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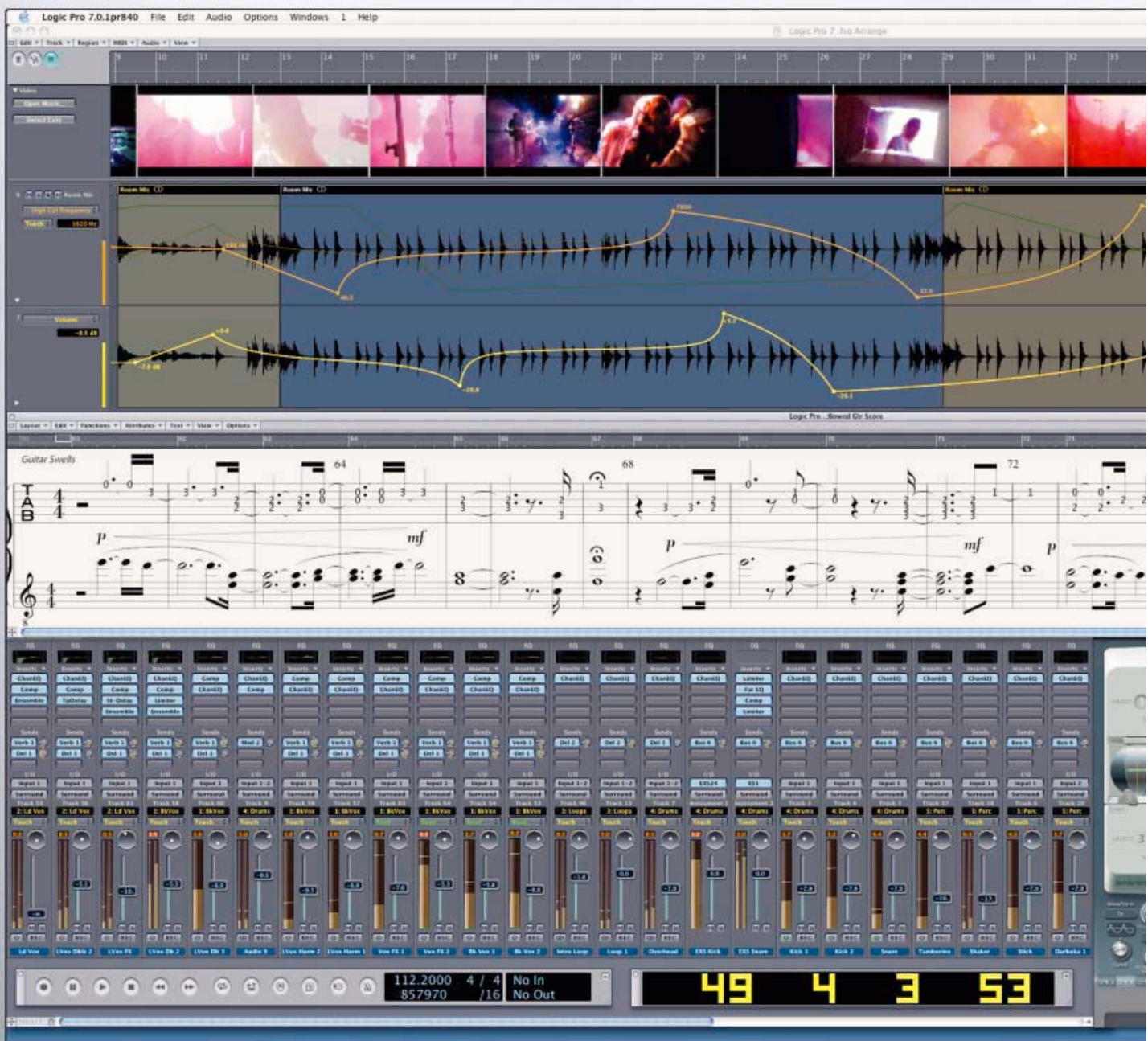
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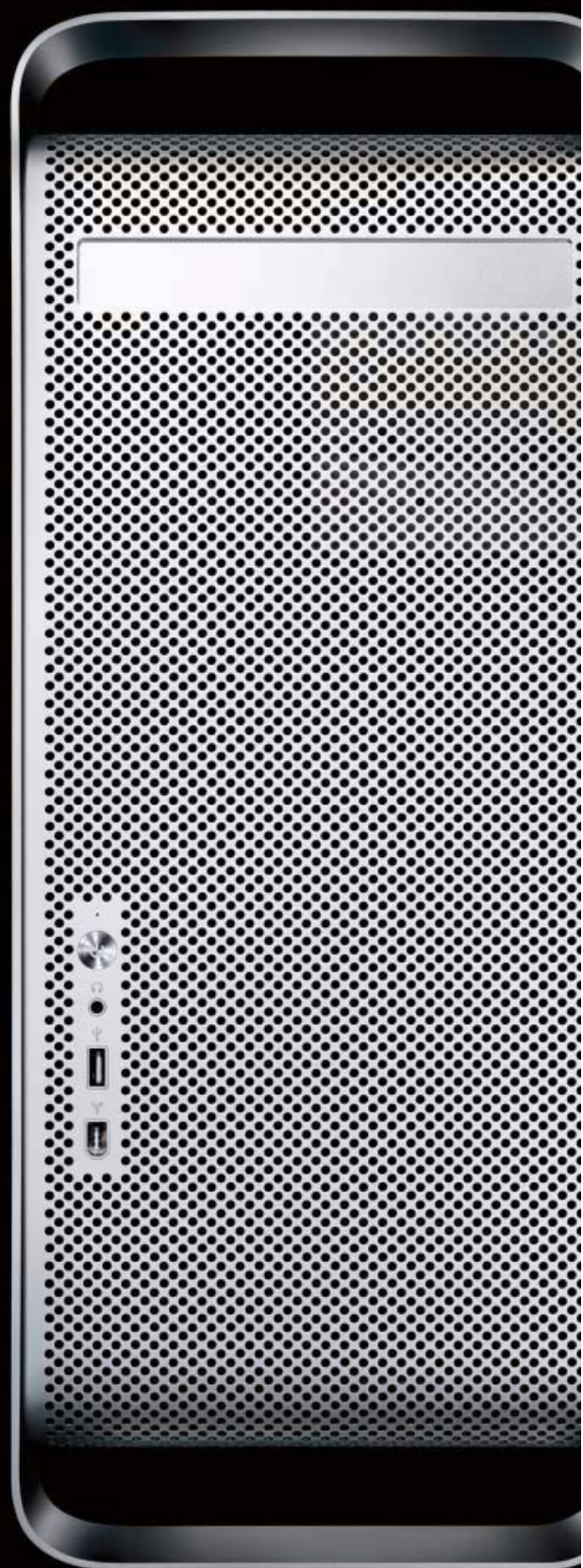




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Macworld

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Photography by
Peter Belanger



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All readers now have free access to the contents of the CD-ROM that comes with some copies of *Macworld*. To view the contents of the CD, go to the following URL (broadband Internet recommended):

<http://cd.macworld.com/2005/05/squeaky-goose>

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Check out our editors' favorite developments of the month.

Charity begins at home.

And being that our home is planet Earth, we at Small Dog Electronics believe it benefits us all to act responsibly. To that end, we have recently begun our new eWaste initiative that allows our customers here in Vermont to conveniently drop off their old electronics for safe recycling.



In addition, for the past four years we have been offering matching charitable contributions for all of our customers whenever they make a purchase at smalldog.com.



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We're Listening

What makes a magazine what it is? It's not the editors, writers, designers, and other content creators. It's not the advertisers or the physical paper and ink that arrive in your mailbox or on your newsstand every month. It's the *readers*. Magazines exist to serve readers, and the publications that don't tend to disappear in a hurry.

The Internet hasn't killed the printed word, but it *has* redefined what readers want from paper-and-ink magazines. These days, readers look to the Internet for breaking news, product information, and fixes to nagging computer problems. These are all areas we're focusing on at Macworld.com. At the same time, we're tweaking *Macworld* magazine to take better advantage of the strengths of print. Today's *Macworld* focuses more on tips and in-depth how-to articles, and less on breaking news, than the *Macworld* of five years ago. You changed, technology changed, and so did we.

How Are We Doing?

The Internet has also changed how we interact with our readers—and that, in turn, has changed *Macworld* even more. Since we launched our Macworld.com forums in December 2000, we've been interacting with readers daily, answering questions, getting feedback, taking criticism, and brainstorming cool story ideas. More recently, we began using the Web to survey *Macworld* readers on a monthly basis, finding out which articles you read, which you skip, and which you find the most valuable.

The results on both fronts have been fantastic. Today we have a much better view of who you are and what you want from this magazine. The online interaction, combined with all your e-mails and your direct feedback at events such as Macworld Conference & Expo, has helped us make sure that *Macworld* meets your needs.

Of Cameras and iPods

More than a year ago, we introduced several departments to the back of *Macworld*, including *Mobile Mac*, *Working Mac*, and *Geek Factor*. When we launched them, the department topics were shots in the dark—we didn't really know whether they'd work. To our great relief, they've all been generally well liked. But we've realized that those initial choices failed to devote regular space to two of the areas of greatest interest to *Macworld* readers: digital photography and digital music.

So this month, we're inaugurating our new *Digital Photo* and *Playlist* columns, within the *Secrets* sec-

tion. *Digital Photo* covers all aspects of digital photography, from tips on shooting to advice on how best to process and print your images. *Playlist* (which shares its name with our iPod- and iTunes-focused Web site and magazine) is devoted to digital music playback in all its forms. To make room for those two new columns, we're eliminating *Digital Hub*. But never fear—all the topics we used to address in *Digital Hub* will now be divvied up among *Playlist*, *Digital Photo*, and *Create*.

A Reviews Revolution

In this issue, we're also changing the way we present product reviews, again based on your feedback. We've boosted our coverage of new Macs and other major products, enhanced our product roundups, and expanded our *Mac Gems* column, which features the greatest Mac products you've never heard of. We've also expanded our *Top Products* section, which lists your best bets in printers, monitors, and other hardware categories every month. As a result, we've actually increased the number of hardware products we test in Macworld Lab every month.

Finally, we're debuting our new *More Reviews* section. In this section, you'll find shorter reviews of products that appeal to smaller audiences. These reviews will give you a good snapshot of each product's strengths and weaknesses. If you want to know more, look for a URL at the end of the review. Type that address into your browser, and you'll get the full, expanded review of that product on Macworld.com.

The Listening Never Stops

As the saying goes, change is the only constant in the universe. Your interests as *Macworld* readers will continue to evolve—and so will *Macworld*. We promise to keep listening, so please keep telling us what works—and what doesn't work—for you. We want to give you what you want and need. Because, as another saying goes, without you, we're nothing. □

If you'd like to join our reader-survey pool, apply at www.macworld.com/surveys/panel. And I continue to welcome your feedback in public at www.macworld.com/forums, or in private at jason_snell@macworld.com.

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2004



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Here's to 20 years of making electric lift tables, modular workstations and, yes, the little gray cart.

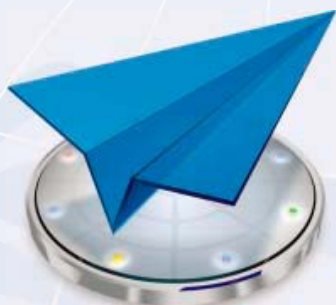
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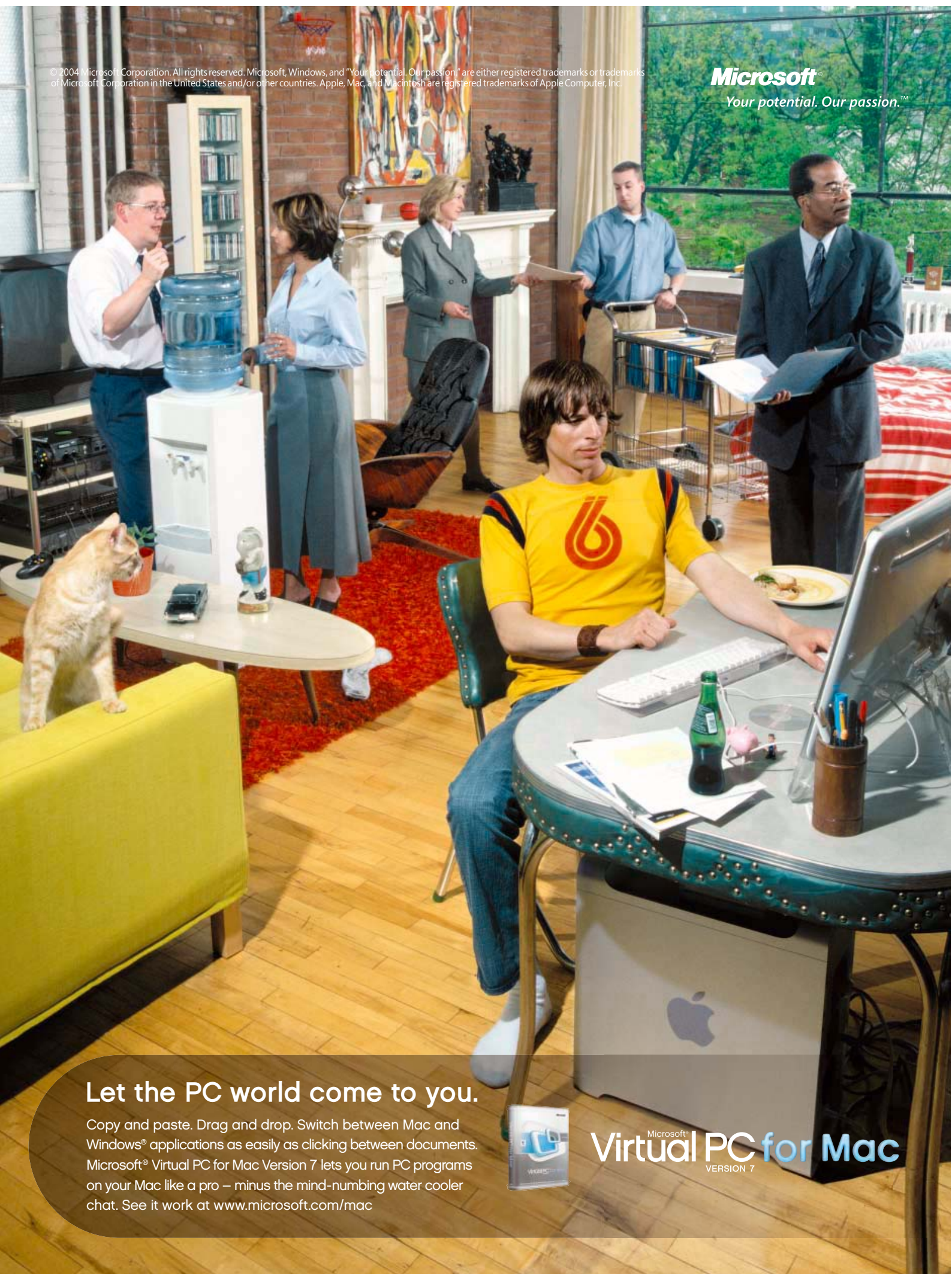
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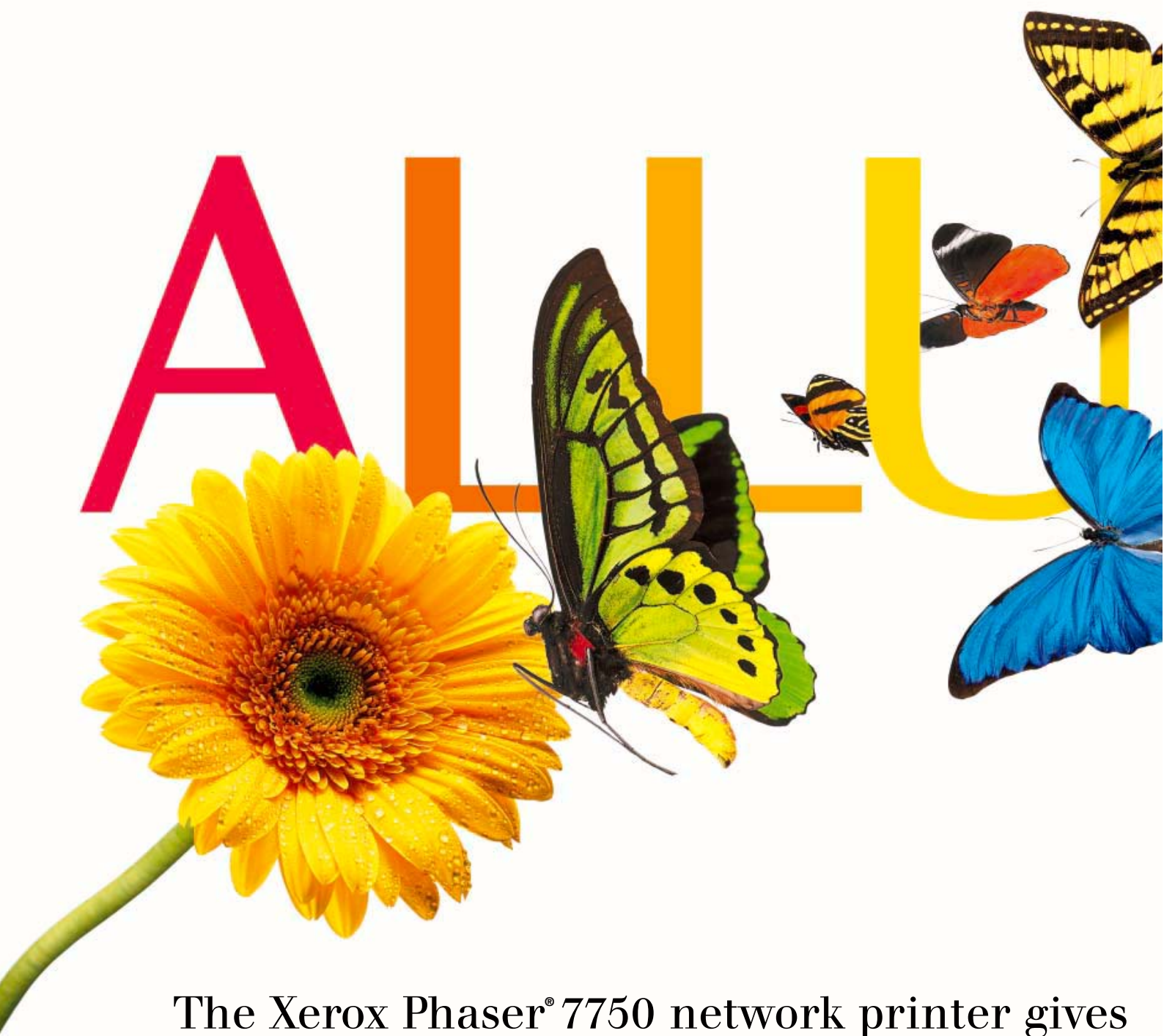


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FEEDBACK

Don't Let This Happen to You

Conventional wisdom says you just don't put images of smoking, battered Macs on the cover of a Mac magazine. To which we say *phooey*. Let's face it: Mac maintenance—like flossing your teeth and changing your oil—may not be scintillating, but it really is important. So excuse us for slightly exaggerating the consequences of neglect on our February cover. Judging by your responses to “Prevent Mac Disasters,” a little editorial license on the cover didn't keep you from reading what was inside. □

Disaster Response

KIMBERLY BARNES

I just wanted to say thanks for the great info in “Prevent Mac Disasters” (February 2005). Although I'm not new to Macs, I didn't know where to start my cleanup chores with this latest beast (OS X 10.3.5). Thanks to your tips, the spinning beach ball is packed away and my Mac is running like a new one. (Too bad—I needed a good excuse to order a G5 iMac.)

SKIP BLUNT

Just got the February issue and got lost in “Prevent Mac Disasters.” The “eight simple steps you can take now to keep your Mac from falling apart” were too techie for me. For example, in the section about preferences, you recommend we “use the Unix utility *plutil*.” What is a *plutil* and where is it? Sherlock can't find any *plutills*! Then you go on to tell us to type some text in Terminal. Sherlock found that one, but I couldn't use it, thanks to all my fat-finger typos. Generally, I really appreciate the articles in *Macworld* and look forward to every issue. But this one should have come with a techie warning for regular computer users.

KEVIN CHURCHMAN

I was surprised to find no mention in “Prevent Mac Disasters” of a wonderful product I use: Marcel Bresink's Tinker-Tool System (find.macworld.com/0310). It runs maintenance scripts, repairs permissions, and deletes cache and log files. It can also verify the integrity of preference files, lock and unlock groups of files, remove foreign-language files, silence the startup chime (thank you!), and much more. I evaluated some of the other products you mentioned, but I found Tinker-Tool System to be superior. I think it

should be mandatory issue for the Mac newbie. I know your article should be.

RYAN HANNAN

I was surprised not to see Anacron ([find .macworld.com/0311](http://find.macworld.com/0311)), a free open-source utility that runs daily, weekly, and monthly cron jobs while using practically no system resources.

DONALD TUCKER

I'm surprised you didn't include Dicom Datautveckling's Cocktail, which received four mice in *Macworld* (August 2003), has more features than the Titanium OnyX program you included, and costs just \$14.

We tried to provide a cross-section of apps, but we didn't have room to mention them all. Some of the aforementioned apps were in the original draft but were cut for space reasons.—Ed.

Underpowered Power Mac?

RON STEWART

As the owner of a Power Mac G5/1.8GHz, I must take issue with your lukewarm review of this Mac (February 2005). Your criticisms might be valid for someone to whom price is no object—but for someone looking to upgrade, this is a great unit. An 80GB hard drive and a SuperDrive are nothing to sneeze at if you're coming from an old iMac with a 6GB hard drive and a CD-ROM drive. Sure, graphics pros who really need dual processors might find this Mac lacking, but the average user won't.

STEVE DUNLAP

Stop encouraging Apple to eliminate the bottom end of the Power Mac lineup! I just read your review of the Power Mac G5/1.8GHz single-processor desktop. I think it's great that Apple has a machine in the Power Mac lineup that fills this partic-

ular price, performance, and expandability slot. Because budget buyers like me typically keep machines longer, expandability is more important than top speed. In the real world, people do use computers for things other than desktop publishing and rendering movies. To say that a 1.8GHz 64-bit processor is good only for file serving and driving multiple terminals is ridiculous.

Hatin' on Quicken

PHILIP MEISSNER

I've noticed that *Macworld* consistently gives Intuit Quicken high ratings (February 2005). If you only knew the torture that Quicken has put its users through! Like QuarkXPress, this is the program people love to hate. Adobe InDesign gave QuarkXPress users an out. Quicken users have not yet been so lucky.

CHET DURNAL

As a registered user of Quicken 2002, I recently received a letter from Intuit that stated, “As of April 19th, 2005, in accordance with the Quicken sunset policy, Online Services and live support will no longer be available for Quicken 2001 and 2002 users.” So a product I've been using for just two years will no longer have support, and many of its features will be broken. This is the first time I have experienced a company virtually breaking its product in order to get me to buy a new version (\$69.95 minus \$20 for being a good customer). I plan to look elsewhere for personal finance software.

Readers' Choice

DAVID WASSON

After reading “The 20th Annual Editors' Choice Awards” (February 2005), I have to say you really blew it with your “Games

of the Year” selections. You chose a four-year-old port of Bungie’s Halo over Blizzard Entertainment’s World of Warcraft, a massively multiplayer game that had a simultaneous Windows and Mac launch. Waiting four years for a port is not as good as playing the same game at the same time that our Windows peers are playing. The Mac community should applaud Blizzard for giving us a current game that plays so well on our chosen platform. And the game rocks!

To be eligible for this year’s Eddys, products had to be released between November 1, 2003, and November 1, 2004. That’s why World of Warcraft wasn’t eligible: it wasn’t released until around Thanksgiving 2004—well past our deadline. (We reviewed it in our February 2005 issue.) Bungie released Halo in December 2003. We’ll certainly consider World of Warcraft for the 2005 awards.—Ed.

Mac Off the Web?

TOM DALTON

I generally prefer my old Macs to my PCs (two new Dells and a Gateway laptop). But

those Macs have a big problem: a growing number of Web pages use ASP (Active Server Pages) apps that don’t work on the Mac. Try using a Web-based WYSIWYG Web editor or NetSuite on a Mac; chances are it won’t work. These sites require the latest version of Internet Explorer, but Microsoft stopped developing Explorer for the Mac several years ago.

The Internet promised to level the OS playing field. Has Apple noticed that the Mac is becoming increasingly incompatible with the Net? Is Apple doing anything about it? And what will happen in a few years when all software (including Microsoft Office) is Web-based? Where will that leave the Mac if it’s compatible only with basic HTML Web pages?

Cover Arts

MATT LITTLE

On the cover of your February 2005 issue, there’s a picture of a broken Mac G5. In the picture, the Apple logo on the side of the computer is peeling off like a sticker. But isn’t the logo etched into the metal?

JIM GLEESON

I could never bend my G5 Mac’s case that way. In fact, I think whatever it’s made of could replace the Kevlar in bullet-proof vests. The thing is a fortress. And when its chip got fried, there was a click, some smoke, and an interesting smell, but no extensive damage. Still, kudos on the amazing cover.

As noted in “About This Macworld” (From the Editor’s Desk, February 2005), “no Macs were harmed in the production of this issue’s cover.” Our artist rendered the abused Mac with NewTek’s LightWave 3D.—Ed.

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Silent

*For creative professionals
and others, FileMaker
speeds the work and boosts
productivity*

Partner

YOU CAN'T BLAME CREATIVE PROFESSIONALS AND their agencies for feeling a bit conflicted these days, and harried as well. Their hearts beckon them to throw themselves deeply into their creative work, turning out one great marketing or promotional campaign after another.

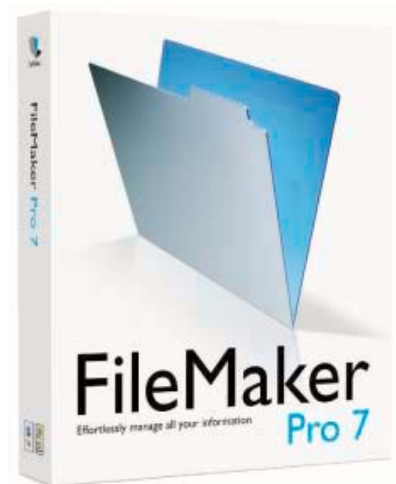
But theirs is a business increasingly filled with undeniable administrative details. The growing number of project components from complex programs has to be carefully tracked. Information must flow freely from the clients and other creative professionals to get the jobs done. Billable hours must be

closely monitored and, if possible, reduced to give the client the best possible value. All these things take time, which the creative mind would rather spend, well, creating.

That is why more than 100,000 creative professionals and literally millions of other business users rely on

FileMaker to simplify complex business administrative tasks, freeing up professionals to do what they love.

"We just wouldn't have the success we enjoy if we weren't the big FileMaker Pro 7 users we are here," says Anthony Helmstetter, manager at Scottsdale, Ariz.-based SpinSix, a leading marketing and design



firm. "With FileMaker Pro 7, we have great synergy among our different groups that absolutely need to communicate with each other; superb communications with our clients; and a tool that boosts individual productivity by giving our top guns the time they need to create, and therefore delight our customers."

Making small work of big files

The ease of use, power, and flexibility of FileMaker Pro 7 becomes all too evident by tracking its extensive use through the different departments and functions at SpinSix.

Creative professionals can find the answers to clients' questions about project status, costs, scheduling, and more with FileMaker Pro—with just a simple click.



The graphic designers in the SpinSix creative team work with very large and complex files, and often many of them are for the same project. That's no problem for FileMaker Pro 7, which allows users to store an amazing 8 terabytes of data in just about any file format, including audio, video, photos, music, and more. FileMaker Pro 7 not only allows users—even novices—to set up a database of project images, but also to retrieve them instantaneously.

"It's a breeze for me to find all the details on a photograph I want to use, such as the photographer's information, whether or not we have reuse rights to the photo, and other vital data," notes Dave Radich, SpinSix senior graphic designer. "I can organize all my important information in one place and easily share that with coworkers."

While Radich is busy creating, sales manager Joe Pizzimenti is busy selling and managing client relations. He knows full well that the words clients least want to hear when they call him asking for project details are, "I'll have to get back to you on that."

"The truth is, I often have the FileMaker Pro 7 data up on my screen before they finish asking their question," Pizzimenti remarks. Whether it is production cost, project status, schedule information, or anything else the client wants and needs, Pizzimenti says he is seldom more than a click away from retrieving it. Also, by being able to call up detailed cost information, Pizzimenti can help the client isolate the job's most costly aspects. This helps him and the client to better identify possible areas of cost savings.

Secure and flexible

And whether the information is vital client data or sensitive creative information on big projects, FileMaker Pro 7 gives users just about all the security they want for their most important files. FileMaker Server 7 uses Secure Sockets Layer (SSL) encryption to boost the security of FileMaker data moving from hosted databases to clients. And administrators can

effortlessly filter the display of hosted database names based on the users' privileges for added data protection.

Creative environments use a broad mix of computing technologies, including Apple Macintosh and Microsoft Windows-based systems. Knowing the customer preference for best-of-breed platforms, often in the same department, FileMaker Server 7 lets users share files among Windows or Mac OS X users. And organizations can connect up to 250 users simultaneously to a hosted database, essentially accommodating any size team.

Back at SpinSix, Helmstetter is using FileMaker Pro 7 to get just about any view of the business he needs, be that a 30,000-foot view or a view from the sub-basement. Helmstetter can quickly click on the status of all jobs simultaneously, and then drill down into any minute aspect of any or all of the active projects. He has also effortlessly customized his screen to display the FileMaker data just the way he likes it, without impeding his ability to share files and information with coworkers, clients, or prospects.

Web publishing made easy

Oftentimes clients like to see work in progress. In the "old days," this meant stuffing everything from prints to poster boards to CDs and disks into courier or overnight folders, schlepping them to the delivery point, and hoping they arrived somewhat unscathed. Now with FileMaker Pro 7, publishing any or all of a project database of digital images to the Web is a snap for Lisa Burks, the production manager at SpinSix. These same images are also available to other internal staff at SpinSix, and Burks can easily control what viewers can and can't do with the images they view. "This sure beats the old courier system, or sending mega-

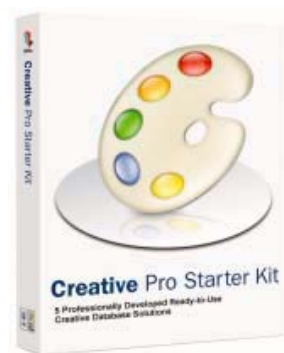


FileMaker Pro offers a digital asset management solution that stores multiple types of media (images, graphics, video) along with related information, such as name of client, job number, creation date, author, owner, usage rights, etc.

email attachments that half the time get kicked back anyway," notes Burks.

FileMaker Pro 7 is ready to use out of the box by just about anyone, and FileMaker also offers a free download of its FileMaker Creative Professionals Kit. This ready-to-use kit comes with preprogrammed, customizable solutions specifically for the creative market, allowing even novice users to create digital libraries for archiving all types of data files; protect sensitive files with advanced yet easy-to-implement security features; and organize information in one place for quick access by the whole team—from designers to copy writers to production staff.

FileMaker Pro 7 has proven itself to be a strong "silent partner" for creative firms and thousands of other businesses as well. To find out more about what FileMaker can do to drive productivity for your business and to get the free download, go to www.filemakertrial.com/macworld.



The Race Is On

APPLE CALLS 2005 THE YEAR OF HD VIDEO—IS STEVE JUMPING THE GUN? BY ANTON LINECKER

At January's Macworld Expo, Steve Jobs stood onstage during his keynote address and confidently declared that 2005 would be the "Year of High-Definition Video." To back up that claim, Jobs then introduced new versions of Apple's consumer-level and midlevel video-editing applications—iMovie and Final Cut Express—that are compatible with the HDV format. He also showed off a new video codec, known as H.264, that will be included with Mac OS X 10.4 and is intended for high-definition DVDs.

As a video professional who often works with HD formats, I was definitely intrigued by the announcements. HD editing has been possible for years on Macs, but it normally requires expensive hardware and a very fast hard-drive array. HDV, however, is a different story. It produces an excellent picture at a very low data rate that even very modest Macs can handle, and it's quickly becoming a staple of reality television shows and sports channels. Many video pros, from wedding videographers to Mark Burnett types, can see dollar signs in HDV. For ordinary consumers, however, the Year of HD is probably not going to be until 2006 or later—despite Apple's best efforts.

Not So Fast

Why the reality check? The history of DV shows that widespread consumer adoption requires three things—low-cost cameras, easy-to-use editing programs, and flexible playback options (such as DVDs). Jobs's announcement directly addressed only one of these requirements: editing. DV also had another advantage for fast adoption that HDV doesn't—practically everyone already owned a standard television. HDTVs have nowhere near that kind of market penetration.

Despite HD's increased resolution and picture clarity, the adoption of HD has been glacial at best. In the past



few years, though, HD has started making serious strides when it comes to television sales. Screen Digest (www.screendigest.com), which publishes a newsletter about audiovisual developments, estimates that more than 12.6 million HDTVs are in U.S. households (versus 250 million standard TVs). Also, as more and more high-definition programming becomes available via cable, satellite, and over-the-air transmissions, HDTV sales will increase. This will further drive interest in HDV.

HD consumer camcorders also are starting to gain some traction this year. JVC introduced the first HDV camcorder, the GR-HD1, in October 2002. Unfortunately for JVC, neither Final Cut Pro nor Avid Xpress Pro worked with HDV (they can't even now). So, hampered by the lack of pro-level editing software and the fact that the cameras shot in the 720p format at 30 frames per second, rather than the more desirable 1080i format, the GR-HD1 and subsequent JVC models failed to catch on. The HDV format got a huge

Codec (AIC), which transcodes HDV's hard-to-edit MPEG-2 into a more manageable format. This codec, though effective, is expected to be only a temporary patch until a better method is ironed out. "I wouldn't say editing HDV [using the AIC codec] is 100 percent ready for prime time," says Jerry Miles, Mac product manager for Promax Systems, a computer and video reseller. But he is very impressed with the quality of HDV in iMovie—especially considering iMovie's low cost.

