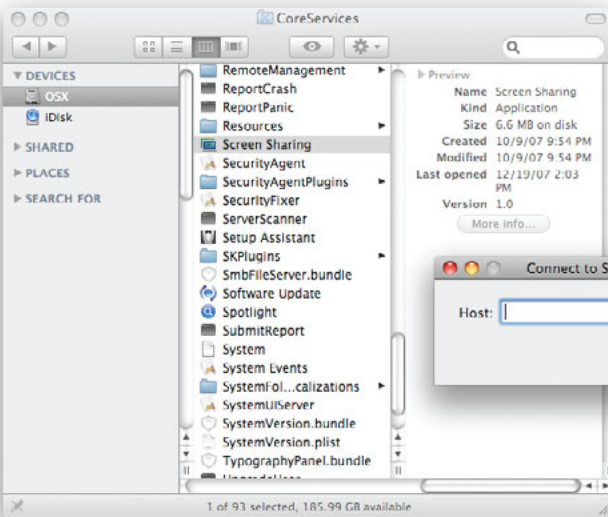
Making a Shared Connection Simply enter an IP address to open up a new Bonjour Browser window.

FASTER SCREEN SHARING

You probably know that you can share screens with another Mac from iChat and the Finder. But a more powerful tool for this purpose, cleverly named Screen Sharing, is hidden in /System/Library/CoreServices (see "Making a Shared Connection"). When you launch it, you'll see a dialog box asking for the network address of the remote machine. If you don't know the IP address, quit Screen Sharing, switch to Terminal, and type (all on one line):

```
defaults write com.apple.ScreenSharing
ShowBonjourBrowser_Debug 1
```

Now launch Screen Sharing again and revel in the new Bonjour Browser window, where you can pick the machine to which you'd like to connect. You'll still have to supply a user name and password, but at least you don't have to enter the full network address. To make future access a bit easier, select Add To My Computers to add that machine to the Bonjour Browser window. To get rid of the Bonjour Browser window, trash the com.apple.ScreenSharing.plist file in your Library/Preferences folder.

COPY TEXT BETWEEN TWO MACS

Leopard's screen sharing includes a way to send items to and from a remote Mac's clipboard, using the Edit: Send Clipboard and Edit: Get Clipboard menu items. But it turns out there's a simpler way to retrieve a snippet of text from the remote machine: you can drag and drop text to and from the remote Mac. Just highlight the text in the remote Mac's browser, press and hold the mouse button down for a second, then drag the text off the edge of the screen-sharing window. After a brief delay, you'll see the dragged text appear over your cursor on the local Mac. Now continue dragging to the destination application, then drop the text. This trick only works with text; if you need nontext

data from the other machine, use the Clipboard functions. And if you need to transfer files, you'll have to do that as if you were sitting in front of that Mac—drag a file onto a mounted server, for instance, or drop it into a user's drop box.

GET MORE DETAILS ABOUT AIRPORT

The AirPort icon in the Leopard menu bar contains a lot of useful information that's hidden by default. To reveal it, hold down the option key when you click on the AirPort menu icon. When the menu opens, you should now see more detailed information below the name of the network to which you're connected: the MAC address of the wireless station, which channel is in use, the signal strength (RSSI), and finally an indication of the data transmission rate. A perfect connection would be represented by an RSSI of 0; a negative number means the signal is less than perfect. With the menu still open and the option key pressed, move your cursor over one of the other networks on the list. When you hover over the network name for a second, a tool tip will pop up showing the network's signal strength and what type of security it's using. This is useful for quickly finding the public connection with the strongest signal.

FLY BETWEEN AIRPORT NETWORKS

Suppose you need to connect regularly to two different wireless networks—at work and at home, for example. Of course, each one uses a different network setup, such as DHCP in one case and a manual IP address in the other. In earlier versions of OS X, that meant you had to set up a separate network location for each and switch between them. Now you can create multiple AirPort configurations for the same network location. This allows for seamless switching without having to select a different location each time, saving some hassle and mouse-clicking. Simply open the Network preference pane and select Network Port Configurations from the Show pop-up menu. Then click on the New button and select AirPort from the Port pop-up menu.

GET NETWORKED ON-THE-GO

OS X makes it very easy to connect two Macs via a FireWire cable—you don't even have to use Target Disk Mode. On both computers, go to the Network preference pane, select Network Port Configurations from the Show pop-up menu, and enable the Built-in FireWire option. Next, go to the Sharing preference pane (again, on both computers) and click on the Start button to activate Personal File Sharing. This is much faster than using an Ethernet connection to transfer files. There's only one problem: if you're already using the FireWire port to connect peripheral FireWire devices, either the peripheral devices or the network connection may not work. The simplest workaround is to disconnect the peripheral devices while using the FireWire network.

Printing

Some subtle changes have been made to the printing settings in Leopard. Familiarize yourself with what's new and learn a few new tricks before pressing ⌘-P.

MAKE THE PRINTER ICON DISAPPEAR

Leopard has changed the way your printer icons are handled. After printing a document, the printer icon will remain in the Dock until you quit it yourself, instead of vanishing when the print job is completed. To bring back the auto-vanish behavior, print a test document. When the print job completes, control-click on the printer icon in the Dock and choose Auto Quit from the pop-up menu (see "Removing the Printer Icon"). Now the printer will vanish from the Dock after each print job. You'll have to repeat this process for each printer you use, but only once per printer.

RESET THE PRINTING SYSTEM

Printer Setup Utility in Tiger provided a Reset Printing System command that could often solve printing problems when all other troubleshooting techniques failed. But Printer Setup Utility is nowhere to be found in Leopard. Fortunately, Reset Printing System is still around, just well hidden. To find it, open the Print & Fax preference pane, and then right-click (or control-click) on any printer in the Printers list; you'll find the reset command in the contextual menu that appears.

UNCOVER ADVANCED PRINTER OPTIONS

Another process that required the Printer Setup Utility tool-bar was connecting your Mac to a nonstandard printer, or to a standard printer using a nonstandard protocol (such as some PCL-only Windows-shared printers). Previously you used the Advanced setup screen by clicking on the Add button in the Printer Setup Utility's toolbar, then option-clicking on the More Printers button and selecting Advanced from the pop-up menu. In Leopard, this screen has moved to a more accessible spot, but it's hidden by default. To reach it in OS X 10.5, first click on the plus sign (+) in the Print & Fax preference pane. When the next window appears, right-click on its toolbar and choose Customize Toolbar. When the customization sheet appears, drag the Advanced button into the toolbar, and click on Done. When you click on this new button, you'll be presented with an advanced configuration pane.

QUICKLY CANCEL PRINT JOBS

There are many ways to stop print jobs, including using the Printer Setup Utility and disconnecting the printer's cable from the computer. But using Printer Setup Utility can be time-consuming, meaning you'll waste more pages before the job terminates, and

pulling the cable may leave your print job orphaned in the queue.

Here are two fast and easy alternatives. If you are comfortable in Terminal, you can kill pending print jobs by entering this simple command and pressing return:

`cancel -a -`

But opening Terminal takes a bit of time, and when you're trying to cancel a print job, time is of the essence. So here's an even simpler solution. Open Script Editor, in /Applications /Utilities, and enter the following lines:

Removing the Printer Icon Set up the printer icon to automatically disappear when you're not using it.

```
do shell script "cancel -a -"
display dialog "No more printing jobs"
buttons ["OK"] default button 1
```

Save the script somewhere convenient, such as a folder in your user's Documents folder. In the Script Editor's Save dialog box, give your program a name, and set the File Format pop-up menu to Application. After saving the file, locate it in the Finder and then drag it to the sidebar, up to the toolbar, or down into the Dock. Now when you need to kill a print job, just click on the new icon. If you have a fast connection to a printer with lots of RAM, the job may already be gone from your Mac. If so, powering down the printer is the best solution.

ADD NEW PRINTING SHORTCUTS

In 10.5, you can now assign keyboard shortcuts to entries in the Print dialog's PDF drop-down menu. To set up the shortcuts, open the Keyboard & Mouse preference pane, then click on the Keyboard Shortcuts tab. Click on the plus sign at the lower left to add a new shortcut, and when the new dialog appears, leave the Application pop-up menu set to All Applications. In the Menu Title box, enter the exact text of the PDF menu command for which you'd like to create a shortcut. For the Keyboard Shortcut, enter the shortcut you'd like to use to activate the chosen menu item. Once you have the key combo entered, click on the Add button. Now switch to any application and press ⌘-P. You can use your new shortcut once the Print dialog appears.

Discs

Do more with your discs than just play music and install programs. Burn, borrow, and reboot better.

BURN A BOOTABLE DUPLICATE OF A DISC

Want to make a backup copy of your OS X install DVD? You could burn a copy from the Finder, but you wouldn't be able to boot from it. The simple way to create a bootable duplicate is to use Disk Utility to make a disk image and then burn a new disc.

First, launch Disk Utility and mount the CD or DVD. Select the disc from Disk Utility's left column. Then select File: New: Disk Image From *name of disc*. A Save dialog box appears. From the Image Format pop-up menu, select DVD/CD Master. Click on Save. After Disk Utility has created the image file, select Images: Burn. In the dialog box that appears, select the image file and click on Burn. Insert a blank disc when prompted.

CREATE A MULTISESSION DISC

Do you hate being wasteful? There's a way to record more than once, even to so-called "write-once" CDs and DVDs. You can't erase what's already there, but you can keep adding content to a disc until there's no more free space left. Use Disk Utility to set up the CD or DVD as a multisession disc the first time you burn it.

To begin, launch Disk Utility, create an image file of the data you want to burn, and then select Images: Burn. In the dialog box that appears, locate the image file and click on Burn. You are now ready for a crucial step: in the window that appears, select the Leave Disc Appendable option. Click on Burn, and you're done.

To add more data, you must again use Disk Utility; you cannot add data via the Finder's Burn command. You can repeat the appending process until the disc is full. When you mount a disc with multiple sessions, each session will mount as a separate volume.

MAC 911

INSTALLING SOFTWARE WITHOUT A SUPERDRIVE

If you have an older PowerPC Mac with a CD-RW drive, you may be stumped as to how to install software that comes on a DVD—for example, if you want to erase the drive and install a fresh copy of Tiger before you donate the Mac to a friend or sell it on eBay. Of course, you could just purchase an external DVD drive. But if you have access to other Macs, you can probably get by without the additional investment.

Installing OS X To install a copy of the OS, you'll need to locate a PowerPC-based Mac that has a DVD drive (check with a friend or a local Macintosh user group). And yes, it does need to be a PowerPC system; although you can swap data between an Intel Mac and a PowerPC Mac, you can't use one to install the Mac OS on the other. (They each run different versions of the Mac OS.)

Once you have that other Mac, string a FireWire cable between it and your old iMac. Restart your iMac while holding down the T key to boot into Target Disk mode (you'll know you're there when you see a FireWire symbol bouncing around the screen). Fire up the borrowed PowerPC Mac, insert the Tiger disc into its media drive, and double-click on the installer application. That Mac will reboot from the Tiger disc.

Once the installer is running, select your old iMac's hard drive as the destination for the installation. (When you're

in Target Disk mode, that Mac will treat your iMac's internal drive like any other local hard drive.) Choose the Erase And Install option by clicking on the Options button in the appropriate screen. The installation will proceed, and in half an hour or so, you'll have a clean copy of Tiger running on the iMac.

Other Software If you're trying to install other software—such as Apple's iLife—you can follow the same steps, or you can create a *disk image*. For the latter, plunk the disc into any Mac (Intel or PowerPC) you have access to and launch Disk Utility (found in /Applications/Utilities). Select the software disc in the list of volumes, and choose File: New Image From Disk. In the Convert Image window that appears, choose DVD/CD Master from the Image Format pop-up menu and leave the Encryption pop-up menu set to None. Now click on Save to create the image.

Once the image is saved, copy it to the Mac you want to install it on (you can do this while the Mac is still in FireWire Target Disk mode). Once the image is copied over, you need to press the Mac's power button to restart it. When it boots, locate the disk image you created and double-click on it to mount it. Once it's mounted, you can treat it just like a DVD. Run the installer, and the software will soon be on the Mac's hard drive.
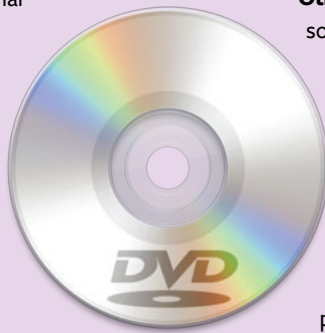
SET DISK ACTIONS

Exactly what happens after you insert a disc depends on settings in your CDs & DVDs preference pane. By changing them, you can make the system launch a particular program, switch to the Finder, run an AppleScript, ask you what to do, or do nothing at all when you insert a disc. Pop-up menus let you set the behavior for each disc type—from blank CDs to video DVDs. Knowing this can save you a step if, for example, you'd prefer that Photoshop, instead of iPhoto, launch whenever you insert a picture CD.

Hold down the option key while you click on one of the menus, and you'll see a new item—Options—at the bottom. There's actually only one option: Perform Action At Login. Select it, and the action you've chosen will occur when you log in as well. For example, if you want any movie disc you've left in your laptop to start playing as soon as you log back in, set the When You Insert A Video DVD menu to Open DVD Player. Then hold down the option key, click on the menu again, choose Options, and select Perform Action At Login.

REMEDY STUCK DISCS

How do you get a disc out? Easy, just press the eject key. That works most of the time, but what should you do when a disc gets stuck? First, quit all your running programs. Sometimes an open file might cause OS X to think that a disc is busy when it's not. After quitting, try ejecting the disc again. If that doesn't work, and if you have an older Mac, look for a small hole close to the CD-DVD tray. If it has one, insert a straightened paper clip into the hole and gently press—that should eject the disc. If your Mac doesn't have this hole, try restarting your computer and holding down your mouse or trackpad button while it boots.

If you're using a laptop, try shutting it down, positioning it upside down in your lap, and then booting it up while holding the mouse or trackpad button down. If all these tricks fail, you may have to take your Mac to your nearest service provider—sometimes discs really are just stuck.

SELECT BOOT CAMP STARTUP DISC SANS KEYBOARD

If you own an Intel-based Mac, and have installed Windows on it via Apple's Boot Camp, then you're familiar with how you tell your Mac whether to boot into OS X or Windows: just hold down the option key at startup, then use the arrow keys or mouse to choose the Windows or OS X partition.

But here's a fun alternative—good for those situations when you can't reach the keyboard after choosing to reboot. Make sure you have the Apple Remote in hand, and press and hold the Menu button during startup. Just as if you were at the machine, the boot loader will appear. From here, use the Forward and Backward buttons to cycle between the two operating systems, and activate the desired one by pressing Play. No muss, no fuss, no keyboard required.

GEEK IT UP

USE EXTRA SPACE ON A CD-R

When you burn a CD-R from the Finder, you may be wasting precious space. Many CD-Rs today ship with 700MB of capacity, yet the Finder will only use 670MB of that space. How can you use the extra space? It requires a quick trip to Terminal, but the solution is pretty simple.

First create a new folder in the Finder and drag in all the items you wish to burn (up to 700MB). Open Terminal and type `cd ~/Desktop`, and then press the enter key (this changes Terminal's active directory to your Desktop folder). Now type `hdiutil makehybrid -o myburn.iso` (there's a space after `iso`), but don't press enter. Instead, switch to the Finder, drag and drop the folder you just created onto the Terminal window, and press enter. Terminal should fill in the full path to the folder, and the enter key will then execute the command.

You've just used the `hdiutil` Unix command to create a hybrid disk image named myburn.iso (you can choose whatever name you like, but use .iso for the extension). You'll see the message "Creating hybrid image" in your Terminal window, as well as an indication of the task's progress. When finished, you should see a disk image called myburn.iso on your desktop. You can now either use Disk Utility to burn this image, or you can just type `hdiutil burn ~/Desktop/myburn.iso` in Terminal, insert a blank CD-R when prompted, and just sit back and wait. When it's done, you should have a burned CD-R with nearly 700MB of data on it.

Text

Do more with your words. These hints will help you master fonts and learn key shortcuts for dealing with characters.

SOLVE PROBLEMS WITH FONT BOOK

Whether you want to disable a typeface or add a new one, it's helpful to know how OS X handles fonts. All Macs include a basic font-management tool called Font Book (/Applications) that lets you see a list of all your fonts in one window. Here you can preview, or get detailed information about, any font. Some, such as Bookman Old Style and Arial, even come with educational descriptions of their backgrounds. You can also use Font Book to deactivate fonts—in other words, to turn them off without removing them from your system.

Font Book is most useful for dealing with common font problems. For instance, when you install applications, sometimes they place newer versions of system fonts in your Fonts folder. This can result in duplicate fonts, which might cause problems in some applications. To resolve this, click on the Font column, press ⌘-A to select all, and then choose Edit: Resolve Duplicates (see "Don't Be Duped").

You can also use Font Book to check for font corruption, which can cause application crashes and other unexpected behavior. Select all the fonts in the Fonts column again; then choose File: Validate Fonts. Font Book will indicate problematic fonts in the Font Validation window. To remove a font, select the check box next to its name and then click on Remove Checked.

PREVIEW YOUR FONTS

Prior to 10.5, you could preview a font in Font Book or in an application that supported font previews. In Leopard, there are several new ways to preview fonts. If you just want a quick idea of what your fonts look like, open a fonts folder (*your user folder*/Library/Fonts, Library/Fonts, or /System/Library/Fonts) in the Finder. In List view, the file icon will contain a very small preview of an uppercase *A* and a lowercase *g* in that font. In Column view, you'll see a slightly larger version in the preview pane. Switch to Icon view, and you'll get a slightly larger preview. Switch to Cover Flow, and you'll get still larger, flippable icons. The best way to preview fonts, though, is with Quick Look. Select a font file in the Finder, then press the spacebar. Instead of seeing just the A and the g in that font, you'll see uppercase and lowercase versions of the alphabet, along with the digits 0 through 9. This makes it simple to get a quick glance at a font.

SEEK SYMBOLS

Whether it's the copyright symbol (©), the divide character (÷), the registered trademark symbol (™), or the euro symbol (€), sometimes you need a character that isn't printed on your keyboard's keys. OS X has a few utilities that can help you find what you want.

The Keyboard Viewer (found in the International preference pane's Input Menu tab) shows you an on-screen version of your keyboard. Just select a font from the tool's Font menu and experiment with pressing combinations of option, shift, and ⌘
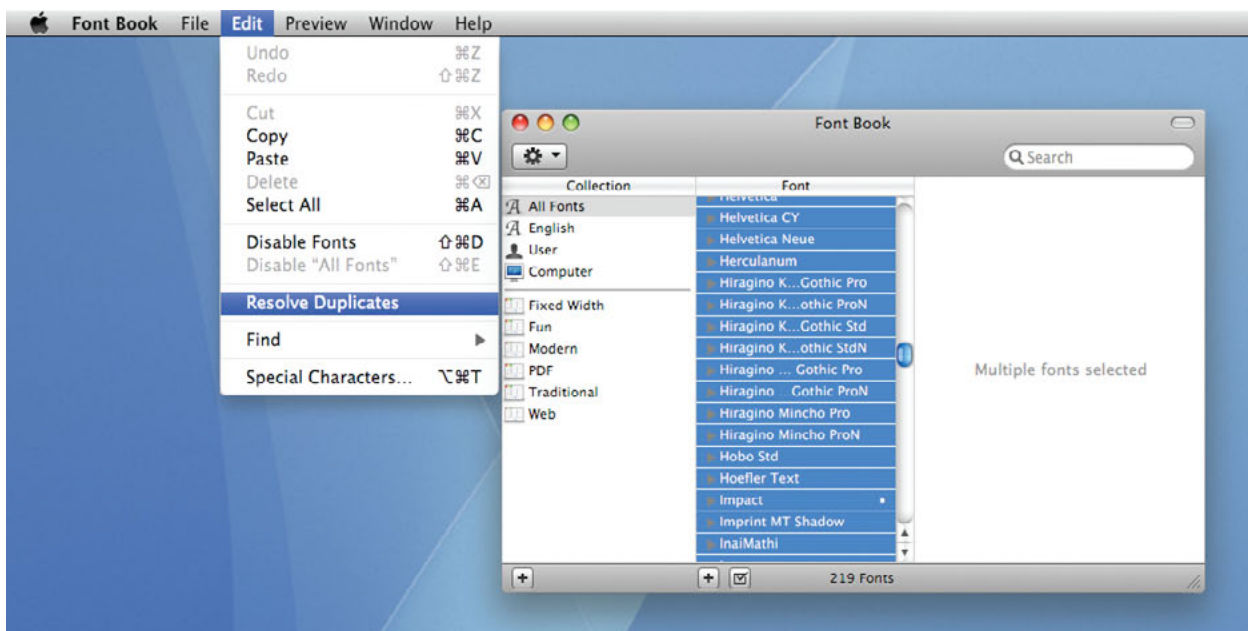
Don't Be Duped Font problems are often as easy to solve as looking for duplicates using Font Book.
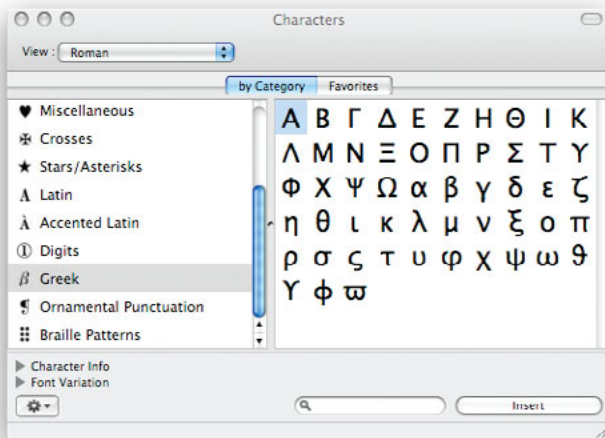
Cast of Characters Don't miss a single umlaut or accent in your correspondence and documents.

until you see the special symbol you're after. When you do, you've discovered the key combination you need to access it. Using the Character Palette to do this is even easier. It shows you every symbol you can create from any font. Best of all, it organizes the symbols by group—for example, Arrows or Mathematical Symbols. Choose a symbol and click on Insert to put it in your text.

In many programs—including the Finder, Safari, Apple's Mail, and more—all you need to do to open the Character Palette is select Edit: Special Characters (see "Cast of Characters"). Another way is to use the Input Menu, represented by a small flag icon on your menu bar. To activate this, open the International preference pane and click on the Input Menu tab. Select Character Palette and Keyboard Viewer. Then select the Show Input Menu In Menu Bar option. Your region's flag should appear in the menu bar. Click on this flag to access a menu where you can choose to open the Character Palette or the Keyboard Viewer.

ACCESS SYMBOLS YOUR OWN WAY

But what if you don't want the Input menu's flag taking up precious space in your menu bar? Luckily, you can access the Character Palette and Keyboard Viewer from your Dock, sidebar, or toolbar—if you know the trick.

Navigate to /System/Library/Components, control-click on the file called CharacterPalette.component, and choose Show Package Contents from the contextual menu. In the window that opens, navigate to the Contents/SharedSupport folder, where you'll see a file called CharPaletteServer. This is the program that displays the Character Palette. Drag it directly to your Dock, sidebar, or toolbar to make a version of it appear there for quick access. (This creates an alias; you can't move the program itself, as you lack the rights to do so.)

To do the same with the Keyboard Viewer, navigate to /System/Library/ Components again, control-click on Keyboard-Viewer.component, and choose Show Package Contents from the contextual menu. Open the Contents/SharedSupport folder inside, and drag the KeyboardViewerServer file to your Dock, sidebar, or toolbar.

Once you're sure everything works, return to the International preference pane and disable the checked items in the Input Menu tab. Your menu-bar space will be yours once again.

