



APPLE SUPERSIZES TWO DESKTOP MACS

INTRODUCING THE 20-INCH iMAC AND THE
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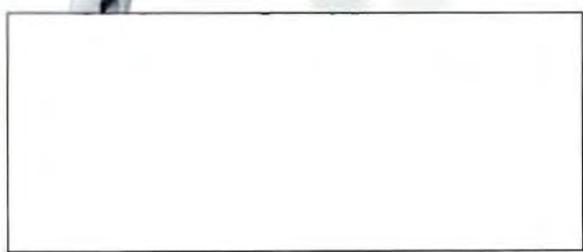
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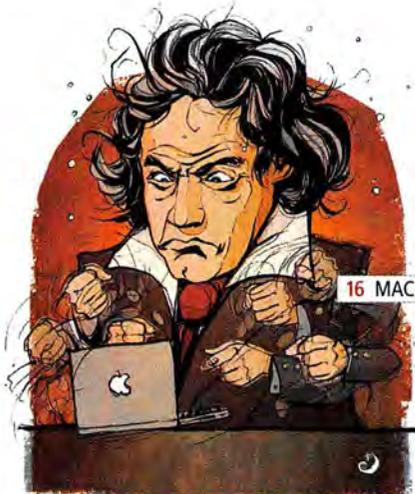
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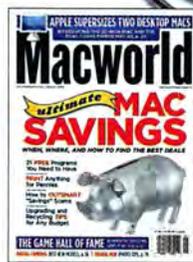
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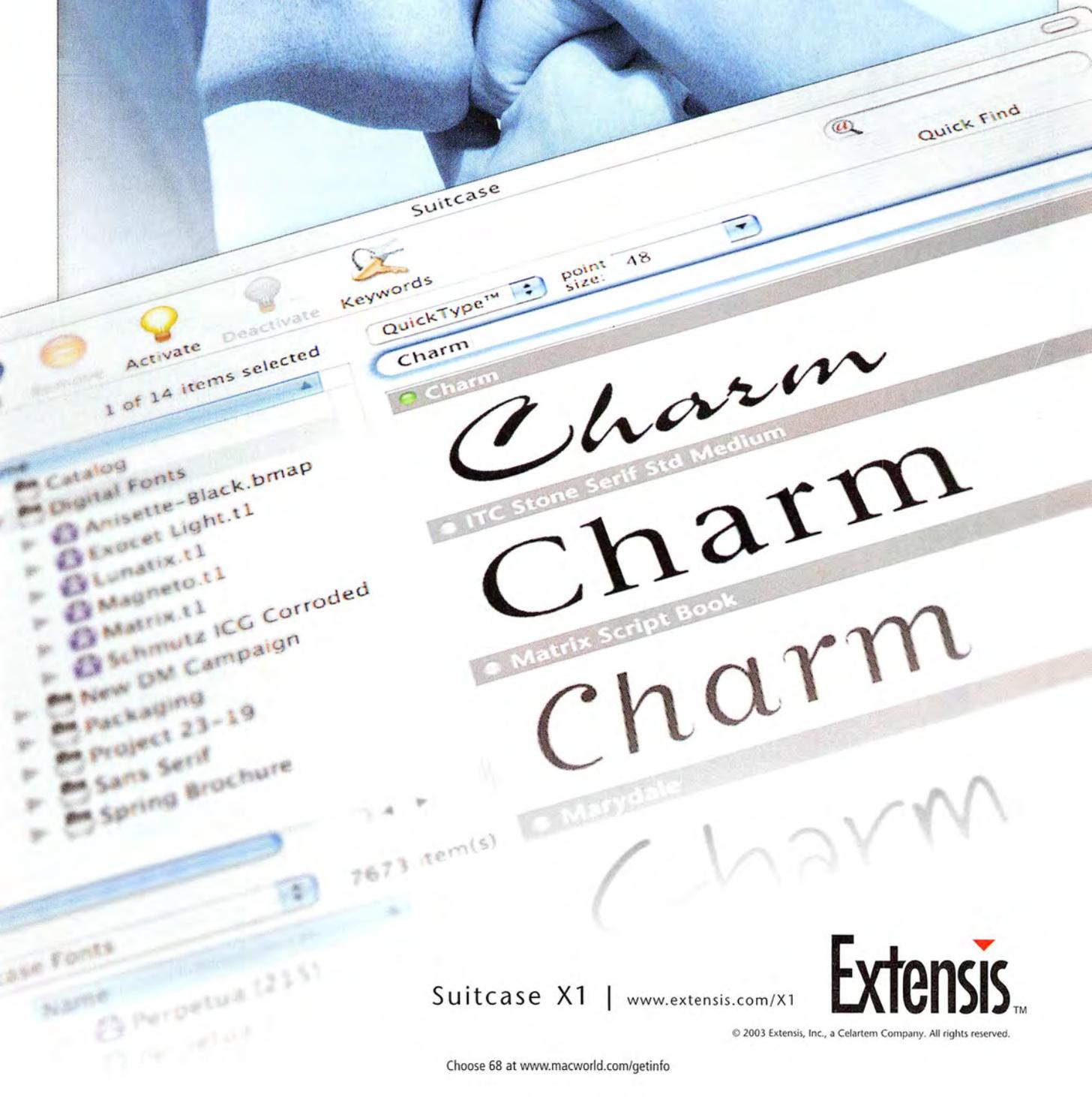
Turn slide shows into Web pages, convert old Netscape bookmarks, make iMovie capture a movie as a single clip, and more.