Another Piece of the Puzzle

Shooting and editing are only parts of the overall picture. What do you do with a movie when you're done editing it? Currently, there are only two ways to show your iMovie HD creations—export them back to your HDV camcorder and connect it to an HDTV, or send the movie to a DVHS recorder, a \$700 consumer HD deck that records HD MPEG-2 to VHS tapes. You can't use iDVD or DVD Studio Pro and a SuperDrive to create an HD

Editing DV is remarkably stable—HDV editing is a moving target.

boost when Sony released its \$3,700 HDV camcorder, the HDR-FX1, at the end of 2004. Compared with professional HD cameras—which have a typical entry price of \$70,000—HDV camcorders such as the HDR-FX1 are a relative bargain. Still, the HDR-FX1's price tag puts it out of the reach of most casual consumers.

For adoption to become more widespread, prices will have to drop to the sub-\$1,000 level—something not likely to happen this year. (Sony's pioneering DCR-VX1000 DV camcorder cost \$4,200, whereas you can pick up an entry-level digital camcorder now for less than \$300.)

As Daniel Slagle, who runs the iMovie Unofficial FAQ (<http://iMovie.DanSlagle.com>), points out, "The majority of people have a huge investment in DV. Unless they are in the market for a new camera, and have at least \$3,000, they are going to stick with DV."

In addition, after many years of refinement, editing DV is remarkably stable. HDV editing is still a moving target. For iMovie HD and Final Cut Express HD, Apple added the Apple Intermediate

DVD, because the format is still in its infancy. The biggest names in technology are battling to be part of the winning format, and, as Slagle says, "It is Betamax versus VHS all over again."

Toshiba's HD-DVD and Sony's Blu-ray DVD are the new proposed standards in this scrap, and, naturally, they are incompatible with each other (Apple recently came out on the side of Blu-ray). With so much uncertainty, most people will want to wait before buying either format, for fear of investing in something that will quickly become obsolete. You can expect the first high-definition DVD players to reach the market later this year; affordable burners, some time after that. Don't expect Apple to equip Macs with high-definition-capable DVD burners until 2006.

It seems that 2005 is really more the *First Year* of High-Definition Video for most people. This year will, however, hint at what is to come for consumer HD. Apple has already accomplished so much. With the company at the forefront, Mac users will be ready when the rest of the industry catches up. □

R.I.P. JEF RASKIN

In February, the Mac community lost Jef Raskin, the lead designer of the first Macintosh computer and a pioneer in the development of user interfaces. The 61-year-old Raskin had recently been diagnosed with pancreatic cancer.

Raskin joined Apple in 1978 as employee number 31; he headed the Macintosh development team from its founding until 1982. He named the project after his favorite type of apple.

He is credited with significantly advancing the design of user interfaces, which in the early 1980s were largely text-based and required that users memorize complex commands. Raskin convinced his peers at Apple that to reach a wider audience, the Macintosh needed an interface that was elegant and easy to use.

"Up to that time, at Apple and most other manufacturers, the concept was to provide the latest and most powerful hardware, and let the users and third-party software vendors figure out how to make it usable," Raskin wrote later on his Web site (www.jefraskin.com).

Raskin left Apple two years before the Mac went on sale, but he continued to influence the design of computers through his writing, lectures, and consulting work. Soon after leaving Apple, he founded Information Appliance, where he designed the Canon Cat computer for Canon USA. He consulted for big names such as IBM, Intel, and HP, and he published the book *The Humane Interface* in 2000.

Raskin was last at work on a project called Archy (www.raskincenter.org), in which he hoped to put many of the ideas expressed in his book into software. Archy uses simple commands for common operations in word processing and e-mail. Raskin wrote on his Web site that it "doesn't work like anything else on this or nearby planets."

His son, Aza, plans to continue developing the project. His family said in a statement that a preview version is due out later this year.

Raskin's interests went beyond computers: He taught the recorder, the harpsichord, and music theory at San Francisco Community Music Center in the 1970s. Read our 2002 interview with Jef Raskin at find.macworld.com/0421. —JAMES NICCOLAI



PHOTOGRAPH BY AZA RASKIN

APPLE UPDATES IPOD LINE, DROPS PRICES

A Pod for Everyone



Although the popular iPod represents nearly three-quarters of all digital music players on the market, Apple has shown that it isn't content to rest on past achievements. With its recent updates to the iPod line, the company has closed the gaps between prices of different models, changed storage capacities, and made improvements (see "Pods Aplenty").

More than Mini

The new version of the iPod mini, which features a 6GB hard drive, increases storage capacity by 50 percent and leapfrogs over many competitors' 5GB players. At \$249, it has the same price as the original iPod mini. Apple will continue to sell that first-generation 4GB model, but the company dropped the price down to \$199—an important step, both financially and psychologically.

"\$199 is just the magical place to be in the consumer market," says Greg Joswiak, Apple's vice president of hardware product marketing.

That price also puts the iPod mini on a more competitive level with other companies' digital music players. Is Apple feeling the heat from competitors?

"If you look at the market data, nobody has really gained traction," says Joswiak. "We certainly take the competition seriously, but we have the perfect solution."

Another improvement to the mini is in the area of battery life: Apple claims to have more than doubled the capacity, from eight hours to 18 hours per charge. "The longest flight in the world is from New York to Singapore," says Joswiak. "We've got you covered."

The iPod mini's Click Wheel is now color-coordinated to match the iPod mini, and Apple also introduced a new line of \$29, color-matched arm-bands for iPod mini users—in silver, blue, pink, and green (the gold model is now gone).

In addition to dropping a color choice, Apple has decided not to include a FireWire cable with the new minis. All iPod minis come with only a USB 2.0 cable, which makes sense for keeping costs down in a cross-platform product (all current Mac models include USB 2.0). For people who prefer FireWire, Apple sells that cable for \$19.

Fun with Photos

The other big iPod news is a refreshed line of iPod photos. A slim, \$349 30GB model replaces the previous 40GB model—at \$150 less than its 40GB predecessor. What's more, Apple has reduced the price of the 60GB iPod photo by \$150, from \$599 to \$449.

The 40GB drive used two platters to store information, while the 30GB drive needs only one—so this iPod is thinner and lighter. (Apple has discontinued the fourth-generation 40GB iPod, too.)

Apple also removed the dock and the AV cable from the box—they're now accessories, available for \$39 and \$19, respectively. Like the iPod mini, the iPod photo no longer includes a FireWire cable.

iPod Camera Connector

For many people, the most important change to the iPod photo is Apple's new iPod Camera Connector, which the company announced at the same time as the new iPod photos. The Connector is a \$29 accessory that connects the iPod photo and your digital camera, allowing you to transfer images directly to the iPod photo, without a computer.

Apple says that the iPod Camera Connector allows iPod photo users to view pictures immediately and then sync them back to iPhoto later.—PETER COHEN AND JIM DALRYMPLE

PODS APLENTY

MODEL	PRICE	CAPACITY	BATTERY LIFE	MORE INFORMATION
iPod shuffle	\$99	512MB	12 hours	find.macworld.com/0368
iPod shuffle	\$149	1GB	12 hours	find.macworld.com/0369
iPod mini	\$199	4GB	18 hours	find.macworld.com/0154
iPod mini	\$249	6GB	18 hours	find.macworld.com/0365
iPod	\$299	20GB	12 hours	find.macworld.com/0155
iPod U2 Special Edition	\$349	20GB	12 hours	find.macworld.com/0182
iPod photo	\$349	30GB	15 hours	find.macworld.com/0366
iPod photo	\$449	60GB	15 hours	find.macworld.com/0367

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AD PRESENTS MISLEADING PICTURE OF MUSIC'S TRUE COSTS

Napster's Bad Math

During this year's Super Bowl, Napster launched Napster To Go, a new subscription service aimed squarely at taking business away from Apple's iTunes Music Store (see the ad pictured here).

As the first online music service to use Microsoft's Janus digital rights management technology, Napster To Go offers a new approach to subscription-based digital music. For \$15 a month, you can download as many of the service's 1 million songs as you want and listen to them on a PC or a compatible MP3 player.

"Napster To Go provides infinitely greater value and is much more exciting than the iTunes pay-per-download model," says Chris Gorog, Napster's chairman and CEO. "This is what consumers want."

But if market share is any indication, more than 70 percent of consumers want an iPod—which is not compatible with the Napster To Go service.

Paying \$15 a month may be less expensive than buying even a few dozen songs from the iTunes Music Store every four weeks, but the difference is that you *own* anything you get from iTunes. With Napster To Go, if you stop paying, the music stops playing—also,

you do need to pay for tracks if you want to burn them to CD.

And most people already have hundreds (or thousands) of songs ripped from CDs. But even if you did buy 10,000 songs from the iTunes Music Store, they probably wouldn't cost anywhere near \$10,000: most albums include more than ten songs but cost \$10.

In the end, Napster's math just doesn't add up. If nothing else, giving up the iPod is a price most people won't want to pay.—JONATHAN SEFF



FASTER SPEEDS AMONG NEXT-GENERATION IMPROVEMENTS

Inside Bluetooth 2.0

Back in 1998, Apple included USB in its first iMacs—and faced widespread ridicule throughout the computing industry: Why include a new technology when only a few available products can work with it?

These days, it's safe to say that Apple made the right decision (or even that Apple helped push the adoption of USB). And Apple is once again at the forefront of technology, as the first company to include Bluetooth 2.0+EDR (Enhanced Data Rate) in a computer line—the new crop of PowerBooks.

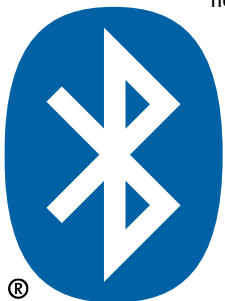
You're probably familiar with Bluetooth, the short-range wireless technology designed for input devices, cell phones, and headsets. The new 2.0 flavor improves on the original in terms of both speed and efficiency. Bluetooth 2.0 bumps up bandwidth from 1 Mbps to 3 Mbps; that improvement in raw speed not only allows faster transmission of data but also prolongs the bat-

tery life of Bluetooth devices. A telephone headset, for example, can transmit the same information faster, so it will use less energy.

"Because the headset can burst two to three times more data in a transmission, it is able to sleep longer between transmissions," says Mike Foley, executive director of the Bluetooth Special Interest Group, which sets Bluetooth standards and certifies products.

Foley says that even where battery life isn't much of an issue—in devices that transmit tiny amounts of information, such as mice and keyboards—Bluetooth 2.0's faster speeds will help users operate several Bluetooth devices at the same time with less latency and fewer delays.

Foley expects that we won't see Bluetooth 2.0 peripherals until this summer or fall. David Russell, Apple's senior director of portables and wireless technology, recalls that when the company adopted USB, "We literally did prime the pump on that entire industry." And Apple expects history to repeat itself with Bluetooth 2.0.—GLENN FLEISHMAN

IMAGING
BEAT

Canon EOS Digital Rebel XT SLR, from Canon (www.usa.canon.com): 8-megapixel digital camera is compatible with all of Canon's EF and EF-S lenses (body-only model, \$899; with EF-S 18mm–55mm f3.5–5.6 zoom lens, \$999).

Coolpix 4600, Coolpix 5600, and Coolpix 7600, from Nikon (www.nikondigital.com): 4-, 5.1-, and 7.1-megapixel cameras feature In-Camera Red Eye Fix technology and a D-Lighting feature that compensates for insufficient flash or excessive backlighting (4600, \$200; 5600, \$280; 7600, \$380).

D2Hs, from Nikon (www.nikondigital.com): Digital SLR camera has a 4.1-megapixel sensor and a large picture buffer for snapping as many as 8 frames per second for up to 50 consecutive shots (\$3,499).

D-545 Zoom and D-595 Zoom, from Olympus (www.olympusamerica.com): 4- and 5-megapixel cameras feature a 3× optical and 4× digital zoom (D-545, \$200; D-595, \$280).

D-630 Zoom, from Olympus (www.olympusamerica.com): 5-megapixel camera has a two-inch LCD, a 3× optical and 4× digital zoom, and a QuickTime movie mode (\$300).

EasyShot 500Z and EasyShot 510Z, from Concord Camera (www.concord-camera.com): 5-megapixel cameras have a 3× optical zoom. The 500Z has a voice-recording feature, and the 510Z has a 2.5-inch display (500Z, \$179; 510Z, \$229).

Exilim EX-Z750, from Casio (<http://elixer.casio.com>): The EX-Z750 is a 7.2-megapixel camera that has a 2.5-inch display and a 3× optical zoom (\$450).

GraphicConverter 5.5, from Lemke Software (www.lemkesoft.com): Utility for manipulating digital images and converting them to different formats adds a function for smudging and blurring pictures, a keyword window, and a brightness and contrast function (\$30; upgrade, free).

Stylus Verve S, from Olympus (www.olympusamerica.com): 5-megapixel camera uses TruePic Turbo processing technology to produce clearer pictures at lower resolutions (\$350).

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PodLock™ is a new utility that lets you do cool new stuff with your iPod. Optimize the data on your iPod so it works faster. You can also create a secret drive within your iPod that allows you to keep sensitive data away from prying eyes. And much more!



Micromat is dedicated to bringing you cool and useful utilities for your Macintosh and iPod. Our flagship product, TechTool® Pro, has helped thousands of Macintosh users keep their Macs running at their absolute best. TechTool Pro can even recover lost data and resurrect faulty disk drives. Learn more about Micromat products by visiting our website.

SOUNDFLAVOR SUGGESTS YOUR NEXT FAVORITE SONG

Playlist-a-Palooza

With millions of songs available at the click of a button, finding gems can be hard. Wouldn't it be nice if there were a reliable way to discover new songs similar to the ones you already like? That's the premise behind Soundflavor (www.soundflavor.com), a community Web site that delivers personalized new-music recommendations.



Members create playlists from Soundflavor's database of music and rate tracks in others' playlists. The site then recommends new songs based on your choices. Unlike Amazon.com and Apple's iMix site, which look for matches with others' tastes, Soundflavor derives its suggestions from a complex algorithm that analyzes hundreds of song attributes—from the tempo, genre, and date of release to whether the lyrics contain irony—and looks for patterns. This, says CEO Steve Skrzyniarz, produces a more reliable recommendation system.

Soundflavor can also help you find "trusted" members—people who might share your tastes—and can then incorporate their ratings, but the selection process is still algorithm-driven.

Soundflavor's 123,000-song database is relatively small at present—the site is still in beta. Skrzyniarz says his "small army" of staff is constantly reviewing and adding more songs to the database. Now if only they had an algorithm to explain my fascination with Neil Diamond's "Forever in Blue Jeans." —MATHEW HONAN

INTERNET BEAT



Communicate Pro 4.3, from Stalker Software (www.stalker.com): Communications server for OS X adds a carrier-grade SIP infrastructure that lets users initiate SIP calls directly from their address books (single-server 25-user pack, \$699; upgrade, free to customers within their maintenance period).

FTP Suite 4.0, from Pyramid Design (www.pyramiddesign.us): Software for adding FTP capability to RealBasic applications can now start and administer multiple FTP sessions (hobbyist version, \$35; upgrade, \$15; professional version, \$80; upgrade, \$25).

Transmit 3, from Panic (www.panic.com): FTP client adds a column view, tabs for multiple connections, a Finder-like sidebar, and a new preview drawer (\$30; upgrade, \$18).

BEAT ICON BY PAUL HOWALT



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FRAZZETTA BIO RELIES ON MACS FOR DVD RELEASE

Mac for Art's Sake

In 2003, Lance Laspina and Jeremy DiFiore directed and produced, respectively, a documentary, called *Frazetta: Painting with Fire*, about famed fantasy artist Frank Frazetta. They used Macs for the entire production, and the duo again turned to Macs to produce the two-disc DVD release.

The film documents the life of Frazetta, an artist from Brooklyn whose work first appeared as illustrations for stories and comics in the 1940s and 1950s. He eventually turned to painting covers for Tarzan and Conan the Barbarian books. His work also appeared on the covers of magazines such as *Creepy*, *Eerie*, and *Vampirella*.

Laspina and DiFiore edited all of the extra features they created for the DVD—including



commentaries, deleted scenes, a photo gallery, and an animated film that features Frazetta's work—using Apple's Final Cut Pro.

DiFiore moved across the coun-

try before the two could record the DVD's audio commentary track—so Laspina created an MPEG-4 version of the movie and sent it to DiFiore. Then they phoned each other, simultaneously played the movie, confirmed that they were in sync, and recorded their commentary to their Macs. DiFiore burned his commentary track to disc and mailed it to Laspina, who used Final Cut Pro's Voice Over tool to edit the best comments together.—PETER COHEN

UNIVERSITY REPLACES LINUX CLUSTER WITH XSERVES

Fast and Furious

In 2003, Virginia Tech made headlines by creating the third-fastest supercomputer in the world: a supercluster of 1,100 Power Mac G5s. A new Xserve cluster at the University of Illinois at Urbana-Champaign (www.uiuc.edu) furthers the tradition of using Macs as high-speed computing systems.

The Turing Xserve Cluster (named after Alan Turing, the British mathematician credited with founding the field of computer science) is a 640-node system made up of dual-2GHz Xserve G5s, Apple's rack-mounted servers. Running Mac OS X 10.3 Server, the systems use Myrinet's Myricom networking hardware to talk to one another. In addition to the local storage on each Xserve, the system uses an Apple Xserve RAID system with 7 terabytes of storage.

"We needed as much capacity as we could get," says Michael Heath, the school's director of computational science and engineering. "We do very large-scale simulations for rockets, and we wanted

a first-rate environment in which to do that."

Heath says that the Turing Xserve Cluster, which cost around \$3 million, replaces a 208-node Linux-based system—and that results have been excellent. "We're seeing a tenfold increase in computing power," says Heath.

Other attractive features were the Xserve cluster's power and cooling requirements. "We already knew we were going to have to upgrade our computer room to accommodate the new systems, but Apple's Xserve solution was more efficient by a factor of two than other competitive systems," says Heath.

Also working in the Xserve's favor is Mac OS X's Unix base. "Our users are all used to various flavors of Unix, so coming to grips with Mac OS X Server is totally natural for all of them," says Heath.—PETER COHEN

STORAGE
BEAT

ARAIID 1500 Dual Mode and **ARAIID 2000 Dual Mode**, from Accordance Systems (www.accordancesystems.com): RAID devices slide into a pair of drive bays and connect to either IDE (1500 Dual Mode) or SATA (2000 Dual Mode) drive ports (1500, \$365; 2000, \$370).

DRaid Serial ATA RAID, from dgroup (www.thedrgroup.com): External storage system offers RAID level 0 and level 5 capabilities and comes in four- and eight-drive configurations (\$1,320 to \$5,200 depending on configuration).

Super DVD Writer 16x16 Dual-Layer Format USB 2.0 Drive, from Iomega (www.iomega.com): External drive features double-layer burning at 4x speeds and can write as much as 8.5GB on a single double-sided writeable DVD disc (\$190).

HARDWARE
BEAT

Astra 6700, from Umax Technologies (www.umax.com): Flatbed scanner features a USB 2.0 interface, 2,400-by-4,800-dpi resolution, and 48-bit scanning (\$150).

Cintiq 21UX LCD Tablet, from Wacom (www.wacom.com): Tablet features a 21.3-inch screen and eight programmable ExpressKeys and Touch Strips for scrolling, zooming, or changing brush settings (\$2,999).

CyberTablet 12000, **CyberTablet 8600**, and **CyberTablet 6400**, from Adesso (www.adesso.com): New line of graphics tablets features 512 levels of pressure sensitivity and comes in 12-by-9-inch (12000), 8-by-6 (8600), and 6-by-4.5 (6400) versions (12000, \$170; 8600, \$130; 6400, \$70).

MasterView CS-1762 and **MasterView CS-1764**, from ATEN Technology (www.aten-usa.com): Two- and four-port KVM switches, respectively, are designed to support systems with DVI-based displays, allowing users of different computers to use the same mouse, keyboard, and display (CS-1762, \$250; CS-1764, \$350).



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You know that finding just the right memory upgrade plays a big part in getting the performance you want from your Mac (and that upgrading your Mac's RAM can save you a bundle of cash compared to buying a new system). Now that you're ready to get your upgrade installed and start enjoying better performance, how do you figure out who has "the best deal" on Mac memory? You'll see tons of "lowest-price-anywhere!" deals, but really getting the best deal involves more than just price—it's also about things like compatibility, performance, and support. That's where Crucial comes in.

Will your memory be COMPATIBLE with my Mac?

Today's Macs require specific memory designed to exacting standards. Do you really feel comfortable trying to sort through a foreign-looking list of base part numbers to figure out which memory is right for your Mac? Our Crucial® Memory Advisor™ tool has approximately 594 upgrade choices for 250 distinct Mac models. In just three clicks, we'll provide you with a specific, detailed list of compatible upgrades, recommended upgrades, and even the most

popular upgrades. Your FREE memory upgrade advisor report will show you only the parts that we guarantee will work in your Mac, or your money back!

We're able to do this because Crucial is a division of Micron, one of the world's largest memory manufacturers and a supplier to leading notebook and desktop manufacturers (OEMs). Micron collaborates with OEMs to develop memory that will perform compatibly with the rest of the system specifications; in fact, chances are good that you have Micron memory in your Mac right now!

What kind of PERFORMANCE can I expect?

Whether you use your Mac as a tool for schoolwork or household bills, an entertainment center for music or movies, or as part of your job in image editing and design, a Crucial memory upgrade is a fast and easy way to prepare your Mac to run faster, multi-task between applications, and open large files. Our Memory Advisor tool provides you with information to advise you and explain the various levels of performance gains you can expect when you purchase a certain upgrade.

Will your PRICE max out my credit card?

You want the assurance that your memory upgrade is the right match for your Mac and that it will be the same quality as the original manufacturer's parts, but you hate paying the premium "dealership" price. As the only consumer memory upgrade provider that's part of a major DRAM manufacturer, Crucial sells OEM-quality modules over the Internet at factory-direct prices.

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Reviews

OUTSTANDING:
VERY GOOD:
GOOD:
FLAWED:
UNACCEPTABLE:



PowerBook G4s

No Big Changes, Many Small Improvements

BY HENRY NORR

Apple's PowerBook product developers faced a dilemma in the past year: With the G5 processor still too hot for laptops and no blockbuster new technologies to add, how could they breathe some vitality into a PowerBook line that's now more than two years old?

Instead of one big answer, they came up with a slew of small ones. Individually, none will knock your socks off. But collectively, they make the PowerBook lineup both more appealing and more affordable.

What's New, PowerBook?

Across-the-board enhancements to the PowerBook family include:

> **Faster Hard Drives** All models now come with hard drives that spin at 5,400 rpm, up from the 4,200-rpm drives in previous Apple laptops (and most Windows portables). This change didn't make a big difference in our test results (see the benchmark chart), but it saves a few seconds on some disk-dependent operations, such as launching applications and saving big files.

> **Hard-Drive Protection** A new technology that Apple calls Sudden Motion Sensor instantly parks the hard drives' read-write heads—thereby preventing them from slamming into the magnetic platters that hold your data—when it detects accelerated movement that indicates you've dropped your notebook. Frankly, we didn't dare test this feature, but it's nice to know it's there.

> **Scrolling Trackpad** If you find trackpad scrolling a drag, the new PowerBooks' trackpads may offer a better way for you to move

Macworld LAB TEST	Speedmark 3.3	Cinema 4D XL 8.5	Compressor	iMovie HD	iTunes 4.7	Adobe Photoshop CS	Unreal Tournament
	OVERALL SCORE	RENDER	MPEG-2 ENCODE	RENDER	MP3 ENCODE	SUITE	FRAME RATE
12-inch PowerBook G4/1.5GHz (SuperDrive)	136	4:36	12:06	0:58	2:24	2:00	22.4
15-inch PowerBook G4/1.5GHz (Combo drive)	136	4:44	13:55	0:56	2:30	2:02	25.5
15-inch PowerBook G4/1.67GHz (SuperDrive)	142	4:15	12:36	0:51	2:16	2:00	28.4
17-inch PowerBook G4/1.67GHz	148	4:17	12:23	0:46	2:15	1:56	29.1
15-inch PowerBook G4/1.5GHz (2004)	134	4:38	12:24	0:58	2:26	2:05	26.5
	>Better	<Better	<Better	<Better	<Better	<Better	>Better

BEST RESULTS IN **BOLD**. REFERENCE SYSTEMS IN *ITALICS*.

Speedmark 3.3 scores are relative to those of a 1GHz eMac, which is assigned a score of 100. Cinema 4D XL, Compressor, iMovie, iTunes, and Photoshop scores are in minutes:seconds. All systems were running OS X 10.3.7 and had 512MB of RAM. Processor Performance was set to Highest in the Energy Saver preference pane. We tested MP3 encoding with an audio-CD track that was 45 minutes long, converting it from the hard drive using iTunes' High Quality setting. We used Unreal Tournament's Antalus Botmatch Average Frames Per Second score; we tested at a resolution of 1,024 by 768 pixels. The Photoshop Suite test is a set of 14 scripted tasks using a 50MB file. Photoshop's memory was set to 75 percent and History was set to Minimum. For more information on Speedmark 3.3, visit www.macworld.com/speedmark.—MACWORLD LAB TESTING BY JAMES GALBRAITH

PHOTOGRAPHY BY PETER BELANGER

REVIEWS YOU CAN TRUST Macworld rates only final shipping products, not prototypes. What we review is what you can actually buy.

around your documents and other windows: just slide two fingers instead of one across the trackpad, and the contents of the active window scroll in the direction you move (see “Smooth Scrolling”). This action takes some getting used to, but it can save you time and spare you some irritation. (If you decide you don’t like this feature, you can turn it off in the Keyboard & Mouse preference pane.)

> **Latest Bluetooth** Along with AirPort Extreme, Bluetooth remains standard in all new PowerBooks. But the latest models feature support for an updated wireless standard called Bluetooth 2.0+Enhanced Data Rate (EDR). Equipment based on it can exchange data at up to 3 Mbps, three times the maximum rate of earlier versions (Bluetooth 1.0 to 1.2). You’re not likely to notice the difference in throughput—the real value, according to Bluetooth experts, is that Bluetooth phones and other battery-operated devices should last longer on one charge, and your system will be less likely to become bogged down if you connect multiple Bluetooth devices.

Unfortunately, we couldn’t test these claims, because the new features require Bluetooth 2.0+EDR-supported devices, and none are available. Apple is the first to include support. (The new standard is backward-compatible, so the new PowerBooks should work fine with existing Bluetooth phones and peripherals. But with these devices, you won’t see any advantage in using Bluetooth 2.0+EDR.)

> **Faster, Better SuperDrives** New PowerBooks equipped with SuperDrives can burn DVDs at 8×, twice the rate of the mechanisms Apple used in previous portables.

And for the first time, there’s full support for DVD+R and DVD+RW media, as well as DVD-R and DVD-RW media, which SuperDrives used to require. (Some earlier Super-

Drives could work with DVD+R and DVD+RW media, according to online reports, but Apple did not support this capability.) We burned DVD+R and DVD+RW discs with no problems. We don’t know of any advantage to the DVD+R/RW format—its pricing is now about equal to DVD-R/RW’s—but it’s one less thing to worry about when you’re buying blank discs. And unlike some previous SuperDrive updates, this one doesn’t seem to cause problems with older media: we tried some ancient 1× discs, which still burned just fine.

> **Better Backlighting** The backlighting that automatically illuminates keyboard labels when you’re operating the 15- and 17-inch PowerBooks in dim light is noticeably brighter than before—10 times brighter, according to Apple.

So Many Configurations

There are still five configurations—two with 12.1-inch screens, two with 15.2-inch screens, and one with a 17-inch screen. They still weigh 4.6, 5.6, and 6.9 pounds, respectively.

Like its predecessor, the new entry-level PowerBook has a 60GB hard drive, a Combo (CD-RW/DVD-ROM) optical drive; and a 12.1-inch, 1,024-by-768-pixel screen driven by an Nvidia GeForce FX Go5200 with 64MB of video memory. But this model’s G4



Smooth Scrolling A nice new feature is the Scrolling Trackpad. Slide two fingers across the trackpad, and your document scrolls in the same direction.

processor has moved up from 1.33GHz to 1.5GHz, while its price moved down \$100, to \$1,499. In practice, you’ll save even more, because Apple also doubled the standard memory to 512MB—enough to avoid the memory upgrade most people used to need.

The other 12.1-inch configuration, now \$1,699 (also down by \$100), is identical except that it includes an 80GB hard drive and a DVD-burning SuperDrive. Both 12.1-inch configurations provide a full complement of standard ports: two USB 2.0, one FireWire 400, audio-in and -out, a 10/100 Ethernet, a V.92 modem, and a mini-DVI (with adapters for connecting both DVI and VGA displays). One disappointment is that Apple hasn’t managed to shave any weight off the 12.1-inch PowerBook, especially since Windows PC vendors offer comparably equipped laptops that weigh around four pounds (not to mention—

continues on page 40

POWERBOOK G4S COMPARED

COMPANY	PRODUCT	RATING	PRICE	MORE INFO	PROS	CONS
Apple Computer	12-inch PowerBook G4/ 1.5GHz with Combo drive	★★★★	\$1,499	find.macworld.com/0398	Compact; increased standard memory; improved trackpad and Bluetooth; reduced price.	Small screen; lacks high-end ports and features; only one DIMM slot; heavier than comparable Windows laptops.
Apple Computer	12.1-inch PowerBook G4/ 1.5GHz with SuperDrive	★★★★	\$1,699	find.macworld.com/0399	Compact; increased standard memory; improved SuperDrive, trackpad, and Bluetooth; reduced price.	Small screen; lacks high-end ports and features; only one DIMM slot; heavier than comparable Windows laptops.
Apple Computer	15-inch PowerBook G4/ 1.5GHz with Combo drive	★★★★	\$1,999	find.macworld.com/0400	Wide screen; plenty of power; advanced port options; backlit keyboard now standard; improved trackpad and Bluetooth.	Somewhat expensive, given features.
Apple Computer	15-inch PowerBook G4/ 1.67GHz with SuperDrive	★★★★	\$2,299	find.macworld.com/0401	Wide screen; plenty of power; advanced port options; improved SuperDrive, trackpad, backlighting, and Bluetooth; reduced price.	Price is high relative to that of the Combo-drive model.
Apple Computer	17-inch PowerBook G4/ 1.67GHz with SuperDrive	★★★★	\$2,699	find.macworld.com/0402	Enormous screen; roomy hard drive; improved SuperDrive, trackpad, backlighting, and Bluetooth; advanced port options; reduced price.	Too big and heavy for comfortable travel.

Instant-Messaging Software

iChat AV Has Nearly Perfected the Art of Chat

BY MATHEW HONAN

With e-mail systems overloaded by spam, always-on Internet connections on PDAs and cell phones becoming the norm, and superfast communication in vogue, your instant-messaging (IM) application may be as important—and as personal—as your e-mail software. It's easy to think that all IM programs are the same, but depending on how you want to talk—and with whom—there are some differences. I evaluated the four major chat applications for the Mac: America Online's AOL Instant Messenger 4.7 (AIM), Apple's iChat AV 2.1, Microsoft's MSN Messenger 4.0.1, and Yahoo's Yahoo Messenger 2.5.3. And I found that iChat AV 2.1 can really do it all for most Mac users—as long as they have a \$100 .Mac or free AIM account.

AOL Instant Messenger 4.7

Years ago, America Online was the first to provide easy-to-use Internet chat, with its popular chat rooms. And the company's instant-messaging platform, AIM, remains the most widely used service and the de facto standard. The software is nearly ubiquitous on new computers, cell phones, and PDAs. Walk into any Internet café in the world, and AIM will probably be the chat program



Keep Them Separated Using AOL Instant Messenger, you can group your buddies into categories.

you'll find. Every AOL subscriber has an account; if you're not a subscriber, you can sign up for a free screen name that you can use with the AIM software.

AIM is much more customizable than MSN Messenger or Yahoo Messenger. You can create custom buddy icons and backgrounds, and choose fonts for a personalized look-and-feel. Setting custom status messages to let your friends know that you're out to lunch or occupied with the Super Bowl is quite easy. You can organize your buddies into groups (for example, coworkers, friends, and clients) simply by dragging and dropping names, and the AIM service will remember your preferences no matter where you log on.

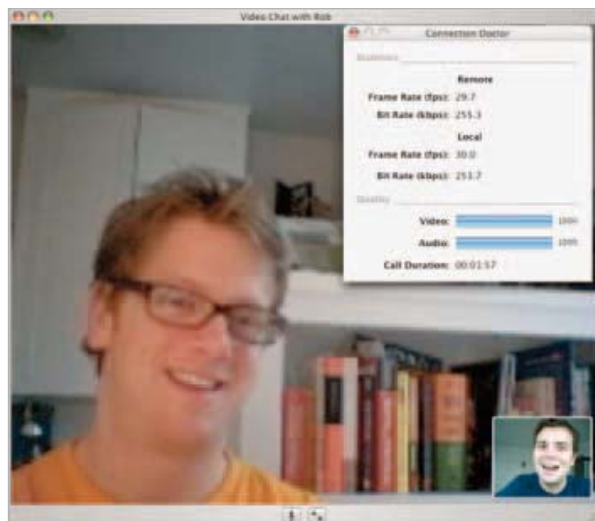
I transferred files to and from other AIM users, on both Macs and PCs, and the transfers went smoothly overall. It's also easy to set up a multiuser chat with AIM, and a list of available chat rooms is accessible from the menu bar. Starting a Short Message Service (SMS) chat with a cell-phone user is as easy as entering the plus sign and then the user's phone number.

But AIM has its drawbacks. Although AIM 5.5 for Windows lets Windows users set up video chats, the Mac version still limits users to text-only messaging. The scrolling news and stock tickers are a nuisance (fortunately, they can be turned off). And although AOL gave AIM a nice Aqua makeover, the effect is negated by the unattractive animated advertisements embedded in buddy lists. Overall, AIM is a good application with a vast network of users, but it wasn't the best program of the four I looked at.

iChat AV 2.1

Apple's iChat AV picks up where AIM leaves off, offering an even greater degree of customization, as well as unmatched audio and video capabilities. It takes advantage of the AIM protocol to give Mac users access to everyone on that system and to people on the .Mac network.