TAKE CONTROL OF OS X SPELLING CHECKER

OS X's built-in spell-checker feature becomes smarter as you train it. If it underlines a word that you know is right, simply control-click on the word and select Learn Spelling from the contextual menu. But if you accidentally make it learn the wrong words, or want to move your customized dictionary from one Mac to another, these tips will help:

Move It Want to replace a puny spell-checker dictionary on one Mac with the more robust dictionary from another Mac? Travel to *your user folder*/Library/ Spelling and look for the en file. This file contains all of your additions to the spelling dictionary. (Note that you'll see this Spelling folder only if you've added at least one word to the spell-checker dictionary.) To make the move, copy this en file to the same location on your second Mac, replacing the en file on that Mac. (Move the original file to a safe location in case you're unhappy with the results of your work.) Restart your Mac to begin using the new file.

Edit Additions To review the user additions to the spell-checker dictionary, download a copy of Bare Bones Software's TextWrangler tool (free; macworld.com/1725). Open the en file in TextWrangler and, from the Text Options pop-up menu at the top of the window, select Show Invisibles. You'll find that the additions are now separated by a red upside-down question mark (¿).

To edit user additions, delete any additions you don't care for or add new ones, separating them with this red character, which you've copied from within the document. Save the file, and then log out and log back in again for the changes to take effect.

Navigate Leopard

Move Around OS X Like a Pro Using Leopard's Sleek Navigation Tools

Bringing order to the chaos—namely, all your programs, photos, and documents—is a complicated chore that Apple doesn't take lightly. With each new version of OS X that's released, well-thought-out changes are made to navigation tools like the Finder, the Dock, and Spotlight. In Leopard, a few new goodies have even been thrown into the mix, like Stacks, Spaces, and Quick Look. Each feature, new or just improved, is here to help Mac users get oriented. Take them out for a spin and see where they take you.

The Finder

The Finder is your Mac's home base. With Leopard, Apple has added valuable new tools to make the Finder faster to use and easily customizable.

PUT THE PATH BAR UP TOP

Love the convenience of the Finder's path bar but want to change its location? When you select View: Show Path Bar, the path to the current folder will appear at the bottom of the Finder window. That display is also functional: You can drag an item onto any of the folders shown in the path bar to move the item to that folder, and you can double-click on any folder in the path to quickly switch to that folder. If you want to see the path to the current folder at the top of the window, open Terminal and type:

```
defaults write com.apple.finder _
FXShowPosixPathInTitle -bool YES
```

Then press return. Next, holding down the option key, right-click on the Finder icon in the Dock and select Relaunch. From now on, the path should appear, in traditional Unix format, in the title bar of all your Finder windows. To undo the change, repeat the procedure, replacing **YES** with **NO**, and then relaunch the Finder.

ADD MORE CANNED SEARCHES

There are still some predefined searches available in the Search For section of the Finder's sidebar, but a number of additional searches didn't quite make the cut. To find them, go to /System/Library/CoreServices and control-click on Finder.app. From the pop-up menu, choose Show Package Contents, and navigate to /Contents/Resources/CannedSearches (see "Can It"). There, you'll find searches such as All Applications, All Music, and All Presentations. To add one of these bonus canned searches to your sidebar, copy it to the desktop. Then control-click on it and choose Show Package Contents from the pop-up menu. In the first folder that opens, you'll see a search.savedSearch file. Rename this to whatever you like, and drag it into the sidebar.
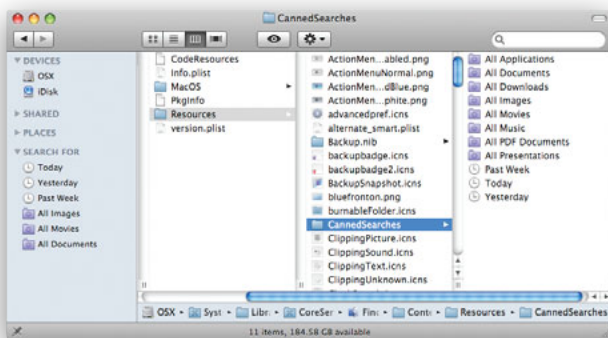
Can It Add any of these helpful canned searches to your finder.

EASILY CREATE NEW FOLDERS

Have you ever had to create a series of folders, perhaps for a new project, for a new client, or just as part of organizing your massive hard drive? If so, you know that it's a cinch to create a single folder in the Finder: just press ⌘-shift-N. But if you have 20 or 30 folders to set up, the process can get tedious. Terminal can make things a lot easier.

Make a Folder in Terminal The command `mkdir` creates new directories—in other words, folders. For instance, the following command creates a new folder named My Folder in the current directory:

```
mkdir "My Folder"
```

To change the current directory, type the command `cd` and then the path to the correct location. (Drag a folder to the Terminal window to add its path automatically.) For example, if you want the folder to appear in your Documents folder, use this command before you create the folder:

```
cd /Users/your_user_name/Documents
```

Make a Few Folders To create several folders at once, add additional names to the command. You must include quotation marks around each new folder's name if the names contain spaces—for example:

```
mkdir "My Folder" "My Other
Folder" "Not That Folder"
```

Make Bunches of Folders If you have a lot of folders to create, make a text file containing the name of each folder you want—one entry per line. Name the file dirlist.txt, place it in the folder where you'd like all the new folders to appear, and then use the `cd` command to make sure you're in that folder in Terminal. Finally, type this command:

```
cat dirlist.txt | xargs mkdir
```

Each entry in the file will become a folder in the current directory.

Automate the Names When you'd like to create a selection of folders, each with the same basic name and a unique suffix—for example, Project A, Project B, Project C, and so on—you don't have to type out all those names. Use this command:

```
mkdir "Project "{A,B,C,D,E,F}
```

You're not restricted to single letters, of course—anything you want can go within the curly brackets. Just remember that if you want spaces in the names, you'll need to enclose them in quotes, too—for example:

```
mkdir "Project "{"New
Home","Vacation","To Do"}
```

ADD SAVED SEARCHES TO OPEN AND SAVE

The sidebar in Open and Save dialog boxes is similar to the sidebar in Finder windows—except that the Search For section and the saved searches in it are conspicuously missing. Here's an easy way to add saved searches to Open and Save dialog boxes: In the Finder, go to the folder containing your searches (*your user folder*/Library/Saved Searches by default), and drag the desired saved searches to the Places section of the sidebar. The next time you're in an Open or Save dialog box, you'll be able to access the contents of those saved searches in Places.

MODIFY USER-CREATED SMART FOLDERS

After you've saved a search in 10.5, you can access it in many ways, including the convenient Search For section of the Finder's sidebar. However, what if you want to edit the saved search after you recall it? Option-clicking on the search name in the sidebar doesn't work, and there aren't any Edit options when you look in the Finder's menu or the saved search's contextual menu. So how do you do it? After activating your saved search, click on the Action icon (shaped like a gear) in the Finder's toolbar, and you'll see Show Search Criteria in the drop-down menu that appears.

CHANGE ICON VIEW OPTIONS IN OPEN AND SAVE DIALOG BOXES

This is a good tip for those who prefer working in Icon view. Now when you see a Save or Open dialog box in OS X, you can change the displayed icon size as well as the position of the text labels.
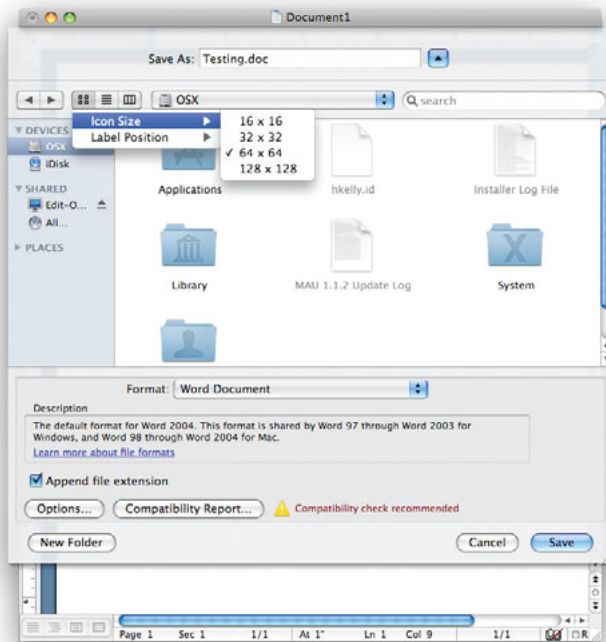
Extra Icon Options Change icon sizes or move icon labels from the bottom to the right.

MAC 911

CLEAN UP THE 'OPEN WITH' MENU

Sometimes when you control-click on a file to use the Open With contextual menu, you'll see double entries in the list of available programs. You may even see programs you know you've removed from your Mac. To clean up this list, you'll need to rebuild the Launch-Services database. To do so, open Terminal and type this command (all on one line; there should be no spaces between characters until `-kill`):

```
/System/Library/Frameworks/
CoreServices.framework/Versions/A/
Frameworks/LaunchServices.framework/
Versions/A/Support/lsregister -kill-r
-domain local -domain system-domain
user
```

Once the database is rebuilt, the list of available applications should be duplicate-free.

There is a useful menu hiding behind the Icon view button in the Save or Open dialog's toolbar. To make the menu appear, click and hold on this button. (Control-clicking on it will not work.) In addition to changing the icon sizes, you can move the icon labels from the bottom to the right using the Label Position menu item (see "Extra Icon Options"). Keep in mind that changes made in this dialog box apply to all applications, not just the one you're changing them from within. The settings are also permanent and will stick around even after logouts and restarts.

SET YOUR DEFAULTS

Once you have your Finder window set to your liking, you may want to use the settings for every subsequent window. In OS X 10.4, you did this by opening the View Options window and choosing from two options (This Window Only or All Windows). But you won't find these options in Leopard. Instead, the View Options window in Leopard includes a new Use As Defaults button (this option isn't available for Column view). Unless you click on that button, changes you make to the Finder window will apply only to the current window.

EXPLORE LEOPARD'S GET INFO WINDOW

OS X 10.5 has added a few new ways to use the Get Info window. To bring up this window, you can select an item in the Finder, and press ⌘-I, go to File: Get Info, or control-click on the item and select Get Info. The first new thing you'll notice is that Get Info is actually a window. Before it was a floating dialog box, which

meant you couldn't do things like close it with ⌘-w or see it in Expose's All windows mode. Now the icon in the title bar of the window is a true proxy icon—meaning you can ⌘- or control-click on it and see a drop-down menu that shows the full path to the selected item (see "The More You Know"). You can also click and hold on the proxy icon to drag it to a new location.

Another useful thing about the Get Info window is that it's now accessible from some unexpected spots, like when you're viewing matches in the Spotlight drop-down list. To summon the Get Info window, just hold your mouse over the item of interest,

OS X—101: MASTER THE FINDER

Save time by learning how to use key combinations in the Finder. Pressing control, ⌘, option, or shift—or a combination of them—in conjunction with a click or drag gives you all sorts of ways to get things done more easily.

⌘-Click The ⌘ key right next to your spacebar (alternately called the command key, the cloverleaf key, or the Apple key) lets you select noncontiguous items. Just hold it down and click on the items you want. Once you're done, you can then drag and drop the selected items onto a program or move them to a new location.

Shift-Click In the Column or List view, you can shift-click to select a group of contiguous files. Click on the first file you want to select, press and hold the shift key, move the cursor to the last file in your group, and then click on it. Now all the contiguous files are selected. In the Icon view, shift-click works the same way.

Control-Click When you press and hold the control key and then click on an icon in the Finder, you'll see a pop-up contextual menu. If you have a two-button mouse, this is the same as right-clicking on an item.

Control-click on an application, and you'll see Show Package Contents in the menu; control-click on a document, and Open With will appear in the menu.

Option-Drag By default, OS X moves files when you drag them from one spot to another on the same hard drive. To force the Finder to copy the file instead, hold down the option key while you drag.

⌘-Drag By default, OS X copies objects when you drag them from one hard drive to another. But what if you'd rather just move the file? In that case, press and hold ⌘ while dragging the file.

⌘-Option-Drag If you press and hold both ⌘ and option as you drag something, you'll create an alias of the chosen file(s) in the destination folder. Aliases are a useful way to collect pointers to different files all in one convenient location.

The More You Know Leopard has given the Get Info window a makeover. You can now ⌘- or control-click on it to see an item's full path.

or scroll down to it with the down-arrow key (don't click, as that will open the item), and then press ⌘-I. You can also open Get Info windows from the Open and Save dialog boxes within an application using ⌘-I. This will work on grayed-out files in the Save dialog box, even though nothing is visibly selected.

PREVIEW PDFS IN COLUMN VIEW

When browsing your files in Column view, you get a large icon preview of the selected item in the rightmost column. If you're previewing a PDF document, moving the mouse cursor over this icon displays back and forward buttons. Use these buttons to flip through the pages of the document right there in the icon preview.

Spotlight

At its simplest, Spotlight is a fast search tool for your entire computer. You type in what you're looking for, and it serves up a selection of matches. Cool, yes, but it's just a taste of what this feature can do.

SPOTLIGHT BASICS

Performing a basic Spotlight search is a cinch. Click on the Spotlight icon on the right side of the menu bar or press ⌘-spacebar to call up the Spotlight menu, and then type in one or more words—you don't have to worry about capitalization. Spotlight immediately starts presenting matches, looking for those search terms in your files' names, content, and hidden information called *metadata*. As you type in more of the word or phrase, Spotlight refines its results.

APPLY BOOLEAN SEARCHING

One of the biggest additions to Spotlight is support for true Boolean searching, which uses logical operators (AND, OR, NOT) to refine a search. For instance, if you type `"time machine" OR morlocks`, you'll see references to Leopard's backup tool,
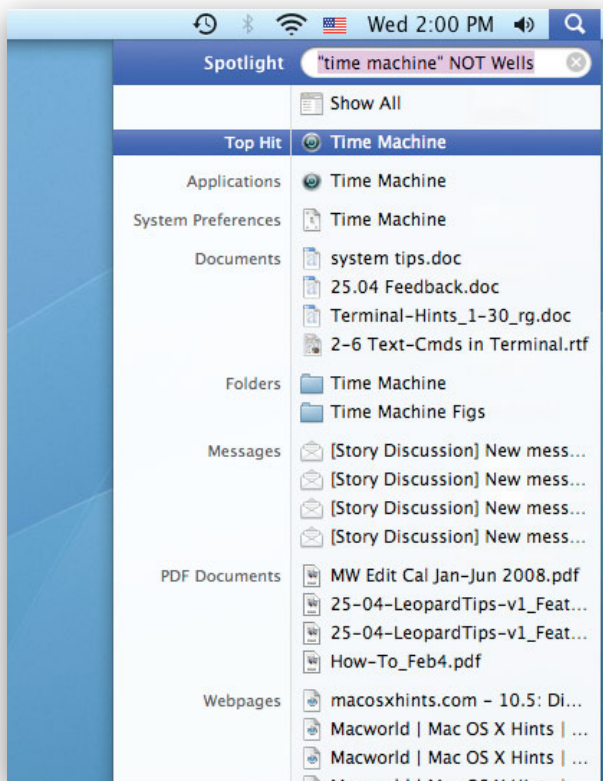
Spotlight on Boolean Searches Spotlight now recognizes Boolean searches in Leopard.

UNCOVER UNUSED FILES

Have you ever wanted to remove unused files from a folder—for example, your user folder's Preferences folder? Finding the files isn't always easy—naming schemes are sometimes obvious only to the developer.

Enter Spotlight and the Unix `mdls` command. (See the *Take Command of Terminal* chapter for more information.) For example, use `mdls` to look at the kMDItemFSContentChangeDate attribute to track changes to a file's metadata, which is modified every time you or a program access the file. To see when your Dock's preferences were last updated, type the following:

```
cd ~/Library/Preferences
```

This takes you to your Preferences directory. Then type this command:

```
mdls com.apple.dock.plist | grep
kMDItemFSContentChangeDate
```

When you press enter, you will get something that looks like this:

```
kMDItemFSContentChangeDate = 2008-
01-21 20:39:44 -0700
```

Now you know that the file was last changed on January 21. When thinking about deleting something, use this trick first to quickly find out whether the unknown file has been accessed recently.

as well as any files related to H. G. Wells' fictional species. To find files that include *time machine* but make no mention of *H. G. Wells,* input `"time machine" NOT Wells`. Whenever you perform a Boolean search, make sure to type operators in all caps (see "Spotlight on Boolean Searches").

USE METADATA

In addition to scouring your files' names and contents, Spotlight also peruses metadata—information about your files generated by the program or the device that created the file. For example, digital photos contain metadata for the camera's settings at the time the image was taken, including such information as the type of camera, focal length, color space, exposure time, and so forth. If you want to find all photos taken using a certain camera, just enter its name or model number into the search field.

To view what kinds of metadata a file is storing, select it in the Finder, press ⌘-I to open a Get Info window, and click on the triangle next to More Info. You're not limited to the metadata you

see here, however; you can also add your own keywords to any file. In the Get Info window, click on the triangle next to Spotlight Comments. In the text field that appears, enter any keywords that might help you in future searches, such as the project to which the file is related or the last name of a person you associate with it. For example, by adding the comment **HOUSE07** to any files having to do with the purchase and remodeling of your new home, you'll be able to find all of those files in one shot.

AUTOMATE SPOTLIGHT COMMENTS

Want to avoid the tedium of assigning the same comments to multiple files? There's an easier way. Launch Automator, select Files & Folders from the Library column, and drag Set Spotlight Comments For Finder Items from the action list to the workflow pane (see "Constant Comments"). Click on Options and select Show This Action When Workflow Runs. Go to File: Save As Plug-In. Give the plug-in a name, such as Spotlight Comments, and select Finder from the Plug-In For pull-down menu. To put your new Automator workflow to use, simply control-click (or right-click) on the files. In the contextual menu that appears, select More: Automator: Spotlight Comments (or whatever you named your plug-in item). A dialog box appears, allowing you to append your comments to dozens of files at once.

SAVE A TRIP

There's an easy way to perform a Spotlight search from within Web pages and documents. If you come across a word or phrase you'd like to use as a search query, highlight the text, control-click on the selection, and choose Search In Spotlight from the contextual menu. (Note that not all programs offer this feature.) This opens a Finder window and launches an AND search for the selected text.
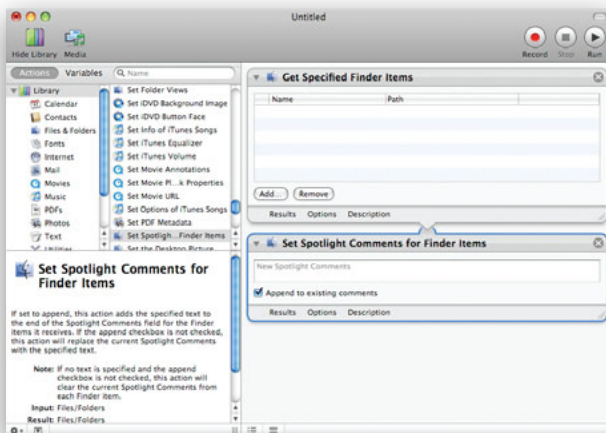
Constant Comments Let Automator help you append your comments to multiple files at once.

SEARCH SYSTEM FILES

By default Spotlight doesn't search the guts of the System and Library folders. In part, this is to discourage you from tampering with these essential files. But you can force its hand. First, switch to the Finder and press ⌘-F to open a new search window. Choose Other from the Kind pop-up menu. In the sheet that appears, type **System** in the Search field. Select the System Files entry. If you think you'll need to conduct a similar search in the future, you can save some time for yourself by enabling the In Menu option to the right of the System Files entry. Spotlight will then add System Files to the Kind menu. Click on OK. Finally, from the pull-down menu next to System Files, choose Include. Your results will now include the files the Mac OS tries to keep hidden from prying eyes.
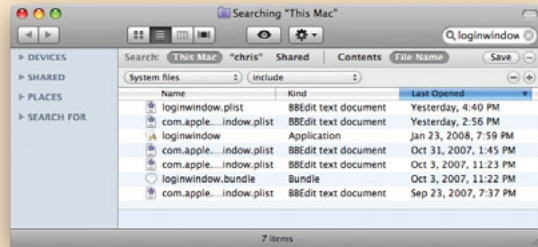
Search the System Use these settings in a Find window to search your Mac's more arcane files.

FUN SPOTLIGHT ADDITIONS

In addition to all the practical improvements made to Spotlight in Leopard, there are these clever new tricks:

DICTIONARY When you come across a word you don't recognize, you can look it up in Spotlight. Whenever you type a word into the Spotlight menu, the definition appears in the list of results. Hover your cursor over the result to view the full definition in a tooltip.

PROGRAM LAUNCHER Applications now appear as the top hit, so you can launch them much more quickly. To fire up Safari, type **saf** into the menu and press return.

CALCULATOR Type an equation into the Spotlight menu and let your Mac do your math. For example, type **2*2**, and you'll get 4. If you need the area of a circle with a diameter of 10 feet, type **pi*10**. Need the square root of 1,024? Enter **sqrt(1024)**. How about 64 squared? Just type **pow(64,2)**. Even geekier, Spotlight supports all of the standard C math(3) functions. For example, type **sqrt(9)**, and you'll get 3. Type **pow(2,2)**, and you'll get 4. It also supports pi as a constant.

SIMPLIFY YOUR INDEX

You've got lots of files on your Mac, but that doesn't mean you want Spotlight to search them all. You may want to keep some of your more sensitive files from turning up in a search (especially if you share a user account with someone else). Or perhaps it's just a matter of expediency: you don't want to waste time having Spotlight search backups or archives that live on a second partition or hard disk.

Spotlight indexes every drive you connect to your Mac's external hard disks, removable media (if they're writable), and even iPods (if they're set to appear as a external hard drive). You can, however, choose to exclude certain folders or volumes. In Spotlight's preference pane, click on the Privacy tab. If you want to exclude a folder or volume on your Mac (such as one containing sensitive information), drag it to this list, or click on the plus-sign (+) button and select it (see "Privacy, Please").

If you want to exclude an external volume, first connect the drive, then add it to the list. When you do this, Spotlight deletes any current index for the folder or volume and adds this item to a list of areas it won't index or search. If you need to search that external hard disk down the line, connect it, remove it from the Privacy list, and then wait while Spotlight reindexes the device.

REBOOT SPOTLIGHT

Sometimes Spotlight refuses to find what you're looking for, even though you know the file exists. This problem occurs when Spotlight's indexes get out of sync. To set things right, try rebuilding the indexes, which forces Spotlight to scour your drive again and serve up the right search results.

Open the Spotlight preference pane. Click on the Privacy tab, then drag your hard drive to the list of locations that you don't want Spotlight to search. Wait a few seconds, then select
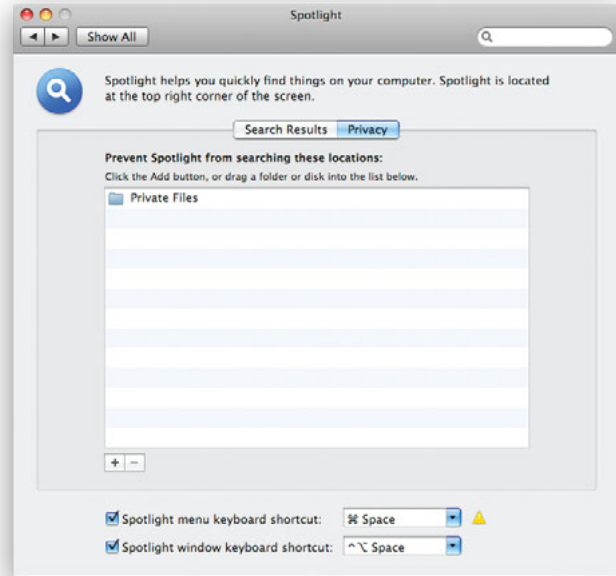
Privacy, Please If you don't want Spotlight to search certain folders or volumes, just make a trip to the Spotlight preference pane.

the drive and click on the minus-sign (–) button. By dragging the drive into this list, you force Spotlight to erase the index; when you remove the drive from the list, Spotlight notes that it is again available for indexing and starts chugging away at that task.