I continue to be amazed at all the ways I can customize iChat AV. I can use my iSight Web cam to take a snapshot of myself for a custom buddy icon; I've set up special audio alerts that tell me when a specific friend, family member, or coworker signs on; and I regularly set custom status mes-



Quality Assurance iChat AV's Connection Doctor automatically establishes the best picture and sound for each audio or video chat.

sages, a task that is, by far, easiest to do in iChat. (iChat AV even lets you use Apple Speech to announce new messages from particular contacts.)

iChat users will also benefit from the program's OS X integration. Because iChat AV is tied into Apple's Mail and Address Book, all your Address Book contacts are accessible within iChat, and you can tell when your iChat buddies are logged on when you're working in Mail or Address Book. iChat AV's real-time spelling checker keeps typos at bay, and Rendezvous support lets you send messages to other users on your local network without connecting to the wider Internet. File transfers are a breeze; you can send files by dragging a file and dropping it on a contact's name in your buddy list or on a message field.

Thanks to iChat AV, videoconferencing has gone mainstream, and it's surprising that the other IM programs haven't caught on yet. Inviting another user to talk via audio or video is as easy as clicking on the camera icon (or the speaker icon for an audio chat) next to his or her screen name. iChat's Connection Doctor utility scans both parties' machines and Internet connections to deliver the best picture and sound without overloading either system. What's more, you can even use it to video chat with Windows XP users running AIM 5.5 or later, and to audio chat with Windows users running Cerulean Studios' Trillian, a Windows-only application that allows you to be logged on to multiple services using the same chat client.

iChat AV does have a few downsides. The sound on both video and audio chats can be

continues

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REVIEWS

iffy, with some random noise, though not enough to seriously affect the quality of the chat. Audio and video chats could have more flexibility in terms of who can connect. For example, I might have a Web cam stashed in my laptop bag, but if I don't have it connected, I can see only another user's text or audio capabilities, even if he or she has a Web cam set up. It would be nice to see all of another user's capabilities, no matter what my current status was. Likewise, I'd prefer to be able to set up a one-way video chat if I'm the only chatter with a Web cam. Opening the door to other protocols, such as MSN Messenger, Yahoo Messenger, ICQ, and even the open-source Jabber—as Fire, Proteus, and Adium X do (see “All You Can Chat”)—would greatly enhance iChat. Furthermore, iChat AV is the only IM software for the Mac that doesn't



Lip-Reading Yahoo Messenger video chats are one-way only, with no sound.

have an integrated function that forwards messages to your cell phone or another mobile device. I'd also like to be able to video chat with multiple parties, but Apple has already demonstrated this as a feature of the next version of iChat AV, for Mac OS X 10.4 (Tiger), scheduled for arrival in mid-2005.

MSN Messenger 4.0.1

Of the major chat services, MSN Messenger is the most bare-bones, offering text chat only, although it does have a few advanced features. Like AIM, MSN Messenger has the advantage of being tied to a large network of users. Multiuser chats are easy to establish. Since it's integrated with the MSN Network, it will notify you when a new Hotmail message arrives. I didn't have any problems with file transfers, and adding and removing contacts was relatively painless.

I say “relatively” because all of your contacts must be tied to MSN Messenger, and you have to search for existing users to add one, rather than merely entering a contact's screen name as you do in iChat AV and AIM. New users must sign up for a Microsoft .Net Passport account if they don't already have one. And like America Online, Microsoft tries to recoup a few bucks by placing annoying, and potentially offensive, animated ads in your contact list. For example, my contact list showed an iconic image of the bleeding Christ from the

continues on page 40

All You Can Chat

Your parents use AIM, all of your coworkers are on MSN Messenger, your old college roommate has a Yahoo Messenger account, and your brother, the open-source fanatic, refuses to even consider logging on to anything other than Jabber. You need an all-in-one program that allows you to log on to multiple chat services at once so you can chat with everyone.

Adium X 0.75 (★★★★; www.adiumx.com), from Adam Iser, **Fire 1.5.1** (★★★★; <http://fire.sourceforge.net>), from Epicware, and **Proteus 4.10** (★★★★; www.defaultware.com/proteus), from Defaultware, all let you access your AIM, MSN Messenger, Yahoo Messenger, ICQ, or Jabber accounts from a single application. These programs don't support audio or video chats, but for text-only chats, they make great alternatives.

All three programs are easy to set up and run; each automatically imports your contacts from the four major chat applications (including iChat AV) and organizes your buddy lists into your existing categories. Both Adium X and Fire are free, while Proteus is \$15.

Although they're similar, each program has its own strengths. Both Fire and Adium X alert you when you receive a new e-mail message in your Yahoo or Hotmail account. Adium X and Proteus can display the song you're listening to in iTunes as your user status. Proteus alone supports SMS forwarding, allowing you to forward incoming messages to your cell phone or PDA. Meanwhile, Adium X lets you take a snapshot of yourself with your Web cam to use as a buddy icon.

None of these programs are perfect, however. Adium X doesn't support blocking, so you can't blacklist problem users. Fire had trouble with transferring files—both sending and receiving. Proteus did better, but still had a few file-transfer issues, and it occasionally launched iChat when it received a new message from an AIM user.

Overall, all three applications are top-notch. But Adium X was the easiest to use for file transfers, customizing the look-and-feel of the chat experience, and adding accounts.



Assaulting Ads MSN Messenger embeds unwelcome ads in your chat experience.

INSTANT-MESSAGING PROGRAMS COMPARED ★ = Editors' Choice.

COMPANY	PRODUCT	RATING	PRICE	CONTACT	PROS	CONS
America Online	AOL Instant Messenger 4.7	★★★★	free	www.aim.com	Vast network of users; customizable icons and groups; easy Short Message Service (SMS) messaging; attractive interface.	Shows annoying ads and tickers; does not support audio or video chats.
Apple	iChat AV 2.1 ★	★★★★½	free	www.apple.com/icat	Unequaled audio and video chat quality; integrated with Mail, Address Book, and Rendezvous; highly customizable; uses huge AIM network; best for file transfers.	No message forwarding to mobile devices.
Microsoft	MSN Messenger 4.0.1	★★★½	free	http://messenger.msn.com	Large network of users; integration with Hotmail; easy file transfers.	Shows annoying ads; users must sign up for Microsoft .Net Passport account; does not support audio or video chats; interface not very customizable.
Yahoo	Yahoo Messenger 2.5.3	★★★★	free	http://messenger.yahoo.com	Can handle video chats; Yahoo Mail notification; attractive interface; easy to add and remove contacts.	Video chat has no audio and is one-way; jumpy video; cannot receive file transfers from Windows users; upgrade path is uncertain.

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New from Bose, the most respected name in sound, this slim, sleek digital music system is ready to revolutionize the way you use your iPod and iPod mini.*

Hearing is believing.

It may look small. But to your ears, the SoundDock system is anything but. It's packed inside with a proprietary Bose acoustic design that allows it to produce a roomful of rich, natural sound. Ric Manning of the Gizmo Page says, "The Bose SoundDock turns an iPod into a room-filling stereo." And CNET calls it the "best-sounding iPod speaker accessory we've tested." Impressed? Just wait until you experience our SoundDock system for yourself.



*Bose SoundDock
digital music system
(shown with iPod mini)*

Get more out of your iPod.

Once you get all your favorite music into your iPod, the SoundDock system gives you another way to get it out. Just plug it in, slip your iPod into the docking cradle and you're ready to share and enjoy your music in almost any room in your home. Kitchen. Bedroom. Wherever. A small remote lets you operate it – as well as basic iPod functions – from across the room. And the SoundDock system charges your iPod while you listen. So when you're ready to hit the road, you can just pick up your iPod and go.

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MINIDV CAMCORDERS

★★★★½ Optura 40

(\$999), from Canon (www.canon.com):

The Optura 40 produces excellent video and respectable still photos, supports a true 16:9 mode, smooths the effects of a shaky grip, and is easy to use (November 2004; find.macworld.com/0130).



★★★★ DCR-PC109 (\$899), from Sony (www.sony.com):

This camcorder requires a docking station but has excellent image stabilization. It also has a spot-focus feature, headphone and mike jacks, and a hot-shoe (November 2004; find.macworld.com/0130).

DIGITAL CAMERAS

7.1-MEGAPIXEL DIGITAL CAMERA

★★★★½ PowerShot G6 (\$699), from Canon (www.canon.com):

This digital camera takes photos with excellent color quality and clarity. It also has easy-to-use menus, Raw-format support, a live histogram, and the fastest lens (f2.0) of cameras in its class (find.macworld.com/0206).



ALSO RECOMMENDED:

Company	Product	Rating	Price	Contact	Mega-pixels	Go to find www.macworld.com/	Originally Reviewed
Epson	L-500V	★★★★½	\$350	www.epson.com	5.0	0282	online only
Epson	PhotoPC L-410	★★★★	\$200	www.epson.com	4.0	0249	online only
Sony	Cyber-shot DSC-P150	★★★★	\$499	www.sonymstyle.com	7.2	0206	January 2005
Olympus	C-8080 Wide Zoom	★★★★	\$999	www.olympus.com	8.0	0091	September 2004

MACS

DESKTOP

Product	Processor	Display	Rating	Go to find.macworld.com/	Best Price ^A	Speedmark Score ^B
	G5/1.6GHz	17 inches	★★★★	0172	\$1,270	150
	G5/1.8GHz	17 inches	★★★★	0173	\$1,460	162
	G5/1.8GHz	20 inches	★★★★½	0174	\$1,839	163
	G4/1.25GHz (Combo drive)	17 inches	★★★★½	0167	\$789	129
	G4/1.25GHz (SuperDrive)	17 inches	★★★★½	0168	\$989	129
	G4/1.25GHz	not included	★★★★	0316	\$494	117
	G4/1.42GHz	not included	★★★★	0321	\$594	123
	G5/1.8GHz	not included	★★★★	0177	\$1,428	165
	G5/dual-1.8GHz	not included	★★★★	0158	\$1,850	194
	G5/dual-2GHz	not included	★★★★½	0157	\$2,250	212
	G5/dual-2.5GHz	not included	★★★★½	0156	\$2,750	237

PORTABLE

	G4/1.2GHz	12 inches	★★★★½	0178	\$963	106
	G4/1.33GHz (Combo drive)	14 inches	not rated	0179	\$1,249	not tested
	G4/1.33GHz (SuperDrive)	14 inches	★★★★	0180	\$1,429	116
	G4/1.5GHz (Combo drive)	12 inches	★★★★	0398	\$1,489	not tested
	G4/1.5GHz (SuperDrive)	12 inches	★★★★	0399	\$1,689	136
	G4/1.5GHz	15 inches	★★★★	0400	\$1,839	136
	G4/1.67GHz	15 inches	★★★★	0401	\$2,150	142
	G4/1.67GHz	17 inches	★★★★	0402	\$2,540	148

^AFrom a PriceGrabber survey of retailers as of March 14, 2005. ^BSpeedmark 3.3 is Macworld Lab's standard test tool for benchmarking systems running Mac OS X 10.3 (Panther). For information on Speedmark testing, go to www.macworld.com/speedmark.

DUAL-LAYER DVD BURNERS

★★★★ d2 DVD±RW 16× FireWire, with Double Layer (\$189), from LaCie (www.lacie.com):



This DVD burner offers very good performance (albeit with a relatively slow read speed), OS X and iLife compatibility, and a full version of Roxio's Toast Titanium (find.macworld.com/0313).

ALSO RECOMMENDED:

★★★★ PX-716UF (\$239), from Plextor (www.plextor.com); April 2005; find.macworld.com/0313

COLOR LASER PRINTERS

★★★★ LaserJet 2550Ln (\$600), from Hewlett-Packard (www.hp.com):



This inexpensive, networkable color laser printer offers crisp text and very good color fidelity, and it supports Apple's Rendezvous. But its paper capacity is only 125 sheets, so you might consider paying the extra \$100 for the optional 150-sheet paper tray (find.macworld.com/0083).

DISPLAYS

21-INCH DISPLAY

★★★★½ **321 LCD Monitor** (\$1,599), from LaCie (www.lacie.com):

This 21.3-inch LCD's 10-bit color support and antiglare hood offers graphics pros accurate color from an LCD (find.macworld.com/0384).

19-INCH DISPLAY

★★★★½ **MultiSync LCD1960NXi** (\$729), from NEC (www.necmitsubishi.com); October 2004; find.macworld.com/0081

17-INCH DISPLAY

★★★★ **SyncMaster 172X** (\$539), from Samsung (www.samsung.com); October 2004; find.macworld.com/0081



FLATBED SCANNERS

MIDRANGE SCANNER

★★★★½ **CanoScan 9950F** (\$400), from Canon (www.canon.com):

This CanoScan raises the bar for midrange scanners by offering high optical resolution, improved scan quality, and more-intuitive software controls (find.macworld.com/0188).



LOW-END SCANNER

★★★★ **CanoScan 8400F** (\$150), from Canon (www.canon.com):

The 8400F has limited film and transparency support but is a great all-around scanner with some high-end features and a low-end price (find.macworld.com/0187).



IN THE MACWORLD LAB

Hardware Products We Tested This Month

FLATBED SCANNER

★★★★ **Perfection 4990 Photo** (\$449), from Epson (www.epson.com):

This 4,800-dpi scanner has a built-in transparency unit and support for multiple film formats. Its speedy FireWire and USB 2.0 connections make quick work of large scans. It provides very good details but some scans are a touch on the green side (find.macworld.com/0386).



DISPLAY

★★★★½ **Flatron L1780U** (\$599), from LG Electronics (www.lgusa.com):

This display's small and stylish design is very flexible. Once calibrated, it performs well as a general-purpose display and is a good fit for users with limited desktop space (find.macworld.com/0385).



DISPLAY

★★★ **M-17** (\$329), from AG Neovo (www.neovo-usa.com):

The USB ports on the front of this 17-inch digital display are a nice touch, but its noisy speakers and color-uniformity problems at the top and bottom of the screen make it difficult to recommend (find.macworld.com/0387).



PORTABLE FIREWIRE HARD DRIVE

★★★★ **FireLite Extreme 80GB** (\$290), from SmartDisk (www.smartdisk.com):

Few palm-size portables offer FireWire 800, but the small FireLite, in its distinctive SmartDisk case, does—and it pays off. This moderately priced drive posted the fastest read speeds in its category (find.macworld.com/0388).



DESKTOP FIREWIRE HARD DRIVE

★★★ **2.5-inch FireWire Quicksilver** (\$140), from Kanguru (www.kanguru.com):

This drive has an interesting design, but its test results aren't very impressive. And at a very modest 80GB, the Quicksilver has a high cost per gigabyte (find.macworld.com/0389).



FIREWIRE HARD DRIVES

Company	Product	Rating	Price	Contact	Capacity	Comments
PORTABLE HARD DRIVES						
LaCie	Mobile Hard Drive by F.A. Porsche	★★★★	\$319	www.lacie.com	100GB	Low cost per gigabyte; not very fast.
G-Technology	G-Drive-mini	★★★★	\$279	www.g-technology.com	60GB	Complements Power Mac G5 design; great performance; very fast; a bit expensive.
DESKTOP HARD DRIVES						
OWC	Mercury Elite 800 Pro	★★★★½	\$450	www.macsales.com	400GB	Great performance; not great design details.
LaCie	d2 Hard Drive Extreme with Triple Interface	★★★★	\$149	www.lacie.com	200GB	Attractive; competitive price; supports FireWire 800 and 400, as well as USB; slow FireWire 800 transfers.

Go to find.macworld.com/0314 for more hard-drive reviews and specifications.

NEW: COLOR INK-JET PRINTERS

★★★★½ **Photosmart 8450** (\$250), from Hewlett-Packard (www.hp.com):

This network-capable color ink-jet printer uses eight inks for printing excellent looking photos with or without your Mac's help (find.macworld.com/0280).

ALSO RECOMMENDED:

★★★★½ **Stylus Photo R800** (\$399), from Epson (www.epson.com); January 2005; find.macworld.com/0246

★★★★ **Pixma iP8500** (\$350), from Canon (www.canon.com); February 2005; find.macworld.com/0275



Top Products are those we've recently reviewed in a comparison of like products. As new products become available, we will update the list. For longer reviews of these products and for other product recommendations, go to www.macworld.com/reviews.

More Reviews

For complete reviews of the products listed here, visit www.macworld.com/reviews

🔧 **OpenOSX Office 1.5.1** (\$40), from OpenOSX (<http://openosx.com>): OpenOSX says that it has developed something many people have dreamed of: a good substitute for Microsoft Office that maintains the ability to import and export Microsoft's ubiquitous file formats. While seemingly a good value, this open-source suite of programs—AbiWord 2.2.0, Gnumeric 1.4.0, SodiPodi 0.34, and Diagram 0.94—just doesn't make the grade (find.macworld.com/0352).

🔧 **TaxCut Premium 2004** (\$40), from H&R Block (www.hrblock.com); 🐼 **TurboTax Deluxe 2004** (\$40), from Intuit (www.turbotax.com): While H&R Block's TaxCut has a reasonably easy interview process and gives you a free state-tax form (after you send in the mail-in rebate), Intuit's TurboTax Deluxe 2004 is hands-down the easier to use of the two apps. It has a straightforward, unintimidating interview process; it can



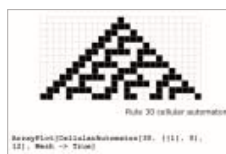
import your W-2 information; and it lets you download state forms free of charge, without mail-in rebates (find.macworld.com/0353).

🔧 **ConvertX PVR** (\$229), from Plexor (www.plexor.com): Want a TiVo for your Mac? This USB video recorder provides a great TV-viewing, -recording, and -editing experience for a good price. It can encode



video to MPEG-1, MPEG-2, or MPEG-4, suitable for VCDs and DVDs (find.macworld.com/0354).

🐼 **Mathematica 5.1** (\$1,880), from Wolfram Research (www.wolfram.com): Math application Mathematica 5.1 features significant improvements in these areas: input and output of binary matrices, packing methods for other numeric arrays, numerical methods for arrays, and special array graphics (find.macworld.com/0356).



🔧 **QuickKeys X3** (\$100), from Startly Technologies (www.startly.com): The third Mac OS X release of this ven-

continues

STORAGE

FireWire Hard Drives

🔧 **ComboGB (CGB-60-5400)** (\$259), from WiebeTech (www.wiebetech.com): The ComboGB offers a wide range of connection options and is a fast performer, but it has a relatively high cost per gigabyte (find.macworld.com/0392).

🔧 **CrossFire 160GB** (\$190), from SmartDisk (www.smartdisk.com): This moderately priced drive features the same signature case design as other SmartDisk drives; it's just bigger. It has a distinctive design and good FireWire 400 speeds (find.macworld.com/0394).

🔧 **OneTouch II** (\$300), from Maxtor (www.maxtor.com): The OneTouch II is a desktop backup device that has a low cost per gigabyte. It ships with Dantz Retrospect Express software and has a programmable button that can be used to initiate backups (find.macworld.com/0393).



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REVIEWS

erable shortcut-creation utility sports a more refined interface and new features for controlling execution of multi-step shortcuts. It can be overkill—and too expensive—for simple jobs, but for automating complex, repetitive tasks, QuickKeys still can't be beat (find.macworld.com/0379).

VerticalMouse 2

(\$75 for left-handed; \$105 for right-handed), from

Evoluent (www.evoluent.com):

If you wince every time you pick up a mouse, you may

want to check out the

VerticalMouse—a device that lets your hand assume a more natural position. It's not cheap, but it feels good

(find.macworld.com/0355).



BBEdit 8.0.3

(\$199), from Bare Bones Software (www.barebones.com): BBEdit continues its dominance of the professional text-editor market. Version 8 gives you handy tools for slicing and dicing multiple documents, source-control integration, and Web previews. It's among the very best apps in its genre (find.macworld.com/0377).

TextWrangler 2

(free), from Bare Bones Software (www.barebones.com): Bare Bones fires a shot across the bow of competing budget text editors with the free version of TextWrangler 2. This app offers a wealth of text-handling operations—with full AppleScript and Unix integration—at a price that can't be beat. Any time you need a text editor, this is the tool to use (find.macworld.com/0378).

STORAGE

Large External Hard Drives

Do you need terabytes of hard-disk space for digital audio and video projects? If so, check out our comparison review of truly huge external FireWire hard drives. All of these speedy FireWire 800 storage systems offer lots of storage, but they operate in different ways. Which one does the best job? It all depends on what you need (find.macworld.com/0351).

Bigger Disk Extreme 1.6TB

(\$1,899),

from LaCie

(www.lacie.com):

This fast,

quiet drive can

accommodate a

whopping 1.6 tera-

bytes, with four 400GB

drives inside the enclosure.

Although it's not light (it weighs

11 pounds), it provides a monstrous amount of

storage in a single portable unit—enough to

hold more than 110 hours of DV footage or 15

hours of 10-bit uncompressed video.



██████½ **RackFire+** (\$1,000), from WiebeTech (www.wiebetech.com): The RackFire+ is a 1U rack-mountable storage system with two removable, double-drive storage trays. Each tray has its own FireWire controller, so two users can share the unit—one user gets the left tray while the other gets the right. The RAID 0 drive sets can also be striped together into a software RAID 0 array.

G-RAID 800

(\$1,199 for

800GB ver-

sion), from

G-Technology

(www.g-technology.com):

This is a very

capable media drive that's especially

useful for road warriors editing with

PowerBooks. It is light for its storage size; has an

efficient, quiet cooling system; and offers both

FireWire 800 and FireWire 400 connections (but

no USB 2.0), making it better suited for Macs.



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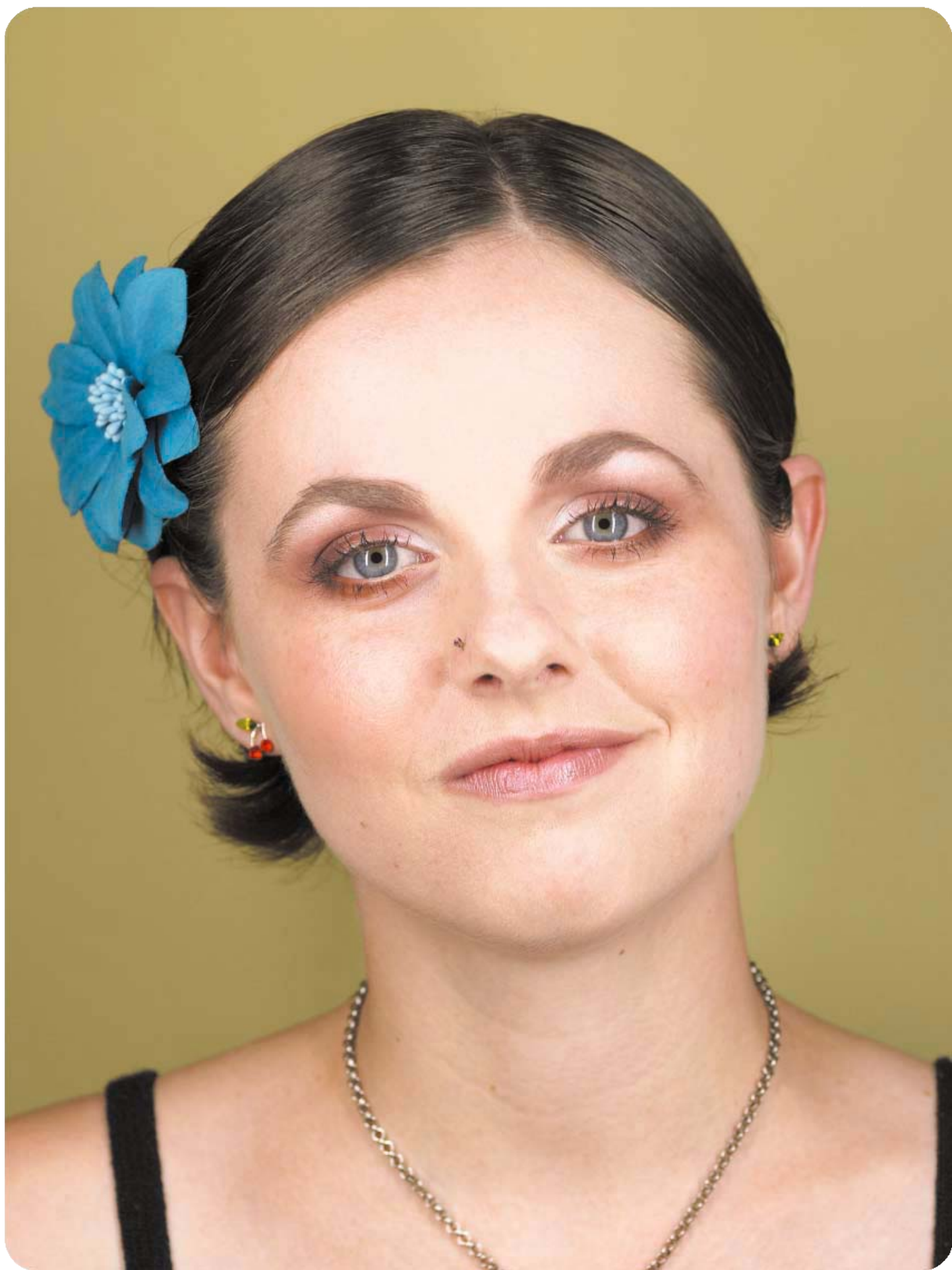
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REVIEWS

PowerBook G4s

continued from page 27

tion even lighter mininotebooks sold without built-in optical drives).

Like previous compact PowerBooks, though, the new 12.1-inch configurations lack some of the advanced features of their larger siblings: no FireWire 800, Gigabit Ethernet, keyboard backlighting, PC Card/Cardbus slot, or built-in S-Video port (Apple offers a \$19 mini-DVI adapter that provides S-Video and composite-video output).

As for the new 15.2-inch models, the Combo drive version is still \$1,999. But for that price, Apple offers a 1.5GHz chip (up from 1.33GHz), 512MB of RAM (up from 256MB), an 80GB hard drive (up from 60GB), and keyboard backlighting, which was previously a \$69 option on this configuration.

The 15.2-inch model with a SuperDrive got fewer enhancements: it, too, comes with 512MB of RAM, an 80GB hard drive, and a backlit keyboard, but the equivalent model in the previous generation had all those features. On the upside, it now has a 1.67GHz processor (up from 1.5GHz), and Apple trimmed its price by \$200, to \$2,299.

Both 15.2-inch configurations support FireWire 800 and Gigabit Ethernet, and they both have full-sized DVI and S-Video ports and a single PC Card/Cardbus slot, in addition to all the connectivity options offered in the 12-inch models. Both have the same display technology as in the previous generation: their wide-format screens (1,280 by 854 pixels) and external display ports are driven by an ATI Mobility Radeon processor with 64MB of video memory. The 1.67GHz model, but not the 1.5GHz one, can be upgraded (for \$100) to 128MB of video RAM and dual-link DVI, for connecting the 30-inch Apple Cinema HD Display.

That video configuration is standard in the new 17-inch PowerBook, which also got a price cut (down \$100, to \$2,699), a processor speed increase (1.5GHz to 1.67GHz), a bigger hard drive (from 80GB to 100GB), and, of course, the other refinements mentioned earlier. Otherwise, the high-end PowerBook is unchanged—after all, it already had all the best mobile technology Apple has to offer.

Macworld's Buying Advice

If you're inclined toward a small notebook, and particularly if you don't need a SuperDrive, consider an iBook instead of the 12-inch PowerBook—you can start with a \$999 base model, increase memory and hard-drive capacity, and add Bluetooth if you want, and you'll come out with something pretty similar to the small PowerBook for several hundred dollars less. But if you want a bigger screen or the latest connectivity technologies, the 15- and 17-inch PowerBooks—though still a little pricey—offer elegance and power no other laptop can match. □

Instant-Messaging Software

continued from page 30

movie *The Passion of the Christ* next to a prompt to "Find 'Ashlee Simpson' on MSN Search." Of all the major chat programs, MSN Messenger is the weakest in terms of customization. For example, buddy icons are generic. Users who want to chat with people who have MSN Messenger accounts would do better to use Epicware's Fire or Adam Iser's Adium X (see "All You Can Chat"). Microsoft has announced that MSN Messenger 5.0, which aims for greater customization, will be released in mid-2005.

Yahoo Messenger 2.5.3

Yahoo Messenger is nearly a great messaging application. It's easy to install and use, and it has a pleasant interface. Adding and removing new contacts is a breeze. Custom status messages are easy to set up. Buttons along the bottom of your contact list let you jump to news, stock, sports, and weather information. Like MSN Messenger and Hotmail, Yahoo Messenger is tightly integrated with the Yahoo Mail service and network, and it will alert you when you have a new e-mail message.

Yahoo Messenger also has a Web-cam option, but it doesn't hold a candle to iChat AV's. For starters, there's no sound with video chats: users communicate by sending text messages. Second, video chats are one-way—so I can see you, but you can't see me (or vice versa). Finally, although you can customize video settings, the program doesn't automatically adjust audio and video throughput (as iChat AV does), and even at the highest-quality setting, video was jumpy. On the positive side, though, setting up Yahoo Messenger for use with my iSight was easy.

The larger problem with Yahoo Messenger is that the company seems to have written off Mac users. The software hasn't been updated since 2003, leaving us unable to receive files from the Windows crowd, although we can still send them.

Macworld's Buying Advice

Since all of these IM applications are free, there's no purchase decision to make. But free or not, some of these programs outshine the others. If you prefer to use the AIM service (say, if you have an AOL account or want access to those chat rooms), iChat AV—not the AIM software client—will be the best choice for you. I don't recommend Yahoo or MSN Messenger unless you need to use Yahoo Messenger's video-chat capabilities to talk with Windows users or other Yahoo Messenger users. So if you have an account with Yahoo or Microsoft, you're better off with one of the all-around chat clients: Adium X, Fire, or Proteus. □

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- Removable disk drives
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G-DRIVE

Professional Strength Storage Solutions



G-DRIVE storage solutions are ideal for audio/video applications and high-speed data backup.

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- Storage capacities up to 500GB

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Ultra Portable Storage Solutions



G-DRIVE mini is an ultra-portable and stylish disk storage solution designed for people on the go.

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Hell on Mars In Doom 3, you're alone, in the dark, and fighting for your life against all manner of hellish creatures.



FIRST-PERSON SHOOTER

Doom 3

As a marine sent to the Union Aerospace Corporation's Martian facility, you're prepared for another routine security detail. But almost the second you step onto the base, it's clear that things aren't right. People are going crazy. People are *dying*. The next thing you know, all hell is breaking loose—quite literally.

Welcome to Doom 3, a terrifying first-person shooter that taps into a primal fear: being trapped in the dark with something menacing. I previewed an early release of the game in the February 2005 issue. It's now out and worth a look—as long as your system can handle it.

Doom 3 is essentially a retelling of the first game in the Doom series. But while the basic plot may be familiar, the game is all new—powered by a game engine the likes of which we've never seen on the Mac before.

Doom 3 uses every Hollywood trick in the book to evoke a nearly constant sense of dread: You spend much of your time in the dark, searching with a flashlight or listening for the next hideous creature. The game is chock-full of the vilest, most disturbing menagerie of beasts, monstrosities, and reanimated corpses you've ever seen in a game—and they all move with shocking fluidity and realism.

The game's creepy atmosphere has one big downside: all this running

RATING: ★★★★★

PROS: Best graphics engine ever in a first-person shooter; truly frightening environment.

CONS: Unusually high system requirements; having too many dark rooms breeds frustration.

PRICE: \$50

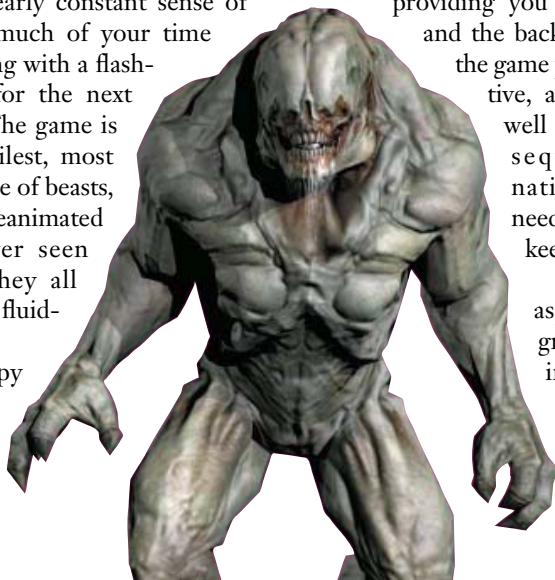
COMPANY: Aspyr Media, www.aspyr.com

around in the dark will eventually infuriate you. Apparently there's no duct tape on Mars, because our intrepid marine never figures out how to keep his flashlight fixed to whatever weapon he has handy. As a result, you can either *see* the thing trying to kill you or *shoot* at it. But you can't do both.

The game keeps you busy by requiring that you unlock doors, acquire access codes, and find alternate routes. Your PDA lets you access audio logs, video discs, and e-mail from station personnel, providing you with security clearances and the backstory. But while none of the game play is particularly innovative, all these plot devices—as well as occasional interstitial sequences and hallucinations—give some much needed depth to the story and keep the action interesting.

The most impressive aspect of Doom 3 is its graphics engine. The lighting and shading capabilities in Doom 3 provide a greater sense of realism

continues



News Feed



Aspyr Releases Game Soundtrack

Although Aspyr's first original game—Stubbs the Zombie in Rebel Without a Pulse—is far from finished, the company has already released the soundtrack. It features covers of 1950s pop songs, performed by Death Cab for Cutie, the Dandy Warhols, Cake, the Flaming Lips, and others. You won't find these gems anywhere else.



Game Developers Descend on LA

May is my favorite time of the year, because it marks the annual return of Electronic Entertainment Expo to the Los Angeles Convention Center. This weeklong industry show is the world's largest gathering of video-game publishers, developers, and accessory vendors. It's so huge that it makes Macworld Expo look like a neighborhood garage sale (www.e3expo.com).



Sims 2 Scheduled for June

Mac sim fans will soon be able to interfere in the lives of all-new virtual characters: Aspyr is releasing The Sims 2 for the Mac in June.

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than we've seen in the past. When paired with a video card that's up to the task, the game rewards you with a visual feast. (For a full accounting of Doom 3's performance on the Mac, go to find.macworld.com/0397). Doom 3's technical merits do come at a price, however. The game requires at least a 1.5GHz G4 and a video card with 64MB or more of VRAM.

Doom 3 lets you compete with other players, regardless of platform. A built-in game-finding engine will even help you locate and sort online games by type, number of players, latency, and other criteria—so you can find the perfect match.

The Bottom Line Doom 3 is a technical marvel that's challenging, fun, and truly scary. But you might just feel left in the dark once too often.

SIM GAME

Lemonade Tycoon 2: New York Edition

RATING: ★★★★★

PROS: Varied game play; online game rankings.

CONS: No printed documentation; annoying music.

PRICE: \$19

COMPANY: MacPlay, www.macplay.com

Do you have what it takes to create a thriving refreshment business in the big city? That's the question behind Lemonade Tycoon 2: New York Edition, a business-



Street Vendor Making a profit on lemonade is tough in Lemonade Tycoon 2: New York Edition.

simulation game by MacPlay. The game's graphics engine certainly won't set the world on fire. But the game itself is a satisfying challenge that will appeal to casual gamers.

In Lemonade Tycoon 2 (the first Mac version of the game), you start out small, with only a bit of seed money and limited prospects. You choose the location and the size of your stand: permits for spots in Brooklyn and the Bronx cost less, but those locations generate less revenue. Busy spots in trendy Greenwich Village or Central Park cost much more, so a bigger stand that can generate more revenue may be in order.

You control your marketing budget, stock levels, recipes, and prices. You can also upgrade your stand with items that speed transactions, draw more patrons, or keep people in line longer. If things get tedious, you can speed up the game play by fast-forwarding, or you can skip straight to

continues



Top Downloads

uDevGames (www.udevgames.com) is an annual gaming contest in which Mac developers vie for prizes, and the admiration of their peers, by creating new games and offering up their source code. Thirty-one games were entered this year—everything from card games to 3-D shooters. While there were a lot of gems in the lot, two in particular stood out from the rest. You can download all the games from uDevGames' Web site and try them out for free.



BugThug

Of this year's contenders, one of my personal favorites is Jonathan Czek's BugThug. The idea is quite simple: You've corralled some bugs and now you must keep them in their pen by pinching them if they get near the edge. If you can direct them to eat some seeds, you'll get more points. Icky minus seeds take points away. There are power-ups and power-downs. The occasional leaf will keep the bugs distracted for quite a while. The action quickly becomes fast and fran-

tic. BugThug is a beautifully designed and implemented game that's well worth checking out.



ShineBug

Charles Goran's ShineBug is this year's overall winner. In this 3-D-action game, you must keep up your "buzz"—by snatching bubbles of moonshine and cans of pork and beans—as you fly to the whiskey still. Along the way, you have to avoid logs and other bugs by swooping and jumping. It's simple, well-executed fun.

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LapelMic

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\$19⁹⁹



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the evening to check receipts, track your company's profits and losses, order stock for the following day, and more.

Lemonade Tycoon has three game-play modes: Time Challenge, where you have to make as much money as you can within the time allotted; Money Challenge, where you have to reach a specific revenue target; and my personal favorite, Career, an open-ended game focused on building a thriving and sustainable business. If you're looking for a deep tycoon game with lots of twists and turns, this one probably isn't for you. But it's certainly enough to keep many folks busy for a while. The Lemonade Stock Exchange even lets you share your scores with other Lemonade Tycoon 2 players online.

Printed documentation is nonexistent, though the HTML guide and in-game tutorial will walk you through the basics. The game's graphics are decent but unexceptional. And the music was so annoying that I turned it off almost immediately.

The Bottom Line If you've ever dreamed of turning your curbside lemonade stand into a business empire that would make Donald Trump tremble, Lemonade Tycoon 2: New York Edition is worth checking out.

KIDS' ACTION GAME

Bionicle

RATING: 

PROS: Fun tie-in to Bionicle toys for young gamers.

CONS: Lousy camera control; play isn't challenging; expensive.

PRICE: \$40

COMPANY: Feral Interactive,
www.feralinteractive.com

If your household includes anyone younger than 12, you're probably well acquainted with Bionicle. One of Lego's most successful toy series in recent memory, Bionicle is a build-it-yourself collection with its own mythology and characters. It has also spawned its own console game, which Feral Interactive has recently brought to OS X. Alas, the result hardly seems worth the effort.

In Bionicle, the dark spirit Makuta has turned the island paradise of Mata Nui into a desolate wasteland. Six heroes, known as the Toa, have risen to challenge Makuta's rule. Each hero represents one of the six elementally themed regions of Mata Nui. For example, Gali Nuva, Toa of Water, is a strong swimmer, and Pohatu Nuva, Toa of Stone, has incred-

ible strength and can climb walls. By mastering each Toa's special powers, you'll help them gather the Mask of Light and ultimately defeat Makuta.

Bionicle is a third-person platform game, which means there's a lot of jumping over chasms, moving past obstacles, and brawling with evil creatures. Figuring out how to make the best of your environment is an important element here—for example, surfing churning rivers of lava, racing across the desert, or swinging from vines in a densely canopied jungle. You'll also occasionally need to find and rescue the Matoran, the civilian villagers of Mata Nui.

Bionicle is aimed at the kids who are buying the toys, so experienced gamers probably won't find much challenge here. For example, although each character carries a sword, a set of axes, or another dangerous-looking object, you use those weapons as guns—easily blasting bad guys with a convenient automatic-aiming feature. For kids with intermediate gaming skills, Bionicle requires little more than a few hours to finish.


But even inexperienced gamers may not enjoy playing Bionicle. Thanks to the game's absolutely wretched camera controls, you'll frequently find yourself in awkward views that prevent you from getting a sense of where obstacles or bad guys are positioned—this creates frustration, not challenge. Game developers have had years to work out details such as these, and Bionicle's original developer has no excuse for getting them wrong.

Another serious drawback is the price. At \$40, this game costs considerably more than you'd pay for the year-and-a-half-old console version.


The Bottom Line If there's a Bionicle fan in your house who hasn't already played this on a console, it may be worth your while. Otherwise, the game's frustrating camera controls alone make this one to avoid—pick up a copy of Feral Interactive's Rayman 3 instead.




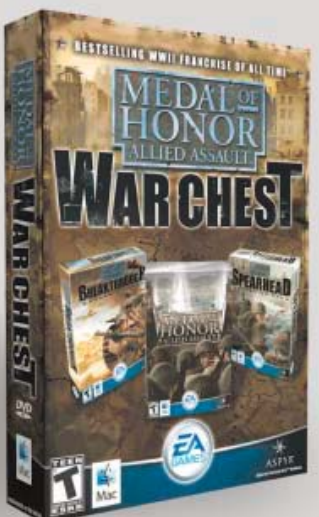
More Than Just a Toy Master the special powers of each Tao and save the land in Bionicle.



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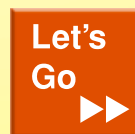
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STRATEGY SHOOTER

Project Nomads

RATING: 

PROS: Nice graphics.

CONS: Lousy game play; no Internet play.

PRICE: \$30

COMPANY: Freeverse Software, www.freeverse.com

Freeverse's Project Nomads should have been a great game. At its core are a nifty idea and some truly lovely graphics. Too bad neither of these things makes up for the game's horrific implementation.

Project Nomads is 3-D shooter with real-time strategy (RTS) elements—and it fails spectacularly in both genres. The game is set in the world of Aeres, a scattered collection of islands floating in the clouds. As a Nomad—someone who combines mystical powers with practical building skills—your job is to develop, populate, and protect your island. You'll build defenses such as guns, hangars for constructing aircraft fleets, and resources such as windmills. You'll then use these things as you square off against your foes on neighboring islands.

Each mission is so heavily scripted that the game seems to be on rails. Once you figure out a few simple, predictable patterns, your enemies will fall like



Head in the Clouds Although pretty to look at, Project Nomads has too many flaws to satisfy.

flies. Even worse, the RTS elements are poorly thought out. For example, you can control only one resource or defense at a time. There's also no damage reporting to help you gauge the health of your defenses. Multiplayer gaming is strictly limited to LAN play.

If you find yourself in the unfortunate position of owning this game, be sure to download the latest patch, available from Freeverse's Web site. It fixes a bug that prevents the game from working in OS X 10.3.6 or later.

The Bottom Line Project Nomads looks pretty, but it's a real pig. Steer clear. □

MacCentral.com Senior Editor PETER COHEN is glad he has a nine-year-old son who can explain Bionicle mythology to him.

Game Gear

Air Flo EX

Nyko's USB-powered Air Flo EX takes aim at one of the most vexing problems facing the gaming world—sweaty palms. Underneath the Air Flo EX's hollow core sits a fan that sucks air through small holes in the pad's rubberized grips. It's a bit noisy but nothing you'd notice when playing a game at a reasonable volume. However, it might drive your dorm roommate to distraction if you're playing with headphones on.

But the real beauty behind the Air Flo EX is its key-mapping software. This lets Mac users configure their Air Flo EX game pad to simulate keyboard and mouse input on games that don't support OS X's built-in controller software. You can download this free software from Nyko's Web site. It'll work with any Air Flo EX you find on store shelves—even if it doesn't advertise Mac support on the blister pack. (The key-

RATING: 

PROS: Ten-foot cable; lots of buttons; nifty fan that keeps your hands dry; key-mapping software.

CONS: Slightly noisy fan; no preprogrammed key-map sets.

PRICE: \$30

COMPANY: Nyko, www.nyko.com

mapping software takes a while to configure. It'd be nice if Nyko included some key-map sets for commonly used games and applications.)

The Air Flo EX is tethered by a ten-foot cable—not as elegant as a wireless controller, perhaps, but certainly long enough to stay out of your way.

The Bottom Line

The Air Flo EX's fan is a great way to keep your palms from sweating.

But the real gem is the Mac key-mapping software.



MATURE 17+

M

Blood and Gore
Intense Violence

ESRB CONTENT RATING

www.esrb.org

Developed By

www.idsoftware.com

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www.aspyr.com

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Mac Gems

Apple touts the Mac mini as compatible with any USB keyboard, but there's a catch—if your keyboard was designed for use with a Windows computer, it doesn't have the Mac's familiar ⌘ or option keys. Instead, it has Alt and Windows keys, which can perform the same functions as their Mac equivalents—but they're in the wrong order, so you end up with your option and ⌘ keys in switched positions.

That's where Michael Baltaks's free **DoubleCommand 1.5.3** (donations accepted; <http://doublecommand.sourceforge.net>) comes in handy. This OS X kernel extension lets you swap the functionality of the Alt and Windows keys, thus making any Windows keyboard behave just like a Mac keyboard (perfect for Windows-to-Mac switchers who already own keyboards, or for anyone who buys a Windows keyboard for its low price or special features).

This ability alone makes DoubleCommand a must-

have for Mac users who have Windows keyboards—but it can do a lot more. DoubleCommand got its name from its original purpose—to *remap* (change the function or position of) the enter key to the ⌘ key, thus giving PowerBook users two ⌘ keys. In the current version, the DoubleCommand preference pane allows you to remap a number of different keys on your keyboard to suit the way you work.

If you're a Mac user—new or old—who wants to use a Windows keyboard,

DoubleCommand is the first software you should download and install.

Music Rescue

If you've got an iPod, you know how easy getting your music onto it and keeping it in sync with your Mac are. But you may have discovered that Apple doesn't provide a way for you to get music from an iPod to your Mac. Understandably, Apple doesn't want people using iPods as “music mules” that transfer tunes illicitly between computers.

The problem is, there are legitimate reasons for copying music off an iPod. For example, if your Mac's hard drive suddenly bites the dust and you haven't backed up your music, Apple's only solution is to rip everything from your CDs (a process that took me several months the first time). And Apple

won't let you redownload tracks you've purchased from the iTunes Music Store. So if you're in this boat, I'm happy to recommend Whitney Young's free **Senuti 0.23** (donations accepted; <http://wbyoung.ambitiouslemon.com>).

Senuti isn't the only utility out there that will help you get music from your iPod to your computer, but it just might be the easiest one to use. It provides an iTunes-like window listing the contents of your iPod, including all songs and playlists. (If iTunes launches and asks whether you want to link the iPod to this computer, you should decline—doing so will delete the music on your iPod that's not on your computer, the opposite of what you want to do.)

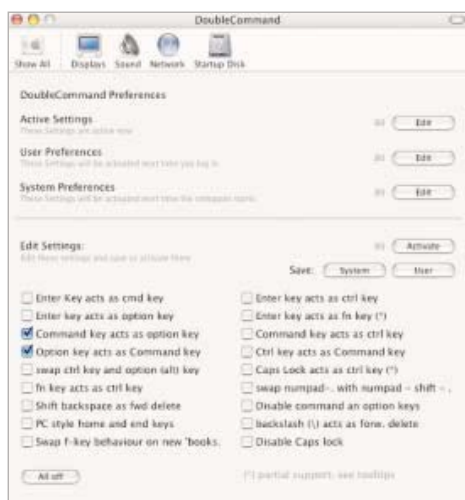
You can download songs from your iPod to your computer, and, if you prefer, Senuti can automatically add the tracks to your iTunes Library (even to a particular playlist). Senuti's live search filter works just like the one in iTunes—start to type the name of a track, an artist, or an album, and the list of results will narrow down as you type.

Another nice touch is Senuti's Hide Songs In iTunes option, which shows songs that are on your iPod but not in iTunes. I found this option useful for figuring out which of my titles I hadn't yet transferred from my Power Mac to my Mac mini.

I've encountered only two minor glitches in the app. First, I haven't been able to get the artwork feature—which is supposed to show artwork for those tracks that provide it—to work. Second, Senuti won't let you sort filtered search results by column. But if you have a legitimate need to fetch music from your iPod, you need Senuti.

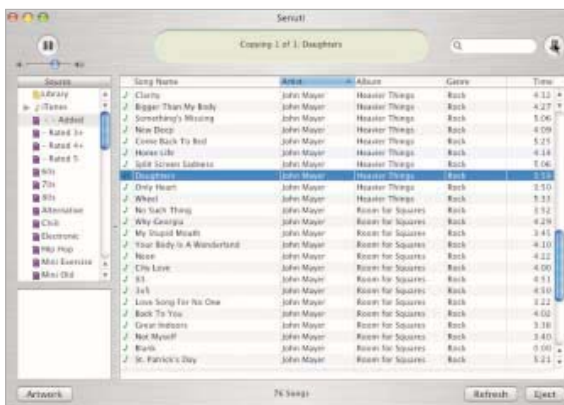
Count 'em Up

As a writer, I often face limitations on the maximum length of what I pen. Sometimes I use a word processor or text editor with a built-in word-count feature (BBEdit or Microsoft Word, for example), but often I don't. If an application is services-aware, as TextEdit is, I can select all the text in the current document and then choose the Statistics service to find out how many words it contains, but that's a bit of a pain.



Keyboard Swap

DoubleCommand lets you make better use of a Windows keyboard with your Mac.



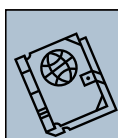
Tune Transfer With Senuti, you can move music from your iPod back to your Mac.

Even when an application does have a word-count feature, I can never be sure whether it's counting every word or leaving out *a*, *I*, and *the*, or whether it's counting hyphenated terms as one word or two. Although I've yet to find the perfect solution, I recently discovered SuperMagnus Software's free **Word Counter 1.7** (donations accepted; www.supermagnus.com), and I've been fairly pleased with it. Rather than integrating into any particular application, Word Counter provides its own text window. You can copy text from another program and paste it into the window, drag and drop text, or, in the case of a plain-text or RTF document, drag the file itself into the window. Click on the Count Words button, and you get both a word count and a character count.

What sets Word Counter apart from similar utilities are its TextEdit counter and its preference options. If you use TextEdit frequently, you'll appreciate Word Counter's palette. This palette remains visible while you're using TextEdit and lets you do word and character counts without having to copy or paste; it keeps track of the text in the active TextEdit window.

The only drawback to this feature is that each time you click on the Count Words button, Word Counter becomes the active application and doesn't switch back to TextEdit when it's done. To get around this, you need to enable Word Counter's auto-update option, which updates word counts at a chosen interval.

Other handy options include the ability to decide how long a word must be for Word Counter to count it—if you don't want to include *I* or *or*, you can tell the app to count only words with more than two let-



GO TO WEBLOG:

The Mac Gems Weblog (www.macworld.com/weblogs/macgems/) has longer versions of the reviews you see here, as well as reviews not in this column. Check out this month's Web exclusives.

PRODUCT	RATING	URL	DESCRIPTION
Mouseposé	www.macworld.com/weblogs/macgems/	find.macworld.com/0360	Cursor highlighter

DVD Extractor

With low-cost DVD burners and software such as Apple's iDVD and DVD Studio Pro, it's easy to put your movies onto DVDs. What isn't so easy is getting content off those DVDs. Because of the way DVDs store audio and video—mixed together in files called VOBs (Video Objects)—you can't simply edit or reuse it.

So why would you want to extract content from a DVD? Perhaps you want to make a multimedia portfolio of your work. Maybe you'd like to create a "greatest hits" DVD containing footage from several DVDs without recapturing from the original tapes (assuming you still have them). Or maybe you have a DVD recorder attached to your TV and want to edit the shows you've recorded.

If these situations sound familiar, you should check out Miraizon's \$60 **Cinematize 2.03** (www.miraizon.com), which lets you pull content from unencrypted DVDs to your desktop in a number of different formats.

Cinematize lets you select your start and end points to decide exactly what video and/or audio to extract. You can preview your selection in full-motion video inside a window, but (unfortunately) the preview doesn't include audio—so it can be difficult to figure out what scene you're actually viewing.

You can decode to a QuickTime file, using the built-in QuickTime codecs, and choose the quality and aspect ratio (among other options). Or you can save the



Second Time Around Cinematize lets you breathe new life into DVD content and use it in many different ways.

video as an elementary stream, which simply pulls video off the DVD and saves it, with no loss of quality, as an M2V file, which you can then import into DVD Studio Pro. The other option is an MPEG-2 program stream, which gives you an MPG file.

The Audio tab lets you pick the audio stream to extract—Cinematize can handle PCM, AC-3, and MP2 audio (but not DTS), and you can decode it to AIFF or WAV format, as an elementary stream, or as an MPEG-2 program stream. The

program can down-mix multichannel AC-3 audio to stereo audio.

The Output tab gives you options for the final output format of your extracted content. You can create a QuickTime file, a DV stream, or an AVI file with audio and video combined into a single file; create an MPEG-2 program stream file with audio and video combined; or save the content as separate stream files. Or if you prefer, you can save each chapter as its own segment. At output, Cinematize does an excellent job of properly synchronizing your audio and video.

If you need to edit or reuse content from your DVDs, Cinematize is a full-featured app that offers almost all the features you could ask for.—JONATHAN SEFF

ters. You can also choose whether a hyphenated term counts as one word or as separate words. Finally, you can determine whether the character count includes spaces as characters.

Word Counter is a bit clunky and requires too much switching back and forth between it and the application you're typing in (even when you're using the TextEdit counter). But it's a useful, free tool with options that aren't available in many applications. If you often have to write pieces that contain a specific number of words, it's worth a try.

continues

Go Charting World of Where helps kids and adults alike learn their geography.



Where in the World

When I was a kid, we learned geography by filling in place names on copies of world and U.S. maps, and we learned country and state capitals by making flash cards with a country or a state on one side and its capital on the other. But learning geography is much easier and a bit more fun today, thanks to computers and applications such as World of Worlds Software's \$10 **World of Where 1.3.1** (♦♦♦♦; www.worldofworlds.net).

World of Where is actually two learning aids in one: a set of world and U.S. maps, and a geography quiz program. Each map displays country or state names, the capital of each country or state, and the names of nearby oceans and seas.

The Map mode also provides useful information about geographic locations: hold the mouse cursor over a country's name, and a tool tip appears displaying the country's size, population, and per-capita GDP; if you hover over the country's capital, you'll see the city's latitude and longitude.

If you want a printed copy of a map, or if you want to send a map to someone via e-mail, World of Where's Export Map command lets you save a copy of the current map in TIFF, JPEG, or PSD format.

But Test mode is my favorite part of the program. If you choose a region and start a test, World of Where removes all text from the regional map and then asks you where on the map you'll find a particular country (or in which country a particular capital resides).

In Soft Test mode, World of Where tells you if you've guessed incorrectly and gives you unlimited guesses to find the right country. In Hard Test mode, you get only a single guess, after which World of Where moves on to the next item, whether you were right or wrong. World of Where keeps track of your accuracy for country, state, and capital tests. This useful feature helps you (or your child or student) figure out which regions you need to study more carefully.

World of Where has two flaws. The first is that it can be difficult to click on some tiny countries and islands. The second is that World of Where doesn't include every country on the globe; it's currently missing a few island nations and protectorates. (The developer expects the next version to include these.)

Even so, it's a great way to learn, and if you're a teacher, it can be an invaluable instructional aid.

THE CONQUEST

DiskWarrior is Now OS X Native

It's the indispensable utility that repairs problems such as disks that won't mount, files you can't trash, and folders that have disappeared. MacUser magazine said, "It's the fastest and safest data recovery utility you can buy."

Macworld magazine said, "DiskWarrior is by far the best disk utility available for the Mac; it can repair virtually any disk problem you may

encounter...and it is likely to become the only tool you'll want to keep with you at all times."

David Coursey, ZDNet AnchorDesk, agrees in an article comparing disk utilities. He used it to fix a disk that no other utility could. "DiskWarrior is a great product, not just because it fixed a pretty serious screw-up, but because it showed me what it planned to do in minute detail before doing it."

But disk damage isn't the only threat to your data. As hard drives get older, the drive mechanisms



Phone: 1-800-257-6381 Fax: 281-353-9868 Email: sales.info@alsoft.com Web Site: www.alsoft.com

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Scroll Padding

Apple's new PowerBooks feature a scrolling trackpad, which adds the ability to scroll through documents or pan within windows by dragging two fingers across the pad. Unfortunately, users of older PowerBooks can't take advantage of this feature, as it requires the new trackpad hardware. However, owners of other PowerBooks (and iBooks) can gain similar functionality—and more—by installing Raging Menace's \$15 **SideTrack 1.1.1** (★★★★; www.ragingmenace.com).

SideTrack is a replacement trackpad driver for OS X. When installed on a PowerBook or an iBook (but not the new PowerBooks), it lets you designate a portion of your PowerBook or iBook trackpad as a scroll pad—simply drag your finger up and down (or left and right) to scroll through (or pan across) windows. In addition, you can modify your trackpad so that pressing the trackpad button and tapping on the trackpad do different things; for example, one can be a standard click and the other can be a control-click. SideTrack also lets you assign the corners of the trackpad to different functions or keyboard shortcuts.

It also includes controls for customizing the speed and sensitivity of your PowerBook or iBook trackpad, both significant improvements over the options available in OS X. It even offers a Redmond Switcher



Track, Tap, and Scroll SideTrack adds advanced features to many PowerBook and iBook trackpads.

Acceleration setting that emulates the trackpad profile of many Windows laptops—helpful for new Mac users switching from Windows laptops.

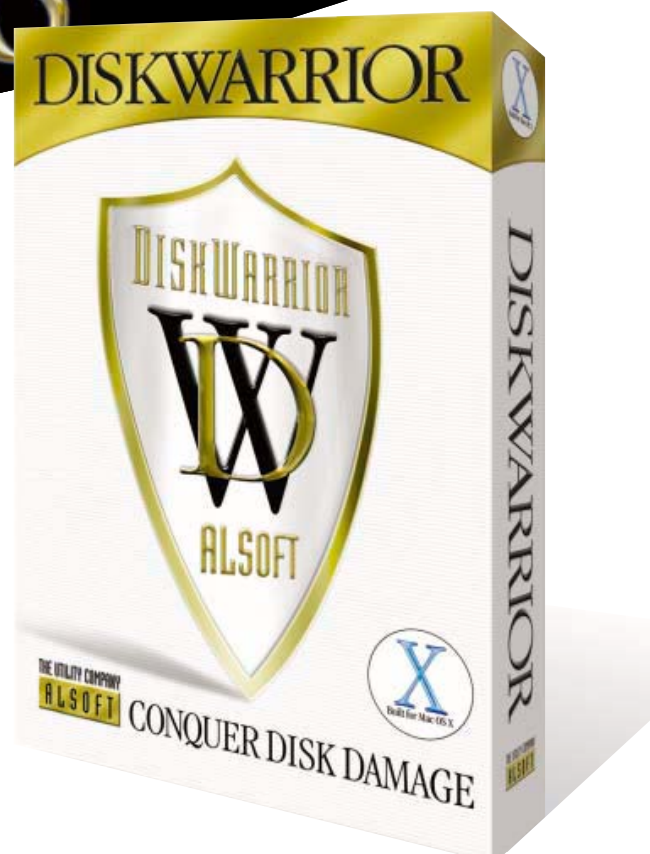
SideTrack is a kernel extension, so make sure to read the documentation before you install it. But once you do, you'll likely never go back to the standard trackpad functionality. □

Senior Writer DAN FRAKES (www.danfrakes.com) is the author of *Mac OS X Power Tools*, second edition (Sybex, 2004), and the reviews editor at Playlistmag.com. Send your thoughts on this column, or on things you'd like to see in future columns, to macgems@macworld.com.

CONTINUES

begin to malfunction. Eventually, the malfunctions become so severe that the drive simply stops working. DiskWarrior can automatically test for hardware malfunctions, giving you the chance to back up your data before it's too late.

Be prepared. Don't wait until after you have a disk disaster to buy your copy of DiskWarrior. Bob LeVitus, aka Dr. Mac, said, "I feel naked without DiskWarrior." You can believe MacHome magazine when they said, "DiskWarrior is a quick, one-click solution to faster, more stable hard drives."



HIT THE ROAD, MAC

Whether you travel all the time or only occasionally, and whether you travel for business, pleasure, or both, chances are (if you're reading *Macworld*) you bring a little tech with you wherever you go.

But if you ask 20 different Mac users what they take on the road, you'll get at least 21 different answers. (Some of us have "heavy" and "light" packing lists, for example.) As with so many things Mac, these decisions are as individual as the icons on our desktops or the bookmarks in our browsers. Some of us cram everything we can into our carry-ons. Others do everything possible to shave off each extraneous ounce.

Whatever your packing style, though, there are probably a few things you can do to make your travels easier and safer. So we asked our experts—editors, writers, and (most important) readers—for their favorite tips. From what to bring (and what not to bring) to getting online and retrieving e-mail, here are the best.

PHOTOGRAPHY BY PETER BELANGER



STYLING BY CHRISTINE ROSE ELLE



WHAT TO TAKE, WHAT TO LEAVE BEHIND, AND HOW TO TRAVEL SMART

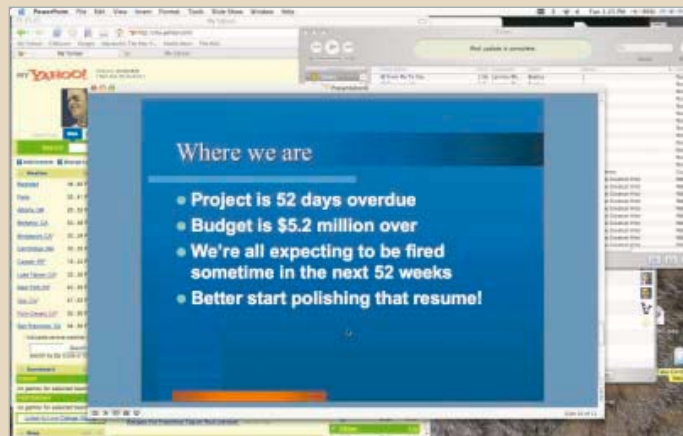
WHAT TO CARRY

Use All Your Gadgets If you're like most modern business travelers, your carry-on holds your laptop and a cell phone, a smart-phone, or a PDA. So why burn up your laptop's battery charge when you can use one of the smaller devices to do some useful work—managing contacts and calendars, maintaining to-do lists, or making notes for a presentation? With these mundane chores assigned to your lesser gadgets, you can save your PowerBook's battery for more-important tasks (such as watching the first season of *Arrested Development* on DVD).—CHRISTOPHER BREEN

Date Your Batteries Frequent flyers know that you need a second laptop battery on cross-country flights. But batteries lose capacity as they age, so it's all too easy to swap in what you think is a fresh, new battery and then discover (at the worst possible time) that it's really old and weak. The cure? Label your batteries with a purchase date. And if you have an iBook or a 12-inch PowerBook, remember to shut it down (or make sure it's plugged into an AC power source) before you change bat-

teries; unlike the larger PowerBooks, those Macs can't withstand having their batteries removed for even an instant.—ADAM C. ENGST

Plug In on the Plane There's an alternative to lugging along a second battery on long flights—booking a seat with an AC outlet. Such powered seats are turning up more frequently on newer planes, par-



Back Up Your Presentation Don't take chances with your PowerPoint or Keynote presentations: create backup copies of your slides and put them on your iPod or digital camera just in case.

ticularly in first and business class. But how can you tell whether your seat will be powered? Before you select a seat, find out what sort of plane you'll be on, and then check SeatGuru (www.seatguru.com). It provides layouts of all the planes flown by the major airlines, showing which seats are powered (as well as which ones have limited legroom, and so on).—IAIN DRUMMOND

Back Up Your Slides You're on your way to a make-or-break presentation, but somehow (clumsy security, clumsy cabbie, or clumsy you) the PowerBook holding all your slides and notes gets irreparably damaged. But if you're smart, you can use the backup copy of your presentation that you put on your digital camera or iPod photo. How? First, you need to convert your slides into JPEG image files that your iPod or camera can work with. (There are a few ways to do this: PowerPoint can save directly to JPEG; Keynote 2 has an Export command that lets you save slides as JPEGs.) If you're using an iPod photo, your next step is to upload the images with iTunes. (Note that iPod photo users can make this process a bit easier by using the iPresent It utility [www.zapptek.com/ipresent-it], which will create slide shows from either Keynote or PowerPoint files and automatically set iTunes up to sync them.) If you're using a digital camera, name the files using your camera's usual file-name conventions and numbers that

All That You Can Leave Behind

You're on the road and carrying around way too much stuff: we've all been there, but we'd rather not go back. Here's a list of the extraneous things many of us take on business trips—and the weight-saving things we could take along instead.—DORI SMITH

INSTEAD OF THIS:	BRING THIS:
IPOD DOCK	A regular FireWire cable (which has a multitude of uses) and a SendStation PocketDock, which turns that cable into an iPod docking cable (\$19; find.macworld.com/0330).
FIREWIRE CAR CHARGER FOR YOUR IPOD	The Griffin PowerPod, which—along with a FireWire cable and a PocketDock—will recharge your iPod in the car (\$25; find.macworld.com/0331).
USB CABLE FOR YOUR DIGITAL CAMERA	If you have a 15- or 17-inch PowerBook, get a PC Card adapter for whatever media your digital camera uses. They can be had from multiple vendors for less than \$10.
ETHERNET Crossover CABLE	A regular Ethernet cable: all newer Macs can handle the crossover internally.
PRESENTATION REMOTE CONTROL	If you've got a Bluetooth cell phone, get a copy of Salling Clicker. This utility turns your phone into a presentation remote (\$20; http://clicker.salling.com).
EXTERNAL HARD DRIVE FOR ON-THE-ROAD BACKUPS	Your iPod is a hard drive, too. In iTunes' iPod preference pane, select General and click on Enable Disk Use.
RJ-11 PHONE CABLE	An adapter that converts your Ethernet cable to RJ-11. Targus is just one of several vendors that make them (\$20; find.macworld.com/0332).
CABLES THAT GET TANGLED UP	Zip-Linq retractable cord versions of the same cables; they do the same thing but take up much less room (www.ziplinq.com).

have already been used (IMG6523.jpg, for example). Next, use a USB media reader to copy the slides to your camera's media card via the Finder, put the card in the camera, and verify that you can view your images on the internal LCD screen. Finally, make sure to pack the cable that connects your camera or iPod photo to a television; most projectors should have the necessary composite video inputs.—ADAM C. ENGST

Pack a Short Cord Want to be voted Most Popular at your next conference? Bring along a very short (6- to 12-inch) extension cord. Here's how it works: You're in a session, and all the attendees want to plug their hulking power bricks into the one available power strip. But you just plug your power brick into your short extension cord and then plug the cord into the plug strip. That leaves more room for others.—DORI SMITH

Carry Just the Cables You Need When you're packing your carry-on for a trip, put in only the cables you'll need on the plane. Put the rest in a plastic bag inside your checked luggage. That way, you won't have to pull out a rat's nest of cables when emptying your bags at the security checkpoint.—MARK DAVIS

Play iTunes on TV Want to play some music in your hotel room? You don't have to settle for the dinky speakers on your PowerBook or lug along a dedicated pair. Instead, just pack a minijack-to-RCA adapter. At the hotel, plug the minijack into your laptop's or iPod's headphones port, and plug the other end into the RCA jacks on the front of the TV. Most modern TV speakers sound pretty good.—

DAVE EVERITT

Get a USB Phone Charger Lose some unnecessary tonnage by investing in a USB charger for your cell phone. Instead of relying on a heavy power brick, you can recharge your cell phone and PDA by plugging them into your PowerBook's USB ports. A number of companies, including Keyspan (www.keyspan.com) and Zip-Linq (www.ziplinq.com), sell them, for a variety of cell phones and PDAs (their prices range from \$10 to \$25).—ADAM C. ENGST

What's in Your Carry-On?

Adam C. Engst: I'm on the road an average of three days a month; I have 125,000 frequent-flyer miles. I'm currently using the Kensington SaddleBag: I like the option of using it as a backpack, and I love the little pocket for airline boarding passes.