Keep in mind that if you have a ton of files, rebuilding the index may take quite a bit of time. While Spotlight is indexing the hard drive, you'll see a pulsing dot inside the Spotlight icon. If you try to use the Spotlight menu, you'll get a message saying that it's busy indexing your drive. Take a break and get a cup of coffee. You'll be thankful once it's finished and your searches are much more efficient.

ADD BOOLEANS TO FINDER SEARCHES

You can use Booleans by typing them in, of course, but if you're more visual by nature, you can also use a hidden feature in the Finder's search window to create Boolean searches—without ever typing AND, OR, or NOT.

In the Finder search window, click on the plus sign and use the pull-down menus to set up your first condition. At this point you would typically click on the plus sign again to add your second condition. But to add a Boolean search term to your next condition, option-click instead. The plus sign will turn into an ellipsis (...) and you'll get a new conditional pull-down menu with options for Any (OR), All (AND), or None (NOT).

Now just add conditions to this new indented section to
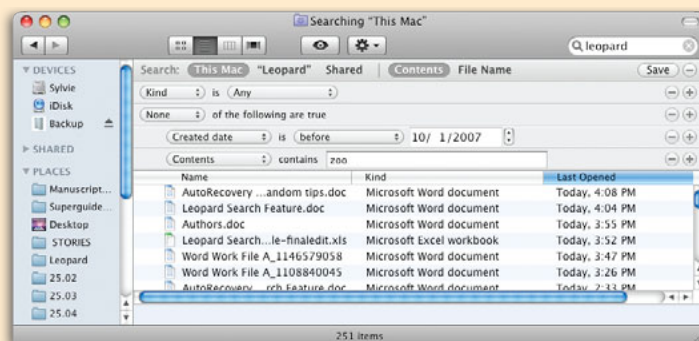
create a Boolean search. This trick adds a lot of power to your Finder searches; just remember you can only option-click after you have at least one criterion already created for your search.

Quick Look

The invaluable new Quick Look feature lets you view a file without having to open it. To invoke Quick Look, click on a file and press the spacebar, or select Quick Look from an item's contextual menu. Once you have those basics down, explore with these Quick Look hints.

ZOOMING IN QUICK LOOK MODE
Quick Look is a great way to get a preview of nearly any document without opening the application that created it. Quick Look is especially useful for PDFs and images. In addition to paging through PDFs in Quick Look mode using your scroll wheel (or two-finger scrolling on a trackpad), you can zoom in and out on both PDF and image files within the Quick Look window. To zoom in on a PDF, click inside the PDF file, and then press ⌘-equal sign (=). To zoom out, press ⌘-minus sign (–).

Images, confusingly, require a different method of zooming. To zoom in on an image, option-click on the area you want to enlarge. To zoom out, shift-option-click on the window. With both PDFs and images, once you've zoomed in, you can move around with your scroll wheel, trackpad scrolling, or the good old-fashioned drag thumbs in the scroll bars.

MIX FILES IN QUICK LOOK
You can open a mix of files in Quick Look. Just select the items you want to view in Quick Look—pictures, text documents, movies, and audio files, for example—and press the spacebar. Click on the Index Sheet button in the resulting Quick Look window to view all the items you've selected on a grid. To move from one to the next, use the Mac's arrow keys. To bring a document to the fore, press the return key. To play a media file, click on the Play button. As a file plays, you can play the next or previous file simply by pressing the right- or left-arrow key. Note that the Play/Pause button is active even when you have a nonmedia file. So if you click on Play when one of these documents is showing and then press the right-arrow key, the media file that appears will play—there's no need to click again.

TOGGLE QUICK LOOK VIEWS
To open the grid view for multiple files without leaving the keyboard, press ⌘-return (see "Gridlock"). For extra eye candy, hold down the shift key, too, and you'll get to see the switchover between the two view modes in glorious, though time-consuming, slow motion.

TAKE A QUICK LOOK AT THE TRASH
How many times have you tried to open a file that's in the Trash—

to make sure it's really the one you wanted to delete, for example—only to have Mac OS X tell you that you can't open it because, well, it's in the Trash? Thanks to Quick Look, you never have to face this situation again. Just open the Trash, select the items you want to preview, and press the spacebar to view them in Quick Look.

PLAY A QUICK LOOK SLIDE SHOW
You may know that, in addition to pressing the spacebar, you can invoke Quick Look by control-clicking on an item and choosing Quick Look *name of item*. But you may not know that you can immediately play an item (or a playlist) by control-clicking on it, then pressing the option key and choosing Slideshow *name of item*. If you'd like to skip the contextual menus (and you have the Quick
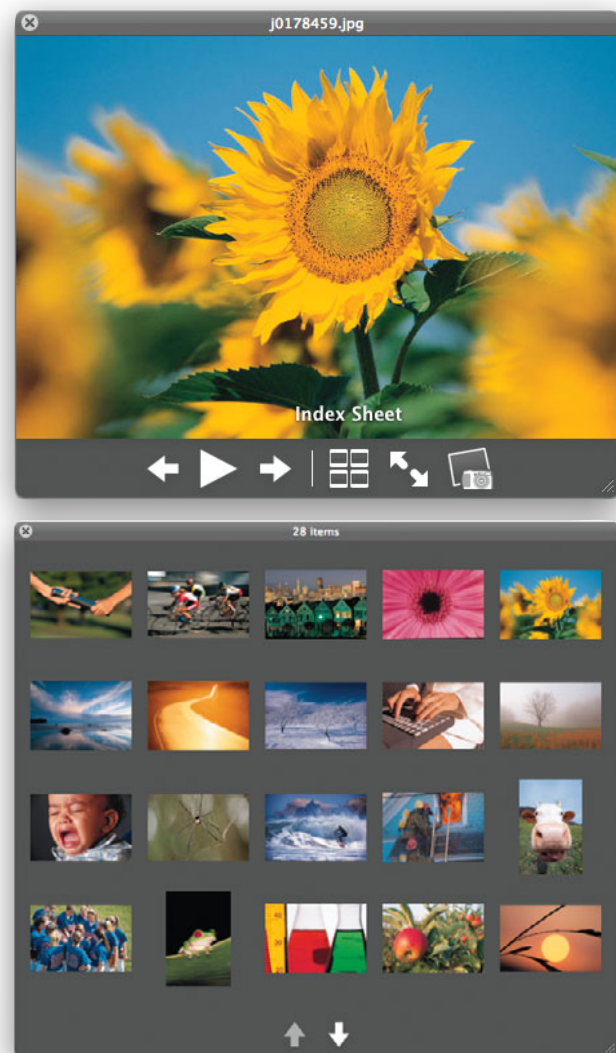
Gridlock To see multiple thumbnail images in Quick Look, select the index sheet button or press ⌘-return.

Look button in your Finder toolbar), select items in a window, hold down the option key, and click on the Slideshow button (which, before you pressed the option key, was the Quick Look button). You can also pull down the File menu, hold the option key, and choose Slideshow *name of item*.

NAVIGATE QUICK LOOK FROM KEYBOARD

People tend to highlight an item, invoke Quick Look, and then dismiss the Quick Look window. But you can keep Quick Look front and center while you navigate the current directory using either your keyboard or mouse; new items you select in the Finder will display in the Quick Look window as you go. All standard Finder keyboard shortcuts will continue to work, too.

VIEW PLISTS IN QUICK LOOK

At some point in OS X's evolution, Apple began saving plists in binary format instead of in XML. That was a pain if you just wanted to look quickly at preference settings. You either had to convert the file to XML using the `plutil` command or open the file in Property List Editor, which is a poor browser. But in Leopard, Quick Look displays binary plists as XML. You can select a bunch of plists, launch Quick Look, and view all of them using Quick Look's simple navigation tools.

Spaces and Exposé

Spaces and Exposé, Leopard's desktop navigation features, are only as convenient as you make them. Memorize these tricks for getting the most out of virtual desktops and window viewing shortcuts.

NAVIGATE SPACES WITH YOUR KEYBOARD

Spaces supports numerous keyboard shortcuts. For example, to display an overview of all your spaces, press F8. In this view, you can move between spaces using the arrow keys and press the spacebar or return to display the selected space. Another way to switch is by simply typing a space number to display it instantly. To move directly to another space, hold down the control key and type that space's number. Spaces are numbered sequentially from left to right, starting in the upper left corner. To cycle from one space to the next, hold down control and press an arrow key. (You can, of course, customize those shortcut keys in the Exposé & Spaces preference pane.)

MOVE ALL WINDOWS AT ONCE IN SPACES

What if you want to move all the windows for a given application to another space in F8 mode? Sure, you can drag them one by one, but that's a pain. Instead, hold down the shift or ⌘ key before you click and hold on a window. Still holding down that key, drag one window of a program to the desired space; all the other windows of that same program will follow. You can also use this trick to move just one window to exactly the same location in a new space. Say you've got a Finder window open, and it's maybe 200 pixels down and to the right from the Apple menu. To move this window to precisely the same position in another space, start dragging the window, then press and hold shift before you drop it into its new space. When you drop the window, it will move into the same position it occupied in the prior space.

ASSIGN APPLICATIONS TO ALL SPACES

By default, a given window will stay in the space that was active when you opened that window (unless you move it to another space manually). As a result, a given application may have one or more windows in each of several spaces. If you want all the windows from an application to appear in *every* space, go to the Exposé & Spaces preference pane. On the Spaces tab, click on the plus-sign (+) button, navigate to the application, and click on Add. Then, from the pop-up menu in the Space column next to that application's name, choose Every Space (see "Spacing Out"). The Every Space setting is appropriate for applications you use constantly, regardless of what other tasks you're performing—
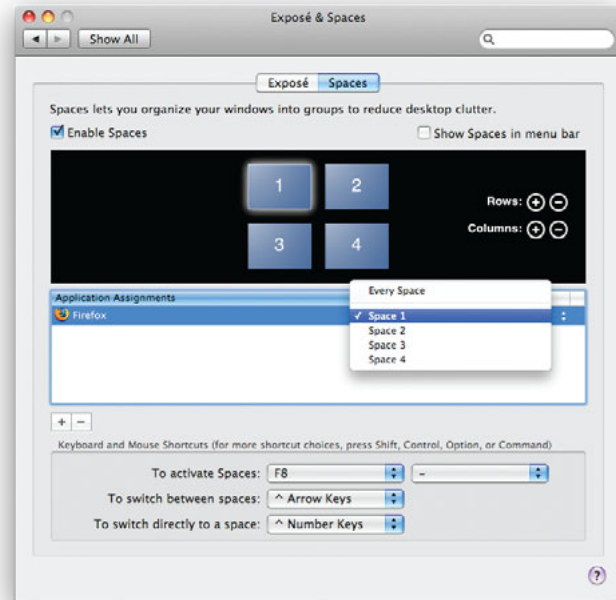
Spacing Out Making an application appear in all of your spaces is as easy as a trip to System Preferences.

such as Stickies, iTunes (especially if you have the window minimized to the controller view), and perhaps iChat.

CHOOSE A SPACE FOR THE FINDER

Each space can have its own set of Finder windows. That can be annoying if you want access to one folder from several different spaces; you'll have to open a new Finder window in each space. If this bugs you, assign the Finder to Every Space; that way your Finder windows are the same regardless of which space you're viewing. To do this, follow the instructions above for assigning an application to a space, this time navigating to the /System/Library /CoreServices folder and selecting Finder.app.

CHANGE THE SPACE-SWITCH DELAY

When you drag a window to the edge of the screen and hold it there for a moment, you move that window to the space adjacent to that edge of your screen. The default delay before the window moves to the next space is 0.75 seconds. To change that delay, open Terminal and enter this command:

```
defaults write com.apple.dock
workspaces-edge-delay -float 0.5
```

Press return, then enter `killall Dock`. Replace `0.5` with whatever value you wish. To return to the original value, enter the commands again, with the value 0.75.

TROUBLESHOOT SPACES WITH DOCK RESTART

If you start having problems with Spaces and don't want to reboot your Mac, try going to Terminal and typing the following:

```
killall Dock
```

The Dock will restart, along with Spaces. (Alternatively, you can kill the Dock from Activity Monitor.)

EXPOSÉ VIA MOUSE

If you use Exposé, you're probably aware that once you've invoked either All Windows (F9) or Application Windows (F10) mode, you can see the name of any window by simply moving your cursor over the window. This is quite useful when you have a lot of windows open, since many of them look the same in their reduced state. However, it's also a bit of a pain to have to move the cursor to each window to check if it's the one you want or not. Luckily, there's a shortcut: just hold down the option key after activating Exposé. When you do, the floating white-on-black box appears over every window. Instead of mousing around, just press and hold option, identify the window you'd like to switch to based on the displayed name, and then select it via the mouse.

ASSIGN ALL EXPOSÉ MODES TO ONE KEY

By default, Exposé's three modes—All Windows, Application Windows, and Show Desktop—are assigned to three different function keys. If you're running short on those F-keys, or if you just want two fewer shortcuts to remember, you can assign those three modes to a single key with modifiers. Open the Exposé & Spaces preference pane and switch to the Exposé tab. Choose your first basic shortcut key (F3 for Show Desktop, for example). Next, hold down a modifier key, such as option, and choose the same F-key from the All Windows pop-up menu; that modifier key is now part of the shortcut. Finally, hold down a different modifier or combination of modifiers, and assign the same F-key to Application Windows.

The Dock and Stacks

The Dock brings order to your desktop. Leopard's new Stacks feature brings folders to the Dock. These tips will bring ease to your day-to-day Mac routines. Dig in.

ADD SPACERS TO THE DOCK

One easy tweak that will make your Dock more orderly is adding spaces to separate your icons into groups. To add a space to the applications area of the Dock, launch Terminal and enter this:

```
defaults write com.apple.dock
persistent-apps -array-add '{tile-
data={}; tile-type="spacer-tile";}'
```

To add a spacer to the documents side of the Dock, enter:

```
defaults write com.apple.dock
persistent-others -array-add '{tile-
data={}; tile-type="spacer-tile";}'
```

To see the changes you've wrought, type `killall Dock` at the command line (see "Make Space on the Dock"). If you want to get rid of the space you've added, just drag it off the Dock and *poof,* it's gone.

OVERRIDE DOCK MAGNIFICATION SETTINGS

One of the features of the OS X Dock is its ability to magnify the items in it as the cursor passes over them. You can control this feature in the Dock preference pane, where you can set the amount of magnification and enable or disable the feature. You can also enable or disable it by control-clicking on the Dock's divider bar and choosing Turn Magnification On/Off from the pop-up menu. You can't control the amount of magnification from this menu, however.

Leopard adds a new feature to this magnification effect—the ability to temporarily reverse the on/off status by holding down a couple of modifier keys. To see a demonstration, first run your
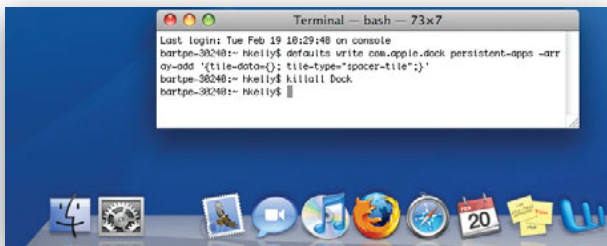
Make Space on the Dock Create some order on your Dock by adding spaces. You can drag a space to wherever you like, or drag it off the Dock altogether to delete it.

RENAME TRASH IN THE DOCK

When you hover the cursor over each item in your Dock—including the Trash—Mac OS X displays its name in a small floating label. What you may not have realized is that you're not stuck with the name Trash. To rename it, launch Terminal and type these three commands:

```
cd /System/Library/CoreServices/
Dock.app/Contents/Resources/English
.lproj
sudo cp InfoPlist.strings
InfoPlist.bak
sudo cp InfoPlist.strings
~/Desktop/InfoPlist.txt
```

You just navigated into the Dock's application bundle, created a backup copy of a file, and copied the original file to your desktop. Leave the Terminal window open and switch back to the Finder, navigate to your desktop, and double-click on the InfoPlist.txt file you'll find there. Now type whatever new name you'd like within the quotation marks. Don't change anything to the left of the equal sign (=). Just change the word **Trash** to whatever you like, making sure to leave the quotation marks intact. Save the file, and click on Override if you get a warning that the file is write-protected. Close the file and switch back to Terminal.

Next, overwrite the default InfoPlist.strings file with the newly modified version. To do that, type this command in Terminal and press return:

```
sudo cp ~/Desktop/InfoPlist.txt
InfoPlist.strings
```

To make the changes take effect, quit and restart the Dock by typing `killall Dock` and pressing return. When you do so, the Dock will disappear and reappear. Hover the cursor over the Dock's Trash icon. You should see your newly chosen name. To replace the altered file with the backup you created earlier, use these two Terminal commands:

```
cd /System/Library/CoreServices/
Dock.app/Contents/Resources/English
.lproj
sudo cp InfoPlist.bak InfoPlist
.strings
```

Restart the Dock and everything will return to its original settings.

Magnificent Magnification Holding down shift-control while moving the cursor over your Dock items makes them magnify if they don't do so automatically, and stay tiny if they do.

cursor over the Dock and notice if the icons magnify or not. Now, while holding down shift and control, run the cursor over the Dock again; you'll see the opposite of the prior behavior (see "Magnificent Magnification").

If you keep magnification off, you might wonder how to control the size of the effect when you use this temporary override. The answer lies in the Dock preference pane. First, temporarily enable Magnification. Then drag the slider to set the desired amount of magnification. When you disable Magnification again, your size settings will remain in place.

NAVIGATE THE DOCK WITH THE KEYBOARD

While you could control the Dock from the keyboard in previous versions of OS X, the Dock is even more keyboard-friendly in OS X 10.5. As before, you can activate the Dock by pressing control-F3. In addition to using the left- and right-arrow keys to select icons, you can now also type the first letters of the program, file, or folder you'd like to select. The Dock will highlight matches as you type. Matching is based on the full name of the program as shown in the Finder, so you can do some renaming to make this easier. For instance, removing "Microsoft" from the names of Office applications will let you type **Exc**, **Pow**, or **Wor** to select Excel, PowerPoint, and Word. As before, once you've selected an icon, pressing return will open it and the up-arrow key will summon its Dock menu.

MAKE A RECENT ITEMS STACK

Another feature that Apple has included in Leopard but hasn't made easily available is the ability to create a stack for recent items. To do so, type the following in Terminal:

```
defaults write com.apple.dock
persistent-others -array-add '{ "tile-
data" = { "list-type" = 1; }; "tile-
type" = "recents-tile"; }'
```

Now press return, enter **killall Dock**, and press return again. To select what kinds of recent items to include in this stack, control-click on it and choose to show recently used applications, documents, servers, volumes, or "items" (the latter being entries in the Places section of your Finder sidebar).

You can run the command multiple times for multiple recent items stacks.

GEEK IT UP

QUICKLY CLEAR STACKS

You can use Leopard's stacks to increase productivity; just create a stack for projects you are currently working on. To get quick access to all your current files, drag the aliases (*not* the originals) for all the relevant files into the Working stack in the Dock. While the Working stack will help a lot, it's annoying to have to empty it whenever you finish or switch projects. To fix that, use this Automator workflow to clear all the files in the stack:

1. **Files & Folders: Get Specified Finder Items**
Specify the Working folder you created in your home directory.
2. **Files & Folders: Get Folder Contents**
3. **Files & Folders: Filter Finder Items: Name Is Not Equal To Clear Working.app**
4. **Files & Folders: Move Finder Items To Trash**
Save this workflow as Clear Working.app and put it in the Working stack itself. Whenever you finish a project, open the stack and double-click on the Clear Working workflow.

DRAG AND DROP FROM STACKS

If you want to launch a stack item in an application other than the one it normally opens with, you can drag the item from its stack onto the program you want to use. It can be in the Dock, the Applications folder, the sidebar, or the toolbar. You can also drag items from a stack to another location: Open that other location in the Finder, then drag the item to it from the stack.

SHOW A STACK IN THE FINDER

If you click and hold on a stack, you can choose the Show in Finder command from the contextual menu. But you can also expose the folder containing the stack items by holding down the ⌘ key as you click on the stack.

LAUNCH STACK ENTRIES WITH KEYBOARD

Once you've clicked on a stack to open it, you can use the keyboard to navigate it. To select a file, type the first couple of letters of its name. You can also use the Mac's arrow and tab keys.

OPEN MULTIPLE ITEMS

If you want to open more than one item in a stack, just hold down the option key; each time you click on an item, that item will open

in the Finder while the stack remains open. If the Finder isn't the frontmost application, the windows will open in the background.

ADD A TRASH STACK

Quickly view and restore recently deleted files by making a Trash stack. Open a new Finder window and press ⌘-shift-G to open the Go To Folder dialog window. In the input box, type `~/.Trash`, then press Go. You should now have a Finder window displaying the contents of your Trash folder. When you drag that folder's proxy icon from the window's title bar to your Dock, Finder will create a Trash stack (see "Stack Your Trash").

ADD A MOUSE-OVER EFFECT

Apple has included a nice mouse-over effect in Stacks that highlights items as your cursor passes over them in grid view. Unfortunately, it hasn't provided an easy way to turn on this feature. The best way to do it is to open Terminal and type the following:

```
defaults write com.apple.dock
mouse-over-hilte-stack -boolean YES
```

Press return, then type `killall Dock`. To revert back to Leopard's stock Dock, repeat the two previous commands, changing `YES` to `NO`.
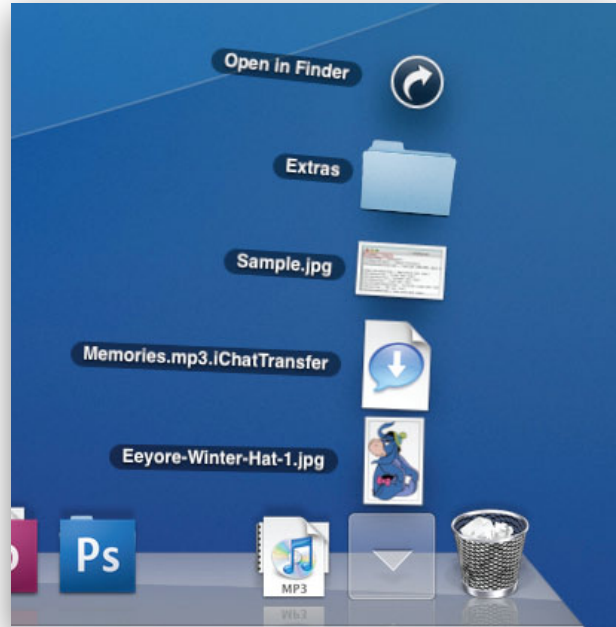
Stack Your Trash If you'd like to take a peek inside your Trash without having to open it, try adding a Trash stack to the Dock. One click lets you see everything you're throwing away.

Unleash OS X's Programs

Discover Hidden Powers in Mail, Safari, iChat, and Others

From 3-D modelers to video editors to scientific analyzers, there's no shortage of great Mac programs on the market. But no matter what you use your Mac to do, there are a few programs almost every Mac user relies on—including an e-mail manager, a Web browser, a media library, a calendar, and so on.

That's why Apple built these essential programs right into OS X. With Mail, iCal, iChat, Address Book, Safari, Preview, and others, Leopard gives you the tools you need to manage your information and keep in touch with others—and wraps them in a simple interface that almost anyone can use without having to resort to a manual. But sometimes, that simplicity can mask the program's true power. If you're ready to unlock the hidden potential in Leopard's built-in programs, these tips will help.

Mail

If you're like most of us, the first thing you do when you sit down to your Mac in the morning is check your e-mail account for new messages. Your e-mail manager is also probably one of the few programs you actively monitor all day long. With so much time invested in e-mail, shouldn't you make sure you're being as productive as possible? If you use Mail, these tips will help you move through your messages more efficiently, streamline the program's interface, and automate tedious tasks.

ORGANIZE YOUR FOLDERS

In the new version of Mail, the sidebar folders—Mailboxes, On My Mac, Reminders, Smart Mailboxes, and so on—can now be rearranged. Just click and hold on any folder, then drag it to a new position. You don't even have to have Mailboxes at the top of the list; it can be moved elsewhere, too. This is useful, for example, if you have a lot of IMAP accounts cluttering the sidebar with needless folders. While you can't get rid of the folders, you can at least now move On My Mac up above them, making it easier to file e-mails.

CREATE NESTED MAILBOX FOLDERS

If you have a lot of mailboxes, you can help keep things tidy by organizing them into folders. In fact, you can create a folder and nested mailbox in a single stroke.

Select Mailbox: New Mailbox. In the dialog box that appears, type a forward slash (/), then two names separated by another forward slash. The slashes indicate a path hierarchy. For example, say you wanted to create a new, white Vacations folder, and within that, a subfolder named 2006. You'd open the New Mailbox dialog box and type `/Vacations/2006` into the Name field. The leading slash tells Mail that the Vacations folder needs to be

A Mailbox Shortcut Quickly create nested mailboxes in Mail by typing a slash and then their names, separated by another slash, into the New Mailbox dialog box. Here, we're creating a folder named Vacations that contains a folder named 2006.

at the top level of your hierarchy (otherwise, it will go within the currently selected folder). The second slash tells Mail to create the 2006 mailbox within the Vacations folder (see "A Mailbox Shortcut"). Click on OK, and you'll find a new Vacations folder in your list of mailboxes, and a 2006 folder within it.

You can now move folders into and out of (or create new folders within) the Vacations folder as you see fit.

GET RID OF THE RSS FOLDER

If you're not using Mail's RSS reader, you might think you're still stuck with that RSS folder in your sidebar. You're not. To make it vanish, open up the RSS folder, hold down the shift key, and click on each listed feed. Then control-click on the selection and choose Delete Feeds from the pop-up menu. Confirm when asked, and when all of the feeds are deleted, the RSS folder icon in the sidebar will also vanish.

QUICKLY HIDE MAIL'S PREVIEW PANE

Mail's preview pane lets you quickly read messages without having to open them in separate windows. (Don't see the preview pane? Double-click on the little dot at the bottom of the Mail window.)

The problem is that when you use your Mac in an open office environment, there may be times when you want to quickly hide the contents of the message you're reading. Perhaps it's a note about an upcoming surprise party, and the subject of said party is walking toward your cubicle.

There are many ways to handle this situation. First, in the message list, ⌘-click on the message that's currently displayed in the preview area to deselect it. The preview area will become blank. You can also hide the entire preview pane, by double-clicking on the bar that divides it from the message list. However, the ⌘-click method makes it easier to return to preview mode when you're done being secretive—just click on any message to reveal it again.

REPLY IN MAIL WHILE KEEPING THE ORIGINAL OPEN

When you have an e-mail message open in a separate window and then click on the Reply button, Mail takes over the existing message window and turns it into the reply window. The same thing happens when you click on Reply All or Forward—Mail steals the window for your response. This can be pretty annoying, especially if you were going to copy and paste discrete sections of the original into your reply. Of course, you can select the text you wish to quote in the message before clicking on Reply
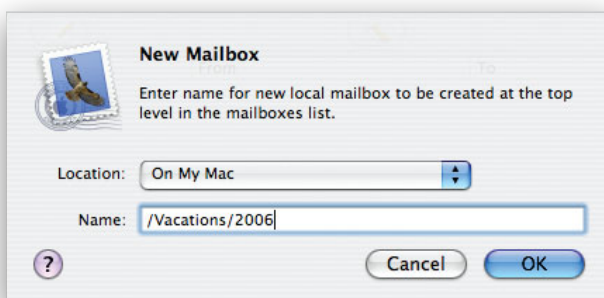
2 ADDRESS BOOK TIPS

Mail wouldn't be much without OS X's built-in contact manager, which stores e-mail addresses—as well as phone numbers, street addresses, birthdays, and more—for your friends, coworkers, and acquaintances. Here are two ways to extend Address Book's reach.

EXPORT MULTIPLE CONTACTS FROM ADDRESS BOOK

The vCard file format makes life easier when you want to move contact information from OS X's Address Book to another program. Simply drag and drop any contact's name from Address Book to your desktop (or elsewhere) to create a new vCard. Then import this vCard into any program that supports the standard, including Microsoft Entourage and Outlook for Windows.

If you try the same drag-and-drop trick with multiple contacts selected in Address Book, you'll end up with one vCard file named something like "Sally Sample and five others." But certain programs (Microsoft Entourage and Outlook, to name two) can't handle a group vCard. When you drop your newly exported vCard onto Entourage, for instance, only the first contact will show up.

Does that mean you need to manually drag and drop each contact you want to transfer? Thankfully, no. The trick is to use the option key. Make your selections in Address Book. With the option key held down, click and hold on your selection for about a second, and then drag the contacts to your desktop. Individual vCards for each contact will appear. You can then import them into Entourage, for instance, by dragging and dropping the whole selection of exported files onto the program's Dock icon.

PRINT YOUR ADDRESS BOOK

Want a printed copy of your Address Book—maybe to keep in the car for emergencies?

In Leopard, Address Book offers four printing templates for outputting contact details to paper: Envelopes; Mailing Labels; Lists; and Pocket Address Book, which produces a small tab-style address booklet. Go to Print and choose Pocket Address Book from the Style menu. Set Paper Size to US Letter and choose the contact attributes—Company,

E-mail, Address, and so on—you'd like to include for each contact (see "Little Black Book"). To conserve paper, OS X prints several Address Book pages on one sheet, with cutting guides. Cut out the pages and staple them together, and you'll have a handy paper backup of your electronic address book.

Address Book's printing options will get the job done, but if you want more flexible printing options, download a free copy of Palm Desktop 4.2.1 for Macintosh (macworld.com/3432). Yes, this ancient collection of software works under Leopard. Open Address Book, create a group for the contacts that you'd like to print, and drag that group to the desktop to create a vCard of your contacts. Then launch Palm Desktop, choose View: Address List, and drag your vCard into Palm's Address List window. Now select File: Print. The Paper Planner Interview dialog box appears, giving you the option of creating printed pages formatted for Franklin, Day Runner, Day-Timer, or Other planners (and yes, you can also choose the binder size of the planner you use within each brand). Print and you're on your way.
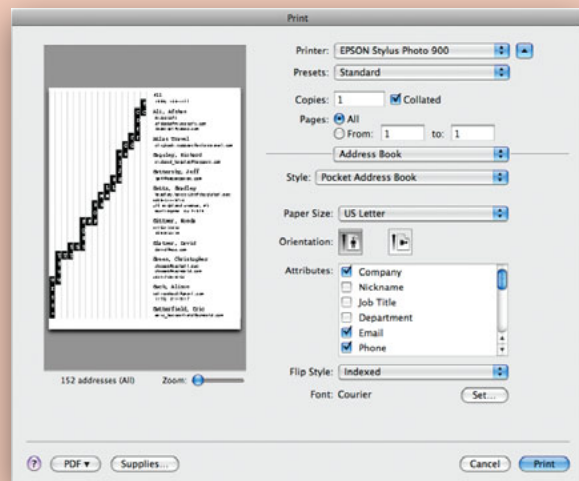
Little Black Book Put your digital address book on paper with Address Book's printing features.

to have it automatically included in the reply, but if you forget, or simply want to be able to move between the original and the reply, you can avoid this problem. The solution is to hold down the option key before clicking on the Reply, Reply All, or Forward button. Mail will open your reply in a new window, leaving the original message intact.

RETRIEVE A MISSING QUOTE

If you begin composing a new message in Mail and then realize that you meant to quote part of another message, you don't have to open a new window, copy, switch back, and paste. Instead, select the message you want to quote, return to your new message window, and choose Edit: Append Selected
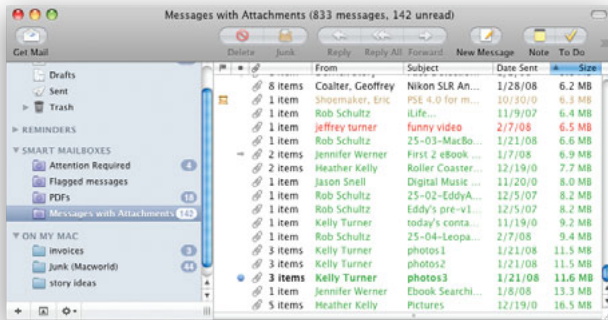
Spot the Space Hogs To find large attachments that are taking up lots of disc space, create a smart mailbox that finds messages with attachments and then sorts by size.

Messages (or press ⌘-option-I). The quoted message (including any attachments) will appear at the bottom of the new message.

REMOVE MAIL QUOTES

If there has been a lot of back and forth in an e-mail exchange, the body of the message may be littered with quotes, small lines that mark each time the mail was responded to. If you find these lines distracting, you can remove them from your response—one level at a time.

Just create a reply message, select the quoted text you've excerpted, and then press ⌘-option–single quote ('). With each press, one level of quotes disappears.

TRIM MAIL ATTACHMENTS

By default, Mail keeps a copy of all your attachments, even if you routinely save these files elsewhere—eating up valuable hard drive space. So how can you track these files down? In Mail, select Mailbox: New Smart Mailbox, and when the dialog box appears, name the mailbox Messages With Attachments. Select Contains Attachments from the pop-up menu and then click on OK. This mailbox will now contain a convenient list of all e-mail messages you've received that include attachments.

Open your new smart mailbox and click on the Size column header to sort your attachments by size, and then scan the messages with large attachments (see "Spot the Space Hogs"). If you've already saved these files, delete their respective messages or remove the attachments (Message: Remove Attachments). Alternately, leave the smart mailbox sorted by date to quickly find your oldest attachments, which might be good candidates for trimming. By the way, you can remove attachments from multiple messages at once by selecting them while holding down the shift or ⌘ key, and then choosing Message: Remove Attachments.

SEND LONG URLS VIA E-MAIL

If you sometimes e-mail URLs to friends or colleagues, you may be vexed when recipients write back to say that a link doesn't

work. That's because e-mail clients often insert line breaks in long URLs so that only part of the address ends up as a clickable link. When your recipients click on it, they'll get a "page not found" message. So how do you avoid this problem? Try these tricks out, and see which one works best with the e-mail clients you and your friends use.

If you send e-mail in Rich Text Format (RTF) from Apple's Mail, an easy solution is to use Mail's Add Hyperlink feature. First copy the long URL from your browser's address bar (⌘-C). Then open a new e-mail message and make sure that you're using RTF (Format: Make Rich Text). Start composing your e-mail, and when you reach the spot where you want the link to be, type in a short phrase describing the URL. Now select that phrase, choose Edit: Link, and then paste the URL (⌘-V) into the text field that appears (see "E-mail Long URLs"). When you click on OK, you'll see that your phrase has been underlined; you've created a clickable link.

If you don't want to send RTF e-mails, try putting angle brackets at either end of your URL: `<www.example .com/ref=amb_link_4263902_/002-5510588-1062447>`. URLs enclosed in angle brackets should remain clickable—even if the recipient's e-mail client inserts a line break for formatting purposes.

PRUNE YOUR RECIPIENTS LIST

Mail simplifies addressing your e-mail messages by completing some addresses for you. But what if Mail keeps putting in an old one? Choose Window: Previous Recipients to see a list of all the addresses to which you've sent e-mail messages. Select the ones you'd like to remove, and click on the Remove From List button. The selected addresses should no longer appear when you begin typing an e-mail address.

COMBINE MAIL MESSAGES FOR PRINTING

Have you ever wanted to print multiple e-mail messages in Mail at once? You can do so easily; just ⌘-click on each message you
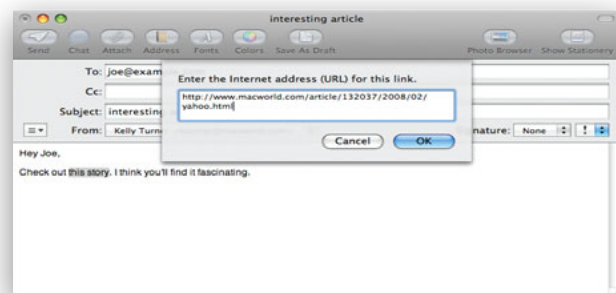
E-mail Long URLs Rather than pasting a long URL into your e-mail and taking the chance that it won't work, turn a short phrase into a hyperlink.

DELETE STUBBORN MAIL MESSAGES

If you find yourself stuck with stubborn messages in your Spam folder that refuse to disappear when you delete them, the problem may be that you have your IMAP account settings configured improperly. Try this: Open Mail's Accounts preferences and select your IMAP account. Click on the Mailbox Behaviors tab and disable the Store Deleted Messages On The Server option. Close the Preferences window and click on Save when prompted.

If that doesn't do the trick, try disabling the Move Deleted Messages To The Trash Mailbox option for that account. Again, close the window and click on Save.

As a last resort, select the Spam mailbox and choose Mailbox: Rebuild.

This last trick can also help you eliminate a message that's stuck in Mail's Drafts folder. To remove the message, quit Mail and navigate to *your user folder*/Library/Mail. Locate the folder that contains this draft—it might be called something like *POP*-your name@*pop.example .com*. Zero in on the Drafts.mbox folder inside this folder and then the Messages folder within that folder. Inside you should find a numbered file with a .emlx extension—something like 18391.emlx, for example. That's your nagging message. Toss it.

Next, launch Mail. There will likely still be something in the Drafts mailbox. Select it (you shouldn't see any message body because you've killed the message). Now delete that entry, select that specific mailbox under Drafts, and choose Mailbox: Rebuild. This should get rid of the message for good.

Skip the Server If your deleted mail won't go away, turn off the Store Deleted Messages On The Server option.

want to print, and then press ⌘-P. But there's a downside: each message prints on a separate sheet of paper, so if you print four ten-line e-mail messages, you'll waste three full sheets of paper. Ugh.

You can save some trees by using Automator to create a workflow that prints multiple Mail messages as one message—and therefore uses as little paper as possible.

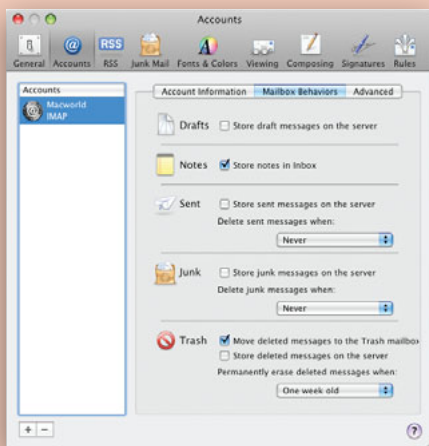**STEP 1** To begin, launch Automator (/Applications) and select Custom from the opening dialog box. In the Automator window, click on Mail in the Library column and drag Get Selected Mail Items from the Action column into the workflow area. Next, drag the Combine Mail Messages action below the first action. Then drag the New Mail Message action to the bottom position. That's the entire workflow.

The next step is to make it easy to use. Select File: Save As, name your workflow Combine Mail Messages, and change the File Format pop-up menu to Application. Now, you could save your new program in your Applications folder, but if you did, you'd have to hunt it down each time you wanted to use it. Instead, use the Script menu to make your workflow accessible directly from Mail.

To enable the Script menu, switch to the Finder and launch the AppleScript Utility (/Applications/AppleScript). In the window that appears, select the Show Script Menu In Menu Bar option. This puts a small scroll icon, which represents the Script menu, on the right side of your menu bar. Before you can really use the menu for this tip, though, you need to create a few folders.

STEP 2 Navigate to *your user folder*/Library. There, create a folder (File: New Folder) named Scripts. Inside that folder, create a folder named Applications. And inside *that* folder, create a folder named Mail. Any Automator programs or AppleScripts you place inside this Mail folder will be directly accessible from Mail.

STEP 3 Switch back to Automator. While still in the Save As menu, navigate to the new Mail folder you just created, and save your program.

STEP 4 Now you're ready to combine messages. Launch Mail, and ⌘-click to select a few messages. Click on the script icon in the menu bar. In the menu that appears, you'll see Combine Mail Messages at the bottom. Select it, and then wait while the workflow runs. When it's done, a new message will open, containing all of the previously selected messages. They're even separated by a nice dividing line, so you can see where each message starts. Print this new e-mail message, and you can read all the selected messages—without any wasted paper.

TAKE A PEEK AT WHAT'S ON THE SERVER

If you don't like the thought of e-mail sitting around on your server, you can easily set up your POP e-mail accounts in Mail so that messages are removed from the server immediately after
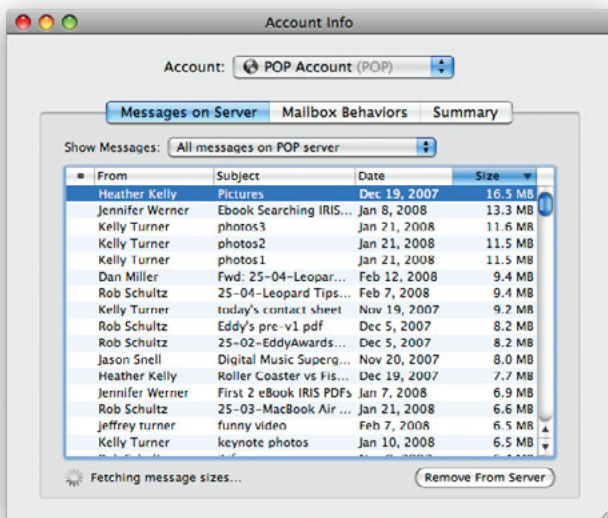
Check the Server Control-click on a mailbox and select Get Account Info to see what messages are on the server. You can then delete messages before you waste your time downloading them over a slow connection, or get rid of messages that refuse to disappear.

you get them. Go to Mail: Preferences; click on Accounts, then Advanced; and set the Remove Copy From Server After Retrieving A Message pop-up menu to Right Away.

But even after you make this setting change, you might still find old e-mail messages clogging up your mailbox. Glitches in the ether—an unstable connection to a mail server, or a problem with Mail itself—may occasionally prevent messages from getting deleted. A few stray messages won't cause problems, but a lot could eventually fill up your mailbox, especially if some of them contain large attachments.

You can see what's actually on your mail server by taking a look at Mail's Account Info window. To access this, control-click anywhere in your mailbox list and select Get Account Info from the contextual menu. If you have more than one e-mail account, you can choose between accounts via a pop-up menu at the top. Select a mailbox and then click on Messages On Server. Any messages on the server, whether new or old, will show up in the list that appears. From here you can select individual messages, select multiple messages in a contiguous group by shift-clicking on them, or ⌘-click to select noncontiguous messages. To delete the selected messages, click on the Remove From Server button.

This trick can also come in handy when you're traveling and have only dial-up access. If you want to sift through your messages to delete the spam before downloading your e-mail, you can do so from this window (see "Check the Server"). This will save you time and let you read just the valid e-mail messages.

MAKE MAIL GO OLD-SCHOOL

If you prefer your e-mail messages to appear in plain text with no HTML design, fancy colors, background images, font changes, or other garish effects, Apple's Mail can help. To get rid of any images that don't come attached to messages, choose Mail: Preferences, click on the Viewing tab, and then turn off the Display Remote Images In HTML Messages option. In addition to toning down your mail, this also takes away a favorite tool of spammers (they embed images that are specifically designed to verify that e-mail addresses are valid targets).

Unfortunately, if someone used HTML to pretty up a message, or attached the images to the message itself, you'll still see the results. But a quick trip to the Unix side of OS X can solve that problem, too. Quit Mail and launch Terminal. At the prompt, type this command, then press return:

```
defaults write com.apple.mail
PreferPlainText -bool TRUE
```

You'll just get the prompt back, as though nothing had happened. But the next time you launch Mail and retrieve new messages, you should find that *most* are now displayed in pure plain text.

If you ever tire of plain-text messages, quit Mail, launch Terminal, and repeat the above command—just change **TRUE** to **FALSE**.

HANG UP ON HUNG-UP MAIL

Mail sometimes gets hung up in the process of sending, receiving, or synchronizing mail. If the program seems slow, you don't necessarily need to quit Mail altogether. Choose Window: Activity to display a list of all the tasks Mail is performing. Click on the stop-sign icon next to any task to cancel it.

SEARCH SWIFTLY

Looking for all the messages from a particular e-mail address? It's not necessary to type the address into the search field—instead, just drag a message from that person into the search field. When you do, Mail automatically extracts the address and starts the search as soon as you release your mouse button.

But you're not limited to looking only for messages from the chosen e-mail address. You can also use the To, Subject, and Entire Messages buttons to change the criteria Mail uses when searching.

SYNCHRONIZE MAIL'S JUNK MAIL SETTINGS

Mail's junk mail filter has built-in intelligence; it gets smarter as you train it to distinguish the good mail from the bad. But once you've trained the junk mail filter on one Mac, there's no need to start over again on another. Instead, copy your settings from one Mac to the other.

On your trained Mac, go to *your user folder*/Library/Mail and locate the LSMMap2 file. It's within this file that Mail stores its junk mail training data.

Quit Mail on your new Mac, navigate to this same path, and move its LSMMap2 file to the desktop just in case you need it later (you'd only need it if the replacement copy didn't work to your satisfaction). Now copy the LSMMap2 file from the older Mac to the same location on your new Mac (you can do this via a network between the two machines or by copying the file to a USB drive). Launch Mail, and your new Mac should have the same junk mail filtering savvy as your old one.

LISTEN TO E-MAIL ON YOUR iPOD

Want to get your iPod to read your e-mail to you during your morning commute? With Mail and Automator it's a mere trifle.

First, launch Automator and create a new Custom workflow. Click on Mail in the Library column and drag the Find Mail Items action from the Action column into the empty workflow pane. This action collects messages that match the terms you specify. For instance, to find all unread e-mails from your boss, select Messages from the Find pop-up menu, and then choose Sender Contains and type in your boss's e-mail address. Click on the plus-sign (+) button and set the second set of pull-down menus to Read Status Is False.

Next, drag the Combine Mail Messages action to the bottom of your workflow. This action mashes all e-mails found in the previous step into one blob of text.

Select Text from the Library column and drag the Text To Audio File action to the bottom of your workflow. This action converts written words to an audio file of spoken text. From the System Voice pop-up menu, choose one of the system's built-in synthetic voices—we recommend Alex, which is new to Leopard and sounds great. Enter a name for the audio file, as well as where you want to save it.

Now you need to get your audio file of spoken e-mails onto your iPod. Create a playlist in iTunes (File: New Playlist) and give it a name (for instance, Mail Call). Return to Automator.
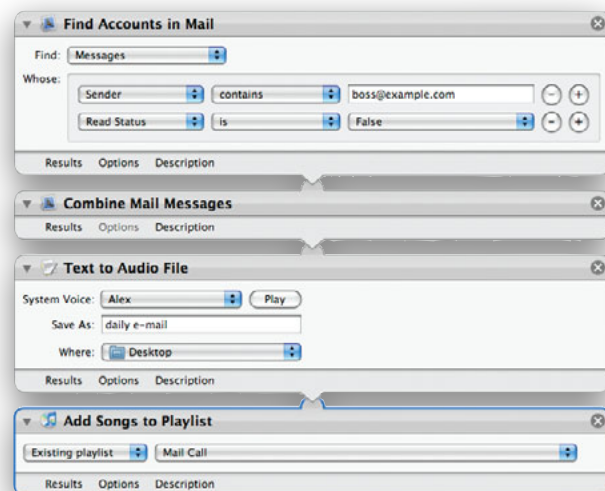
Mail Call This Automator workflow will gather any unread messages from your boss and present them as an audio file that you can then sync with your iPod.