WHAT'S INSIDE:

12-inch PowerBook

PowerBook power cord (the long one)

Extra PowerBook battery

Canon PowerShot S400

Motorola 120C cell phone (with the antenna broken off so it fits in my pocket)

Jabra earphones

Little bag containing iPod earbuds, Koss earphones, an iPod remote-control cable, and a pair of adapters (one for double-headed airline jacks and another that lets two people listen to the same iPod)

Two blank CD-Rs

DiskWarrior boot CD

Kensington FlyLight USB LED light

Kensington security lock (I've never actually used it—instead, I just never let my bag out of reach—but it's a good thing to have on hand)

Cables (camera to USB, camera to TV, FireWire, Ethernet, and RJ-11)

Adapters: mini-DVI to DVI, and mini-DVI to VGA (for connecting to projectors and other monitors)

Handeze gloves (In case I need to do a lot of typing while traveling)

Antibacterial hand gel (essential at any conference where you'll shake hands with lots of people and then touch food)

Fairly large plastic bag
(to act as backup rain protection)



GETTING ONLINE

Create a Room-to-Room Network If you're traveling with a group on a tight budget, ask your innkeeper to place all the travelers in adjoining rooms. The people in the room closest to the middle can then sign up (and pay) for broadband access. Using either an AirPort Express or OS X's Internet Sharing feature, everyone in the adjoining rooms can share that broadband connection. (Be sure to check with hotel management before you start surfing.)—CHRISTOPHER BREEN

Sign Up for AOL My wife and I have extensive international and domestic travel experience. We've tried all sorts of Internet connections, from cell phones to Wi-Fi networks. The only method we've found reliable worldwide is a bare-bones AOL dial-up account. For \$4.95 a month, you get just five hours of connectivity, but that's enough time to grab e-mail and do some quick Web surfing. It has worked wherever we've gone, and we've gone over our time allotment only a few times.—HANS FISCHMANN ☞

Find Your Mail Server If you want to send e-mail from your hotel, you'll probably need to give your e-mail client the name of the hotel's outgoing mail server. Unfortunately, hotel staffers often have no idea what it is. But (assuming you can get onto the



Where Am I? Need to find the name of your hotel's e-mail server? Use reverse-DNS lookup to find the domain name, and then add *mail* or *smtp* to it.

Web) you can figure out the mail server using a reverse DNS lookup. I use the aptly named Reverse DNS Lookup (<http://remote.12dt.com/rns/>), but there are plenty of other sites that do the same thing. When you go to Remote DNS Lookup, it'll show you your IP address. Simply click on the Submit button, and it'll tell you the domain name associated with that address. With that information, you can usually deduce the mail server. For example, if your IP address resolves to xxx.example.com, you can be pretty sure your mail server is mail.example.com. If that doesn't work, try smtp.example.com. One of them should work for any mail client unless access to the mail server requires authentication.—BART MELTZER ☞

Laptop Gems

Most PowerBook and iBook users have the software basics covered—word processor, Web browser, e-mail client, and so on. But adding a few other cool bits of software can turn your portable Mac into a real powerhouse and make traveling a bit more comfortable and entertaining. Here are a few of our favorite laptop gems:

Raging Menace's \$15 **SideTrack** (☞☞☞☞; find.macworld.com/0333) transforms your humble trackpad into a supercharged input device. It lets you use the edges of the trackpad to scroll left, right, up, and down; designate alternative functions for clicking the button and tapping the trackpad; map different functions to the corners of the trackpad; and customize tracking speed and sensitivity far more than OS X's own preferences will let you.

Using gnufoo.org's free **uControl** (☞☞☞☞; gnufoo.org/ucontrol/), you can swap your laptop's modifier keys around. So you can finally convert that seldom used enter key into a second option key. Or if you're left-handed, you can reverse the buttons on an external two-button mouse. But perhaps the most useful feature is the ability to enable mouse or trackpad scrolling so that pressing a user-defined modifier key (such as the fn key) lets you scroll through a document simply by moving the cursor.

As its name implies, Colin Henein's free **SlimBatteryMonitor** (☞☞☞☞; www.orange-carb.org/SBMI/) takes up a lot less room in your menu bar than OS X's battery indicator. But its real power lies in its flexibility. You can set up SlimBatteryMonitor to show different information depending on whether your laptop is running off the battery, plugged in and charging, or fully charged.

For people who want to be able to find an open wireless (AirPort) network while on-the-go, but also think that a dedicated hardware detector (such as Canary Wireless's Digital Hotspotter) is overkill: **KisMac** (find.macworld.com/0334), **MacStumbler** (www.macstumbler.com), and **iStumbler** (www.istumbler.net) are free and will do the job using nothing more than your laptop's wireless card. The only drawback is that you have to open your PowerBook or iBook and turn it on—a hassle and a waste of battery if there are no networks nearby. MacStumbler and iStumbler have better interfaces and are easier to use; KisMac includes a number of features useful to network administrators but probably confusing for beginners.

Ever need to browse a Web site while traveling far from Net access? With a little foresight and HexCat's \$7 **DeepVacuum** (☞☞☞☞; www.hexcat.com), you can. DeepVacuum lets you download entire sites. Before you leave, you simply enter a site's URL, customize DeepVacuum's settings to determine how "deep" into the site it should search, and then click on the Start Download button. You'll have the site on your drive, accessible no matter how far you are from a phone line or a hotspot.

If you travel a lot, sometimes you need to keep yourself occupied on the plane or in your hotel room (and you can watch only so many DVDs). The solution? What travelers have been doing for centuries: playing cards. Semicolon Software's \$25 **Solitaire Till Dawn X** (☞☞☞☞; www.semicolon.com) provides 85 different kinds of Solitaire, as well as some of the best game play of any computer card game I've seen. Scenario Software's \$30 **iPoker** (☞☞☞☞; www.scenario.com) offers more than 100 variations of poker, complete with animated opponents. An Analyze Hand feature helps you learn the game—perfect for "business" trips to Vegas.—DAN FRANKS

Switch to IMAP If you travel a lot and want to keep all your e-mail in sync, consider getting an IMAP e-mail account. The IMAP protocol automatically stores copies of all saved and sent messages on the mail server. It also tracks all changes you make to messages—marking them as read, replied to, deleted, and so on. You can then retrieve them from any computer in the world with an Internet connection, using either a Web interface or an e-mail client. IMAP is especially useful for people who prefer to travel without a laptop. .Mac subscriptions include IMAP access, and your ISP may offer it as an option. If not, you can find a list of IMAP providers at find.macworld.com/0324.—JOE KISSELL

Relay Your Mail Sending e-mail when you're on the road can be tricky. You may have to use the ISP that serves your hotel to get onto the Net, but your ISP's mail server may not accept messages sent through another's SMTP gateway. That's why many business travelers opt for Yahoo or other free accounts when they're traveling. But there's another way: Sign up for an SMTP relaying service from an outfit such as DynDNS.org or smtp.com. For a monthly fee (starting at around \$10 per month, depending on message volume; relays are capped at several hundred a day to thwart spammers), your e-mails will be relayed through the service's gateway, and your recipients will never know you've left home.—CHRISTOPHER BREEN

What's in Your Carry-on?

Glenn Fleishman: I used to hit ten or twelve conferences a year, logging tens of thousands of air miles and thousands of car miles. Then I had a baby, so those days are (fortunately) over. Since

July 2003, I've been to two or three conferences and have flown maybe 8,000 miles.

But I still carry stuff around:

I work in Wi-Fi hotspots and "third places" (away from home

and office) several days a month for an hour or more a day.

WHAT'S INSIDE:

15-inch PowerBook

Canary Wireless Digital Hot-spotter

Canon S1 IS camera

Sony Ericsson T616 phone
(with Cingular 9600bps GSM service)

iPod

Targus CoolPad (to keep lap from scorching)

PC Guardian ComboLock
(see "Lock but Verify")

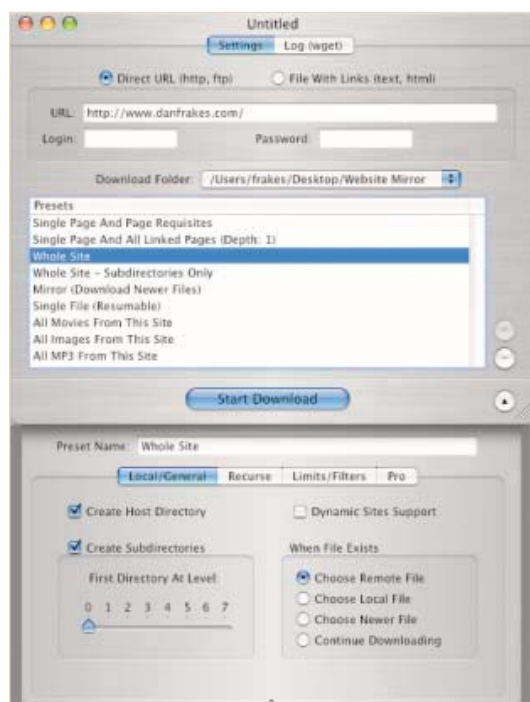
Cables (Ethernet, RJ-11)



Adjust Your Headers Many of us use personal e-mail addresses when we're on the road.

But to keep incoming business and personal e-mail separate, and to give your correspondence a professional look, you can make remotely sent messages appear to be from your work address (even if you're using a Web-mail service that won't let you mess with a message's From header). E-mail-redirection services such as Thinmail (www.thinmail.com) charge a small monthly or per-message fee to reroute e-mail. By adding a few special characters to the end of an e-mail address, you tell Thinmail to intercept the message and adjust the headers to reflect your desired From address.—JOE KISSELL

Fax through a Gateway If you have access to e-mail but not to a fax machine (or a phone line for your fax modem), you can still send and receive faxes—by using a gateway service such as jConnect, from j2 (www.j2.com). Receive-only accounts are free; full Premier accounts, which let you send faxes, make conference calls, and listen to voicemail toll-free, cost \$15 per month. j2 assigns you a fax number (in the area code of your choice); faxes sent to this number are forwarded to you as e-mail attachments in TIFF or PDF format. To send a fax, you use a Web form or send an e-mail message (which can include attachments) to a special address.—JOE KISSELL



Suction Cup DeepVacuum lets you download entire Web sites for offline viewing. You can even choose to download only movies, images, or music files.

KEEP IT SAFE

Lock but Verify Most barrel locks—such as those made by Kensington, Kryptonite, and other makers of computer, bike, and general-purpose locks—can be easily picked with a ballpoint pen. Many combination locks for laptops can be opened with a thin piece of ordinary plastic. So what works? The only lock that Marc Weber Tobias (the expert behind Security.org who claims to be able to pick any combination or barrel laptop lock currently on the market) recommends is the PC Guardian ComboLock (\$40; find.macworld.com/0323).—GLENN FLEISHMAN

Label Your Latop Once, at an airport security checkpoint, a pilot standing behind me almost took my iBook. He saw what looked like his laptop, grabbed it, and proceeded to walk away. Luckily, I was paying attention and asked him to look on the bottom of the notebook. He saw the label with my name on it and immediately apologized for the mix-up. Moral of the story: Your mother was right. Put your name on everything.—RICH CRUSE

Secure Your E-mail If you use a standard hotspot to send e-mail from the road, all your transmissions—messages, user names, and passwords—may be picked up by nearby snoopers. SSL-based e-mail—which encrypts your transmissions—is one good solution. But while most e-mail clients support SSL, not all ISPs support it. Enter FastMail (www.fastmail.fm). This Australia-based service offers free accounts that include secure Web mail. Customers can use SSL-based POP, IMAP, and SMTP to securely send and receive e-mail from any Mac e-mail client. Accounts cost \$25 or \$40; the \$40 plan includes 2GB of storage and 3GB of monthly inbound and outbound e-mail. FastMail also offers self-service aliases, domain names, and spam handling.—GLENN FLEISHMAN

Buy Insurance Your homeowner's (or renter's) insurance may not cover your portable computer equipment against theft or damage while you're traveling. So you should consider purchasing a computer-specific policy from a company such as Safeware (www.safeware.com). A \$10,000 policy, for example, costs \$200 per year, with a \$200 deductible. It covers accidental damage, theft (even, under certain circumstances, from an unattended vehicle), vandalism, and other losses, and provides the full replacement cost of both your hardware and software.—JOE KISSELL

Let OS X Protect OS X has several built-in features that can safeguard your laptop data. In the

What's in Your Carry-On?

Dori Smith: I travel about three days a month; I have about 40,000 frequent-flyer miles (I just redeemed a bunch for trips to Hawaii and Florida). I have two travel kits: the light bag and the heavy bag. The light bag goes everywhere (as you might guess), while the heavy bag comes along only on longer trips or trips where I'm going to need more hard-core tech gear.

WHAT'S IN THE LIGHT BAG:

15-inch PowerBook (and power brick)
Sony Ericsson T610 phone (and USB charger)
iPod (40GB)
Green-beam laser pointer
SendStation PocketDock
Griffin PowerPod
iSight

Jabra BT200 headset and power brick
Targus Ultra Mini Retractable Optical Mouse
Targus USB Retractable Notebook Light
Macally 128MB flash drive
Keyspan 4-port USB minihub
AirPort Express
2 Dimple Gel wrist rests (See find.macworld.com/0335.)
Discgear Discus 22-disc carrier
Cables (FireWire, Ethernet, and two extension power cords)
Adapters (CompactFlash PC Card, iPod cassette, 3-to-1 AC [with surge protector], DVI-to-VGA dongle)

WHAT'S IN THE HEAVY BAG:

All of the light bag's contents
Citizen PN50 printer (and cables and power brick)
Garmin GPS
Tungsten T PalmPilot (with cradle)
Canon Powershot S300 Digital Elph camera (and charger)
Griffin iTalk
RJ-11 cable
S-Video-to-composite adapter



Security preference pane, select the Require Password To Wake This Computer From Sleep Or Screen Saver option; if your computer is stolen while it's asleep, the thieves won't be able to see your data without your password. Also select the Disable Automatic Login option, so merely restarting your computer won't automatically enter your password. Finally, to prevent anyone from booting your laptop from another volume (such as a CD), launch Open Firmware Password (in /Applications/Utilities) and set a machine-level password.—JOE KISSELL

Encrypt Your Files Panther's FileVault can keep your files safe by encrypting your Home folder. But like any other files, its disk images are prone to damage that may render all your data unusable. A safer alternative is to

create your own encrypted volumes and use them to store your sensitive files. Apple's Disk Utility can make encrypted disk images, but PGP Disk (\$59 as part of PGP Personal Desktop; www.pgp.com), offers stronger encryption and more configuration options. It also lets you encrypt e-mail messages.—JOE KISSELL

Contributing Editor CHRISTOPHER BREEN is also the editor in chief of Playlistmag.com. Contributing Editor ADAM C. ENGST is also the publisher of TidBits. GLENN FLEISHMAN wrote *Take Control of Your AirPort Network* (Peachpit Press, 2005). Senior Writer DAN FRAKES is also the reviews editor at Playlistmag.com. JOE KISSELL wrote *Take Control of Mac OS X Backups* (Tidbits Electronic Publishing, 2005). DORI SMITH is a coauthor of *JavaScript for the World Wide Web: Visual QuickStart Guide*, fifth edition (Peachpit Press, 2004). (☞ = Macworld reader.)

Laptop Cases for the True Road Warrior

Everyone needs a laptop bag, but some people need a laptop case, the kind that protects not only against scuffs and scratches, but also against bumps, bruises, dents, and drops. For these users, a heavy-duty enclosure is in order. These three packs will protect your precious PowerBook or iBook throughout the roughest of trips.

Ballistic Briefcase

At first glance, passers-by might think you're carrying national security secrets in Matias's slick and stylish Laptop Armor (\$150 to \$180; find.macworld.com/0326). Only you need know it's just your precious PowerBook. The Laptop Armor has a rigid aluminum outer shell and padded inserts that fit any laptop; the company claims that the

case can help your laptop survive a 10-foot drop onto concrete, so it should have no problem with everyday abuse. Interior pockets hold a power adapter, a PDA, a mobile phone, and a few files, and a padded shoulder strap gives your hand a rest. The sturdy latches are lockable for additional security. The Laptop Armor is available in aluminum, black, and white. (Secret-agent handcuffs not included.)

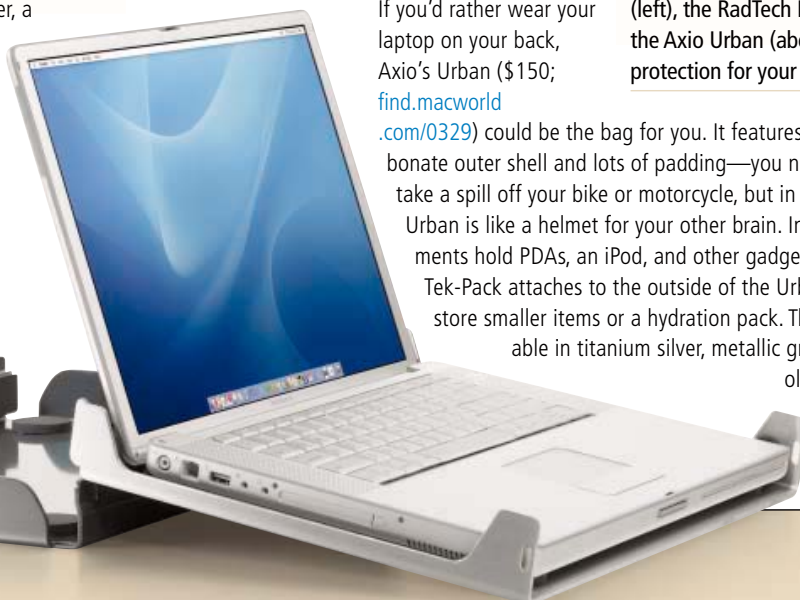
Armor Plating For people who need the ultimate in crush-proof protection and who don't care about pockets for PDAs and pens, RadTech's MacTruck (\$200 to \$230; find.macworld.com/0328) is made of thick aluminum-alloy plates that won't bend, let alone break. In fact, the MacTruck isn't so much a case as an exoskeleton: You leave your PowerBook in the MacTruck during use—it gives you full access to all ports, its air channels allow for cooling, and thick pads keep your laptop safe and stable. RadTech claims that the MacTruck is sturdy enough to protect your PowerBook from being run over by a truck—hence the case's name. However, this heavy-duty protection is also just plain heavy—the case alone weighs between four and six pounds, depending on the size.

Bike-Safe Backpack

If you'd rather wear your laptop on your back, Axio's Urban (\$150; find.macworld.com/0329) could be the bag for you. It features a rigid polycarbonate outer shell and lots of padding—you never want to

take a spill off your bike or motorcycle, but in case you do, the Urban is like a helmet for your other brain. Interior compartments hold PDAs, an iPod, and other gadgets, and an optional Tek-Pack attaches to the outside of the Urban to accessibly store smaller items or a hydration pack. The Urban is available in titanium silver, metallic gray, and metallic olive.—DAN FRAKES

Case Closed The Matias Laptop Armor (left), the RadTech MacTruck (below), and the Axio Urban (above) provide heavy-duty protection for your PowerBook or iBook.



THE MACWORLD

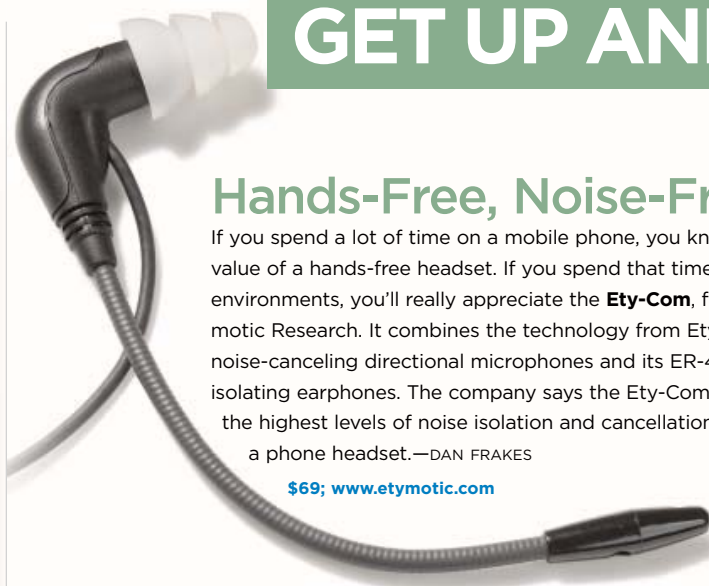
BAGGOODY

YOU USE YOUR MAC FOR WORK, PLAY, or both—and without realizing it, you've fallen into a comfortable yet stale routine. You turn to the same equipment and the same applications again and again.

It's time to try something new. We've assembled a select group of hardware, software, Web sites, and tchotchkes, to remind you of the bounty available to Mac users. Some things are new, while some have legs. Some are free, while some are decidedly not. Some are useful, while some are frankly quite frivolous. But all of them can inject fresh energy into your Mac life.

ARE YOU AND YOUR MAC STUCK IN A RUT? HERE ARE 50 GADGETS, APPS, AND WEB SITES THAT'LL TAKE YOU IN EXCITING NEW DIRECTIONS.

GET UP AND GO



Hands-Free, Noise-Free

If you spend a lot of time on a mobile phone, you know the value of a hands-free headset. If you spend that time in noisy environments, you'll really appreciate the **Ety-Com**, from Etymotic Research. It combines the technology from Etymotic's noise-canceling directional microphones and its ER-4 noise-isolating earphones. The company says the Ety-Com provides the highest levels of noise isolation and cancellation available in a phone headset.—DAN FRAKES

\$69; www.etymotic.com

On the Move

The **TomTom Go** is the iMac of GPS units, and not just because of its shape and colors. In addition to the usual GPS features, it provides 2-D and 3-D views, a memory-card slot for easy upgrades, and a great interface—just what a Mac user appreciates.—DAN FRAKES

\$800; www.tomtomgo.com



Simplify Your Stuff

PDA? Check. Phone? Check. Cameras? Check. MP3 player? Check. If you're out of pocket space, Sony-Ericsson's **P910a** may be for you. It gives you all these features and more in an iPod-size package. (Until Apple adds iSync support, use the instructions at find.macworld.com/0370 to sync data.)—DAN FRAKES

\$749; www.sony-ericsson.com

Stand Up

There are many stands that can raise your PowerBook while you work at a desk. But how many are made of steel sandblasted to match your PowerBook, provide venting to keep a laptop cool, and include a second shelf for storing peripherals such as a hub?

The Power Support **Ergo Stand** even provides a slot for the front optical drive on 15- and 17-inch PowerBooks.—DAN FRAKES

15-inch model, \$110;

17-inch model, \$125;

www.powersupportusa.com



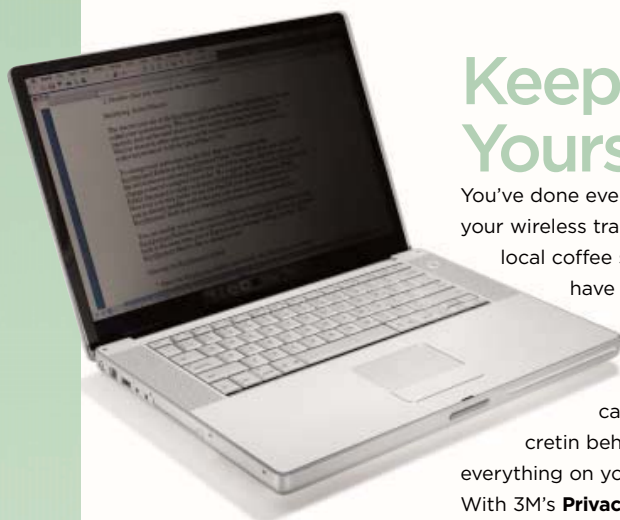
Here, Kitty, Kitty

Do you want a laptop case that isn't just another black Cordura look-alike? And do you like cats? Then we have got the bag for you: the limited-edition **Mini Kitty Pack**, from Axio-USA. It'll securely hold your laptop (as wide as 15 inches) and plenty of assorted gadgets—and it's very cute.—DAN MILLER

\$130; www.axio-usa.com



GET UP AND GO



Keep It to Yourself

You've done everything to make sure your wireless transmissions from the local coffee shop are secure, but have you thought about the most obvious hole in your defenses? The cappuccino-sipping cretin behind you can see everything on your laptop screen. With 3M's **Privacy Computer Filter** (distributed by Secure-It), you can foil him before he finishes his foam. Once you've placed the filter on your PowerBook or iBook, only someone positioned directly in front of the screen can read it.—TERRI STONE

\$79; www.secure-it.com

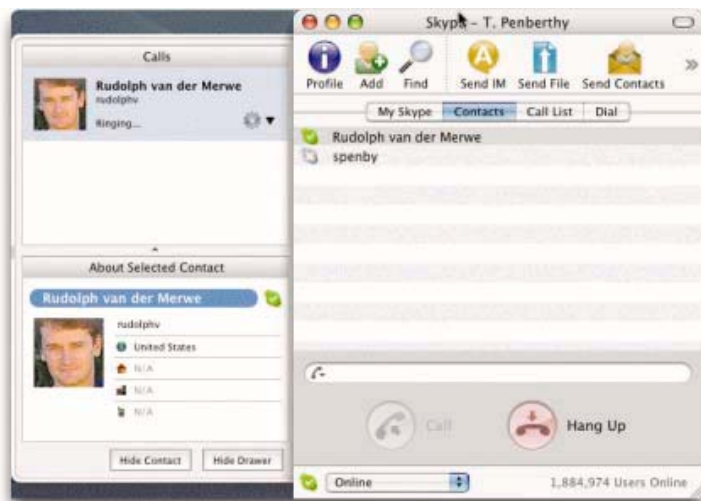


Spot the Network

Out and about with your laptop and need to find an unprotected wireless network for some Web surfing or e-mail sending? The Canary Wireless **Digital Hotspotter** finds every wireless network in range and displays each one's name, channel number, signal strength, and (most important) security status. You don't have to take your laptop out of its bag until you find an open network.—DAN FRANKS

\$50; www.canarywireless.com

COMMUNICATE



Really Unlimited Minutes

Another way to stick it to The Man, **Skype 1.0** is freeware that lets you make free phone calls to anyone else who has Skype installed on Mac OS, Linux, or that other operating system. Call quality is clean and crisp across town or across the country. Skype also sports a chat client and file-transfer capability.—TOM PENBERTHY

free; www.skype.com

I Am a DJ, I Am What I Play

When I was growing up, DJs occupied the highest social order in town (yes, a small town). If you were on the radio, you were cool—simple as that. Rogue Amoeba's **Nicecast** gives you all the glory of a DJ, letting you spin your tunes, talk over songs, and send your grooves to anyone with an MP3 player capable of streaming audio.—TOM PENBERTHY

\$40; www.rogueamoeba.com





Rhythm Method

The eMedia **Rock Guitar Method** CD-ROM will have you strumming faster than you can say “Hendrix rules.” It includes interactive diagrams, sound samples, movies, and an overview of all the equipment you’ll need to rock the house down.—JEFF TOLBERT

\$40; www.emediamusic.com



Sniff Some Glue

You can be hip and ironic and still enjoy making crafts. The discussion boards on the **Craftster** Web site include dozens of forums where you can get and give advice on everything from whipping up last-minute baby-shower gifts to making a birthday cake look as if it had been gnawed on by rats. Now *that’s* irony. We hope.—TERRI STONE

free; www.craftster.org

It’s Magic

Slide shows in iPhoto are perfect—if you *happen* to have a song that’s the exact length of your show, and if image transitions *happen* to fall at appropriate beats. OK, that never happens. Enter Boinx Software’s **FotoMagico**. Layer in multiple songs from iTunes, and set transition points so images change in time with the music.—TOM PENBERTHY

\$79; www.fotomagico.com



Phone It In

It started as a curated show of phone-cam art at a tony Los Angeles gallery. That show, called **Sent**, has morphed into a Web site that welcomes everyone’s cell-phone images. It’s not often that a burgeoning art movement is so accessible. Post your images now and become part of history.—TERRI STONE

free; www.sentonline.com

CREATE



DIY Essentials

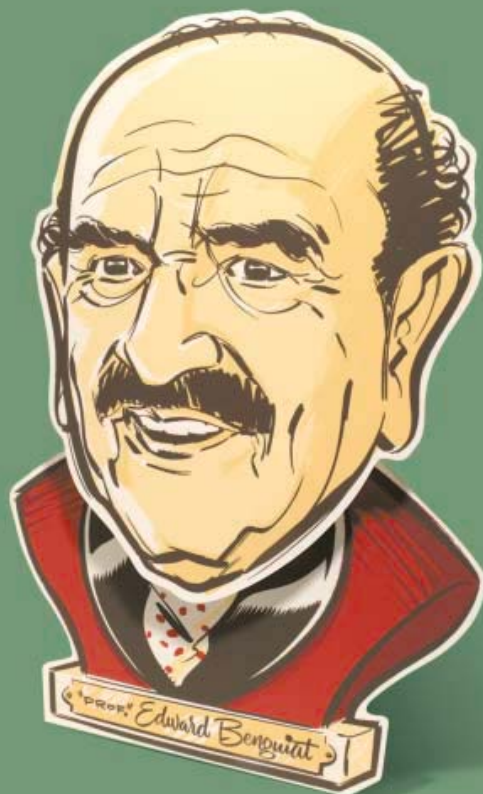
As a devoted do-it-yourself—creating everything from invitations and CD and DVD covers to recipe books and calendars—I absolutely couldn’t live without two tools: my paper cutter and my collection of Hemera **Photo-Objects** stock art. These attractive masked photos blend with any background, offer easy text wrapping, and add the perfect touch to any project. They’re also easy to search, so you won’t waste time thumbing through massive books.—KELLY LUNSFORD

one volume, \$100; all three volumes, \$200;
www.hemera.com

The Famous Mister Ed

You may not recognize Ed Benguiat’s name, but his type-faces have shaped our culture for decades. House Industries pays homage to that legacy with the **Ed Benguiat Font Collection**, which includes five fonts inspired by his work, more than 50 retro illustrations, an audio interview with Ed, and a frighteningly lifelike bust of the man himself.—TERRI STONE

\$160; www.houseindustries.com



ACCESSORIZE



More for the Mac Mini

It didn't take long for Plasticsmith's Mac mini-focused accessories to hit the market. The clear acrylic **mini Tower** lets you mount your mini on its side for an even *smaller* footprint. The **mini Grandstand** is a monitor stand just tall enough to

let you store your mini underneath. And the **mini Skirt**—well, it just looks cool (and we love the name).—DAN FRAKES

mini Tower, \$45; **mini Grandstand**, \$40; **mini Skirt**, \$25; www.plasticsmith.com



Small Is Beautiful

If you bought a Mac mini to save space, why are you still using a full-size keyboard? The PFU

Happy Hacking Keyboard Lite 2's

long name belies its mini-matching size: only 11.6 by 4.7 inches. Yet the keys are the same size as a standard keyboard's, and it even includes standard arrow keys.

The only drawback is a slightly modified layout that places a few keys in nonstandard locations, but it doesn't take long to get used to.—DAN FRAKES

\$69; www.pfu.fujitsu.com

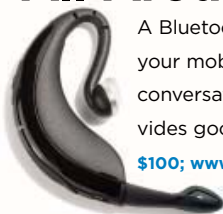


G5 Gear

Power Support's **G5 Rooftop** turns the top of the G5 into a flat shelf for peripherals and lets you hide low-profile peripherals (such as a USB hub or an Internet router) underneath. To make your G5 more mobile, add a **G5 Skate**—it's a lot easier to push around 45 pounds of computing power than to carry them.—DAN FRAKES

G5 Rooftop, \$65; **G5 Skate**, \$115; www.powersupportusa.com

All-Around Headset



A Bluetooth headset is great for wireless, hands-free conversation using your mobile phone, and it's a perfect match for iChat audio and video conversations on your Bluetooth-enabled Mac. The Jabra **BT250** provides good sound, a comfortable fit, and a 30-foot range.—DAN FRAKES

\$100; www.jabra.com

MINI TOWER, MINI SKIRT, KEYBOARD, AND G5 PHOTOGRAPHS BY PETER BELANGER

LISTEN UP

Homeward Bound

There have been many just-for-iPod portable speakers, but Klipsch's new **iFi** is the first dockable sub-sat system for the home. It delivers 200 watts of true stereo sound while charging your iPod, and the remote lets you control iPod playback and audio levels without leaving

your couch.—DAN FRAKES

\$399; www.klipsch.com



Play Dress-Up

The riffraff are sporting your once überhip white earbuds. Regain your avant-garde edge with **iPod Jewelry**. Your iPod Shuffle will go from drab to fab when you slip it into a sleeve of beads, ribbon, or yarn.—SCHOLLE

SAWYER McFARLAND

\$20 to \$100; www.ipodjewelry.com



A Better Remote

Most iPod remotes let you play, pause, skip, and adjust the iPod's volume. Ten Technology's **naviPro eX** is the first to let you navigate playlists, albums, and audiobook chapters, and to toggle repeat and shuffle modes. It also works with the iPod photo to control slide shows.—DAN FRAKES

\$50; www.ten-technology.com



Form and Function

The stylish Acme Made **iPod Wallet** is a wonderful synthesis of form and function. Its brightly colored Italian leather exterior is attractive enough to show off in public. And the suede interior includes an elastic strap that keeps your earbuds tucked safely away when they're not in use—no more awkward attempts to separate tangled wires from everything else in your purse or backpack. There's even a small side pocket where you can stash your license or a few bills. The case accommodates second-, third-, and fourth-generation iPods, as well as the iPod photo (though the fit was a bit snug). The company also sells a version for the iPod mini.—KELLY LUNSFORD

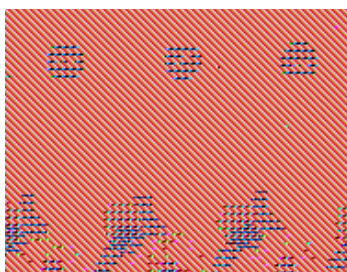
\$50; mini version, \$45; www.acmemade.com



Old School

Back in the 1990s (you remember those, don't you?), this Asteroids-like clone was all the rage. Free time vanished, but at least the universe was safe from rogue asteroids and evil spaceships. Now you can relive your glory days with **Maelstrom**, an OS X release of Ambrosia Software's classic space shoot-'em-up.—ROB GRIFFITHS

free; www.devolution.com



PLAY ALL DAY

Step Aside, Bono

Wouldn't it be cool if you could transform that photo of you playing air guitar into a replica of the silhouetted iPod ads that grab so much attention on billboards and TV? Now you can, and you don't have to be a Photoshop master, either. Just submit the image and a caption to the **iPod My Photo** Web site, and in five days or less, you'll receive something that looks like Apple paid an ad firm a million bucks to produce it.—TERRI STONE

\$20; www.ipodmyphoto.com



Older School

If the 1990s are still too modern for you, give **MacMAME** (Multiple Arcade Machine Emulator) a try. This emulator supports literally thousands of arcade and home video-game titles. To play legally, you'll need to own the original games' ROM chips—eBay may be your best bet for unearthing old chips. The three free legal ROMs available on the official MAME Web site are Gridlee, Poly-Play, and Robby Roto.—ROB GRIFFITHS

free; www.macmame.org



Pop Pop Pop Pop

The compulsion is irresistible: when presented with a pristine sheet of bubble wrap, you can't help but pop the little spheres. If you're short on the actual stuff, try **Virtual Bubble Wrap**, an interactive Flash movie that lets you pop to your heart's content. Turn on Manic Mode to

pop without even clicking the mouse, and then click on Fresh Sheet ("Must have more!") to start anew.—JEFF CARLSON

free; www.virtual-bubblewrap.com

PLAY ALL DAY



Another Apple Product

You show off your iPod in a clear case, Think Different posters cover your walls, and you slapped an Apple sticker on your spouse's Dell. It's time to take the next step in displaying your Mac pride: Williams-Sonoma's **Appletini Mix**, for the ideal beverage at user-group meetings. —TERRI STONE

\$12; www.williams-sonoma.com

The Power of Water

You've got your hybrid car, your solar laptop charger, your wind-up radio, and the flashlight you shake to power up. The only thing you need to make your eco-life complete is a **clock powered by water**. This easy-to-read digital clock can run for up to two years with nothing but two thimbles of tap water powering its two tiny fuel cells. —TOM PENBERTHY



\$12; www.realgoods.com

EDUCATE AND ADVOCATE



Big Blue Marble

Yes, there's weather.com, the newspaper, Glucose's WeatherPop, and so on. But nowhere is there a cooler way to look at the planet than with Software MacKiev's amazing software, **3D Weather Globe & Atlas**. Spin the world this way and that. Animate the clouds, the sun, and the moon. Zoom way in. Zoom way out. If you want a great way to spend a lot of time, look no further. —TOM PENBERTHY

\$40; www.mackiev.com

Culture Vulture

Forget the noisy groups of bored schoolchildren you endure in most museums. Instead, click your way through the **Museum of Online Museums**, a large online compendium of links to brick-and-mortar institutions. Exhibits range from the silly (the Gallery of Expo 58 Beer Mats) to the sublime (the Musée d'Orsay). —TERRI STONE



free; www.coudal.com/moom.php

Hobo Knows

Would your basement make a decent wine cellar? What part of the yard gets the most sunlight? Where do your heating dollars go? If you're curious about your household climate conditions, the **Hobo U12 Temp/RH/Light/External Data Logger with Mac software and sensor** can oblige. This gadget measures and records temperature, humidity, and light over time. Plug it into your Mac, and presto! Questions answered. —SCHOLLE

SAWYER McFARLAND

\$206; www.onsetcomp.com



Longing for Logos

Got a hankering to wear your favorite computer maker's logos on your body? Then head to the online stores **The Missing Bite** and **RedLightRunner**. Just be prepared to pay, as they collect their logo gear individually—no volume discounts from Apple. But if you're in Cupertino, California, you're in luck.