Select Music from the Library column and drag the Add Songs To Playlist action to the end of the workflow. Select the name of your new e-mail playlist. (Automator does have an Add Songs To iPod action, but your mail will be easier to find if you use this technique instead.)

There you go. Click on the Run button and behold the majesty of Automator. (But get comfy: if you're buried in communiqués, it could take a while.) The audio file should appear in the iTunes playlist you created, ready to be transported to your iPod during your next sync (see "Mail Call").

There are a number of ways to trick out this workflow further. For instance, by saving it as a plug-in (File: Save As Plug-in) and selecting iCal Alarm, you can make your workflow show up in your calendar. Using the Details pane in iCal, set the time you want the workflow to run—say, every morning before you leave the house—as well as how often you want it to repeat. Add an Update iPod action to the very end of your workflow, and your audio e-mail file will be ready to go when you are.

iCal

Apple's calendar program is more than just a schedule keeper. With a little know-how, you can use iCal to link your appointments with files, URLs, e-mail messages, and to-dos, and turn the program into your own personal assistant.

QUICKLY EDIT EVENTS

Here's a small time-saver for iCal's new interface. If you just want to change the name of an event, don't double-click on it, which brings up the editing pop-up window. Instead, highlight it by clicking once with the mouse (or by using the arrow keys), then press return.

You can edit the name in place, without ever seeing the pop-up editing window. It's still a far cry from the easy event viewing and editing we had in OS X 10.4, but it's a step in the right direction. To quickly edit other event details of a selected iCal item, press ⌘-E.

USING URLS IN iCAL

When you're creating an event for your coworker's party, you might find it useful to include a link to the online invitation listing the time and location. iCal makes it easy to include a link to a Web page with an event or a to-do item. Just create the event and then type the Web address in the Info pane's URL field. (If you don't see this field, choose View: Show Info.) Once you do, you can jump to that URL from within the event. But that's not the only way to include URLs—you can also create events or to-do items that have a clickable link as their actual title.

Drag a URL from your browser's address bar directly into iCal, and the program will create a new event with that URL as its title. When you click on this event's title, the specified URL will load in your browser. If you use Month view, you might think it's now impossible to edit this event, because anywhere you click seems to take you to your browser. Not true. Switch back to iCal and press ⌘-I to open the Info pane and then change the event's particulars from there.

Alternatively, you can create your own hyperlinked events and to-do items by typing a URL inside angle brackets as part of the item's title—for example, **Meet with Apple <http://www.apple.com>**. After you finalize the event or to-do item, you'll see that the URL portion of the title functions as a clickable link while the text outside the angle brackets does not. You wouldn't want to use an extralong URL as a clickable link, but you might find this approach useful if you have Web-related events or to-dos. (And you can always use the TinyURL.com site to shrink long addresses.)
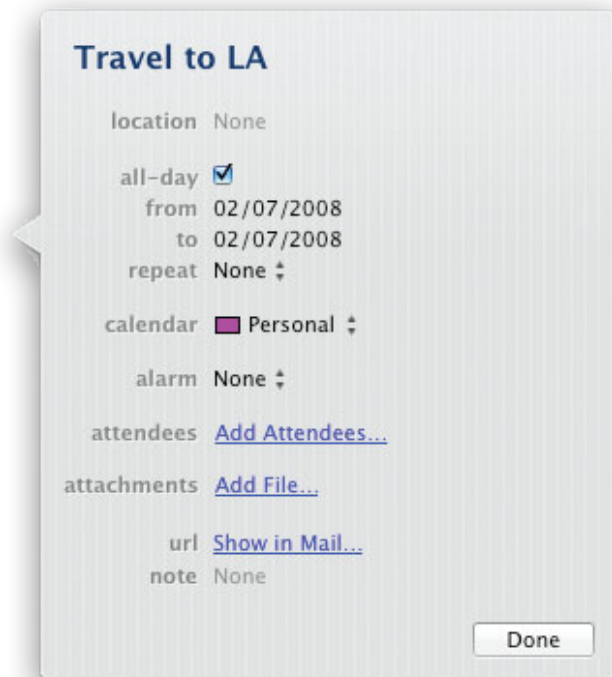
Link to Mail Drag an e-mail message from Mail into an open iCal event and you'll get a Show In Mail link in the URL field. Click on this to quickly open the message.

LINK TO E-MAIL MESSAGES IN iCAL

Want even more linking goodness? The latest version of iCal also lets you link to a specific e-mail message from an iCal event. First, make sure you can see both the message you'd like to link to and your event editing window in iCal. Now drag the message from Mail onto the editing window in iCal, and you're done—iCal will add a link in the URL field (see "Link to Mail"). Click on that, and you'll be switched over to Mail with the chosen message opened in its own window. This is a great way to connect e-mailed confirmations for flights with your calendar events.

If you want to build links to messages in other programs that don't support drag and drop, it's relatively easy to do. In Mail, select the message of interest and then choose View: Message: Long Headers (or Raw Source). Search the newly revealed header for the line that starts with **Message-ID**—for example:

Message-Id: <12345.123.0.0.1.1234554321.mailhost@ example.com>

You can create a link to this message in other programs that support hyperlinks by entering a URL in this format:

message://< 12345.123.0.0.1.1234554321 .mailhost@example.com >

Clicking on that link should then open the chosen message in Mail. If you're going to do this a lot, you should probably set Mail up so that you can always see the Message-ID header. Open Mail's Preferences, select Viewing, and then set the Show Header Detail menu to Custom. In the box that drops down, click on the plus sign and type **Message-Id**, and then click on OK. From now on, the message ID field will be displayed along with the standard Mail headers.

COPY iCAL EVENT INFORMATION

Have you ever wanted to capture the basics of an iCal appointment so you could use the information in another program? If you drag an iCal event to the desktop (or another location in the Finder), you'll wind up with an .ics file. While that's helpful in moving the event to another calendar, it's not so useful for extracting text about the event.

There are two simple ways to get event text out of iCal. You can select the event and then choose Edit: Copy (⌘-C) to copy it. Switch to the destination program and then choose Edit: Paste (⌘-V). What you get won't be perfectly formatted, but it's good enough for e-mailing to a friend. You can even copy and paste multiple events—just hold down the ⌘ key as you select the events, and then copy and paste them. But you'll have to insert a line break between each event yourself—this process doesn't do it for you. If you prefer to use the mouse, try this trick: drag and drop the event from iCal directly to the other program.

MERGE TWO iCAL CALENDARS

Have you ever set up two iCal calendars and then wished you'd created only one? Luckily, you don't have to manually move all the events from one calendar to another. Instead, turn to iCal's Export command. In the Calendars column, select the calendar you want to eliminate, and select File: Export. When the dialog
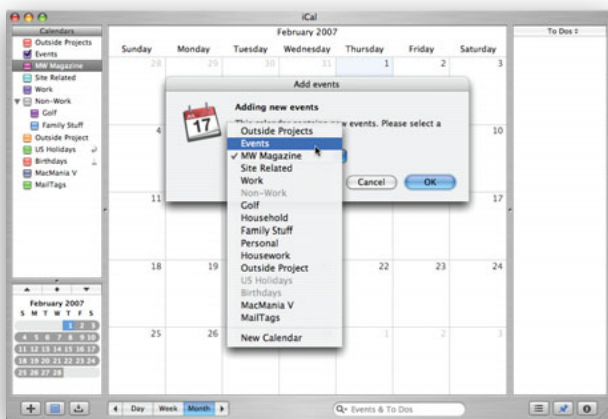
Browse Your Events With the help of Spotlight, you can scan through your iCal events in Cover Flow view.

box appears, choose a name and a location for the exported file. Then click on Export.

Now choose File: Import. In the Import dialog box, leave the Import An iCal File option selected and click on Import. Navigate to the file; then click on Import again. The Add Events dialog box will appear. The middle pop-up menu lets you specify the destination calendar for the imported events (see "Merge Two Calendars"). Choose the one you want, and then click on OK to add the events to it. You're now free to delete the first calendar.

VIEW iCAL EVENTS IN COVER FLOW

You can use the Finder's new Cover Flow view mode and Spotlight to look at tasks on your iCal calendars in a new and interesting manner. First, in the Finder, switch to Cover Flow view mode (View: As Cover Flow), then press ⌘-F to place the cursor in the Finder's search box. To isolate Spotlight matches to just iCal events, enter **kind:ical** in the search box, then press the spacebar, and type in the word or words that you'd like to find on those iCal events. If you don't see matches in the results area, don't worry. By default in 10.5, iCal events are not included in Spotlight searches, so you need to manually include them.

Click on the plus-sign button just below the search box to add a new search criterion. From the Kind drop-down menu, select Other. When the new dialog box appears, scroll down and click on Spotlight Items. (If you think you'll be using this technique a lot, also select In Menu to save yourself a trip to the Other dialog box in the future.) Click on OK to return to the Finder. Set the next pop-up to Include, and you should see your results. You can now easily see and flip through the matching events, each of which displays the event's name and title on the calendar page (see "Browse Your Events").

Merge Two Calendars Combining two iCal calendars into one is simple, once you know the secret. Just export one calendar and then import its events into the other.

Safari

Modern browsers make surfing the Web so simple, it's easy to fall into a rut. If you're ready to explore Safari 3's hidden potential, use these tips to eliminate annoying warnings and slowdowns, organize your bookmarks, control downloads, and access developer tools.
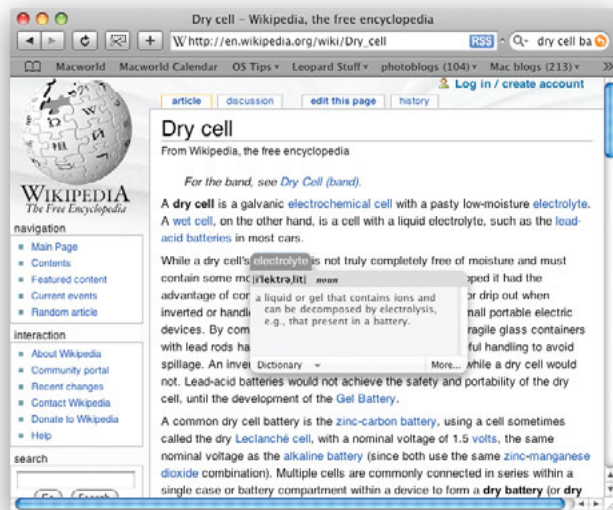
SPOT STALLED WEB PAGES

Safari's very useful Activity window (Window: Activity) shows activity related to the Web pages you're viewing. If you try to load a page and it stalls, for instance, the Activity window will show you exactly what's causing the problem. Click on the disclosure triangle next to the page in question, and you'll see an entry for every item on the page, as well as (if the item is loaded) the item's size or (if it's not loaded) a message showing its status (see "Web Page Parts").

TAKE A PEEK BEHIND THE SCENES

Safari's Activity window also lets you do some interesting things with a site's source code and page elements. Are you an aspiring Web designer trying to learn more about Cascading Style Sheets (CSS) or JavaScript programming? One of the best ways to learn

Look It Up   You don't have to leave Safari when you come across a word you don't know. Just press ⌘-control-D to get a definition on the spot.

Web Page Parts   Safari's Activity window lists all the components that make up a Web page. Here you see Apple's home page.

about such things is by looking at examples from other sites. Typically, though, that involves opening the site, viewing the source code, scanning for the CSS and JavaScript URLs, copying them, opening a new window, and then pasting the copied URL into your browser's address bar. Safari's Activity window simplifies this process: click on the disclosure triangle for the site you're viewing, scan the list of objects for .css or .js files, and then double-click on one. The selected file will open in Safari.

You can use the same technique to view embedded Flash or QuickTime movies in their own windows—just find the .flv, .wmv, or .mov files in the list, and double-click on them. Want to download something that's on the page? Just option–double-click on any element in the window, and it will appear in Safari's Downloads window and start downloading. Want to download a bunch of stuff? Make your selection, press ⌘-C to copy the entries, switch to the Downloads window, and then press ⌘-V to paste the list. Bingo, everything you copied will start downloading.

GET INSTANT DEFINITIONS

If you end up on a technical Web site with lots of words you don't understand, OS X's Dictionary can help you decipher the text. Select a word and press ⌘-control-D. You'll instantly see the word's definition (see "Look It Up"). You can even continue to hold down ⌘-control, move your mouse around, and get the definitions of other words as you roll over them. By the way, this works in most of Apple's applications, including Mail and TextEdit, as well as in many third-party apps.
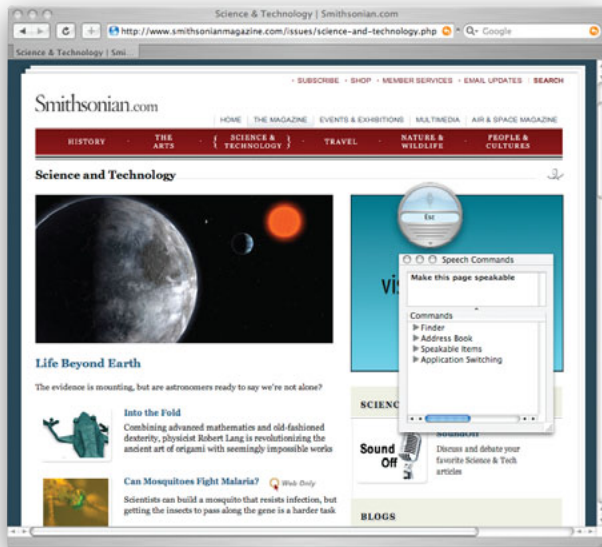
Create Spoken Bookmarks Tired of typing? Use the Mac's built-in speech capabilities to create *spoken* bookmarks in Safari.

SORT SAFARI'S BOOKMARKS

It's easy to add, view, and manipulate your collection of bookmarks in Safari. Just select Bookmarks: Show All Bookmarks to open a window where you can move bookmarks around as you like. But one very simple feature is missing: the ability to sort bookmarks alphabetically. You can rearrange them manually, of course, but that's just tedious.

Here's how to do it yourself. First, open Safari's Bookmarks window. Make sure you can see your desktop and the Bookmarks window at the same time. Now drag the bookmark folder you want sorted from the Safari window to your desktop. Switch to the Finder, and open the folder. Choose the List view (View: List), and then close the window. Drag the folder back into Safari's Bookmarks window. Safari will treat it like a newly imported folder and add it to the list. Open the folder in the Bookmarks window, and you'll see your bookmarks, sorted alphabetically.

The original, unsorted folder will still be in your Bookmarks list. Click on it to select it, and then press the delete key. (Remember to delete the folder from the Finder as well.) You can use this trick only to sort alphabetically. If you try to sort the List view window by any other column heading—for example, Date Modified—and import the folder, Safari won't display the bookmarks in that order.

SURF WITH YOUR VOICE

Speech recognition is probably one of the most underused features in Mac OS X. But you can do some fun and practical things with it—for instance, use your voice instead of your hands to open Safari bookmarks.

First, open the Speech preference pane, click on the Speech

PAGE LOADING: PIE VERSUS BAR

When Safari is loading a new page, it slowly fills the address field with color to indicate its progress. Some people find this annoying, while new Mac users sometimes fail to recognize it as a progress bar. With a simple Terminal command, however, you can change Safari's behavior and have it present the more traditional "pie chart" progress indicator.

Start by making sure Safari 3 isn't running. Then launch Terminal, enter this command, and press return:

```
defaults write com.apple.Safari
DebugUsePieProgressIndicator
-bool true
```

That's all there is to it; the next time you launch Safari 3, you'll have the new progress indicator. If you ever want the old behavior back, quit Safari and repeat the above command, but replace `true` with `false`.
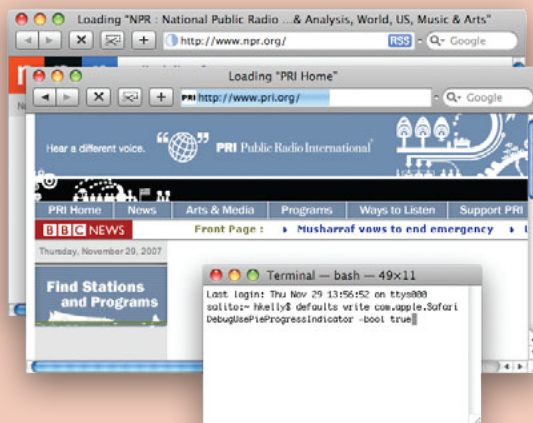
Easy As Pie To replace the normal page-loading bar (front window) with a pie-shaped indicator (back window), use Terminal.

Recognition tab, and set Speakable Items to On. A small round window will appear on your screen; that's the speech-recognition controller (see "Create Spoken Bookmarks"). Notice the word *Esc* in the middle. This indicates that you'll need to press the escape key to activate speech recognition. By default, your Mac will listen to you only when you're holding down that key. (You can change this setting in the Speech preference pane.)

Click on the small arrow at the bottom of the speech-recognition controller and choose Open Speech Commands Window from the drop-down menu. This window contains a list of preset commands that you can say to your Mac—for example, "Get my mail" or "Open my browser." Launch Safari to reveal a Safari

header in the Speech Commands window. Click on the disclosure triangle, and you'll see the command Make This Page Speakable. This is the key to opening bookmarks with your voice. Just load the page you want to turn into a speakable bookmark (note that it doesn't have to be a page you've already bookmarked). Then press and hold the escape key while saying "Make this page speakable."

If you're successful, you'll hear the "whit" sound as the system recognizes that you've sent it a command. In the dialog box that appears, type a short, easy-to-pronounce name in the text field, and then click on OK. That's it. Now, whenever you want to go to that page, simply hold down escape and speak the name you entered—no typing required.

EASIER PRIVATE BROWSING IN SAFARI

Safari's private browsing feature lets you browse without leaving any tracks—clearing your history, downloads window, AutoFill, and search boxes at the end of each session. If you use it a lot, you're probably tired of the "are you sure?" confirmation dialog box that appears every time you use this mode. Just hold down the option key when you select Safari: Private Browsing, and you'll bypass the confirmation dialog.

EXTEND SAFARI'S HISTORY

Safari's History menu lets you easily revisit sites you've seen recently. The key word here is *recently*—by default, Safari stores the last 100 sites visited within the last seven days. But if you'd like to keep a longer history, you can. With Terminal, it's easy. Quit Safari and launch Terminal (/Applications/Utilities). Type this command:

```
defaults write com.apple.Safari
WebKitHistoryItemLimit 9999
```

Press return. Then type this command and press return:

```
defaults write com.apple.Safari
WebKitHistoryAgeInDaysLimit 365
```

The first line tells Safari to remember 9,999 items; the second tells it to remember things for up to a year. That's it. Now you'll find that your history file just keeps growing and growing and growing.

One caveat is that large history files can really slow Safari down. To set a different time period, just change the **365** in the second line to a smaller number of days you'd like to record in your history, and reduce the number of items to a level that suits your browsing habits. For instance, 30 sites a day for 90 days would be 2,700 entries.

CREATE A PERSONALIZED CLIPPING SERVICE

When you view an RSS feed (or group of feeds), you can use the Search Articles command to find articles that contain a particu-
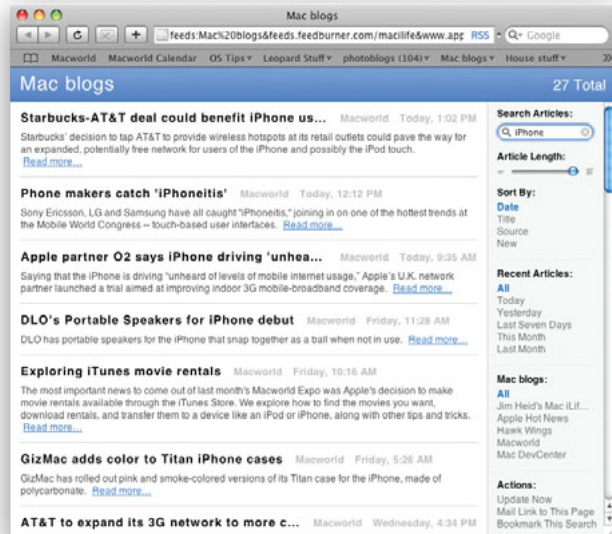
Find It for Me To quickly pull out the stories you're most interested in, enter a search term in your RSS feed to create a custom news feed.

lar word or phrase. Even better, you can bookmark the search results to create a live search feed. Safari will then keep an eye on the included feeds, watching for new articles containing your search terms, and it'll notify you when it finds something. And there you have it: a customized RSS feed (see "Find It for Me").

DISCOVER A DOWNLOAD'S ORIGIN

To find out where you got a file you downloaded with Safari, select the file in the Finder and then choose File: Get Info (or press ⌘-I). The Info window's Spotlight Comments field will display the URL of the page you downloaded the file from.

DISABLE PDF VIEWING

If you click on a link to a PDF document in Safari, the browser automatically loads the PDF in its current window. If you'd rather view the PDF in Preview or Acrobat or download it, you have to wait for it to load and then manually save it to your hard drive.

But you can make Safari save PDFs to your default download folder. Here's how: Quit Safari, launch Terminal, and type the following:

```
defaults write com.apple.Safari
WebKitOmitPDFSupport -bool YES
```

Press return and then relaunch Safari. It will now download PDF documents to your hard drive. You can make Safari revert to its default PDF behavior by entering this command with **NO** instead of **YES**.

IMMEDIATELY CLOSE TABBED WINDOWS

When you click on the red close button for a window with multiple tabs, Safari very nicely reminds you that you have more
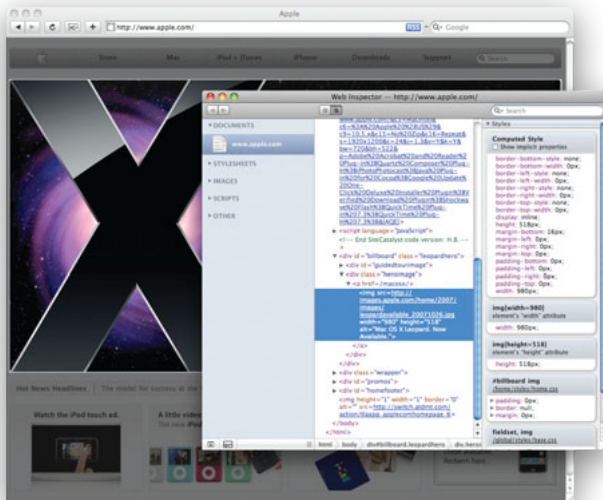
Web Inspector The Web Inspector makes it easy to peek behind the curtain and see how HTML, CSS, and properties are being used to build a page.

than one tab open, and asks if you're sure you'd like to close the window. But when you're certain you want to close the window, this dialog can be a bit of a pain, as it requires action on your part to clear it. So when you're *really* certain you want to close a multi-tabbed window, just hold down the option key before you click on the red close button, and you won't get a warning. (Note: This will also close any other open Safari windows.)

OVERRIDE FORM WARNINGS

Safari will also warn you if you attempt to close a window with unsubmitted form fields that contain data. This is generally a very good thing. However, some Web 2.0 sites that rely on Ajax can falsely trip the nonsubmitted form detector, leading to lots of annoying warnings that really aren't warnings at all. If you'd like to

disable this feature, you can—but this is a permanent change, so you won't see *any* warnings in the future, even legitimate ones. To make this change, quit Safari, open Terminal, and enter this command on one line:

```
defaults write com.apple.Safari
DebugConfirmTossingUnsubmittedFormText 0
```

Relaunch Safari, and you'll never see another incomplete form warning. To get the warnings back, quit Safari, then repeat the above command, but replace the **0** at the end with a **1**.

DEBUG WITH WEB INSPECTOR

If you're a Web designer, you may be familiar with Firefox's Firebug extension(www.getfirebug.com), which helps analyze and debug issues on Web pages. While Safari 3 doesn't have a tool as robust as Firebug built in, it does have a very nice Web Inspector tool you can use. The Web Inspector makes it easy to see how your HTML, CSS, and properties are being used to build your page; it's particularly handy for Web designers trying to trouble-shoot problem with their pages.

To enable it, quit Safari and launch Terminal, then enter this command and press return:

```
defaults write com.apple.Safari
WebKitDeveloperExtras -bool TRUE
```

Note that the Web Inspector may already be enabled on your machine if you have enabled the Debug menu in either Safari 2 or Safari 3.

Now launch Safari, control-click on any element on a Web page, and choose Inspect Element from the contextual menu to open the Web Inspector (see "Web Inspector"). To disable the Web Inspector, quit Safari and repeat the above command, but replace **TRUE** with **FALSE**.

iTunes

Thanks to the iTunes Store, you're never more than a few clicks away from your favorite music, podcasts, TV shows, movies, audiobooks, and more. But managing all of that media can take some fancy footwork. Let these tips help you take back control of your growing library.

QUICKLY EDIT SMART PLAYLISTS

Do you use a lot of smart playlists to help organize your music and video in interesting ways? Are you constantly tweaking them to get them just right? If so, here's a quick way to edit them—quicker even than using the control-click contextual menu. Just option-click on the smart playlist you'd like to edit, and the Smart Playlist editing window will instantly appear.
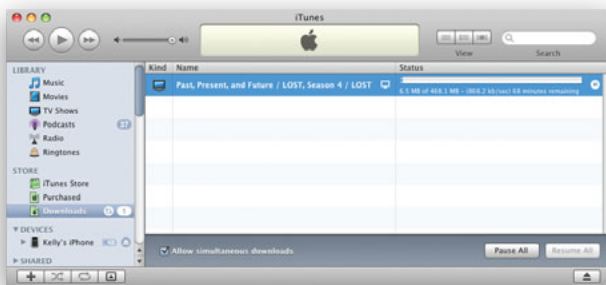
CHANGE PLAYLISTS' DEFAULT COLUMNS

If your playlists don't automatically show the columns you find most useful—or if they show columns you find unnecessary—you may be frustrated that you have to open the View menu (View: View Options) and reset your preferences every time you create a new playlist.

Well, here's a fix that makes playlists include the columns you want by default. With your Music library selected, open the View Options pane (⌘-J) and choose your fields (see "Custom Playlist Columns"). From now on, iTunes will use those fields whenever you create a new playlist. That's it; whatever you've set for the global Music library will be the default for future playlists.

SEE iTUNES STORE'S DOWNLOAD SPEED

When you download something from the iTunes Store, you can see how the download is progressing by clicking on the Downloads item in the Store section of the iTunes window. The Downloads screen shows each download on its own line, along with a progress bar and estimated download time remaining. But what if you're detail oriented, or you suspect you're having a
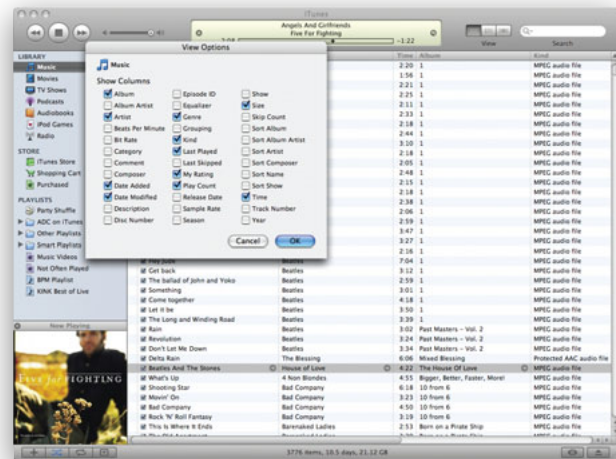
Custom Playlist Columns To set the default columns for all newly created playlists, first select your Music library and then select the columns you want iTunes to display.

bandwidth issue of some sort? The actual speed of the download might then be more useful to you, as opposed to the estimate of minutes remaining. To switch to the alternate view, click on the progress bar (see "Download Details"). Each time you click on it, the display will toggle between the minutes remaining and the download speed.

TRANSFORM SMART PLAYLISTS INTO REGULAR PLAYLISTS

If you've used iTunes' Smart Playlist feature, you know that you can sometimes get very interesting results from it. Say you create a smart playlist (File: New Smart Playlist) that chooses songs that are in the Latin dance genre and that you haven't played more than two times. But to keep things from getting overwhelming, you turn on the Limit It To 25 Items Selected By Random option. With these settings, your smart playlist will change over time. If your playlist delivers a particularly good grouping one day—perhaps it's the perfect soundtrack for your weekly salsa-dancing practice—you could well lose it with the next live update. But you don't have to—if you know a few tricks.

There are two ways to create a standard playlist from the contents of a smart playlist. The first is to open the smart playlist, select all the songs, and then drag them to an empty area in the leftmost column in iTunes. A new untitled playlist containing all the tracks will appear.

The second way is to drag the smart playlist from its present location and drop it on the Playlists header. A new standard playlist with the same name will appear at the bottom of your list of playlists. (This doesn't work if the smart playlist is in a folder.)

Download Details Click on the file's progress bar to toggle the display to show not just how much time is left, but also the download speed.

3 WAYS TO CONTROL QUICKTIME

Take control of video playback with these hidden features.

SLOW DOWN QUICKTIME MOVIES

Don't want to miss a second of the latest iPod ad (or any other QuickTime content)? Watch it in superslow motion. Once the clip starts playing, you can simply press the right-arrow key to move through the movie frame by frame. If you hold the key down, the movie moves at normal speed without sound. The left-arrow key does the same thing, but in reverse (QuickTime seems to have more trouble playing backward than playing forward, so the results are somewhat jerky).

You can get even more control over playback by using a scroll wheel mouse. Make sure your cursor is somewhere within the movie frame, and then simply move the scroll wheel up or down while the movie is playing to control the playback speed and direction.

UNVEIL QUICKTIME FRAME NUMBERS

Did you know that QuickTime lets you see video time codes and frame numbers? Time codes show you exactly what point of a movie you're at, which is important when you're trying to make precise edits. And frame numbers can be even more useful: when you want to make a cut or a splice on a particular frame, knowing its number makes that a lot easier.

How do you view these features? At the bottom of the QuickTime Player window, next to the progress bar, a time stamp shows the position of the playhead in hours, minutes, and seconds. When you click on the time display, you'll see a drop-down menu with (depending on the source of your clip) up to two additional display options: Non-Drop-Frame and Frame Number (see "New Playback Options").

RESIZE QUICKTIME MOVIES

When viewing a movie in QuickTime Player, you might have used the View menu to change the size of the playback window. You can choose between Half Size (⌘-0), Actual Size (⌘-1), Double Size (⌘-2), Fit To Screen (⌘-3), and—if you've upgraded to the Pro version of QuickTime—Full Screen (⌘-F). However, QuickTime offers two other somewhat hidden ways for you to resize your movies.

If you hold down the option key and drag on the window-resizing triangle at the lower right corner of the window, QuickTime will resize the movie only to those resolutions that it can display most smoothly. Depending on the size of your monitor, this may give you more viewing options than the four provided by the View menu. The other method of resizing is to use the shift key while resizing the movie. When you hold the shift key down, QuickTime removes all constraints on the size of the movie. This can actually be useful—if you receive a clip that seems to have the incorrect aspect ratio, you can use this trick to set it to something more appropriate. Of course, you can also distort clips for the sheer fun of it. After you're finished, simply press ⌘-1, and your clip will return to its default size and aspect ratio.

New Playback Options Tucked into QuickTime is a new—and if you edit video, handy—menu. Click on the time display to reveal options for seeing a video's time code or frame numbers.

You can also use this trick to turn a Party Shuffle playlist into a standard playlist—just drag it to the Playlists header.

SEE EVERYTHING IN iTUNES

With the advent of iTunes 7, Apple split the monolithic library entry into several distinct libraries: Music, Movies, TV Shows, Podcasts, and Radio. While this makes sense, at times you may want to browse your *entire* collection of stuff. You can with the help of a smart playlist. Create a smart playlist (File: New Smart Playlist) with only one rule: Size Is Greater Than 0MB. Make sure Live Updating is selected so that the smart playlist will update as you add new content to iTunes. Give your smart playlist a name such as Kitchen Sink (to make your smart playlist pop to the top of the list, press option-space at the beginning of the name). You're done. If you prefer, you can even sort your merged library by type of content—just make sure the Kind column is visible in the main iTunes window by control-clicking on the column headers and choosing Kind from the pop-up menu.

Podcast List With a couple of keyboard shortcuts, you can quickly expand and contract your full list of podcasts, as well as retrieve the complete list of episodes—even if you've deleted some of them.

FORCE SONGS TO DELETE

When you're viewing items in a playlist, pressing the delete key will remove the item only from the playlist. It'll still appear in your main library and in other playlists. To remove it from your computer entirely, press option-delete.

SAVE TIME IN THE iTUNES STORE

The iTunes Store is basically a customized Web browser within the iTunes program. You can quickly jump back (or forward) through the highlights of your browsing history by clicking on and holding either the left- or the right-arrow buttons at the top of the iTunes Store window. When you do, a pop-up window appears, from which you can quickly jump to any of the major pages you've been to recently (see "Jump Back"). This feature makes it easy to jump around within the store without having to move back or forward a screen at a time.

AUTOMATICALLY UPDATE PODCASTS

If you select iTunes: Preferences and click on the Podcasts tab, you can choose to update podcasts hourly, daily, weekly, or manually. But sometimes none of these options fits the bill—say you select Daily, but you shut down iTunes in the evening before

Jump Back To quickly go backward through your browsing history on the iTunes Store, click and hold on the left-arrow button.

the update has a chance to run. When you next connect your iPod, you may find that you don't have any new podcasts.

You can, of course, check for new podcasts manually by clicking on Podcasts in iTunes' Source list and then clicking on the Refresh button, but a one-line AppleScript will save you some work if you find yourself doing this often. First open Script Editor (/Applications/AppleScript/) and type this line:

```
tell application "iTunes" to
updateAllPodcasts
```

Select File: Save As and name your script Update Podcasts. In the Save As dialog box, then navigate to *your user folder*/Library/iTunes/Scripts. (If you don't see the Scripts folder, click on New Folder to create it.) Now switch to iTunes, and you'll see a new AppleScript icon between the Window and Help menus. Click on it and choose Update Podcasts.

RAISE YOUR PODCAST IQ

When you click on Podcasts in the Library list, you get a list of every podcast you've downloaded. Look closely, and you'll see the standard Mac disclosure triangle to the left of each podcast's title (see "Podcast List"). Clicking on one reveals the episodes within that podcast. But you can do more.

First, if you hold down the ⌘ key when clicking on any podcast's triangle, *every* podcast in your list expands; ⌘-click again, and they all collapse.

If you've deleted podcast episodes from the list, you can see what you're missing by option-clicking on the disclosure triangle. iTunes queries the server and downloads the information for any missing episodes. Click on the Get button to retrieve the files again. You can even combine these two tips—hold down ⌘-option and click on a disclosure triangle. Every podcast in the list will expand, and iTunes will download all missing episode details. Note that this action will download episode information for all podcasts in your list—even those you no longer subscribe to.

NAVIGATING iTUNES' COVER FLOW

iTunes' Cover Flow view (View: Cover Flow View) offers a novel way to look through your music library—by album cover. Just

drag the scroll bar to the left or right to flip through the album art for your music. But there are also two less obvious ways to peruse your collection. If you've got a large library and are looking for something specific, first make sure that iTunes' browsing pane is active by clicking on any song in the library or in a playlist. Once you've done that, type a few letters, and Cover Flow will jump to a matching CD in your collection (see "Cover Flow Browsing"). What iTunes jumps to is determined by how your library or playlist is sorted. For example, if you click on the Album column and then type **no c** , Cover Flow will jump to the first matching album name (for example, *No Code,* by Pearl Jam). If you sort by artist, those same characters will take you to the first artist that matches your search.

USE LINE BREAKS IN COMMENTS

If you're detail oriented, you've probably spent some time in iTunes' Info window (⌘-I) entering custom details about the selected song—such as Year, Grouping, Composer, and Genre.

The Comments field is particularly useful for keeping track of items in your collection. Anything you type here will be picked up by Spotlight searches and can be used in creating smart playlists. For example, you could add your spouse's name as a comment for her tracks, and then quickly create a playlist of just her tunes.

However, the Comments field has a somewhat annoying limitation: you can't create line breaks in it, so all of the comments run together in a single line. So what do you do if you want to use line breaks to format some of your comment text? With the Info window open, click on the Lyrics tab (or press ⌘-6), and enter your comment text there. In this field, you can use the return key to insert line breaks. Once you've typed your comment, highlight it, press ⌘-X to cut the text, switch back to the Info tab (⌘-2), and paste (⌘-V). Presto! You have line breaks in the Comments field. (Be aware that if you export your data, these line breaks may mess up the formatting.)

iChat

Leopard's built-in SMS client, iChat, isn't limited to just sending short text messages to your friends and coworkers—it can also host video chats, conference calls, and slide shows. To eke out even more power—including forwarding conversations to your phone, controlling music playback, and adding motion to your icon—try these tricks.
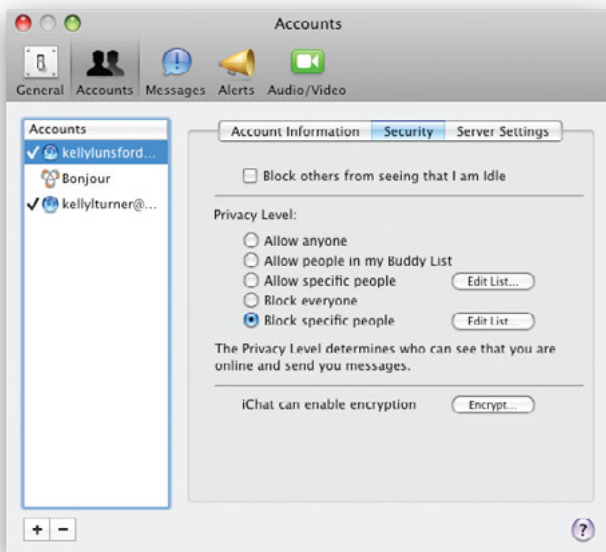
BREAK UP YOUR PROSE

If you've tried to send a friend a list in iChat, you may have been vexed by your inability to make line breaks. Instead, when you press return, your text is sent. There's an easy fix. To create a line break, press option-return.

AUTO-ACCEPT CHATS

iChat, being the good citizen that it is, pops up a dialog box whenever someone initiates a chat with you; you can use the dialog to accept or reject the chat request. But what if you're a sociable sort, and you always accept your chat invitations? In that case, the dialog box is nothing but a waste of time and energy that you'd rather do without. In Leopard, you can get rid of it without actually clicking on the Accept button each time.

Open iChat's preferences and click on the Alerts tab. From the Event pop-up menu, select Text Invitation. Enable the Run AppleScript option and select Auto Accept.applescript from the pull-down menu (see "Ready to Chat"). To do the same thing for video and audio chats, repeat the process, selecting Video Invitation or Audio Invitation from the Event menu. (If you'd like to

Get Rid of Pests Use iChat's Accounts preferences to block chats from troublesome acquaintances.

see the source for these scripts, you'll find them in the top-level Library: Scripts: iChat folder.)

STALKERS BE GONE

Find yourself leaving iChat turned off just to avoid a certain someone who sends you 100 messages a day? You don't need to hide or get a new AIM or .Mac address. Instead, go to iChat: Preferences, click on the Accounts tab, and then click on Security (see "Get Rid of Pests"). Select the Block Specific People option and then click on the plus-sign (+) button. Enter as many addresses as you like, and click on OK. Poof! The people you've blocked will see you go offline in their Buddy Lists—forever.

PHOTO BOOTH FUN

Like iChat, Photo Booth uses your Mac's camera to capture photos and video. Mix in funky effects and a new multiphoto option, similar to what you get from traditional photo booths, and you've got endless potential for entertainment.

ELIMINATE THE COUNTDOWN IN PHOTO BOOTH

When you click on the red circular camera button, Photo Booth starts an audible and visual countdown (3-2-1), then flashes the screen white (to brighten the image) and snaps the picture. Simple enough. But if you're playing around and taking lots of photos, the three-second lag and audible countdown can get a bit annoying.

If you'd like to have Photo Booth take a picture right away, hold down the option key before you click on the red camera button. The screen will still flash, and you'll hear the shutter effect, but there won't be a countdown of any sort.

TAKE A PICTURE WITHOUT THE FLASH

If you already like the lighting in your scene, you may be frustrated that Photo Booth automatically sets off a flash when it snaps your picture. However, you can make Photo Booth forgo the flash effect by holding down the shift key when you click on the red camera button.

By the way, if you want to skip the flash *and* the countdown, you can combine this tip with the previous one; hold down the option and shift keys when clicking on the camera button.

EXTRACT A PHOTO FROM A MULTIPHOTO IMAGE

Leopard's Photo Booth has a new burst mode, which takes four pictures in quick succession and then displays the results as a single multipane image (see "One of Many"). You can then click on the iPhoto button to send your montage to iPhoto. But what if you decide you'd like to keep only one or two of the four images in your montage? It turns out that Photo Booth actually does store four separate pictures when you take a burst mode photo—you can find them all in the Photo Booth folder within *your user folder*/Pictures. Once you've tracked them down, you can drag any one of the pictures to iPhoto.

One of Many In burst mode, Photo Booth takes four images in quick succession. But if you want to save only one of those, look inside your Pictures folder.

CHAT ANYWHERE

Did you know you can use iChat to send a message to any cell phone that supports Short Message Service (SMS)? Select File: Send SMS (or press ⌘-shift-N). Enter the person's phone number and click on OK. The program will open up a new chat window for sending text messages to that number. Depending on what service provider your friend uses, he or she might be able to reply to your message from the cell phone.

If you'd like to get all of your iChat messages while you're away from your computer, it's pretty easy. The trick is that you need an AIM screen name, not a .Mac account, to do so. If you don't have one yet, visit my.screenname.aol.com and sign up for a free account. Then configure iChat to use your AIM screen name,

Ready to Chat If you make a habit of accepting chat invitations, you can skip the acceptance dialog box and just get to talking.

if doesn't already, by visiting iChat: Preferences and clicking on Accounts. Click on the plus sign to add new account information. Once you're logged in to iChat via your AIM screen name, visit AOL's Mobile page, mobile.aol.com. Click on Sign In and log in with your AIM screen name if necessary. Once logged in, click on Mobile Settings under your user name and follow the instructions. Once you enable forwarding, AIM will send all received iChat messages to your cell phone via SMS.

TURN iCHAT INTO A MUSIC CONTROLLER

If you have more than one Mac in your home and one of them is set up to play iTunes music, you can use iChat to control that playback from any Mac on the network.

First, set up iChat to use Bonjour messaging (in Preferences: Accounts). On the iTunes-owning Mac, open iChat's Alerts preferences and set the Event menu to Message Received. Select the Run AppleScript option and then choose iTunes Remote Control. applescript from the pull-down menu.

You can then send the iTunes-owning Mac these commands as chat messages from another Mac: **status**, **next**, **previous**, **mute**, **unmute**, **help**, **play**, and **pause**. Just type each one on a line of its own and press return; the iTunes Controller AppleScript on the other end will then tell iTunes what to do.

CREATE ANIMATED GIFS

In Leopard, iChat now supports animated buddy icons. You can find a wealth of animated GIFs online, or you can use Photo Booth's burst mode to quickly create your own (for more Photo Booth tips, see "Photo Booth Fun"). Once you've taken a multi-pane photo, select it and choose File: Export. Photo Booth turns the four images into an animated GIF.
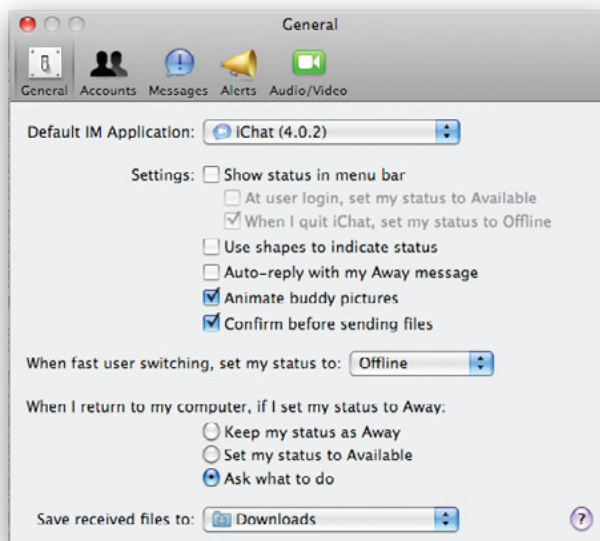
Put It in Motion iChat now lets you use an animated buddy icon—something you can create yourself with the help of Photo Booth. To see your animated GIF, other users will have to open iChat's General preferences and turn on the Animate Buddy Pictures option.

You can then use this animated GIF as your iChat buddy icon. In iChat, click on your user picture and select Edit Picture. Click on Choose, navigate to the animated GIF you just created, and then click on Set. Other Leopard users (and those using third-party AIM clients that support animated buddy icons) will then see your four-picture set. Note that the option to display animated buddy icons is disabled by default; to enable it, open iChat's preferences and turn on the Animate Buddy Pictures option in the General tab (see "Put It in Motion").

Preview

P review isn't just a handy viewer for images and PDF files. In Leopard, you can also use Preview to quickly sort photos, track down hidden graphics files, and even create new images.

CHANGE PREVIEW'S SORT ORDER

If you have multiple images open in a Preview window, you can quickly change the order of the drawer's thumbnails—and get additional information about the images—by clicking on the gear icon at the bottom of the drawer. From the menu that appears, select Sort By and then Name, Path, Date, Size, Kind, or Keyword. When you do, the images' sort order changes based on the selected criterion (if you choose Size, for example, the smallest files will appear at the top) and you'll see the information corresponding to your selection (see "A Different View").

COPY FILES FROM PREVIEW'S SIDEBAR

In earlier versions of OS X, if you dragged an image out of Preview's sidebar, it would vanish in a puff of smoke, much like when you remove something from the Dock. However, this was a basically meaningless action—nothing would actually happen to the file you dragged. In the Finder, the original file could still be found in its original folder. In 10.5, though, Preview's sidebar images are now connected to the source files. When you drag a thumbnail from Preview's sidebar to a folder in the Finder, you'll create a copy of that file. The original file is *not* moved. This can be useful, for example, if you use Preview to quickly scan images and sort them into different folders—perhaps one for keepers and one for rejects. Just drag the images you wish to keep into your Keep folder directly from the sidebar, and you can do all your reviewing and sorting directly from Preview.

PEEK INSIDE APPLICATIONS IN PREVIEW

You probably know that you can open a folder of images by simply dragging the folder icon from the Finder onto Preview's icon in the Dock or onto the program's icon in the Finder. But did you know that you can also use Preview to quickly find all the interesting images that are sometimes hidden within an application? An application is nothing more than a special type of folder. Just hold down ⌘-option and drop the application icon (TextEdit, for example) onto Preview's icon. Preview displays any images it finds in a new Preview window. Just be careful about trying this with large applications such as DVD Studio Pro. The process of collecting all the images can take a very long time. If you run into trouble, click on the Cancel button in the dialog box to stop the process.
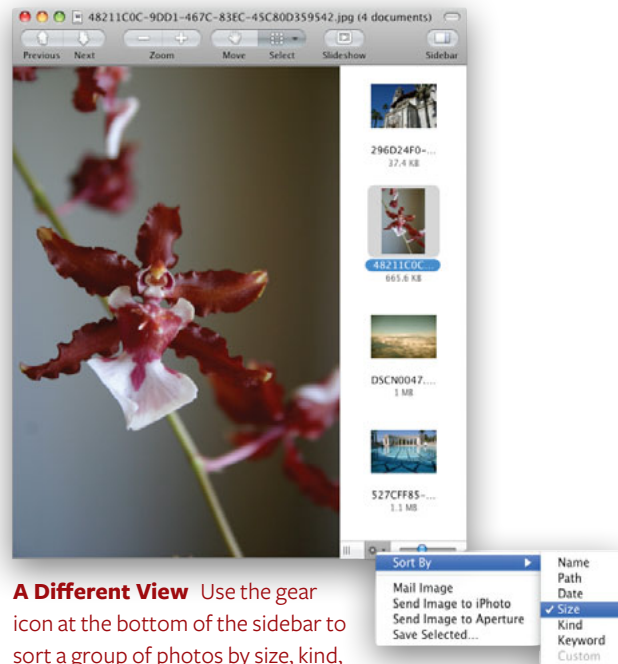
A Different View Use the gear icon at the bottom of the sidebar to sort a group of photos by size, kind, name, and more.