Visit the Apple Company Store at 1 Infinite Loop to buy Apple-logo shirts, watches, caps, and more. —ROB GRIFFITHS

www.missingbite.com;

www.redlightrunner.com;

www.apple.com/companystore



The Final Frontier

Want to support a worthwhile cause *and* establish your digerati bona fides? Then buy a

tchotchke from the **Electronic Frontier Foundation**, the ACLU of the Net. From censorship to online surveillance, CALEA to WIPO, it's at the forefront in pretty much every battle of Netizen versus The Man. Of course, all that do-gooding doesn't pay the rent—so you should hit the EFF store and buy one of their T-shirts, baseball caps, or (our favorite) a pocket-sized copy of the Bill of Rights. EFF says 90 percent of every dollar you donate goes directly to fighting the good fight. —DAN MILLER

T-shirt, \$20; baseball cap, \$20; pocket-sized Bill of Rights, \$10; find.macworld.com/0371



Dive into Your Video Collections

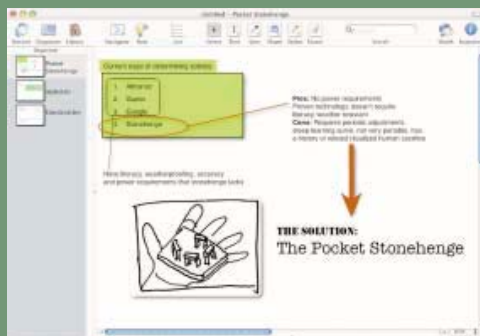
Whether you're editing in iMovie or Final Cut, trying to keep all of your video clips organized can send you off the deep end. **iDive**, from Aquafadas, will help you keep afloat. You can sort, add keywords, trim, and more before you drop clips into your editing app.—BEN LONG

\$70; www.aquafadas.com

Corral Your Thoughts

One nice thing about a piece of paper is that you can do anything to it: scribble, write text, glue pictures on it. Zengobi's **Curio** gives you all this, as well as things paper can't: editability, printing, searching, and more. Great for brainstorming, it has a drawing program's free-form flexibility and a word processor's search features.—BEN LONG

\$129; www.zengobi.com



ORGANIZE



It's Inspirational

If you had trouble keeping track of the relationships between the characters in *Hamlet* or the factors that contributed to the fall of Rome, or if you just want to keep tabs on who's been involved with whom on *The OC*, **Inspiration** is your application. This package from Inspiration Software provides myriad options for representing relationships visually: text bubbles, images, and a variety of ways to link them all together.—TOM PENBERTHY

\$69; www.inspiration.com

Cut Out the Middleman

When extracting images from digital cameras gives you a headache, SanDisk's new **Ultra II SD Plus** card drive may be just what the doctor ordered. You plug it into a camera's SD slot. When the card is full, remove it and plug it into your Mac's USB port. Because the device is also a USB 2.0 flash drive, you can throw your card reader away.—TERRI STONE

512MB version, \$110; 1GB version, \$150; www.sandisk.com



SNAP THE SHUTTER

View Photos on the TV

If you've got JPEG photos on a CompactFlash, Memory Stick (standard or Pro), SmartMedia, xD, SD, or Multi-MediaCard card, you can use SanDisk's **Photo Album** to view those photos on any TV. The Photo Album also supports MPEG-1 video and MP3 audio, lets you copy files to a CF card or USB flash drive, and provides a handy wireless remote to control slide shows from across a room.—DAN FRANKS

\$50; www.sandisk.com



My Friend Flickr

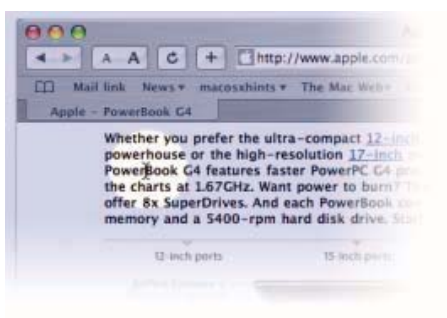
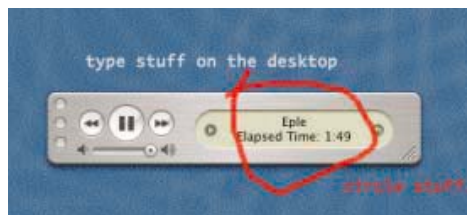
There are scads of ways to share your photos with distant family and friends, but the **Flickr** Web site makes it easy to share photos with people who may become new friends. The elegant interface emphasizes connection: you can upload photos, post a profile, join groups of Flickr participants, and send messages to participants.—TERRI STONE

10MB photo upload a month, free; 1GB upload a month and unlimited storage, \$60 annually; www.flickr.com

MAXIMIZE YOUR MOVES

Scribble on Your Screen

It's called a desktop, right? So why can't we use a Mac desktop as we do a physical desktop: draw little scribbles, jot down phone numbers, circle stuff to remind us of . . . what was that thing I needed to do? **Deskstastic**, from Panic Software, inserts an invisible layer between your applications and your desktop; you can write or draw on the layer. Useful? Maybe. Fun? You bet!—TOM PENBERTHY
\$13; www.panic.com



Mouse in the Spotlight

Lost your cursor again? Boinx Software's **Mouseposé** comes to the rescue. Press a hot key to spotlight the tiny black cursor instantly in its own circle of fame. It's perfect if you use your Mac to give demos, as the mouse is completely usable while you're in Mouseposé mode and your audience can easily follow what you're doing.—ROB GRIFFITHS

free; www.boinx.com

In the Know

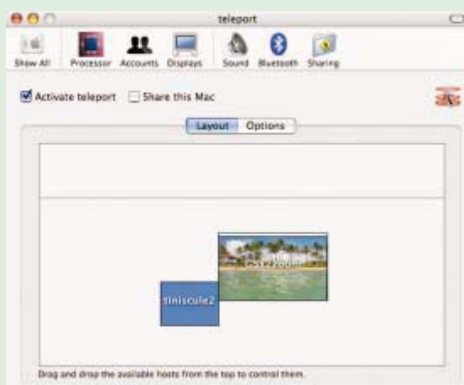
I just *know* there's an Atari 2600 emulator for the Mac, but Google's results point me in a million different directions. Enter **VersionTracker.com**. A quick search gets me exactly what I need, with download links and feedback from other happy gamers. The basic search is free, but for a membership fee, VersionTracker Pro can alert you whenever any app, driver, or utility you choose is updated.—TOM PENBERTHY

\$50; www.versiontracker.com

Beam Me Up, Scotty

If you often use your desktop and laptop simultaneously, save yourself some chair gymnastics and use one mouse and keyboard for both Macs. Julien Robert's **Teleport** lets you drag the mouse off the edge of one Mac's screen and onto the other's. You can also sync the two pasteboards.—ROB GRIFFITHS

free; www.abyssoft.com



Work Some Magic

Minimizing windows is easy: press ⌘-M , and off they go to the Dock. Unminimizing them? Not so easy. You have to mouse over to the dock, scroll back and forth until you find the window you want, and then click on it. Try Peter Maurer's **Witch** instead. Press a hot key, and Witch shows all your minimized windows in an easy-to-use list. Witch works on unminimized windows, too.—ROB GRIFFITHS

free; www.petermaurer.de



Make Your Macs Share

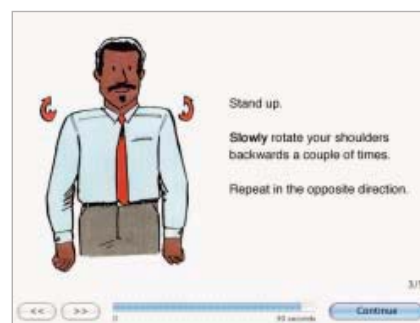
When you use more than one Mac, transferring the Clipboard's contents from one machine to another is no easy matter. But Erik Lagercrantz's **Clipboard-Sharing** makes it simple: copy something, choose Send My Clipboard from the menu icon, and specify the target machine. Presto, the Clipboard goes to the other Mac.—ROB GRIFFITHS

free; www.lagercrantz.ath.cx

Give It a Rest

Your Mac is central to your work and play. That's great, but all that time in front of a screen can damage your body. The solution also lies in the Mac: Frank Reiff's stretching utility **MacBreakz**. You can customize the program's settings in many ways; my favorite feature locks the keyboard so you can't use your Mac.—TERRI STONE

\$25; www.publicspace.net/MacBreakZ



Tattoo You

Ever consider your Dock's potential as a personal secretary? **Stattoo** gives the Dock that power. This utility places an adjustable transparent information bar on your screen that offers a variety of useful capsules—for instance, new-mail notifications (complete with subject lines), the next three meetings you have scheduled in iCal, and current iTunes happenings.—TOM PENBERTHY

\$13; www.panic.com



**Now your teenagers can
talk on the phone for hours.
More hours, we mean.**



\$24⁹⁹*
a month

**No hidden costs. No contracts.
No extra numbers to dial.**

The Vonage Premium Unlimited Plan lets you (and your teenagers) make unlimited calls to anywhere in the United States and Canada 24/7 for a low flat fee of \$24.99 a month.

**All you need is a broadband connection
and you're ready to start saving money.**

If you have any kind of high-speed Internet connection in your home, then you have what it takes to start saving big money. Once you sign up, just plug your Vonage phone adapter into your regular corded or cordless touchtone phone. Don't worry – your computer doesn't have to be on for you to make calls, and it's not complicated to set up. In fact, the whole thing takes less than five minutes to install.

**Free Features, including Voicemail, Caller ID,
Call Forwarding, and 3-Way Calling (to name a few).**

We don't believe that families should have to pay extra for phone features. That's why we give you the services listed above, plus a whole lot more, at no additional cost.

It's a no-brainer.

This isn't the toughest decision you'll make today, but it may be the smartest one. There really is no reason why you should be paying so much for phone service. After all, you already have the technology in your home to enable you to take advantage of this inexpensive service.

**Three easy ways to sign up:
Call 866.454.4VON (4866), go to VONAGE.COM
or visit one of the fine retailers below.**

VONAGE
THE BROADBAND PHONE COMPANY®

WWW.VONAGE.COM



COMPUSA



that was easy.™

*Plus taxes and other fees. One-time activation fee may apply.

"Vonage" and "Vonage The Broadband Phone Company" are registered trademarks of Vonage Holdings Corp.

5 Quick Productivity Tricks

Does OS X do some things too inefficiently for your taste? Do you wish you could do more with less window and application switching? I'll show you how to use inexpensive utilities to address these issues and more. You'll be amazed at how much time you can save with a little help from your third-party friends.

1 Stop Mousing for Menus

Mousing up to the top of your screen to select a menu option can be a chore. It's a long trip from the lower right corner to the File menu in the upper left—particularly if you're lucky enough to have a large monitor or multiple monitors. Karl Hsu's *DejaMenu* can help (donations accepted; find.macworld.com/0284). Use it to press a keyboard combo and bring up the current application's menus, right under your mouse pointer (see "Menus under the Mouse").

Before you can use *DejaMenu*, you must activate Enable Access For Assistive Devices in the Universal Access preference pane. After that, launch the program and enter the shortcut (⌘-shift-M is the default) whenever you need the menu. If you'd like *Deja*

tor, menu-bar space is a precious resource in OS X. But if you enable Fast User Switching (in the Accounts preference pane), it displays your full user name in the menu bar, eating up a chunk of real estate that you could use for other purposes.

You have two great options for reclaiming your menu bar: Wincent Colaiuta's *WinSwitch* (donations accepted; find.macworld.com/0285) and Peter Maurer's *Butler* (donations accepted; find.macworld.com/0286). I'll focus on *Butler* here, because I use it again for other tips in this article.

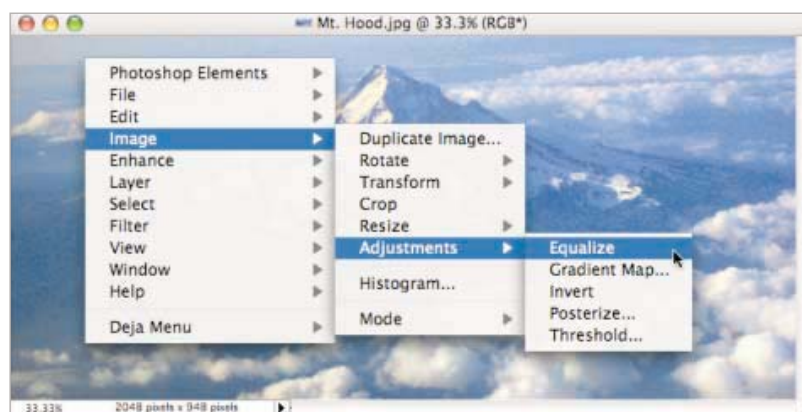
After downloading, installing, and launching *Butler*, you'll see three new icons in your menu bar—don't worry, you can easily remove the extras. But first visit the Login Options section of the Accounts preference pane and deselect the Enable Fast User Switching option—you won't need it anymore. Next, click on the new icon in your menu bar—it looks like a flat-panel iMac—to access *Butler*'s menu. The first option, *Switch Users*, lets you switch users without displaying your user name in the menu bar. Even better, you can assign a global keyboard shortcut for switching users.

Select *Butler: Customize* from *Butler*'s menu to open the *Butler* configuration window. Click on the triangle next to *This Mac*, and then select *Switch Users*. You'll see a bunch of information appear at the right side of the window. Click on the Hot Key field and type a keyboard shortcut. After moving to another application, you'll be able to use this shortcut from any application.

To get rid of those extra items in your menu bar, go to *Butler: Customize* and scroll down in the window until you see *Bookmarks* and *Google*. If you don't want these at all, highlight each one and press the delete key. To keep them usable but move them out of the menu bar, just drag them up the list and drop them in the *This Mac* section of the Configuration window—they will now appear in the *Butler* drop-down menu.

3 Control iTunes from Any Application

iTunes is a staple in most Mac users' daily regimen, but it's a pain to switch over to iTunes to change songs. You could use iTunes' Dock menu, of course, but that still involves futzing with the mouse. *Butler* includes a set of predefined iTunes shortcuts that work



Menus under the Mouse Using *DejaMenu*, you can activate any application's menu bar with a keyboard shortcut. If you're lucky enough to be using Apple's 30-inch Cinema Display, this could save you miles of daily mouse movements. Even if you're on a 12-inch laptop, you may still find it a great time-saver.

Menu to start automatically each time you log in, visit the Accounts preference pane, select your user account, and click on the Startup Items button. Click on the plus sign (+) in the lower center area of the window. In the window that opens, navigate to *DejaMenu*, select it, and then click on *Add*.

The real power of *DejaMenu* comes into play when you have a multiple-button mouse. Set a spare button to *DejaMenu*'s activation keys—now any application's menus are a click away.

2 Switch Users without Sacrificing Menu-Bar Space

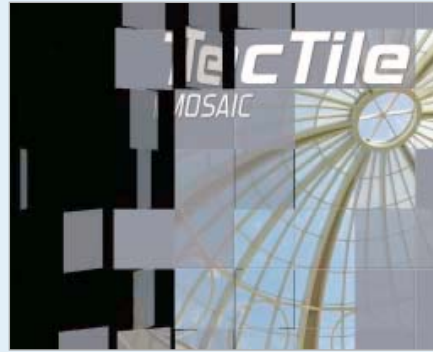
Those of us with small monitors have problems of our own. Unless you're blessed with a 30-inch moni-



CHECK IT OUT

Presentations That Pop

One of the best things about Apple's Keynote is that you don't have to be a designer to create great-looking presentations. If you've exhausted the program's prefab themes, take a look at Wow You Design's Keynote add-ons at **Keynote Theme Park** (www.keynotethemepark.com). The company's new \$19 TecTile lets you shat-



ter your slides into individual tiles by taking advantage of Keynote's Mosaic Small transition. Adjust a tile's opacity or remove it altogether to reveal what's underneath. Other themes include Oceans, Da Vinci, and Woodcut. Find more themes and tips at Keynote User (www.keynoteuser.com) and KeynotePro (www.keynotepro.com). —SCHOLLE SAWYER MCFARLAND

from any application. Press control-option and then either the spacebar (stop or start), left arrow (previous song), or right arrow (next song). Butler even has shortcuts for rating songs on-the-fly—control-option and then keys 1 (worst) through 5 (best). A pop-up window shows song and artist information whenever you use one of these shortcuts. If you don't like these shortcuts, customize them. Go to Butler's Configuration window (Butler: Customize) and look under This Mac: Music: Controls. Click on any item, and then enter a new shortcut in the Hot Key field.

4 Search the Web from Anywhere

Although most Web browsers now have a built-in search engine field, you must launch your browser to use it. Using Butler, you can start your search no matter what application you're in.

Sure, you could use the Google box that Butler installs in the menu bar, but there's a better way—keyboard shortcuts. Butler includes two default shortcuts for Web searches. To see the first one, go to Butler's Configuration window (Butler: Customize) and click on Google. To the right, you'll see its hot key, control-option-G. Press this in any application, and your cursor jumps to the search box in the menu bar. (If you followed the earlier advice describing how to move the Google search box into your Butler menu, you'll get a pop-up window instead.) Type your search terms and press enter, and your default browser loads Google's results page.

The second search option is hidden in the Invisible Items section of Butler's Configuration window. Select Web Search: Webster to see this option's default shortcut, control-option-W. Press it, and a window appears with a search field you can use to look up words in Merriam-Webster's online dictionary.

It's easy to create your own Web searches, too. Say you're a movie fan and you do a lot of searching on the Internet Movie Database site (www.imdb.com). In the Configuration window, click on Invisible Items once and then click on the plus sign (+) at the bottom. Choose Smart Item: Web Search. Butler will create a new Web Search entry. Give this a name (Movie Search), click on the Search In pop-up menu, and select Miscellaneous: Internet Movie Database. Assign a hot key while you're here, too—control-option-M, perhaps—and you're done. Now you can search for movies with a simple keyboard combination.

If your favorite site isn't listed among the predefined options, you might be able to create your own search string. Go to Butler: Customize; in the window that appears, click on About/Help, and then on Read The User Guide. Your Web browser will open. To learn more, click on the Search Engines link.

5 Bring Order to iPhoto Libraries

If you have a digital camera, chances are you have hundreds or thousands of pictures in your iPhoto

library. One of the best ways to keep all these pictures sorted and easy to find is to use iPhoto's keywords feature. Assign one or more keywords to any photo, and then use those keywords to quickly create smart albums or search for particular images. For example, if you use iPhoto to keep stock images of your company's products, it's a cinch to find the right widget when you've coded each image with a product name.

However, assigning and managing keywords is a lot of work. By default you can drag and drop a photo onto a word in the Keyword pane. (To view this pane in iPhoto 5, click on the key button in the lower right corner of the main window.) Alternatively, click on a photo, select Photos: Get Info, and select the relevant keywords. Neither of these lists is alphabetized, so if you have a lot of keywords, it will be difficult to find the one you seek.

Enter Ken Ferry's Keyword Assistant (free; find.macworld.com/0287). This plug-in for iPhoto 4 and 5 lets you alphabetize your keywords. To do so, click on the KA menu that Keyword Assistant adds to iPhoto and select Alphabetize Keywords.

Keyword Assistant also makes *entering* keywords faster. Highlight the photo or photos you want to tag and press ⌘-option-K to bring up the Keyword Assistant entry panel. Start typing a keyword, and Keyword Assistant autocompletes it for you, based on your existing keywords. Press return, and you've assigned the keyword to the photos. To assign more than one keyword, just type the desired words in the entry panel, separating them with a comma and a space—for example, *Kylie, birthday, family*. If you enter a word that isn't on the list, Keyword Assistant asks if you'd like to add it. □

Contributing Editor ROB GRIFFITHS is the author of *Mac OS X Power Hound, Panther Edition* (O'Reilly, 2004), and he runs the Mac OS X Hints Web site (www.macosxhints.com).



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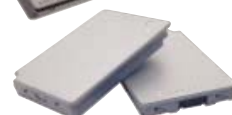
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Play Anything

Your favorite band releases a live recording on its Web site, but iTunes can't play it. Your friend sends you a link to an irreverent political spoof, but QuickTime Player can't open it. With so many Windows-centric files floating around the Internet, it's easy for Mac users to feel left out. But with the right software—most of which is just a free download away—you can play almost any file your Windows-using friends throw at you.

Audio Conundrums

iTunes 4.7 supports MP3, AAC, Apple Lossless, AIFC, and WAV files. To play other file formats, you'll need to either convert the files into something iTunes recognizes or find an alternative player. Here's what to do with some of the troublemakers you're most likely to encounter.

Windows Media Audio Microsoft is the king of proprietary formats, and Windows Media Audio (WMA) is one of the company's most popular. You can play almost all WMA files with the help of Microsoft's free Windows Media Player 9 for Mac OS X (www.macbu.com).

The player won't be able to help you with DRM-protected files, such as those purchased from Windows-oriented online music stores—a problem if you're moving to the Mac from a Windows machine. In this case, your best bet is to burn your purchased songs onto a CD from your Windows machine and then rip them on the Mac. Windows Media Player also can't play WMA 10 files, which are less common and require the newer, Windows-only version of the player.

Although Windows Media Player will let you listen to compatible WMA files, it won't let you export the files to an iTunes-friendly format. If you want to add the songs to your iTunes library, you'll need to try Patrice Bensoussan's free EasyWMA (www.carrafix.com/EasyWMA). Its simple drag-and-drop interface lets you quickly convert many WMA files to MP3 or WAV files.

For the files EasyWMA can't handle, there is a more circuitous route. Programs such as Rogue Amoeba's \$16 Audio Hijack (www.rogueamoeba.com) and Ambrosia Software's \$19 WireTap Pro (www.ambrosiasw.com) can record *any* sound played on your Mac—including songs played by Windows Media Player. Simply save the recording as an AIFC, MP3, or AAC file, and then import it into iTunes. (For more on using streaming-audio recorders, see find.macworld.com/0300.)

RealAudio Another audio format you're likely to come across on the Web is RealAudio. Like WMA

files, RealAudio files require a special player—in this case, the free RealPlayer 10 for Mac OS X (www.real.com). But like Windows Media Player, RealPlayer can't convert RealAudio files into other formats. You'll need to use one of the audio recorders mentioned in the previous section to import the songs into iTunes.

Lossless Audio With iTunes 4.5, Apple added Apple Lossless, an audio codec that compresses audio without throwing away any data. But there are plenty of other lossless formats that iTunes doesn't support—most notably, SHN (Shorten) and FLAC (Free Lossless Audio Codec). You'll likely run into these incompatible formats if you download live performances from places such as the Internet Archive (www.archive.org) and etree.org's Community Bittorrent Tracker (<http://bt.etree.org>).

To have iTunes recognize and play these lossless files, you'll first need to convert them to AIFC or WAV files using Scott Brown's free xACT (<http://etree.org>). Since the AIFC and WAV formats don't compress audio, you won't lose any sound quality in the conversion process. You can then burn the converted files to a CD, or import them into iTunes and convert them to iPod-friendly MP3, AAC, or Apple Lossless files.

If all you want to do is *listen* to these unsupported audio files, check out Subband Software's free *continues*



Want more tips on digital music?

Check out www.playlistmag.com to uncover the secrets of your iPod. We've got expert advice, breaking news, and reviews of all the latest gadgets.

Become a Convert

If you want to turn WMA files into something iTunes or the iPod can play, EasyWMA is the app for you.



MacAmp Lite X (find.macworld.com/0004). MacAmp Lite X can decode and play SHN and FLAC files, as well as numerous others, including Monkey's Audio (also known as APE) and OGG. (For more on alternative music formats, see "Digital Music Super-guide" at find.macworld.com/0290.)

Ogg Vorbis If you just need to play Ogg Vorbis files—a lossy format that some find superior to MP3 and AAC—check out the free Ogg Vorbis QuickTime Component (find.macworld.com/0292). This little application adds support for OGG files to any QuickTime-compatible program—including iTunes.

Video Foibles

If you try to open a movie in QuickTime only to be told that "the required compressor could not be found," don't give up. You may just need to download the missing codec. And if the needed codec doesn't exist for QuickTime Player, you can almost always find third-party software that will play the movie.

AVI One of the most common sources of video frustration on the Mac involves trying to watch movies with .avi file extensions. Part of the problem is that there's no one right solution for all AVI files. The .avi extension is actually just a *wrapper* for several dif-

ferent video compressors—including DivX, XviD, 3ivx, and Indeo.

To find out which video format a particular movie uses, open it in QuickTime (you can do this even if QuickTime can't actually display the video) and press ⌘-I. In the Movie Info window, note what is listed by the Format heading. This information will help you determine the type of codec you'll need.

The vast majority of AVI movies use DivX, a compressor that offers high video quality and small file sizes—two reasons it's so popular. To play these AVI files in QuickTime, download and install the free DivX codec from DivXNetworks (www.divx.com).

If it's not a DivX file—and if you're adventurous enough to step outside the comfy confines of QuickTime—I recommend trying either MPlayer OS X (<http://mplayerosx.sourceforge.net>) or VLC Media Player (www.videolan.org). These excellent and free multimedia players can tackle many of the video formats unknown to QuickTime. My favorite is MPlayer OS X. I've thrown nearly every type of AVI file I could find at it, with great results. It also lets you use the arrow keys to skip backward or forward during playback—a feature QuickTime doesn't offer.

MPEG-2 Although OS X's DVD Player can play DVDs without trouble, it can't play the MPEG-2

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files that go into making those DVDs. This is a problem, for example, if you use Apple's Compressor software to turn your video into MPEG-2 files for burning to DVD and then need to preview those files.

To view MPEG-2 files via QuickTime, purchase the \$20 QuickTime 6 MPEG-2 Playback Component, from Apple ([find .macworld.com/0293](http://find.mactworld.com/0293)). If you don't want to spend the extra money, you can also play back most MPEG-2 files with MPlayer OS X or VLC Media Player.

Windows Media Video and RealVideo Microsoft and Real Networks also have their own video formats. To play Windows Media Video or RealVideo, use Windows Media Player or RealPlayer, respectively. MPlayer OS X and VLC Media Player can also play some of these files, but their playback is sometimes limited to the audio track.

If you need to convert these videos to something you can edit or play in QuickTime, check out Ambrosia Software's \$69 SnapzPro X 2 ([find .macworld.com/0295](http://find.mactworld.com/0295)), which can capture movies and still images. Simply open the movie in any application that will play it, and then launch SnapzPro. Click on the Movie button, choose your desired settings, and then draw a box around the movie you want to record.



These days, there are very few file formats your Mac isn't able to play. And thanks to the hard work of dedicated software developers, that list is getting shorter all the time. □

Know Your Options

Senior News Editor JONATHAN SEFF has never met an audio or video file he hasn't tried to play.

QuickTime Magic

With the free DivX codec, you can play many AVI files from within QuickTime, such as this DivX file (the Movie Info window contains information about the file).



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iPhoto 5's Secret Weapon

Although it's not hard to spot a bad image, figuring out exactly what to do to fix it isn't always so easy. That's one reason iPhoto 5's new Adjust palette is so exciting. With the help of its advanced controls, you can quickly diagnose and fix subtle image problems that were impossible to repair with previous versions of iPhoto.

The Adjust palette offers a collection of sliders that control basic image settings. Some—such as Sharpening and Rotation—are fairly obvious. But how can you tell whether an image requires a different temperature or exposure? Turn to the Levels histogram. This multicolored graph at the bottom of the Adjust palette is an easy-to-use guide to spotting and fixing common image problems. By learning to interpret what the Levels histogram is telling you, you can take much of the guesswork out of correcting bad photos and discover ways to make good photos even better.

Tip To toggle between your image's before and after views while making changes in the Adjust palette, simply press the control key. You can step back through individual adjustments by repeatedly pressing ⌘-Z.

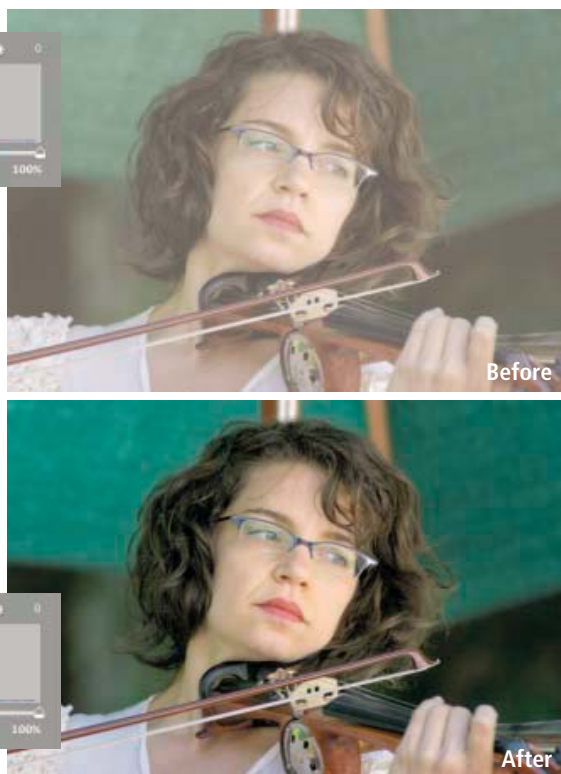
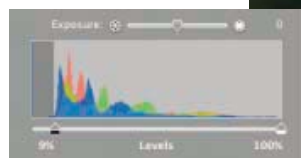
Histogram Literacy

The histogram is a bar chart that shows the distribution of tones in an image. Black is on the far left edge, white is on the right, and everything else is in between.



Into the Shadows

This image suffers from a lack of contrast. Notice that bars representing the image's tones fall short of the black point (above). With a simple black-point adjustment, I improved the image's contrast without blowing out its highlights.



Usually, you want photos with as broad a range of tones as you can get. Think about boxes of crayons: you can create a much more detailed image with 64 different crayons than you can with just eight. Likewise, if the bars in the histogram are crammed together in a narrow space, your image probably doesn't have the resources it needs to depict subtle detail.

With a well-exposed image, the histogram's bars will stretch across the full range of the graph. If your histogram's bars are clumped on either the left or the right side, the image is probably underexposed (lacking good highlights) or overexposed (lacking good shadows), respectively. If the bars don't stretch to either edge, then your image lacks contrast.

Fixing Dark or Light Photos

The Levels feature also includes easy-to-use controls that let you correct the problems your analysis reveals.

Say a photo looks a little washed out. You look at the histogram and notice that the bars representing the light tones stretch to the end of the graph, but your dark tones fall short of the mark—so there's no real black (see "Into the Shadows").

In previous versions of iPhoto, you might have solved this problem by increasing the Contrast setting. But the Contrast slider affects highlights *and* shadows. So you'd also brighten some of your highlights, which are already perfectly exposed—thus eliminating important detail.

For better results, use the Levels controls to adjust your photo's highlights and shadows independently. Below the histogram are two sliders: a black slider on the left and a white slider on the right. Where these sliders are positioned determines which tones in your image correspond to black and white.

To give your washed-out image more zip, simply move the black slider to the point where the histogram drops off. iPhoto will then stretch and scale the image's intermediate tones so that the overall distribution remains the same. But the image's white point will remain untouched. The result is a photo with richer tones and stronger shadows. Likewise, you move the white slider to give an underexposed image better highlights.

Fixing Exposure

If you've corrected your photo's white and black points but the image still looks a little too dark or too light, your next strategy is to adjust the exposure.

The Exposure slider (located just above the histogram) lets you adjust the midpoint of your photo's data without affecting the white and black points. By moving the Exposure slider to the right, for example, you can lighten up an image's middle tones without damaging the brightest highlights—something you can't do with the Brightness slider.