ELIMINATE PREVIEW'S SLIDE-SHOW CONTROLLER

Preview can display multipage PDFs and groups of images in a slide show. Just press ⌘-shift-F. When you do, you get an on-screen slide-show controller. But if the controller is covering some of the PDF's or image's contents—or if you just find it distracting—you can get rid of it. While in Slideshow mode, click anywhere to the side of the screen. The controller will disappear—as long as you don't move your mouse.

Once you've hidden the controller, you can use the left- and right-arrow keys to move backward and forward through the PDF.

USE PREVIEW TO CREATE IMAGE FILES

Preview not only opens most of the PDFs and images you come across, it can also create images from graphics you have saved on the Clipboard. This can be handy, for example, if you use Apple's Keynote and want to create an image from a slide. Press ⌘-C with the slide highlighted in the navigator, switch to Preview, and press ⌘-N. Preview automatically creates a file from the contents of the Clipboard. Now use File: Save to save the image in the format and location of your choosing.

This trick is also handy if you've grabbed a portion of a screen (using the shortcut ⌘-shift-control-4), and then decide you'd
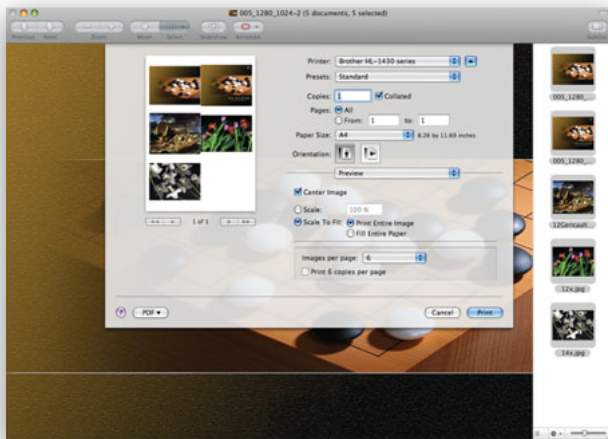
Save Paper   Print several images per page to save paper using Preview's Print dialog options.

rather have the image be a file of its own. Just switch to Preview and press ⌘-N—there's no need to grab the screenshot again.

PRINT MULTIPLE IMAGES PER PAGE

When you want to print a handful of images, it's a shame to waste a lot of paper printing one to a page. While many programs let you print a bunch of images on a page, they typically require multiple steps to do so. Preview has a printing trick that does it automatically. First, put all your images in a single Preview window. If you already have one image open, display Preview's sidebar and then drag the other images from the Finder to the sidebar. If you don't have any images open, you can drag them all onto Preview's icon in the Dock or in the Finder. Next, select all the images in the sidebar by clicking on one and then pressing ⌘-A. Now choose

File: Print Selected Images, or press ⌘-P. In the dialog box that appears, choose the number of images you want on each page from the Images Per Page pop-up menu. (Don't see this? Reveal more options by clicking on the disclosure triangle to the right of your printer's name.) You can choose to have multiple copies of each image if you check the Print *N* Copies Per Page option; otherwise, each image is printed once (see "Save Paper").

ADD KEYWORDS TO IMAGES OR PDFS

Spotlight keywords make it possible for you to find certain files easily by using a special keyword that other files won't contain. For example, you could add the keyword **REPVOLC** to that report you are writing about volcanoes, and Spotlight will find it instantly.

You can add Spotlight comments to any file by selecting it in the Finder, pressing ⌘-I, and typing in the Spotlight Comments field. But if you send files by e-mail or iChat, or even just transfer them over a network, comments added in this way disappear. To add keywords *permanently* in Preview, open the file and select Tools: Inspector (or press ⌘-I). In the palette that appears, click on the Spotlight tab. Click on the plus sign (+) to add a new keyword, then type your text. You can add as many keywords as you want. (Note that this doesn't work for images in PNG format.) When you're done, save the file. Now these keywords will stay put, no matter where the file travels, so that you can always find it easily. You'll find them in the Finder's Info palette (⌘-I) in the More Info section, listed under Keywords.

Dashboard

When Apple created Dashboard in OS X 10.4, the idea was to give users one-click access to helpful tools like the calculator and weather update without having to have these programs visible at all times. Since then, third-party developers have created hundreds of widgets for Dashboard, offering everything from drink recipes to TV guides. And with Leopard, users can now create their own widgets from often-visited Web pages. But if Dashboard is beginning to feel a bit crowded, use these tricks to maintain order.

SEE DASHBOARD IN A FLASH

Dashboard usually runs in a toggle mode: you press F12 to activate Dashboard so you can use the widgets, and then you press F12 to exit it. But if you only want to view widgets, instead of interacting with them, you can use Dashboard in a temporary mode. Instead of pressing and releasing F12, hold it down. Dashboard will remain visible for as long as you hold down the key, letting you view any already-open widgets. When you release F12, Dashboard will vanish.

ACCESS WIDGET BAR WITHOUT CLICKING

Tired of having to mouse over and click on the big plus sign (+) to bring up Dashboard's widget bar? Here's a little-known keyboard shortcut: after activating Dashboard, just press ⌘–equal sign (=) to bring up the Widget bar. Hold down the ⌘ key while pressing the left- or right-arrow key to move through multiple panes of widgets. Press the ⌘–equal sign combo again to make the bar vanish. Unfortunately, you can't activate individual widgets without resorting to the mouse.

WHIP WIDGETS INTO SHAPE

Having problems getting a widget to work? Often, all you need to do is reload it. To do so, click on the widget and press ⌘-R.

RESIZE WEB CLIP WIDGETS

If you use Safari's new Web Clip feature to make a Dashboard widget out of a small Web item, you may be dismayed to find that Safari enforces a minimum size of about 128 by 128 pixels. The solution is simple, if not obvious: after creating the widget, click on the *i* icon on the widget's face and then click on Edit. You can then resize and reframe the widget as you wish.

PLACE A WIDGET IN THE FINDER

If you'd rather see a widget all the time—not just when you switch to Dashboard—you can move the widget to the Finder, so it appears on the desktop. Launch Terminal, type the following

---

MAC 911

SPEED UP DASHBOARD

The problem may start slowly—each time you activate Dashboard, the process takes a bit longer or you experience delays when working with certain widgets. One day you realize that Dashboard is just plain slow. Why? As you work with various widgets, the Dashboard application caches information. In other words, it creates a local copy of widgets' data. If you need to access that data again, the cache should make the process faster by sparing Dashboard a trip to the Internet. But in some cases, it takes longer to read the cache file than it would to go get the data again.

The solution is to throw all of Dashboard's cache files in the Trash and then empty the Trash. You'll find the files in *your user folder*/Library/Caches/Dashboard-Client. After doing this, you'll need to restart the Dock, as that's the program that controls Dashboard. You can do this by using Terminal or Activity Monitor (both in /Applications/Utilities). In Terminal, just type `killall Dock`. In Activity Monitor, type `dock` into the program's search box, click once on the Dock process, click on the Quit Process button, and then click on the Quit button in the resulting dialog box. In either case, the Dock will restart automatically; after it does, try loading Dashboard and see if it runs any faster.

If this technique works and you would like to permanently prevent Dashboard from creating cache files, that's quite simple to do, too. Navigate to the DashboardClient folder, select it, and then open the Get Info window (⌘-I). In the General section of the Info window, select the Locked option. Once the folder is locked, Dashboard won't be able to write to it any more. (Obviously, to reverse this, just open Get Info again and deselect the Locked option.)
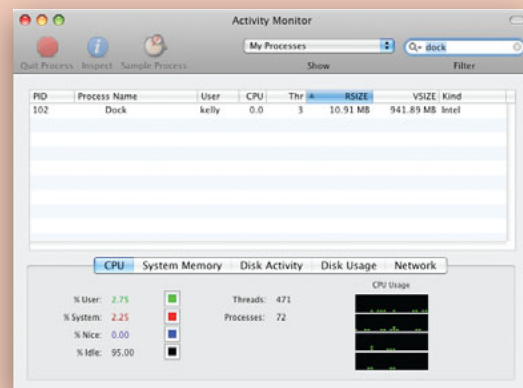
command, and then press return.

```
defaults write com.apple.dashboard
devmode YES
```

Log out of your account and then log back in, or restart the Dock in Terminal by typing `killall Dock`. You'll now be able to pull as many widgets into the Finder layer as you like. Click on an active widget on the screen and drag it slightly to the side. Without releasing the mouse button, press F12 to close Dashboard. When you release the mouse, the widget will appear on the desktop. To put a widget back into the Dashboard, start dragging it in the Finder, press F12, and then drop the widget.

TRY DICTIONARY WIDGET TRICKS

Mac OS X's Dictionary widget provides a convenient way to look up the occasional word in the dictionary or thesaurus. But this little program does have a few hidden nuances.

First, as is the case with text in many OS X applications, you can get the search box to show you possible completions based on the characters you've typed so far. How? Just press the escape key, and you'll see a drop-down list of completions. Scroll down to the word you'd like to use and press return, and its definition will appear.

Once you have a definition visible, Dictionary has one more trick up its sleeve. Type **rain**, for instance, and you'll see its definition. Now click on the half-circle with the capital *R* on it, sticking out on the widget's left edge. A list of other known words and phrases that start with *rain* appears (see "Find a Phrase"). Click
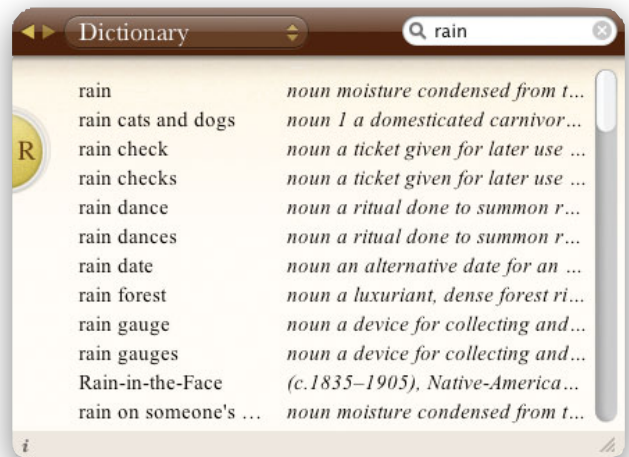
Find a Phrase To see a list of phrases that start with *rain,* simply click on the *R* icon to the left of the definition.

on one of those words to jump to its definition, or click on the capital letter again (before clicking on another word), and you'll switch back to the standard definition of rain. Toggle the widget from Dictionary mode to Thesaurus mode, and the same trick works; here it will show you a list of other words in the thesaurus that are similar in meaning to the chosen word.

Take Command of Terminal

Dig Deeper into Mac OS X with This Powerful Behind-the-Scenes Tool

With a little bit of know-how and the right commands, even the most novice of Mac owners can use Terminal. By tapping into the power of Unix, anyone can streamline workflow and manipulate files in ways otherwise impossible in the OS X interface. Though it might seem a little intimidating at first, Terminal is a snap to use once you learn its secrets. These hints cover what's new in Leopard, how to search using Terminal, and safety tips to make sure your forays into the command line don't end in tears.

Learn the Terminal Basics

B efore you start typing away in the Terminal window, take a moment to learn how the command line works, as well as some basic commands to get you started.

HOW IT WORKS

Unix commands can be broken down into four parts. The first part is the command-line *program*, which is like any other Mac application, but has a text-based rather than a graphic interface.

Next come *options*. The command-line equivalent of preferences, options allow you to modify how a program functions. The general rule is that options are identified by either a single dash or a double dash, followed by either a single character or a whole word. An additional parameter may follow the option.

The third component is *arguments*, or the input the program acts upon. A program's arguments are usually file names, but they can be almost anything, including the output of other command-line programs.

Finally, there's *output*, the result of the program. Just like a regular program's output, a command-line program's output can be a file or a printed page, but most often it's a screen test.

PROGRAMS Hundreds of command-line programs are available in the standard installation of OS X, ranging from the incredibly simple (**echo** will output whatever you type as its arguments) to the ridiculously obscure (**yes** repeatedly presses the Y key for you).

One of the most common programs is the **ls** (list) command. This command displays the contents of the current folder (or directory, in Unix lingo). When you enter it, you should see the names of all the folders and files in your user folder, including Desktop, Documents, Sites, and so on. To modify the default behavior of a command, you can combine it with options.

OPTIONS You can use **ls** with several options that change the way it works. For example, **ls -l** will display a long list including such details as file sizes and modification times. **ls -a** will show all files, including those whose names begin with a dot (**.**), which are normally hidden. (Names of Unix configuration files are often preceded by a dot so they won't clutter up normal listings.) You can combine options too: **ls -l -a** will give you an expanded list of folder contents with all of the files displayed.

How do you find out what options a command has? Type **man** (manual) followed by the name of any command-line program to see all the details about (as well as examples of) its options and functions.

ARGUMENTS Like many other commands, **ls** also takes arguments to define what input the program responds to. For instance, **ls /Users** will show you the user folders of all the users on your machine, along with the universal Shared folder. If you enter the following command, it brings up the contents of the **jdoe** and **rroe** user folders:

```
ls /Users/jdoe /Users/rroe
```

You can use wild cards to specify a range of names more easily: an asterisk can stand in for any group of characters, and a question mark can substitute for a single character. For example, **ls /usr/bin/s*** will show you all the files that start with the letter *s* in your computer's /usr/bin directory. This is handy when you want to narrow the program's arguments to a manageable range.

CHANGE DIRECTORIES

Unlike the Finder, which allows you to have any number of folders open at once, the Terminal limits you to a single place at any one time—this is your working directory. The **cd** (change directory) command allows you to choose a new working directory.

Type **cd Sites** to move into your Sites folder and make it the working directory. Type **cd ..** to move one step back toward the root of your hard drive, or **cd /** to move all the way there. The command **cd ~** will return you to your user folder. If you get confused about which directory you've ended up in, the command **pwd** (print working directory) will show you where you are in the folder hierarchy.

HAVE FUN WITH FILES

Want to do more than list files? Give the **ditto** command a try and make copies. To use **ditto**, follow it with the source file(s) or folder(s) and the destination file(s) or folder(s). Feel free to use wild cards when you're specifying the source files and folders. For example, to copy all of the word processing documents in your user folder to a folder called Word_Docs, type the following:

```
ditto ~/*doc ~/Desktop/word_docs
```

The **ditto** command has a lot of different options, too—type **"man ditto"** for more help with these.

To view the copies, press ⌘-shift-G in the Finder and enter **~/Desktop/word_docs**. You can also use **cd ~/Desktop/word_docs** and **ls** from the command line.

USE REDIRECTION

By stringing Unix commands together with *redirection*—using the output of one program as the input for another—you can accomplish things that are otherwise impossible.

There are three ways to redirect a command's output so that another command can use it as input. The vertical bar, or pipe (**|**), sends output directly to the following command-line program for use as input. For example, **ls -l | more** uses the **more** command to pause after each screenful of data.

If you surround a command with backward apostrophes, or *backtick marks* (**`**), the command will include its output in the argument list of another command.

One example is **cd `cat gohere.txt`**. The **cat** (concatenate) command displays files on screen. Combined with backticks and **cd**, it can change the folder listed in a file into your working directory.

Finally, the greater-than sign (**>**) will dump the output in a file instead of the screen. For example, to create a file called myfiles.txt in your user folder with a long list of its contents, type:

```
ls -l ~ > ~/myfiles.txt
```

COMBINE COMMANDS

The true power of the command line comes out when you mix commands, options, arguments, and redirection together. This command saves compressed backup copies of all the Word documents in your user directory, complete with a dated file name:

```
find ~ -name '*.doc' | cpio -o | gzip
> `date +~/%Y%m%d.cpio.gz`
```

As complicated as it looks, this breaks down very simply. The **find** command lists files based on several criteria: name, date, owner, and many more. To list every file name in your user folder and its subfolders that ends with *.doc,* enter this command:

```
find ~ -name '*.doc'
```

The contents of that list are passed to the **cpio** (copy in and out) command, basically a simplified Unix version of StuffIt. The **-o** (output) option tells the program you're creating an archive.

That data is sent to **gzip**, a Unix compression program that shrinks the archive and writes the result to a file made up of the output of the **date** command: your user folder (**~**), the exact date (**%Y%m%d**), and finally the typical Unix file extension attached to a file that has passed through **cpio** and **gzip** (**.cpio.gz**).

Although files are stored in a single archive, you retrieve them individually. To recover a file, reverse the process using the following command:

```
gzip -d -c YYYYMMDD.cpio.gz | cpio -i
-d -r '*filename*'
```

Replace *YYYYMMDD* with the date you made your archive and *filename* with at least part of the name you'd like to restore. This command will prompt you with the name of each archived file that matches, allowing you to skip it, restore it to its old location, or put it someplace new. If you'd like a chance to restore any file in the archive, remove the file-name portion of the command (**'*filename*'**), and you'll be asked about every file the archive contains. To restore the whole archive without question, remove the **-r** option.

What's New in Leopard

OS X 10.5 brings a number of changes to its Unix core, perhaps more so than any prior OS X release. Many of the changes are routine—newer versions of key Unix programs such as the **bash** shell (from 2.0.5b to 3.2), the **vi** text editor (from version 6.2 to 7.0), and even the **man** manual page reader (from 1.501 to 1.6c). Most of these version changes will be invisible to the casual Terminal user. More interesting, however, are the totally new (or substantially revised) Unix commands that can be found in 10.5.

THOSE PESKY DOT-UNDERSCORE FILES

If you've ever used a USB stick to move files to a Windows or Linux machine, or written files to a non-HFS server, you're probably very familiar with the "dot files" that are created when you do so—depending on what you did to the files and folders on the Mac, you'll see any number of files whose names begin with dot-underscore (._), followed by the name of other folders on the disk. The Mac uses these files on your HFS disk, but they're useless on non-HFS systems.

Prior to 10.5, you had to manually delete dot-underscore files on the other system, or use Terminal trickery to remove them on the Mac prior to copying. As of 10.5, though, you can just use the **dot_clean** command on the directory in question. Type **dot_clean "***full path to folder***"**, and the dot-underscore files will be joined with their parent files. You can read the manual pages (**man dot_clean**) for more information on this program.

LEARN ABOUT KERNEL EXTENSIONS

Kernel extensions (also known as kexts) are low-level pieces of code that talk directly to the heart of the Mac operating system. They are very powerful, and potentially dangerous: if there's a bug in a kernel extension, it can crash your Mac. (At worst, a buggy application can crash only itself.) In 10.5, you can use the **kextfind** command to find out which kernel extensions are on your machine.

Most of the kernel extensions on your Mac are bundled with OS X; you can see exactly what's installed by using this command:

    kextfind -case-insensitive -bundle-id
    -substring 'com.apple.' -print | more

While that command may look intimidating, it's pretty straightforward. The **-case-insensitive** argument tells the system to find all matches, regardless of capitalization. Next, **-bundle-id** and **-substring** tell kextfind to look for the text string **'com.apple.'** in the extension's bundle identifier. The **print** switch tells **kextfind** to output the results to the

screen, while **| more** tells Terminal to pause after each page of output. You can see a list of third-party kernel extensions by inserting **-not** before **bundle-id** in the command above.

Just because an extension is listed, however, doesn't mean it's active. To see which of your third-party extensions are active, type the following (include a space after **-id**):

    kextfind -loaded -not -bundle-id
    -substring 'com.apple.' | more

This is basically the same command as before, with the addition of the **-loaded** flag to list only those extensions that are currently active.

If you're experiencing kernel panics, this list is a good place to start looking for suspects—try removing the device or program associated with the extension and rebooting. If the kernel panics vanish, you've found the source of the problem. To find a lot of good examples of other uses for this command, check the **man kextfind** manual pages.

DIG INTO INSTALLER PACKAGES

Apple's installer keeps track of things it installs—you can see everything it's done by looking at the /Library/Receipts folder. From there, you can dig into packages and see what's been installed. However, rooting around in that folder by hand isn't a lot of fun—lots of **cd** and **lsbom** commands are required. 10.5's new **pkgutil** command makes things much simpler.

To see a list of installed packages, just type **pkgutil --pkgs** and press return. Each entry in the list represents a package ID, and you can use that string to get more information on that particular package. For instance, if you'd like to know every file the recent security update installed, just type this command and press return:

    pkgutil --files com.apple.pkg.update.
    security.2007.009 | more

SET SYSTEM AND NETWORK PREFERENCES

OS X 10.5 includes two good utilities, **systemsetup** and **networksetup**, that you can use to view and configure various network and machine-wide System Preferences settings. These programs aren't actually new in 10.5; they were available in 10.4, too. But in 10.4, they were buried deep in the System folder. As of 10.5, Apple has placed them in a standard Unix folder, making them easily accessible to everyone.

So just what can you do with them, and why would you want to do those things? One way these programs are useful is in managing remote connections. Say you've used **ssh** to connect to a remote Mac. You might then need its Ethernet card's MAC

address to set up a router. To get that information, just type `sudo networksetup -getmacaddress en0`. (You'll need `sudo` for some options with these commands, as they require administrative privileges.) Want to see what network services are available on the remote Mac? Try typing `networksetup -listallnetworkservices`. You can then use the names of the services returned in other commands, such as this one, to display the DNS servers on the remote Mac:

`sudo networksetup -getdnsservers "ethernet 1"`

If you then wanted to change those DNS servers, you'd use the `-setdnsservers` option.

The `systemsetup` command has similarly interesting abilities. For instance, you can see the sleep settings for your computer and display with either of these two commands:

`systemsetup -getcomputersleep`
`systemsetup -getdisplaysleep`

To change the display sleep setting to four minutes, you'd type `systemset -displaysleep 4`.

You can see which disks will start up the Mac by typing `systemsetup -liststartupdisks`. You can also change a startup disk with the `-setstartupdisk` option; you follow this option with the path to that disk's CoreServices folder, as displayed in the `-liststartupdisks` option.

Both of these commands have lots of additional features— check out `man systemsetup` and `man networksetup` for a very thorough explanation of all of their capabilities.

DIRECTORY SERVICES

First and foremost, if you've previously used the NetInfo commands (`niutil`, `niload`, and so forth) in prior releases of OS X, prepare yourself for a change—they no longer exist in 10.5. Instead, you'll be using the Directory Services command-line utility, `dscl`. This new all-encompassing utility handles everything related to users and groups (and more) from the command line. Covering it, however, is well beyond the scope of this chapter— you can use `man dscl` to get a sense of everything you can do with this program.

Another handy utility related to `dscl`, `dscacheutil`, is primarily of interest to Web developers and others who work with DNS, as it can be used to flush your DNS cache: `dscacheutil -flushcache`. (In 10.4, the `lookupd` command handled this function.)

Do More with Terminal

This is a collection of the top tricks, new and old, that make using Terminal easy and fun. Test them out and make them part of your Terminal routine.

OPEN TERMINAL URLS IN DEFAULT BROWSER

In previous versions of Terminal, users could ⌘–double-click on a URL to load that URL into their default browser. This has changed in 10.5, since ⌘–double-click now selects whatever word is under the cursor. To do URL clicking in Terminal in 10.5, use ⌘-shift–double-click.