Correcting Bad Color

One of the most challenging image problems to solve is bad color. It's not always clear what needs to be done to remove unwanted colors. Here, too, the Levels histogram can help.

The image on your computer screen is made using three different color channels—red, green, and blue. When combined the right way, these three colors create all the other colors and grays you see. When combined at full strength, they produce white.

iPhoto's Levels histogram displays three sets of colored bars—one for each color channel. By examining how these color channels overlap, you can get a sense of where color problems may exist.

Consider, for example, my picture of a tunnel (see "Tunnel Vision"). If you look at the original's histogram, you'll notice that the three channels barely overlap—especially in the highlights. Since you need all three colors to produce a true white, the brightest areas of the image appear to be yellow.

To change the alignment of an image's color channels, use the Temperature slider. Move the slider to the right to make your image warmer (shifted more towards red) or to the left to make it cooler (shifted more towards blue). In the case of the tunnel picture, I moved the slider to the blue side until all three channels ended at roughly the same place on the histogram—producing a more accurate white.

Once you have the channels lined up, you may discover additional color problems. In this case, the

Get It Right the First Time

If your image's histogram bars run into the far edge before they have a chance to taper off, there's a good chance that you've *clipped* your highlights or shadows. This results in large areas of white or black where there should be subtle shades of gray. While there's not much you can do to correct this problem in iPhoto—you can't improve detail where none exists—you may be able to prevent this problem from occurring in the future.

These days, most cameras can display histograms just like the ones in iPhoto 5, so you can check an image's histogram immediately after shooting. If you find that either edge is clipped, adjust your camera's exposure settings and shoot again.



Prevent Blowouts Because this image was overexposed, its tones are clustered on the right side of the histogram. The camera's histogram could have uncovered the problem while there was time to reshoot.


image became a little too blue overall. To fix this, I moved the Tint slider to warm up the image while preserving the tonal distribution (so whites stayed white). The result is much truer color and a shapelier histogram.

The Learning Curve

Like any well-engineered tool, iPhoto's Adjust palette becomes easier to use as you gain practice. The histogram may be intimidating at first, but it offers a wealth of information to people who learn its secrets. And these skills will help you in many other areas—you'll find similar histograms in programs such as Adobe Photoshop and After Effects. □

When he's not risking his life in subway tunnels, BEN LONG writes books such as *Complete Digital Photography*, third edition (Charles River Books, 2004).



Tunnel Vision The original image suffers from a noticeable yellow cast. With the Temperature slider , I put the image's separate channels into better alignment, creating more-accurate color. After final Tint and Exposure adjustments, the image had better brightness and overall color.



Speedy Online Portfolios

Whether you're fresh out of design school or a veteran creative professional, a great online portfolio can lead to jobs and clients. But don't agonize over software choices (Flash? HTML?) while ignoring a crucial technology issue: how quickly your site downloads. Try these image-messaging techniques to shave seconds off its download time.

Set a Speed Goal

All online portfolio images, whether project artwork or interface designs, should be optimized—that is, transformed into a Web-readable format that balances image quality and size. The easiest way to optimize is to apply a preset in Adobe Photoshop's Save For Web window. However, those presets may not compress the file enough, so you may also have to shrink your image's dimensions. But you don't have to accept postage-stamp portfolio images if you optimize your work manually.

A realistic speed goal is 10 seconds per optimized page. To gauge whether your site meets that goal, examine each portfolio piece and your interface design file in either Photoshop or Macromedia Fireworks. (I'll refer only to Photoshop in the rest of this article, but Fireworks offers the same options.)

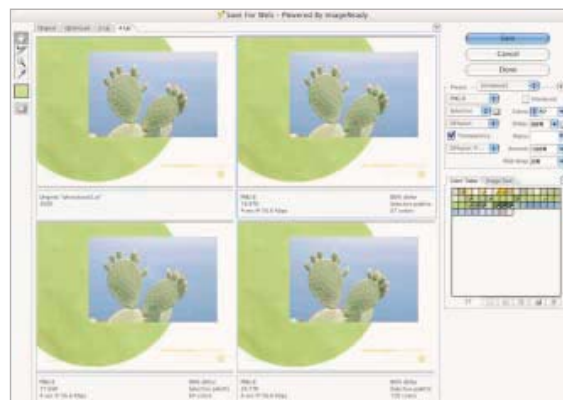
Open an image file. Select File: Save For Web, click on the arrow button at the top of the resulting window, and select 56.6 Kbps Modem/ISDN as your target for size and download time. (This may seem slow, but it's a common speed for many prospective viewers.) Your portfolio images deserve at least half your speed goal, or five seconds.

Select the Best File Type

The optimization method you should use depends on the image's ideal final file type. Files containing mostly solid-color objects are best saved as PNGs or GIFs; PNGs are usually smaller and have higher quality than

GIFs. Continuous-tone files, such as photographs, are usually best saved as JPEGs, though you can save some as PNG files.

To determine the proper format quickly, open a file, go to Save For Web, and click on the 4-Up tab. For each optimized display window, select a different default preset from the Preset menu: JPEG, PNG-8 128 Dithered, or GIF 64 Dithered, for instance. Doing so immediately reveals the preferred format and gives the ballpark number of colors your image requires.



At a Glance Photoshop's Save For Web window lets you compare the time savings—and color-reduction costs—of different optimization settings.

Optimize PNG and GIF Images

The more colors a PNG or GIF file contains, the larger its file size. When Photoshop optimizes a file, it decreases colors by determining how frequently each color appears (see “At a Glance”). As you decrease the number of colors in the palette, the software throws out the least-used ones. The trouble comes when you have a print project with spot color. The standard optimization quickly eliminates critical colors. To keep the spot colors, you have to use a bigger-than-necessary palette. You can prevent this palette bloat by *locking* spot colors.

To lock a color in a palette, open the image in Save For Web, select the eyedropper tool, and click on a pixel of the critical color in the optimized version. Click on the Lock icon at the bottom of the color table. A tiny symbol will appear on the locked color.

Faster Flash

If you've built your portfolio site completely in Flash, you don't need to optimize the interface. Flash creates vector art that's already optimized. But you've probably imported your portfolio art as bitmaps. If you didn't optimize that art before importing it, there's no need to return to the original application and reimport each file—you can adjust JPEG quality right in Flash. Press **⌘-L** to open the library, and control-click on a JPEG file to bring up the Properties menu. Deselect Use Imported JPEG Data, and a Quality input box will appear. Enter a level (from 0 to 100). Click on Test to see the visual result in the dialog box and to get a readout on the file-size result. Click on Update when you're satisfied.



CHECK IT OUT

Get the 411 on CSS

Don't just listen to tunes while you ride the bus home—bone up on your Web-development skills. WesternCiv's Style Master CSS PodGuide is a free iPod edition of the Web-standards training company's online "Complete CSS Guide." It includes information for every selector, property, and rule of CSS 2.1. Go to www.westciv.com/news/podguide.html to download it.—SCHOLLE SAWYER MCFARLAND

Repeat for all critical spot colors, and then decrease the number in the Colors box until you reach the minimum acceptable number.

Color artifacts—random color pixels caused by factors such as scanner dust or sharpening—can needlessly pad your palette. Examine the palette for artifacts and delete them individually by highlighting the color and then clicking on the trash-can icon at the bottom of the table.

You may need a few variations of a critical color for antialiasing purposes, or to delete a range of color artifacts that antialiasing created. To select a range of colors for locking or deleting, open the Color Table drop-down menu and select Sort By Hue. Shift-click on the range of colors, and then lock or delete them.

Weighty Alpha Channels

Some elements of a graphic may be more important than others. For example, when you optimize a two-page spread, there's no need to maintain readability in running text. By saving an alpha channel of the important sections, you can use a technique called *weighted optimization*, which forces Save For Web to pay more attention to specific sections of the image.

In Photoshop, create a selection of the most important area and save it as an alpha channel. Now choose File: Save For Web. In the Preset section, the second drop-down list on the left is the Color Reduction algorithm. Next to it is a small mask icon. Click on this and select your alpha channel from the Channel drop-down list. Your color-reduction weighting changes to pull the maximum number of colors from the selected area, ignoring all but the locked colors outside the mask.

Optimize JPEG Files

There are fewer variables in optimizing a continuous-tone image, but you can still drop pixel poundage when you save it as a JPEG. Begin by *downsampling* (making the file smaller in resolution and dimension) before you optimize image quality. Caution: downsampling throws information away permanently.

To downsample, go to Save For Web, choose JPEG from the first drop-down menu, and click on the Image Size tab. Select Constrain Proportions, and under Quality, select Bicubic. Resize the image by typing a new width or height in pixels, or a fixed percent. Click on Apply.

Sixty percent is a good Web JPEG quality, but you can set Quality as low as 45 percent. Select Progressive to let viewers see the image build, and to slightly decrease the image size.

You can use weighted optimization for JPEGs, too. Say you've photographed a CD cover and inserts; the object quality is more important than the background. Save a selection of the artwork as an alpha channel. In Save For Web, choose the artwork's preferred setting in the Quality input box. Click on the Mask button to the right of Quality. Then select the channel you saved.

In the Quality bar, drag the arrows to set the quality range for the area outside the mask. Click on OK.

Optimize Your Interface

If you're just beginning your site design, you can use preemptive strategies that guarantee a supermodel-slim interface. As you select colors and create your interface, open the file in Save For Web. Use the PNG optimizing techniques to build a master palette that contains the colors in your design. You'll see immediately whether your design suffers from color bloat.

Save your master palette by selecting Save Color Table from the Color Palette menu, and you gain another optimizing benefit. When you update your portfolio site, you can load the master palette and select colors from it to build new artwork, maintaining color consistency and small sizes.

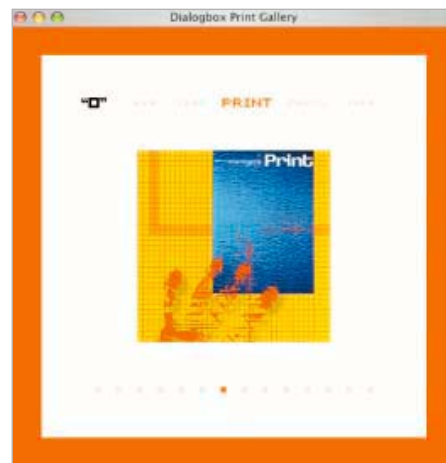
Optimizing a site's interface is slightly different from optimizing portfolio samples. First, you slice the interface into smaller pieces so that it loads more efficiently. ImageReady, an application linked to Photoshop, has a slicing tool. Open it by clicking on the Edit In ImageReady button in Photoshop's Save For Web window. Once sliced, the pieces must share colors to avoid color shifts, particularly at the slices' seams.

To make several slices share a common palette, you use ImageReady. Use the Slice Select tool to choose the slices that should share a palette. Go to Slices: Link Slices For Optimization. Group-optimize the slices in ImageReady's Optimization palette. If you change your mind (or change your colors), all the linked slices will change together.

Fast Equals Fair Shake

There's no guarantee that your portfolio will land you a job. But with careful optimizing, you can be sure that a viewer will see enough of your work to judge you fairly. □

CYNTHIA BARON is the technical director for the Department of Visual Arts and the Multimedia Studies program at Northeastern University in Boston, and she is the author of *Designing a Digital Portfolio* (New Riders, 2004).



Time Is of the Essence An art director who might give you 30 minutes in person can make your site browser-cache trash in 30 seconds. (This site gets it right [www.dialogbox.com].)

AirPort Dynamics

Most U.S. households with one computer have one, two, or three more, demographers tell us. And most broadband ISPs offer just a single address for their least-expensive accounts. Reconciling that mismatch of quantity is why many users need to take control of dynamic addressing: assigning private Internet protocol (IP) numbers to machines on their local networks to share a single IP address provided by their ISP.



By the Book This article is an excerpt from *Take Control of Your AirPort Network*, by Glenn Fleishman (2005; reprinted by permission of Peachpit Press).

Address Sharing

AirPort Admin Utility's Network tab is where you set up DHCP and NAT addressing.

If you use a gateway such as an AirPort Extreme Base Station to connect to the Internet, then you are probably already using dynamic addressing in the form of Dynamic Host Configuration Protocol (DHCP) coupled with Network Address Translation (NAT). This combination creates private addresses in the gateway and assigns them on demand to the computers on your network. DHCP and NAT work together to take the single address your ISP assigns you—which is often assigned dynamically from a pool of addresses itself—and multiplies it transparently across your LAN.

But there are times when your gateway's built-in DHCP-NAT combination won't cut it. One of the most glaring: when, like the AirPort Express Base Station, your gateway has only a single Ethernet port. If that's the case, you can't use its Internet connection sharing for machines with wired (as opposed to wireless) connections, because doing so would pollute your ISP's DHCP service. In fact, Apple's current AirPort hardware won't allow you to share in this fashion; the original single-Ethernet-port graphite AirPort Base Station did.

The problem is that many ISPs—especially cable-

modem providers—bridge your network connection directly onto their network: your Ethernet network becomes an extension of their larger pool. This is a stupid design for many reasons, but it's standard practice.

If you activate DHCP service on your gateway, and that gateway has just one WAN or LAN port, then your DHCP service

could push out to other machines in your ISP's network. If those other machines use your DHCP-assigned addresses, they probably won't be able to connect to the Internet at all, and your ISP could cancel your service in retribution for the trouble you've caused.

But there are ways of configuring DHCP on your end to prevent that from happening. In addition, you can use these same configuration tips when you want to assign fixed, private addresses to specific computers, based on their MAC (Media Access Control) addresses or DHCP client IDs; when you don't want to live with the limited addresses your gateway dishes out; or when you're running a combination of static and dynamic addresses and your gateway can't handle them the way you want.

Configuring DHCP with AirPort

Here's how to turn on DHCP in your AirPort base station using AirPort Admin Utility 4.1:

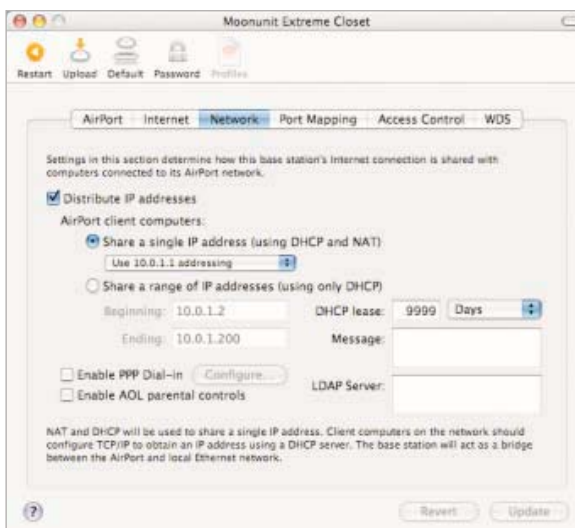
1. After opening AirPort Admin Utility (in Applications: Utilities), connect to your AirPort base station.
2. In the Network tab, select Distribute IP Addresses (see "Address Sharing").
3. Set the DHCP lease. (A lower number recycles addresses faster; a higher number is better for machines that stay on the network indefinitely. On busy networks, a longer lease time can cause you to run out of addresses.)

If your ISP gives you a single IP address that you want to share with all the computers on your network (the likeliest scenario), continue on; otherwise, you're done.

4. Select the Share A Single IP Address (Using DHCP And NAT) option.

5. Typically, you can leave the Use 10.0.1.1 Addressing option selected in the pop-up menu, and just click on Update.

If you want to change the private, NAT-generated addresses assigned by the base station, use the pop-up menu to choose one of two other ranges of reserved addresses that don't overlap with real addresses: 192.168.1.1 or 172.16.1.1.





CHECK IT OUT

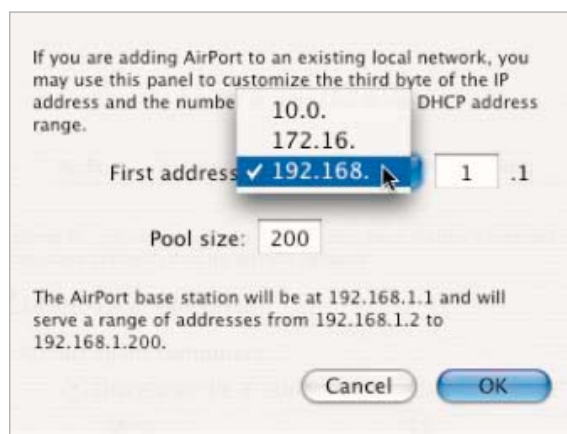
Geek Your Ride

Almost as soon as Steve Jobs finished introducing the Mac mini at January's Macworld Conference & Expo in San Francisco, eager hobbyists came up with all sorts of novel uses for it. Audio-video jukebox in the living room? Sure. Supercomputing server array in the lab? No problem. But perhaps the most interesting idea for mobile Mac fans: put a mini in your car, for use as an in-dash entertainment center (imagine wirelessly transferring tunes and videos from your home system to your car), navigation system (with downloaded maps), Internet hub, and game center (for when you're parked, of course).



Several folks have already turned that idea into reality. Just days after the Mac mini's debut, Classic Restorations started offering custom Mac mini installs at its Sloatsburg, New York, shop. To date, the company has supervised installs in a 1969 Chevy Nova and a 1998 Jeep Grand Cherokee, and it's taking orders for more. Meanwhile, enterprising do-it-yourselfers are doing car modifications of their own.

For example, Mario Echevarria, of Coral Gables, Florida, created his very own Lexus i-car (pictured). To find out more about Mario's upgrade, go to find.macworld.com/0404.—DAN MILLER



Keep It Private Clicking on the pop-up menu under Share A Single IP Address lets you customize the addresses that DHCP hands out.

Software-Based DHCP Servers

Software-based DHCP servers can provide more flexibility or, if your gateway lacks Internet connection sharing, substitute for the missing functionality. There are two simple software-based methods of adding DHCP and NAT: the Internet Sharing software built into OS X 10.2 and 10.3, and the commercial software IPNetRouterX, from Sustainable Software (\$100; www.sustworks.com).

These software-based DHCP server options work only with a network that uses static IP addresses, or in which a gateway is connected via its LAN ports to the local Ethernet network. If you use one of these methods, you must turn off DHCP and NAT in any existing gateways (by deselecting DHCP Service, Distribute IP Addresses, or whatever setting your particular hardware uses).

OS X 10.3 lets you run a simple DHCP and NAT server combination through its Internet Sharing feature. (OS X 10.2 has a similar, less powerful feature.) To set it up:

1. Select the Internet tab in the Sharing preference pane (see "Share the Net").
2. Choose Built-In Ethernet from the Share Your Connection From pop-up menu.
3. In the To Computers Using list, select the Built-in Ethernet option.

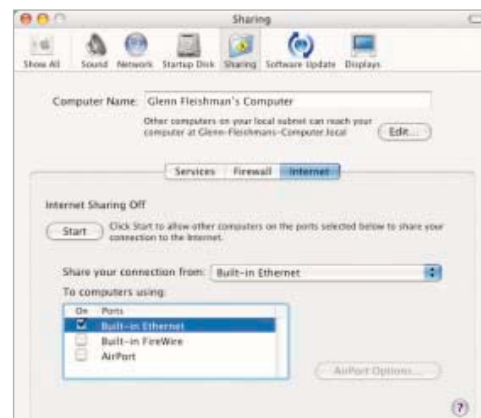
4. You'll get a warning about disrupting your ISP's network. Click on OK to close the warning, and then click on the Start button in the Sharing preference pane.

Wired Broadband Gateways

It's easy to overlook this last option, yet it's a cheap and simple method to add DHCP and NAT service to your network. While most broadband gateways are sold with Wi-Fi as a full wireless option, you can still purchase inexpensive hardware boxes that have all or most of the same features but no Wi-Fi. These devices are the ideal solution when you're trying to use a single-port base station, such as the AirPort Express, with wired computers on the same network.

Whichever way you do it, customizing the DHCP configuration inside your network can solve a multitude of problems—just be careful that doing so doesn't get you kicked off your ISP. □

GLENN FLEISHMAN is a frequent contributor to *Macworld*.



Share the Net You can also use Panther's built-in Internet Sharing to configure and run DHCP and NAT services from your Mac.

Multiply Your Drive

Give others easy access to shared files. Boot into different operating systems. Back up files without breaking a sweat. Run disk utilities on the road—no CD required. Speed up Photoshop and games galore. Are these merely geek dreams? No, this can all come true for you—without your spending a dime—if you partition your hard disk.

It's easy to split your Mac's hard disk into several partitions with Apple's free Disk Utility. (If you instead use the iPartition utility, you may not have to wipe your hard drive in the process [see "Painless Partitions"].) Partitioning can make your work easier, faster, and safer.

The Many Joys of Partitioning

Here are a few excellent reasons to partition your hard disk:

Easy Access to Backups Disk problems usually affect the disk's *catalog* (an invisible file that records the locations of your files on the disk). If you use a second partition to store backup files, they will be readily

accessible if your everyday partition bites the dust. (Of course, if a *physical* problem causes the entire hard disk to crash—say, if its heads or platters meet their maker—you may also lose your backup partition. Make sure you back up *its* files regularly, too.)

Quick Backups of Critical Files You can make quick backups of in-progress work on your extra partition. Simply drag files or folders to it throughout the day. This is an easy way to protect important data as you work. (The same caveats about potential problems with the physical disk apply here.)

A Manageable Home Folder Store your iTunes or iPhoto collections on a separate partition to make your Home folder smaller and more manageable. This will make the folder easier to back up, though you'll still want a backup of your media files.

Stress-Free Shared Files Tired of running into permissions problems when you share files with other users on your Mac? Use a partition to give others easy access to shared files. When you create a partition for this purpose, select it in the Finder, press ⌘-I, click on the Ownership & Permissions triangle, and then select Ignore Ownership On This Volume. This allows all users to access the files it contains, regardless of the permissions set for the individual files.

Emergency Protection Create an emergency partition for those times when bad karma comes home. Use a program such as Bombich Software's Carbon Copy Cloner (donations accepted; find.macworld.com/0268) to make a bootable copy of your startup volume on this partition, and install a disk-maintenance and -recovery program such as Alsoft's DiskWarrior (\$80; www.alssoft.com) or Micromat's TechTool Pro (\$98; www.micromat.com). If you have problems with your startup volume—due to either disk-catalog problems or rogue software that has damaged your operating system—you can simply boot from your emergency partition. To do so, hold down the option key at startup to select the partition, and then run your disk-recovery software—no fumbling around to find CDs. Even if you're on the road, you can get your Mac up and running again.

Faster Applications Some programs, including Adobe Photoshop, Apple Final Cut Pro, and other

Painless Partitions

If you have an enormous hard disk filled with data, think twice before using Apple's Disk Utility to partition it and erase all its contents in the process. A program such as Coriolis Systems' iPartition (\$45; www.coriolis-systems.com) can create and resize partitions *without* erasing your hard disk. This can be a big time-saver, since you won't need to recopy all your data. And it's great if you'd like to resize partitions later.

iPartition gives you visual information about your disks and partitions, lets you resize partitions by dragging the pieces in a pie-chart display, allows you to add and delete partitions, and offers an abundance of formatting options (see "Free to Change Your Mind"). In fact, iPartition is one of the few OS X programs that allows you to format disks using dozens of file systems, including FAT, Linux, NTFS, Next, OS/2, and others.

Still back up all your files first. All it takes is a power outage while the program is working, and you'll lose everything. Also keep an eye out for Micromat DiskStudio (\$50; www.micromat.com), which should be available by the time you read this.



Free to Change Your Mind Partitions the wrong size? iPartition lets you resize them by dragging the slices in this pie-chart display—and you don't have to destroy the data on the disk and then recopy it.

audio and video programs, run faster if you store their files on a dedicated partition. Why? Because Photoshop writes *scratch files*—temporary files—to your hard disk, and these files can be big. Video files likewise take up a lot of disk space. In both cases, using a dedicated partition keeps these files together, allowing the programs to load, read, and write the files quicker. And gamers may want to install games on a separate partition. Some games, especially those with lots of video and graphics, run faster this way, because their files aren't strewn across a crowded primary partition.

You may have heard that creating a partition for OS X's swap files will speed up your work, but it won't really make much of a difference. You'd see a speedup if you stored the swap files on a different *physical* disk, but if you simply store them on another partition on the same disk, your hard disk's heads will jump from one section of the disk to another to read them. You may even find that your Mac runs slower.

Easier OS Upgrades When installing a new version of OS X, do so on a second partition. This is useful when you're not sure you want the update, as well as when you want an easy way to copy your Home folder's contents after a clean install.

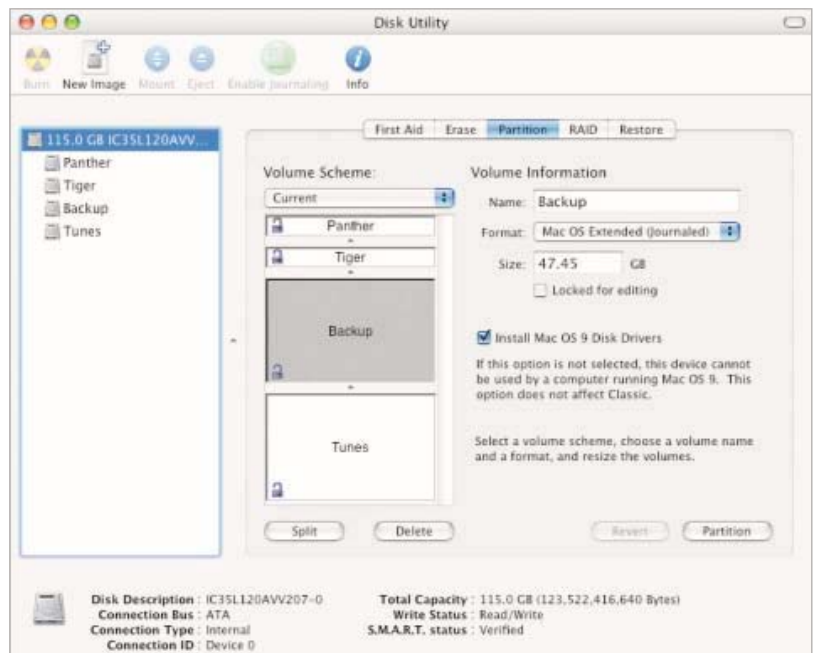
Linux and More For the truly geeky, a partition is a great place to house other operating systems. Install Linux on a partition so you can try out your favorite *distro* on your Mac. If you have an older Mac and still use OS 9 for running some programs or for specific hardware that isn't OS X-friendly, put OS 9 on a partition so you can boot from it more easily. If you develop software, put different versions of OS X on different partitions and boot from them to test your work in progress. Choose the partition you want to use by holding down the option key at startup.

Old Mac Aid Finally, if you have an older Mac, such as a rev. A, B, C, or D iMac or a beige Power Mac G3, you *must* install OS X in the first 8GB of the hard disk. If your hard disk is larger than 8GB, you'll need to create at least two partitions: a boot partition that is 8GB or smaller, and one or more other partitions that take up the remainder of the hard disk.

Roll Up Your Sleeves and Slice That Disk

Partitioning a hard disk in OS X is not rocket science, but you do need to take precautions. First and foremost, *back up your files*. Partitioning a hard disk with Apple's Disk Utility deletes everything on the disk, so make sure you have a complete copy. Ideally, the best time to partition is when you get a new Mac or a new hard disk, since you won't have to back up anything.

Which Drive? Next, you need to determine whether you're partitioning your startup volume or another disk—for example, a second internal hard disk or an external hard disk. In each case, you can use Disk Utility to partition your hard disk, but you must launch the program differently. If you want to parti-



tion your startup volume, reboot your Mac from an OS X installation CD. Hold down the C key during startup to launch the installer on the CD, and then select Installer: Open Disk Utility. To partition an external disk or a second internal disk, just open Disk Utility (located in /Applications/Utilities).

How Many, How Big? Click on the disk icon on the left side of the window, and then click on the Partition tab. Unless you've already partitioned the disk, you'll see one partition. Select the number of partitions you'd like to create from the Volume Scheme pop-up menu. They'll all be the same size unless you click on one to select it, enter a name, choose a format, and select the partition size (see "Split That Disk"). Consider allocating about 20GB for the startup partition; as for the others, consider how you'll be using them to choose a size.

Details, Details If you have a Mac that can boot into OS 9, and you want to be able to do so, make sure you select Install Mac OS 9 Disk Drivers. You won't see this option on recent Macs. Once you've got everything set up, click on the Partition button. Disk Utility erases the disk and creates the new partitions. When it finishes, quit Disk Utility and restart your Mac.

If you've partitioned a disk other than the startup one, you'll see the volumes appear on your desktop or in the Finder window toolbar immediately. If you partitioned your startup disk, the partitions will appear the next time you restart your Mac.

Many Disks from One Partitioning your hard drive can provide extra speed, security, and flexibility at no extra cost. You can better organize your files, give applications more elbow room, and have a super-duper emergency partition that guarantees you'll always be able to boot your Mac. □

Split That Disk

Apple's free Disk Utility can slice up your hard disk with just a few clicks.

TIP You can use Terminal to do almost everything—including partitioning your disk. Command-line mavens can use the `diskutil` command to partition hard disks. Type `man diskutil` in Terminal for more information.



KIRK McELHEARN is the author of many books, including *The Mac OS X Command Line: Unix under the Hood* (Sybex, 2004).

Mac OS X Hints

The Insiders' Tips You Won't Get from Apple

Put PDFs in Their Place with PDF Services

If you're taking advantage of all that OS X has to offer, you're already "printing" things to PDF. Just press ⌘-P and click on the PDF button in the Print dialog box. It's a great way to store tidbits of information—from funny e-mail messages to online receipts—without killing a tree in the process. Wouldn't it be nice if you could create a PDF and automatically file it in the right folder, without navigating through your entire file system to do so? Here's how:

First, set up folders (Receipts, Funny E-mails, Recipes, and so on) where you'll archive this stuff—within your Documents folder, perhaps. Next, navigate to *your user folder/Library* and create (if you don't have one) a folder named PDF Services.

Now make an alias of each of these storage folders and put the aliases in the new PDF Services folder. The quick way to do this is to select all your storage folders and then press and hold ⌘-option . The cursor will change into a small arrow inside a circle (the alias symbol). Drag and drop the aliases into the PDF Services folder.

That's it; you've enabled the hidden PDF Services feature of OS X. Select File: Print in any open document, and when you click on the PDF button, you'll see that the Save As PDF pop-up menu now includes your folder aliases. Select one of them, and your PDF



CHECK IT OUT

Reduce Search-Results Eyestrain

When you run a search in the Finder, a Search Results box pops up, showing each match. The results box uses space-efficient small icons and a 12-point font. That's dandy for squeezing lots of results into a window, but it's not great for those of us with aging eyes. It's also awfully hard to distinguish icons at that size when you're looking for one Word document in a sea of TextEdit results.

You can't change the Search Results window to icon-view mode. (If you try clicking on the button at the top left of the window, nothing happens.) But you can alter this window by going to View: Show View Options. Pick larger icons here, and you'll get larger, more legible results (see "Jumbo-Size Search Results"). You can also use the View Options box to change the font size, as well as to choose which columns appear in the results window. You'll have to change these settings only once.



Jumbo-Size Search Results You probably didn't know it, but you can set view options for the Finder's Search Results box—for example, here we've made the icons larger and more legible.



On-the-Fly Filing Using OS X's hidden but powerful (and easy-to-implement) PDF Services, you can make printing to PDF and filing to a destination folder a one-step process.

will print *and* be saved directly to the chosen folder (see "On-the-Fly Filing").

This tip just scratches the surface of what PDF Services can do for you. Try putting an alias of Mail (or even Microsoft Entourage) in the PDF Services folder, for instance. Now when you pop up the Save As PDF menu and select Mail—voilà! You have an instant Mail message, complete with an embedded PDF of the page you were viewing. For more on PDF Services, see Apple's Printing & Print Center page (find.macworld.com/0301).

Use iTunes to Organize PDFs

Looking for a different way to organize a massive collection of PDFs? Use iTunes. That's right, iTunes. When Apple released *The Complete U2* digital box set last year, it distributed the collection's liner notes as PDF files. To make sure people found them, Apple modified iTunes to handle PDF files in its library. The side effect was that iTunes (thanks to its Smart Playlist



UNIX TIP OF THE MONTH

Presto! Web Sites Open All at Once

Have you ever received a long list of URLs in an e-mail and wondered whether you could open all the Web pages at once? Something like this, maybe:

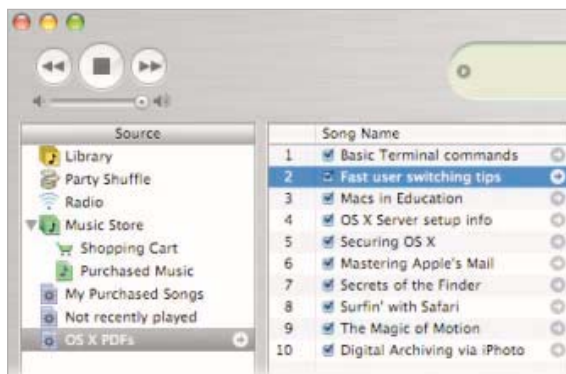
```
http://slashdot.org
http://www.wikipedia.org
http://www.plasmadesign.co.uk
http://www.macworld.com
```

Thanks to the Unix side of OS X, you can. Start by selecting all the URLs in the e-mail and copying them to the Clipboard.

Next, open Terminal, type `open `pbpaste``, and press return. Your browser will open a new window for each URL in the list.

How did this piece of magic work? `open` is a Unix command for opening files, folders, and URLs, so that's what's doing the browser's work. Next, there's a backtick (`), followed by `pbpaste` and another backtick. This is the tricky part. The backticks are a *command substitution* marker. Basically, whatever is within the backticks will be executed as if it were on its own line, with the rest of the command. In this case, that's `pbpaste`, a Unix command that pastes the contents of the Clipboard. So, in effect, each URL in the Clipboard is run through the `open` command, one at a time.

You may not need this trick every day (and it generally works only with pure-text sources, such as e-mail messages and .txt documents), but if you get a long list of URLs and would rather not click on them all individually, it'll do the trick.



Beyond Tunes in iTunes iTunes can store more than just music. If you have a large collection of PDFs, for instance, try using iTunes to organize it. You can even make smart playlists to further organize your PDFs.

feature) also became a good way to organize large PDF collections.