GET FILE PATHS FAST

OS X has always let you drag a file or folder to the Terminal window to add its path to a command. However, you had to switch to the Finder, make sure the Terminal window was visible, and then drag the item into that window. Now you can simply copy the file or folder, and then paste it into the Terminal window to add its path.

SET TERMINAL'S WELCOME MESSAGE

In prior versions of OS X, you'd see a "Welcome to Darwin!" message when you opened a new Terminal window. When you open a new Terminal window in 10.5, you see the date and time you last opened a new Terminal window instead of the old welcome message. To customize this greeting line, open Terminal and enter `cd /etc`, press return, then type `sudo pico motd`. That second command launches a text editor and loads a new file called motd (message of the day). Type what you'd like as your message, then press control-X (for exit), Y (for yes, to save changes), and return (to accept the file name, which will appear as motd). From now on, new Terminal windows will display your custom greeting, right below the date and time of the last login.

NAVIGATE TERMINAL TABS

One of the most welcome new features in Terminal is the addition of tabs. Now, instead of having five separate Terminal windows open, you can have just one main window containing five tabs. To create a new tab, simply press ⌘-T; you can then switch between tabs by pressing ⌘-shift–close bracket (]) and ⌘-shift–open bracket ([) (see "Tabbing Along with Terminal"). If you find that last combination awkward to remember and to execute, you could reassign it using the Keyboard Shortcuts panel in the Keyboard & Mouse preference pane. But that's time-consuming, and you would have to repeat it on each machine you
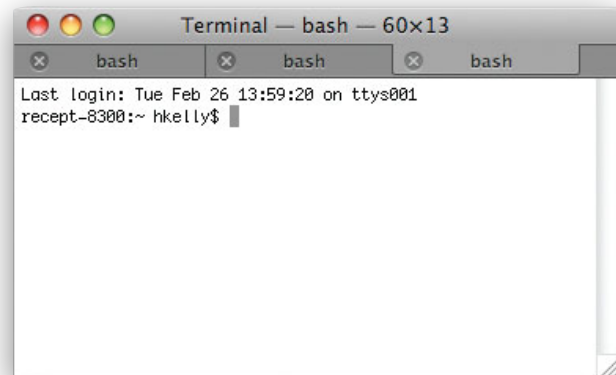
Tabbing Along with Terminal In Leopard, you can use tabs instead of keeping multiple Terminal windows open. Just press on ⌘-T to create a new tab.

use. Instead, try pressing ⌘-shift and the left- or right-arrow key. Some people prefer this undocumented shortcut to the one using the brackets. If you leave out the shift key, that same shortcut will cycle between open windows.

MANAGE TABS IN TERMINAL

Tabs in Terminal can perform many of the same tricks that tabs in Safari do. In practice, that means you can turn any tab into a new window by simply dragging it off the tab bar. You can also rearrange tabs by clicking and holding on a tab, sliding it along the tab bar, then releasing the mouse button; as you move one tab, the others will jump out of the way.

You can also merge multiple windows into one tabbed window. If you have many open windows and want to combine them all, just use the Window: Merge All Windows menu command. If you'd rather be more selective about which windows to merge, you can drag and drop a stand-alone window into the tab area of another window. (For this trick to work, the tab bar must be visible in both windows.) You can set the tab bar to always be visible using the View: Show Tab Bar menu item.

SHOW REMOTE HOST NAMES IN TAB TITLES

If you use ssh to connect to more than one host on a regular basis, you'll end up with multiple tabs. Here's a useful trick for making the tab label indicate what machine you're connected to.

With Leopard's update to Terminal, it's straightforward to save connections that automatically ssh to the desired host, and also display the remote system's name as the window title. While it's not obvious, there is a way to override the default tab label, which displays the shell name.

Simply create a hard link to the ssh binary with the name of each remote system you need to connect to (symbolic links don't work; ssh is still displayed):

```
sudo ln /usr/bin/ssh /usr/bin/
remote-name
```

Then, while running Terminal, copy one of the existing terminal templates and modify it as you normally would. After that, in the shell settings tab, substitute the remote-name link you've previously created for ssh.

For example, instead of `ssh -l username remote-name`, specify `remote-name -l username remote-name`, and voilà, the remote system's name will now appear in the tab label.

PROTECT INFORMATION WITH ACCESS CONTROL LISTS

Unix geeks will appreciate OS X's support for Access Control Lists (ACLs). ACLs give you more control over permissions than you get from OS X's Info windows or even from standard Unix commands. For example, you can use ACLs to set unique access permissions for everyone who has an account on your Mac.

ACLs are enabled by default only in Mac OS X Server. But you can easily turn this feature on in the standard version of Leopard. In Terminal, type `sudo /usr/sbin/fsaclctl -p / -e` and then enter your administrator password at the prompt.

Type `man chmod` to learn more about using ACL features. One caution: creating an archived file via the Create Archive command in the Finder strips away any ACL information contained in the file.

TIME MACHINE BACKUPS FROM TERMINAL

Few features in Leopard have gotten as much coverage as Time Machine, OS X's new automated backup feature. As you're probably aware by now, you can start a Time Machine backup in OS X 10.5 by control-clicking on the Time Machine drive's icon in the sidebar and selecting Back Up Now. For those who use Time Machine in manual mode, this is the only way to run a backup.

However, this also requires that you be at the computer to execute the command. What if you're away and realize you forgot to run a backup before you left? If you're on another Mac, you can use Screen Sharing (or VNC from a non-Mac) to log in to the GUI. But you might not want to run the full GUI for something as trivial as clicking on one button in a menu. So here's a Terminal solution you can use in an ssh session.

After connecting to the Mac via ssh from whichever machine you're using, enter this command in Terminal as one line:

```
/System/Library/CoreServices/backupd.
bundle/Contents/Resources/backupd-helper &
```

USE AUTOMATOR TO OPEN FOLDERS IN TERMINAL

If you work with Terminal, you probably switch back and forth between it and the Finder a lot. Using this simple Automator workflow, you can create a Finder plug-in that lets you control-click on an object in the Finder and navigate to it in Terminal. If you choose a file, the plug-in will open the folder that contains it; if you choose a folder, the plug-in will open the folder itself.

Open Automator and choose Custom on the first screen, then click on Choose. Click on the Files & Folders entry in the Library column. Drag Get Selected Finder Items from the Action column into the blank work area to its right. Next, click on the Utilities entry in the Library column, and then drag the Run AppleScript entry from the Action column into the work area—drop it below the action you've already moved there.

Type this code into the script area of the Run Apple-Script action you just placed in the work area. Replace all the existing text with this code:

```
on run {input, parameters}
tell application "Finder"
set myWin to window 1
set theWin to (quoted form of
POSIX path of (target of myWin as
alias))
tell application "Terminal"
activate
tell window 1
do script "cd " & theWin
end tell
end tell
end tell
return input
end run
```

Now choose File: Save As Plug-in from Automator's menu. In the Save Plug-in As box, name your workflow something descriptive. Make sure the Plug-in For pop-up menu says Finder, and then click on Save. Switch to the Finder, select any item, and control-click on your selection. Choose Automator: *name of workflow* to open a new Terminal window. The `cd` command will execute, switching you to the folder you've selected.

Press return, and your Time Machine backup will start. The ampersand at the end runs the job as a background process, so that you'll have the Terminal prompt back before the backup completes. This can be very useful if you find yourself needing to connect someplace where you only have command-line access to your home machine.

PLAY AN OLD-SCHOOL ADVENTURE GAME

Back before color screens, hard drives, or anything resembling OS X, there were text-based computer games. All you needed to play a text-based game were a keyboard, a screen, and an active imagination. If you're feeling nostalgic or have some free time to kill, Terminal has its own text-based game called Dunnet, and it's included with every copy of OS X.

In text-based games, you interact with the game through a simple language parser, using two-word commands like "get shovel," "dig rock," and "attack bear." You can also move about by giving compass directions such as "east" (or just "e"). Based on what you tell the game to do, you'll see a new output blurb appear, describing the result of your action, your new location, and so forth. Over time, as you explore and solve puzzles, more and more of the world is revealed to you, and additional objectives become apparent.

To play Dunnet, launch Terminal and type this line, followed by the return key:

```
emacs -batch -l dunnet
```

Dunnet is hiding inside the emacs text editor. Here are a few basic commands to get you started:

help Gives some background on the game, as well as basic commands and objectives.

inventory Tells you what you're carrying.

save and restore Saves and restores the game, so you can remember to go eat occasionally.

quit Ends the game.

Superpowered Searching

Spotlight has its limitations, especially when you're searching your Mac's more out-of-the-way corners. For greater control over searching, take a trip to Terminal. These command-line tricks offer new ways to seek out even the most obscure files on your Mac.

FIND FILES FROM TERMINAL
Like a regular Spotlight search, the **mdfind** command lets you quickly find files on your Mac according to keywords—and it adds an extra twist or two. For example, if you run the command **mdfind Shakespeare**, you'll find any files that contain the word *Shakespeare* in their names, content, or other metadata. This could include a digital copy of *King Lear,* a video of *Shakespeare in Love,* or an album by Robbie Shakespeare.

GET SPECIFIC
If you know that a file is in a certain directory, or if you want to search only files in that directory, use the **-onlyin** *directory name* option to narrow down the search (put a space after **-onlyin**):

    mdfind Shakespeare -onlyin
    /Users/will/Documents

(Remember that you can simply drag the folder you want to search to the Terminal window to add its path name quickly.)

If you simply want to know how many matching items you have, try the **-count** flag; for example, to find out how many files contain *Shakespeare* on your Mac, run this command:

    mdfind Shakespeare -count

TRY LIVE SEARCHES
Another option is to run a live search running the -live command, which updates results as users add files. This is particularly useful if you're waiting for people to put files in your Drop Box, or if you run a server and want to see when files containing certain content or metadata appear in a shared folder. Since Spotlight is constantly indexing your files, you can see when it adds new files that match certain criteria.

For example, if you type **mdfind -live Shakespeare**, the command will alert you each time it discovers an additional file containing *Shakespeare* on your Mac. A message will appear at the bottom of the Terminal window—for instance, this one:

    Query update: 20 matches

The command will continue to update this number until you stop it by pressing control-C. If you want to see the names of all the files, you must run the command again.

FORCE SPOTLIGHT TO SEARCH HIDDEN FILES
If **mdfind**'s abilities sound familiar to you, then you're probably acquainted with the **locate** command. However, there are some differences between the two. The **locate** command searches all the nooks and crannies of your Mac, but looks just for file names. Also, it updates only when you run the weekly Unix maintenance routine or use this command:

    /usr/libexec/locate.updatedb

On the other hand, **mdfind** updates its results automatically every time you create or add a new file, but it doesn't search everywhere on your Mac. You can combine the powers of **mdfind** and **locate** using another of Spotlight's command-line additions—the **mdimport** command.

By default, Spotlight ignores many directories, such as certain system directories. Sure, that makes results easier to comb through if you never need to look for configuration files in the Unix part of your Mac, but if you do need to search these directories, it can be a real pain.

Use the **mdimport** command to add files to your Spotlight indexes. When you do, you'll be able to search for much more than the default selection of files and folders. (When you add normally unsearchable items to your indexes this way, Spotlight won't continue to index the new files automatically; you'll have to run the command again.)

The **mdimport** command forces Spotlight to index all the contents of a directory and its subdirectories. The basic command structure looks like this:

    mdimport -f directory name

So if you want to index your System Folder and be able to search for the more arcane files it contains, you would type this:

    mdimport -f /System

If you want to index other folders, or if Spotlight is not finding certain files, use the same command with the appropriate paths to index or reindex specific directories or volumes. Note that Spotlight doesn't index text files that lack the .txt extension. That means you won't be able to improve its ability to find, for example, configuration (.config) files and preference (.plist) files.

STOP SPOTLIGHT INDEXING
If you peruse the Spotlight preference pane, you'll see that you can prevent Spotlight from indexing specific volumes or folders. Click on the Privacy tab and add the areas you don't want indexed to the list. This is handy if you don't want your Mac grinding away every time you connect your backup drive to archive files, or if

you don't want it to provide duplicate search results (the same files on both your main drive and your backup) when the backup is connected.

The `mdutil` command gives Mac administrators similar powers. (You must preface it with `sudo`, which tells Terminal to run it as the superuser after you authenticate with your administrator password.) Using this command, you can specify which volumes to index, and you can also make Spotlight reindex volumes by erasing the current indexes.

FLICK THE ON-OFF SWITCH

To turn indexing on or off for a volume, run `sudo mdutil -i on "`*`volume name`*`"` or `sudo mdutil -i off "`*`volume name`*`"`, respectively. For example, if you want to turn off indexing for a volume called Backup, the command would be as follows:

`sudo mdutil -i off /Volumes/Backup`

To delete the index for a volume, run this command:

`sudo mdutil -E "`*`volume name`*`"`

If indexing is on for the volume, Spotlight will reindex it immediately. If indexing is off, it will remain that way until you turn it on again. That means you'll reclaim all of the disk space that the index used.

Sometimes Spotlight's indexes get out of sync, and you'll find that you simply can't find files you know are on your Mac. Using the above commands to turn indexing off and then on again allows Spotlight to rebuild its index from scratch. In most cases, this allows you to find all your files again.

MEET YOUR METADATA

Spotlight doesn't just index file names and file content, it also indexes *metadata* (data about your files). Metadata might include the last save date or the author of a Microsoft Word document; the artists, composers, albums, and genres of digital music files; or, in the case of an e-mailed file, the sender's e-mail address. Every file contains an astonishingly long list of metadata.

The problem is that you probably don't know what kinds of metadata you have in your index. The `mdls` command can help.

It lets you see what type of metadata Spotlight has indexed for any file. Running the command `mdls "`*`file name.txt`*`"` in this format shows the metadata for a text file. You can see some simple information, such as the following:

`kMDItemContentType = "public`
`.plain-text"`
`kMDItemLastUsedDate = 2008-02-12`
`11:52:18 +0100`

The first line above shows the document type, and the second line is the last date someone changed the file. You'll see different metadata for different files. A file you downloaded from a Web site will have a URL. Music files will have tag information. A digital photo will have everything from the camera's make to whether your flash was on. Once you know all the terms, you can search for any of the metadata types.

Say you want to find a file that a friend sent you by e-mail, but you can't remember its name or what it contained. Just search for the sender's e-mail address. Run the `mdls` command on an e-mail message to find out how to search for such metadata. (You can just drag a file to the prompt to enter its path and name.) The attributes it returns are the arguments you can use.

Once you have the right arguments, you're ready to search. For example, to find a file received via Apple's Mail (Spotlight doesn't index e-mail from all programs), you'd use the `mdfind` command like this:

`mdfind "kMDItemAuthorEmailAddresses ==`
`'*macworld.com*'"`

This command searches for any file received from a macworld.com e-mail address. Pay close attention to the use of quotation marks, asterisks, capital letters, and the double equal sign (==). Type `man mdfind` for more on this command's syntax.

SEE THE ATTRIBUTES

To see all the attributes you can search by, use the `mdimport` command. Type `mdimport -A` in Terminal, and you'll see a long list of more than 100 attributes, as well as a short description of each one. The actual list will depend on whether you have any third-party programs installed that have Spotlight importers.

Command-Line Lifesavers

If you're new to the command-line interface, you've probably heard horror stories about people who've erased all their files with one command. And if you're a Terminal veteran, you've undoubtedly had a few brushes with disaster. When you work with the command line, you work without a safety net—there's no Trash to fish files out of and no Undo command. But there are some ways to protect yourself from missteps.

KNOW YOUR ERASERS

Terminal is an amazingly efficient tool for deleting, moving, and copying files. One slip-up when you use these commands, though, and your files may be gone forever.

Perhaps the most hazardous of commands is `rm`, the remove command. Omit a character or press return just a bit too quickly, and you can wipe out the wrong file, an entire folder full of files, or an entire hard drive.

For example, if you wanted to delete a file called Report from your desktop, you'd run the `rm` command, like so:

`rm ~/Desktop/Report`

Now say you have several files with names such as Report2005, Report2006, Report2007, and Report2008, and you want to delete the report from 2005 using the command line. If you acciden-tally type `Report2007` instead and press return, you won't be able to retrieve the file unless you have a backup.

And that's not the worst mistake you can make when you're using `rm`. When you reference file and folder names that contain multiple words, Unix requires that you use either quotation marks, as in `rm ~/Desktop/"Report 2005"`, or a back-slash, as in `rm ~/Desktop/Report\ 2005`, to indicate that both words are part of the name. Quotation marks are the safer choice because it's very easy to forget the backslash. Leave out the backslash, and the `rm` command will think you're telling it to delete two separate items.

The other two commands to be careful with are `cp` and `mv`. The `cp` command is Terminal's equivalent of dragging a file in the Finder to another volume, or option-dragging a file (or selecting File: Duplicate) to copy it to a different location. Likewise, you use the `mv` command to move files from one place to another, much as you would drag a file to a different folder. You run both the `cp` and `mv` commands like this:

`command source destination`

The source can be one file or several files. The destination can be a single file or a directory. For example, `cp Report2005 ~/Documents/Archives` copies the Report2002 file from the current working directory to the Archives directory in your Documents folder. If you want to change the file's name—to Report2002_copy, for instance—when you copy it, you can run this command:

`cp Report2005 ~/Documents/Archives/Report2005_copy`

The danger of the `cp` command is not just that it replaces any existing file with the same name, but that it does so without warning you as the Finder would.

TAKE SAFETY MEASURES

The cautious Unix founders wisely added the `-i`, or interactive, option to the command line as a safety measure. When you use this option, Terminal will verify certain commands with you before executing them. It's the best option to protect yourself from harmful typos. To use `-i`, add it to a command, like this:

`rm -i Report2005`

Terminal will display a message—"remove Report2005?"—asking whether you're sure you want to remove the file. You must type `yes`, or simply `y`, before the `rm` command does its work. If, however, you type anything else, such as `no` or `n`, or simply press return, you cancel the operation. Both `cp` and `mv` also offer the interactive option, and using it whenever possible is a good idea. When you use this option, Terminal displays the following message if your command is going to replace an existing file: "overwrite file name and path? (y/n [n])". Press return to select the default answer, which is no. Type `y` or `yes` to tell Terminal to overwrite the file.

ADD AUTOMATIC PROTECTION

If you know you're forgetful, set up Terminal to use the interac-tive option automatically whenever you invoke `rm`, `cp`, or `mv`.

To do this, you must create a shell alias. Your shell (bash, by default) is the program that runs in Terminal whenever you launch the application. A shell alias is nothing like a Finder alias. Rather, it's a way of having one Unix command run another one.

You need to add your alias in the .profile file in your user folder. If you don't already have such a file, use your favorite plain-text editor to create a file with that name.

Now, add the following lines:

```
alias rm='rm -i'
alias cp='cp -i'
alias mv='mv -i'
```

When you save the file, the Finder will warn you that you're creating an invisible file. To proceed, click on the Use '.' button.

Essentially, you've created shortcuts for all these commands. Every time you type the `mv` command in Terminal, no matter how complex the actual command is, the shell will run that command with the safer `-i` option, helping you avoid any unwanted deletion or overwriting. To make Terminal ignore any alias you've set, run the `rm` command as follows:

```
\rm file
```

By using the backslash, you're telling the shell to use the real command instead of its alias.

USE REDIRECTION

When the output of a command is long, or when you want to save it to review later, it's convenient to save the output to a file instead of displaying it in Terminal. You do this by using the redirection character, a close angle bracket (`>`), followed by a space and then the destination file's name. For example, use the `sort` command to sort a list of phone numbers in a file, and then save the results in a file called sorted_phone.txt:

```
sort phone.txt > sorted_phone.txt
```

Remember to give your output file a new name or you'll lose the original file.

PREVENT OVERWRITING

Since redirecting output is such a common action (you may use it when you parse log files or run complex find commands), the Unix folks created a special variable, aptly named `noclobber`, that you can set in your shell. With this variable in place, Terminal will prevent you from overwriting files when you use the redirection character.

All you have to do is open your .bash_profile file and add the following line:

```
set -o noclobber
```

Now, when you redirect output with the redirection character, you'll see this error message: "cannot overwrite existing file." This will save you from losing the original redirected data, or any other files with the same names as those you've chosen for redirection. All you need to do then is run your command again, renaming the output file, to save the output.

Macworld
Superguide

MAC OS X
Hints
LEOPARD EDITION

By Rob Griffiths
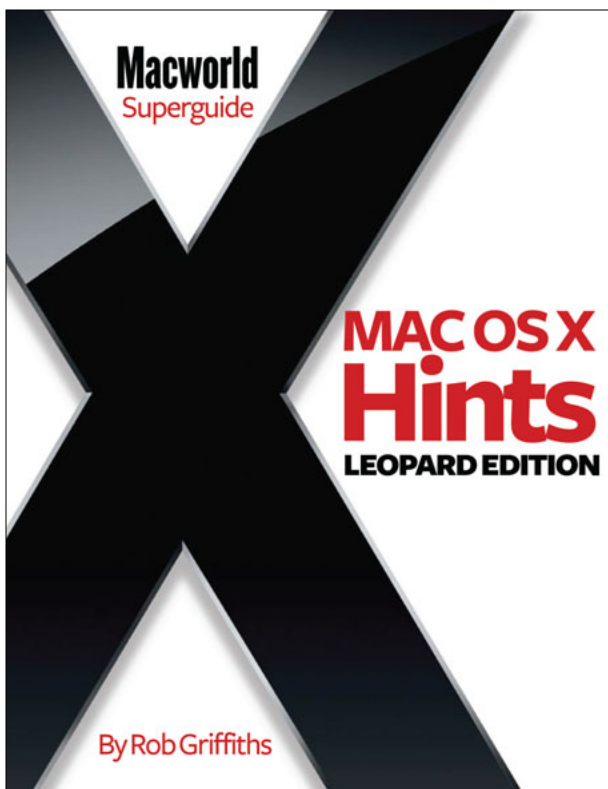
When it comes to uncovering your Mac's hidden powers, there's no better resource than MacOSXHints.com, a collaborative Web site that lets Mac users share their favorite tips and tricks. In fact, over the past eight years, the site has collected more than 10,000 hints covering every version of Mac OS X.

For this book, the site's creator, Rob Griffiths—in collaboration with the editors of *Macworld*—has pulled together the most useful hints for OS X 10.5. Whether you're a power user looking to take control of your system or a relative newcomer searching for ways to be more productive, this handpicked collection will help you get the most from Leopard.

Inside these pages you'll find more than 200 tips covering nearly every aspect of Leopard, including customizing the look of Finder windows, searching hidden system files with Spotlight, and making the most of OS X newcomers like Quick Look and Spaces. You'll also dig deep into Leopard's system settings to fine-tune your preferences, save time with undocumented shortcuts, and unlock powerful file-sharing and printing features. Once you've mastered your system, use our step-by-step advice for squeezing more power from OS X's built-in programs, including Mail, Safari, iCal, iChat, iTunes, Preview, and more. And of course, no guide for power users would be complete without a trip to Terminal. If you're new to OS X's command-line interface, we'll show you how to get started and how to protect yourself from dangerous actions. If you're a command-line veteran, you'll find tips for taking advantage of new Leopard commands and strategies for working in Terminal more efficiently.

Ready to unlock your Mac's hidden potential? This book is for you.

Master Your System
Learn the Secret Ins and Outs of Settings, Sharing, and Printing in Leopard

MAC OS X HINTS, LEOPARD EDITION

Navigate Leopard

MAC OS X HINTS, LEOPARD EDITION

Unleash OS X's Programs
Discover Hidden Powers in Mail, Safari, iChat, and Others

MAC OS X HINTS, LEOPARD EDITION

Take Command of Terminal
Dig deeper into OS X with this powerful, behind the scenes tool.

MAC OS X HINTS, LEOPARD EDITION

ISBN 978-0-9789813-6-5

9 780978 981365

92495 >