To test this out, just drag and drop a PDF (or several) onto iTunes. It will show up in your library, with its Finder name listed as its song name. To organize your PDFs, use smart playlists. Create a new smart playlist (File: New Smart Playlist) and set the conditions to Kind Contains PDF. Select the Live Updating option and click on OK. Now you have a playlist that contains all your PDFs (see "Beyond Tunes in iTunes"). If you name your files following a certain pattern, you can add rules to the smart playlist to further sort your PDFs. Make a Recipes smart playlist that gathers all files whose names ("song" names) start with *Recipe*. Or create a medical-journals smart playlist that gets all the files with the prefix *Med_*.

And you can combine this hint with the previous one: Put an iTunes alias in your PDF Services folder. Now you can choose iTunes when you use the PDF button in the Print dialog box, and your PDF will immediately be stored in your iTunes library.

Cycle between Tabs in Firefox

Sure, you already have Safari on your computer, but there's a whole world of Web browsers out there. Take Mozilla Firefox (free; www.mozilla.org). It's a great browser, and it benefits from a ton of plug-ins. If you're ready to try it out, note that, just like Safari, Firefox supports tabs, which let you load multiple Web sites in one browser window.

Keyboard power users like to cycle between those tabs without touching the mouse. In Safari, you'd use `⌘-shift-left arrow` (or right arrow). In Firefox, it's `⌘-1` through `⌘-9`, at least for the first nine tabs. (Somewhat confusingly, these are the same shortcuts that Safari uses for selecting the first nine bookmarks on your bookmarks bar.) But what if you have more than nine tabs open? You can't jump directly to more than nine in Firefox, but you can scroll through them all using `control-page up` and `control-page down`. For more Firefox tips, go to Help: Help Contents. In

the Contents pane, choose Using Mozilla Firefox: Navigating Web Pages: Tabbed Browsing.

Stop Terminal Trip-up of Keyboard Viewer and Adobe Apps

Have you had trouble with the shift and option keys not working in Adobe applications when you use them as modifier keys? Likewise, when you use Keyboard Viewer (under the flag icon in the menu bar), are you unable to see a font's special characters when you hold down `⌘` and shift? If so, you've discovered a subtle side effect of an OS X security feature.

Terminal's File menu contains an option named Secure Keyboard Entry. It's turned off by default, but you may have enabled it at some point, thinking it would make Terminal more secure. That it does, but at the cost of some compatibility. Basically, this option makes it impossible for other applications to detect or record what you type in Terminal. If Terminal is running, you'll run into problems with Adobe applications and Keyboard Viewer.

The fix is easy—just make sure you don't select Terminal's File: Secure Keyboard Entry menu option. If you'd like to learn more about this feature's extremely technical specifics, read rentzsch.com's very thorough write-up (find.macworld.com/0302).

Protect Your Laptop with Personalization

It's relatively easy to change the image displayed behind your login window, and doing so might increase the odds of getting your laptop back if you lose it.

To change the login window's backdrop, navigate to the `/Library/Desktop Pictures` folder and find the

continues

Aqua Blue.jpg file, which contains the image displayed behind the login window. Before you do anything else, duplicate this file in case you want it back later.

OS X 101

Tricks of the Toolbar

Welcome to OS X 101! Each month in this space, I'll address OS X fundamentals. Old Mac hands will know a lot of this stuff by heart, but if you're new to either OS X or the Mac in general, you'll learn tips and tricks that you'll use every day.

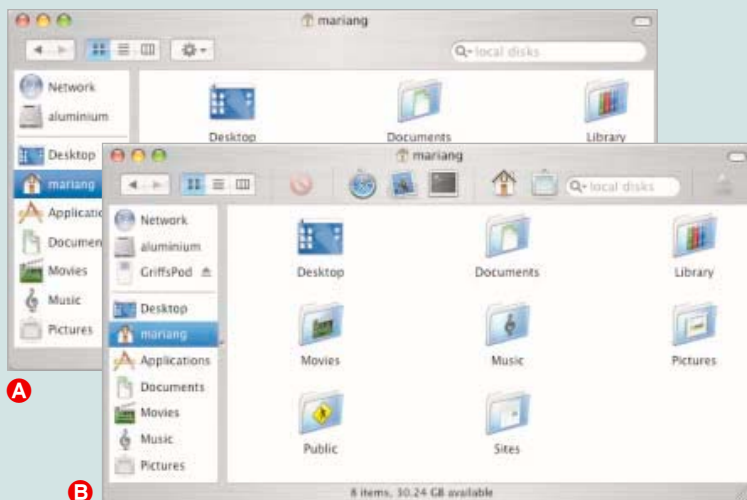
We begin with a workhorse of the Finder, the toolbar. This row of buttons appears at the top of OS X Finder windows (see "Have It Your Way"). If you can't see it, select View: Show Toolbar. The standard 10.3 toolbar includes forward and back buttons; the view buttons, which let you choose the icon, list, or column view; and the Action button (it looks like a gear), which mimics a control-click on an object in the Finder.

You're not stuck with the toolbar's default icon and text size. Hold down \mathbb{A} and click on the oblong widget at the top right of any Finder window—with each \mathbb{A} -click, the Finder shows you one of six different toolbar options.

The toolbar may not appear useful at first glance, but looks can be deceiving. Start by choosing View: Customize Toolbar (or just control-click on the toolbar itself and pick this option from the pop-up menu). This opens a window showing a set of Apple-provided tools that you can add to your toolbar. Drag and drop the ones you'd like to use onto the toolbar. For example, add the Delete button, and you can move things to the Trash with a click. Use Space, Flexible Space, and Separators to group the tools.

The real power of the toolbar, however, lies in the fact that you can add your own files and folders to it, and thus have immediate access to those things. Close the customization window if it's still open, and then open your Applications folder. Click on Safari (for example), drag it to the toolbar area, and hover your cursor there. After a moment, your cursor will become a green plus sign. Release the mouse button, and Safari will appear on the toolbar. You can now launch Safari with one click. You can do the same thing with folders (for one-click navigation and for easily dragging files into a new folder) and documents (open a new file with one click).

To tidy things up a bit, hold down the \mathbb{A} key to rearrange anything on the toolbar. To remove an item, just \mathbb{A} -drag it off the toolbar. (It's OK—you're not deleting the original.)



Have It Your Way The toolbar lives above every OS X Finder window, allowing fast access to files, folders, and documents, as well as some task buttons. It's easy to customize the default setup **A** to fit the way you use your Mac every day **B**.

If you just want to replace the image with one of your own choosing, delete the Aqua Blue.jpg file. Then drop in any other JPEG image file and name it Aqua Blue.jpg. On your next login, you'll see your custom picture. A more interesting use of this screen, though, is to add information that will help a Good Samaritan find you if you lose your laptop. (This trick won't help much if a thief *steals* it, though.)

Open the Aqua Blue.jpg file in your favorite image editor (or modify the image you intend to use). Add some way of contacting you (see "Send Me Home"). Save the modified file as Aqua Blue.jpg in the specified



Send Me Home By placing some identifying text on your login window's background image, you just might luck out and get your laptop back if you misplace it.

directory and log out. Now your handiwork resides behind the login panel. Make the ownership information as big and obnoxious as you can stand; this increases the odds of someone seeing it. After all, you don't spend much time looking at the login window.

Quickly Open AppleScripts

Ever wanted to add some text to a bunch of file names? Or view a sample of all your installed fonts? Or count all the messages in all your Mail mailboxes? You can use an OS X feature called the Script menu to do all this and more. The OS X Script menu, which you activate by running Install Script Menu (in the /Applications/AppleScript folder), puts a large number of useful AppleScripts under an icon on the right side of your menu bar. These scripts are not only useful but also a good way to learn more about AppleScript.

If you open scripts with the Script Editor (also found in /Applications/AppleScript), you can see exactly how they're built. Ordinarily, you'd do this by navigating in the Finder to the top-level /Library/Scripts folder, then opening the folder containing the script you want to view, and then double-clicking on that script. But there's a much faster way: just hold down the option key when you select a script in the Script menu, and it will automatically open in the Script Editor. □

Contributing Editor ROB GRIFFITHS is the author of *Mac OS X Power Hound, Panther Edition* (O'Reilly, 2004), and runs the Mac OS X Hints Web site (www.macintoshhints.com).

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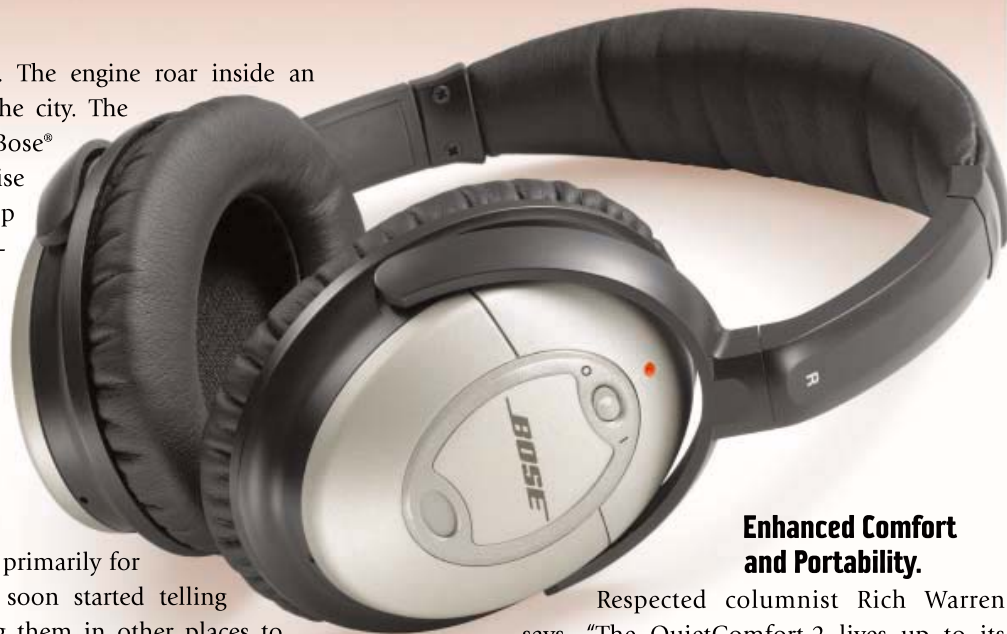
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Mac 911

Solutions to Your Most Vexing Mac Problems

The Art of Linking Letters

The one feature of Microsoft Internet Explorer that I can't seem to find in Safari is the ability to e-mail a Web page or its link to someone in my Entourage contacts when I am viewing the page. How do I do that?

Bill Eacho

The easiest way to make this possible is to use a *bookmarklet*—a small piece of JavaScript that you can save as a bookmark and reuse. Specifically, enter the following script text in your browser's Address field and then drag the globe icon that begins the URL into Safari's Bookmarks Bar:

```
javascript:location.href='mailto:?'
SUBJECT='+document.title+'&BODY='+escape
(location.href)
```

seek out updates, for example—and having the originating site's address at hand is helpful. With OS 9 and Internet Explorer, you could find the URL of downloaded files within the Comments field of the file's Get Info window. We lost that capability with OS X.

I'm happy to report that with the help of Ecamm Network's free DownloadComment (www.ecamm.com/mac/free), this feature has returned for Safari users. After installing the program, files you download with Safari will bear the originating URL in the Comments field.

Regrettably, DownloadComment works only with Safari. If you use another browser, you can usually retrieve the original URL from the browser's Downloads window. For example, in Mozilla's Firefox you can see the URL by control-clicking on an entry in the Downloads window, choosing Properties from the contextual menu, and looking at the From field in the properties sheet that appears. You're in luck if you use The Omni Group's OmniWeb (\$30; www.omnigroup.com). By default, it places the URL for downloads and saved Web pages in the Comments field.

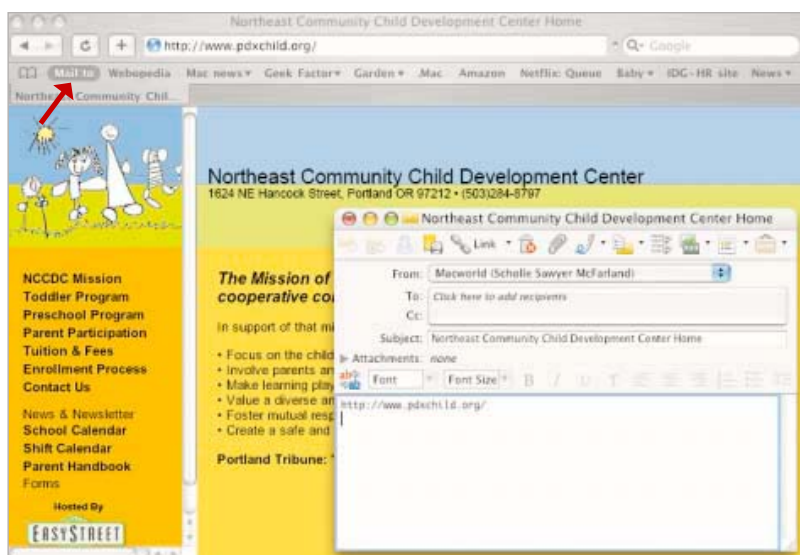
As for Web pages, if I'm not using OmniWeb and I know I'll want to return to a Web page later (and I don't want to use a bookmark to do it because the page's contents might change), I invoke the Print command and save the file as a PDF. Doing so places the host URL in the header of the PDF file for convenient retrieval later.

Thumbs Down to Thumbnails

When I use iPhoto to burn CDs, it burns not only the original images but also the thumbnail images that iPhoto creates. This is annoying when I'm printing the photos at a Kodak station because I wind up with duplicates, and the second set (the thumbnails) obviously looks horrible. How can I burn only the originals?

Jonathan Siegrist

When you click on the Burn button in any version of iPhoto to create a CD, it burns thumbnails along with the full-size images. Thankfully, iPhoto places these thumbnails in a folder called Thumbs. iPhoto organizes files on a CD in this way: /iPhoto Library/year/month/date/. It places the original photos in the date folder inside their own folder, called Originals. Therefore, if you have the option to do so,



Mail Call Invoke this bookmarklet to e-mail a Web page's address to your nearest and dearest.

When asked to name this bookmarklet, call it something like Mail To. When you invoke it, your default e-mail client opens. A new message appears, containing the URL in the body and a subject heading that provides the name of the page (see "Mail Call"). All you need to do is address and send the message.

Return Addresses

How do you retain the URLs of downloaded files and saved Web pages?

Radord Sapp

Like you, Radord, I sometimes need to revisit the site from which I originally downloaded a file—to



TIP OF THE MONTH

Line Breaks, Begone!

You recently ran a macro for removing line breaks from e-mail messages that you're copying to Microsoft Word documents. I think this macro does a better job.

In Word, select Tools: Macro: Macros. In the Macros dialog box that appears, type `Fixmail` in the Macro Name field and click on the Create button. (Warning: If you don't name the macro first, it may not work.) Enter the following text between the `Sub Fixmail` and `End Sub` lines in the Normal -NewMarcos (Code) window:

```
dowhat = wdFindStop
If Selection.Type = wdSelectionIP Then
    Selection.HomeKey Unit:=wdStory
    dowhat = wdFindContinue
End If
Selection.Find.ClearFormatting
Selection.Find.Replacement.ClearFormatting

With Selection.Find
    .Text = "^p"
    .Replacement.Text = "^^"
    .Forward = True
    .Wrap = dowhat
End With
Selection.Find.Execute Replace:=wdReplaceAll

With Selection.Find
    .Text = "^^"
    .Replacement.Text = ""
    .Forward = True
    .Wrap = dowhat
End With
Selection.Find.Execute Replace:=wdReplaceAll
```

```
End With
Selection.Find.Execute Replace:=wdReplaceAll

With Selection.Find
    .Text = "^^"
    .Replacement.Text = ""
    .Forward = True
    .Wrap = dowhat
End With
Selection.Find.Execute Replace:=wdReplaceAll

With Selection.Find
    .Text = "^^"
    .Replacement.Text = ""
    .Forward = True
    .Wrap = dowhat
End With
Selection.Find.Execute Replace:=wdReplaceAll
```

Save the macro. Then go to Tools: Customize to assign a keyboard shortcut to it. To download this code, go to find.macworld.com/0317.

Steve Ramirez

select the Originals folder and ask the photo printer to print just the images therein.

I'd be fibbing if I suggested that this was an elegant solution—many places just print everything on the CD regardless of the explicit instructions you give them to do otherwise. For this reason, I forgo burning CDs within iPhoto if I want to print pictures from that CD.

Instead, I select the option to view pictures as film rolls (choose View: Film Rolls), insert a blank CD-R, and drag the rolls I want to print to the CD. Doing this copies only the original files to the disc. Alternatively, you can create an album in iPhoto that holds the pictures you want to print. Then select all the photos in the album and drag them to the blank CD on the desktop. Now all you have to do is burn the disc and take it in for printing.

Doing the iPod Shuffle

I find the iPod shuffle's lack of support for multiple playlists troubling. As much as I like random playback, I don't want Ella Fitzgerald next to Queens of the Stone Age next to Horowitz next to Zeppelin. Is there an efficient way to make playlists built in iTunes appear as a single track when played back on the new iPod?

Ryan Kinrade

While I'd hardly call the process efficient, it is possible to convert multiple tracks into a single track that you can then load into a playlist. Here's how:

If the files are unprotected (meaning that you didn't purchase them from the iTunes Music Store),

open an audio editor such as HairerSoft's \$30 Amadeus II (www.hairersoft.com), open all the tracks that you want to convert to a single track, create a new track, and then copy and paste all the album tracks, in order, into the new track you created. Save the file as an MP3. Now you can load this file on your iPod shuffle to play the album from beginning to end.

You can do something similar using iMovie 4 and iMovie HD. (As a bonus, with iMovie's help you can convert protected AAC files into another format.) To do the job, bring the tracks you'd like to combine into iMovie. I find that it's easiest to drag the files in from the Finder. You can also use the Audio tab and choose files from your iTunes library to add them to your iMovie project (see "Shuffle Soundtrack"). Just drag each file into the same audio track, and you're good to go. iMovie HD won't let you export an iMovie that contains only protected audio tracks. To get around this, add a single picture from your iPhoto library to your movie (adding the picture isn't necessary with iMovie 4).

continues

Shuffle Soundtrack

If you'd prefer that your iPod shuffle not play tunes too randomly, use iMovie to convert an entire album (or protected audio tracks) into a single track. Then you can shuffle by album instead of by song.





TOOLS OF THE TRADE

Help from the Source

Welcome to a new corner of *Mac 911*, “Tools of the Trade,” where I shed light on helpful troubleshooting resources. This month, I’d like to direct your attention to Apple assets for the care and feeding of your Mac.

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> **Track Software Updates** If, like me, you’ve lost track of what Apple’s Software Update has installed on your Mac, go to Library/Logs and double-click on the Software Update.log file. This file lists all the files installed by Software Update.

> **Download Apple’s Latest** If your collection of Apple updates seems incomplete, visit find.macworld.com/0299 and scan the long list of Apple downloads—including everything from OS X updates to the latest versions of QuickTime, iTunes, and the iPod updater.

Now choose File: Share, click on the QuickTime tab, choose Expert Settings from the Compress Movie For pop-up menu, and click on Share. In the resulting Save Exported File As window, choose Sound To AIFF from the Export pop-up menu and click on Save. This will save only the audio portion of the movie to a file.

Finally, add the resulting file to your iTunes library (File: Add To Library) and convert it to a format compatible with the iPod shuffle—AAC or MP3. To do so, choose iTunes: Preferences, click on Importing, and choose an appropriate setting from the Import Using pop-up menu (AAC or MP3). Click on OK. Select the long track you created and choose Advanced; then select either Convert Selection To MP3 or Convert Selection To AAC. Once iTunes has converted the file, you can add it to a playlist that’s loaded on the shuffle.

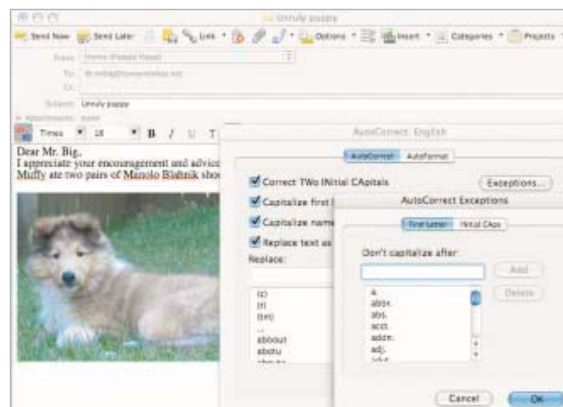
Correcting Capitalization

Microsoft Entourage insists on autocorrecting the first letter of a sentence so it’s always a capital letter, but this is inconvenient after an abbreviation that ends with a period. I can turn this feature off in Microsoft Word, but I can’t find the option in Entourage 2004.

Joe Kewekordes

Many people miss this option because they look in Entourage’s preferences instead of its Tools menu. In this menu, you’ll find the key to your salvation—the AutoCorrect command. Select it, and you’ll see the Capitalize First Letter Of Sentences option in the resulting window. Disable this option, and Entourage will cease and desist.

If you think that such a solution is a little extreme, feel free to leave this option enabled. Instead, click on



Make an Exception You don’t have to correct Entourage’s autocorrection feature again and again. If you use an abbreviation often, add it to the AutoCorrect Exceptions list; that way, Entourage won’t capitalize the word that follows.

the Exceptions button and add particular abbreviations to the Don’t Capitalize After field (see “Make an Exception”).

Slow to Help

I have a dual-2GHz Power Mac G5 that is generally very fast. Recently, I’ve noticed that when I try to access Help Viewer from the Finder or any application, it takes a little more than 20 seconds for the content to appear in the Help window. A Genius in an Apple Store suggested that OS X might be corrupted and told me to archive and reinstall it. That does not make sense to me and could be a big waste of time. What do you think?

Charles Butler

If that were the case, most of us would have corrupted operating systems and would need to reinstall them. The truth is that Help Viewer is not the perkier component of OS X. But there is something you can do (short of reinstalling the OS, which, in my humble opinion, is overkill on the grandest scale). Trip on over to *your user folder/Library/Caches* and toss out the entire *com.apple.helpui* folder. As its name implies, this folder contains Help Viewer’s cache files. Cleaning it out from time to time can do wonders for Help Viewer’s performance.

People running Jaguar (OS X 10.2) will find Help Viewer slow because it checks the Web for online content. Short of disabling all network ports except the primary port your Mac uses to connect to the Internet (your Mac’s Ethernet port, for example), there’s little you can do to speed up this process. If you haven’t upgraded to Panther (or Tiger, if it’s available by the time you read this), this is a darned good reason to do so. □

Contributing Editor CHRISTOPHER BREEN is the editor in chief of *Playlistmag.com* and author of *Secrets of the iPod and iTunes*, fifth edition (Peachpit Press, 2005).

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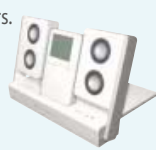
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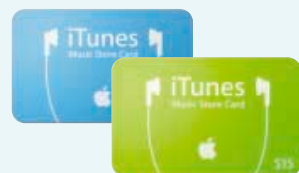
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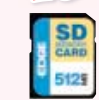
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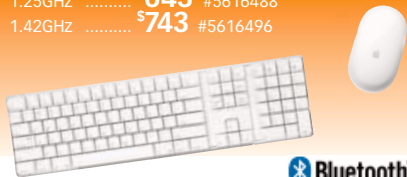
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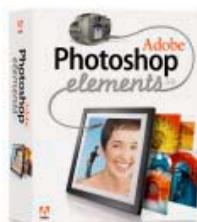
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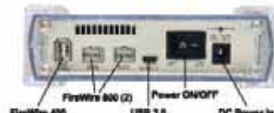
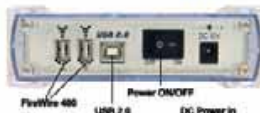
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200GB	7200RPM	8MB	\$209.99	\$229.99	\$249.99
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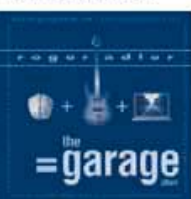
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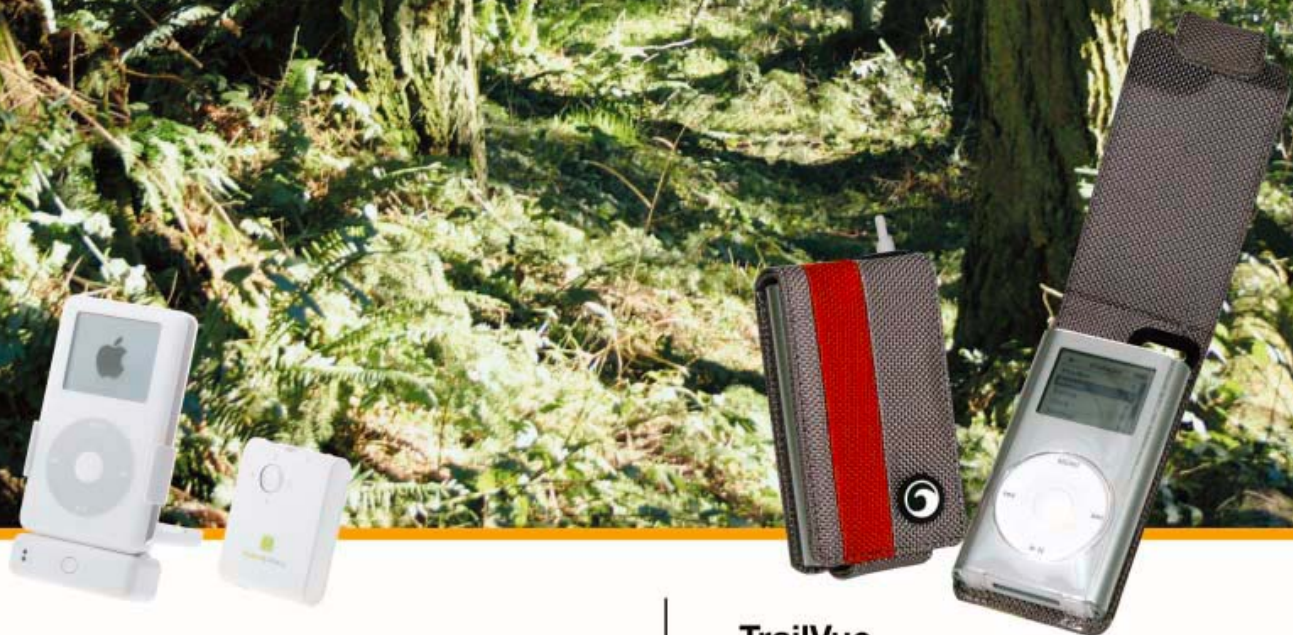
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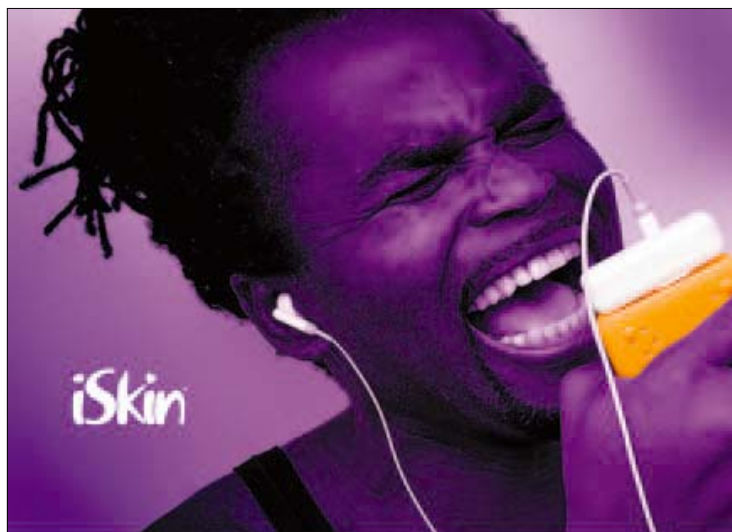


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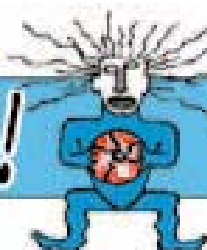
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Aluminum bluetooth \$59

iPod Accessories

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3G Automobile Charger \$14
Belkin Auto Kit \$30

Miscellaneous Hardware

USB floppy drive \$35
iomega PCI SCSI Card \$21
iPrintPad or iFunStick \$4
MacAlly Shock (II) \$19
Bluetooth USB 100 II \$27

Keyboards

MacAlly Media Keyboard \$34
Internet Navigator keyboard \$19
Gravis USB Gamepad \$9

Mice

Nyko 2button Optical \$12
Logitech Cordless \$14
Kensington Orbit \$15
Apple Pro Mouse- \$38

PCI Cards

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USB 2.0/FW 8 port \$39
Sonnet PCI 16x video card \$84

PCMCIA Cards

SmartMedia Reader \$9
FireWire Cardbus \$29
Zoom 56k modem \$39
Zoom 56k PCMCIA \$39

Mac OS

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8.5- \$79
9.1- \$79
X.2 Jaguar** \$22
X.2 upgrade- \$44
X.3 full install- \$59
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FROM THE EDITORS OF MACWORLD



EPSON STYLUS PHOTO R1800

Epson's new Stylus Photo R1800 is the big brother of one of my favorite printers, the Stylus Photo R800. The R1800 uses the same archival, eight-color, Ultra-Chrome Hi-Gloss ink set that I loved in the R800, but it prints larger images—up to 13 inches wide by 44 inches long. The printer connects to a Mac via USB 2.0 or FireWire and can print directly onto CDs and DVDs. But its most impressive feature may be its price—just \$549 (www.epson.com).—KELLY LUNSFORD

Transmit

If you use FTP (File Transfer Protocol) for uploading or downloading files, the best client for my money is Panic's \$30 Transmit. The newest version is even more Mac-like, with a search box, iDisk support, a sidebar, and tabs. But my favorite additions are a column view and spring-loaded folders—both of which make my life much easier when I'm updating my Web site and maintaining a file server (www.panic.com).—JONATHAN SEFF



NewsFire

RSS (Really Simple Syndication) news readers let you view RSS feeds on the Web. There are a ton of them out there, but my favorite is David Watanabe's \$19 NewsFire. It has the best interface I've seen, and it doesn't try to do too much—NewsFire is just an excellent RSS reader. If you want an application with a design that looks and feels like something from Apple (at least while you're waiting for Tiger's new Safari RSS), then NewsFire is worth a look (www.newsfirerss.com).—JIM DALRYMPLE



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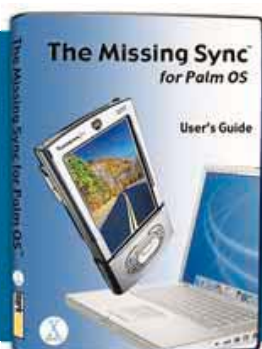
Finding a commercial high-speed wireless Internet connection when you're on the road isn't hard these days. But getting connected can be. That's where Boingo Wireless's Mac Boingo comes in. The software gives you access to a network of 15,000 Wi-Fi hot spots worldwide, by aggregating Boingo's partners into a single network. Instead of requiring separate accounts for various locations, Mac Boingo gives you a single login and password. And you pay only one fee—\$8 a day or \$22 a month (www.boingo.com).—JACKIE DOVE

PHOTOGRAPH COURTESY OF APPLE

WHAT'S HOT

Brought to you by John Moltz of the Crazy Apple Rumors Site (www.crazyapplerumors.com)

- 1** The Napster To Go subscription service takes on the iTunes Music Store. The service includes a monthly visit by a Napster employee who says, "Nice music collection. It'd be a shame if something were to happen to it."
- 2** Apple announces a two-for-one stock split, typically a sign that a company's stock is in high demand. But they're going out of business any day now. Any day.
- 3** Apple updates the iPod mini colors, discontinuing gold. But fear not—the forthcoming P. Diddy Special Edition mini will feature 18-karat gold plating and a free book of Diddy's poetry, all for \$3,490.
- 4** Apple releases new, faster PowerBooks with gesture-driven trackpads. Not surprisingly, PowerBook sales have skyrocketed in Italy.



AVANTGO SUPPORT IN THE MISSING SYNC

I was less than happy when AvantGo, a company that lets you download Web content to handheld devices, decided not to support OS X Palm users. The open-source community responded with MAL conduit, a free alternative. And now Mark/Space has improved on that code with the Mark/Space Conduit for AvantGo, part of the latest free update to its \$40 HotSync Manager replacement, The Missing Sync. The new conduit is faster and easier to configure than MAL conduit and has the benefit of being officially supported by Mark/Space (www.markspace.com).—JONATHAN SEFF

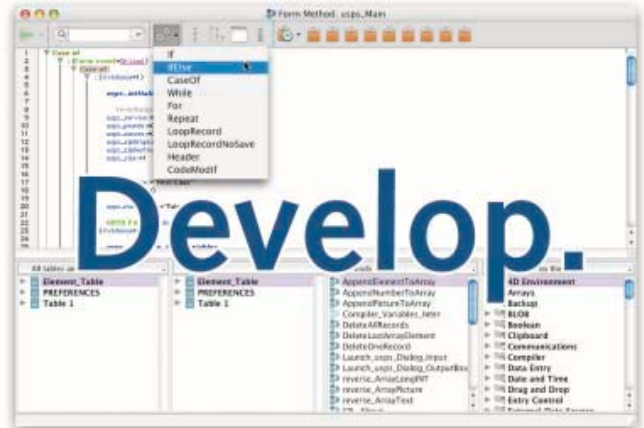


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MATTERS

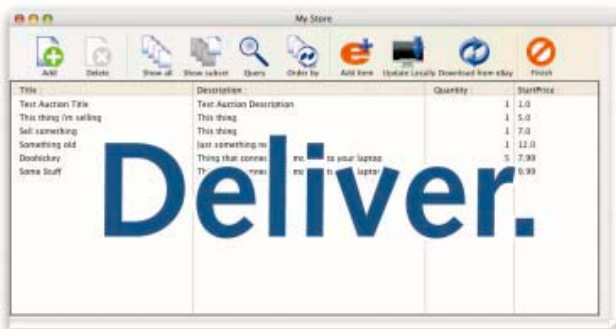
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