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Dollars and Sense

WHEN YOU GET RIGHT DOWN TO IT, *MACWORLD* IS ABOUT Mac products. We report the news about current and upcoming Mac software and hardware, review those products once they're released, and provide you with tips and other advice on how to use them. And while *Macworld* readers are clearly a group of people willing to pay top dollar for outstanding Mac products, that doesn't mean you don't appreciate a good value.

With this month's cover story, we wanted to offer you advice on being a savvy Mac shopper, so when you do spend your hard-earned dollars on Mac products, you get the most for your money. For example, within our 11-page feature, Christopher Breen details the cost differences between ink-jet and laser printers. If you print a lot of text documents, that low-cost ink-jet printer ends up being more expensive than you might guess.

We've also rounded up the very best low-cost Mac software, with more than 50 fantastic programs that cost \$30 or less—including more than 20 that are absolutely free. Free programs like the excellent Logorrhea (which lets you easily browse and search all your iChat transcripts) are obviously an amazing value, but the \$20 spam-filtering utility SpamSieve is an even better one—after all, we're all being driven slowly crazy by junk e-mail, and isn't \$20 a small price to pay to save yourself time and soothe your state of mind?

Game On

For more than a decade, *Macworld* has chosen the very best Mac games for induction into our Game Hall of Fame. The original Hall of Fame author, Steven Levy, placed our fictional museum of Mac gaming legends in his hometown of Pittsfield, Massachusetts, and the tradition of selecting the best Mac games has passed to another Bay State citizen, Peter Cohen.

This is Peter's third year as keeper of the Game Hall of Fame, and we're lucky to have him as our regular *Game Room* columnist. If you aren't a frequent reader of our online Mac news site, MacCentral.com, you may not know that Peter leads a double life—he's an able news reporter and editor by day and one of the foremost experts on Mac gaming by night. It's a tough job, but someone's got to do it.

One of the things that excites me the most about this year's crop of Hall of Fame inductees is the variety of the games Peter selected. Of course, there are action games with plenty of gore. But there are also clever, addictive products such as Noiz2sa, a two-dimensional

arcade-style action game that features pulsating pastel geometric shapes instead of blood and guts.

And for the fourth time in five years, Halo appears in our list of forthcoming games that may be in the next crop of Hall of Fame selections. The good news is that Halo—which premiered at Macworld Expo in June 1999, before Microsoft snapped up Bungie and redirected Halo to the Xbox—should actually be out on the Mac by the time you read this. (As an old fan of Bungie's Marathon series, I'm certainly looking forward to playing it.) But until I have a copy of Halo in my hands, I'm not making any guarantees.

Still, if you or someone you love enjoys using the Mac for something other than work, you'll find a game to suit you in the Hall of Fame. And of course, a game makes a great gift. You don't think it's a coincidence that the new Game Hall of Fame inductees appear right around the holidays, do you? □

ABOUT THIS MACWORLD



Things are busier than usual at the Mac Publishing offices these days. We're working on several projects, in addition to *Macworld*, that may interest you. First is *Mac Developer Journal*, a new magazine for people who create Mac software. The costs of starting a new print magazine were too great, so we decided to put out the magazine via Zinio, the same technology we use for electronic versions of *Macworld*. *Mac Developer Journal* is a joint effort between *Macworld* and O'Reilly & Associates, publishers of numerous computer books and the excellent MacDevCenter.com. *Mac Developer Journal* will be released quarterly. For more information and article samples, check out www.macdeveloperjournal.com. Our second big project is *Total Panther*, a special newsstand-only issue of *Macworld*. *Total Panther* has in-depth information about Mac OS X, including details of Panther's new features, a guide to switching from OS 9 to OS X, a massive collection of how-tos and tips updated for Panther, reviews of hundreds of OS X programs, and a DVD-ROM with more than an hour of video tips and lots of software. Look for *Total Panther* on your local newsstand, or order it for \$7.95, plus \$4 shipping, from 800/288-6848 or at www.macworld.com/panther.

Got a favorite Mac game, money-saving tip, or piece of feedback about anything in *Macworld*? Drop me a note at jason_snell@macworld.com or visit our online forums at www.macworld.com.

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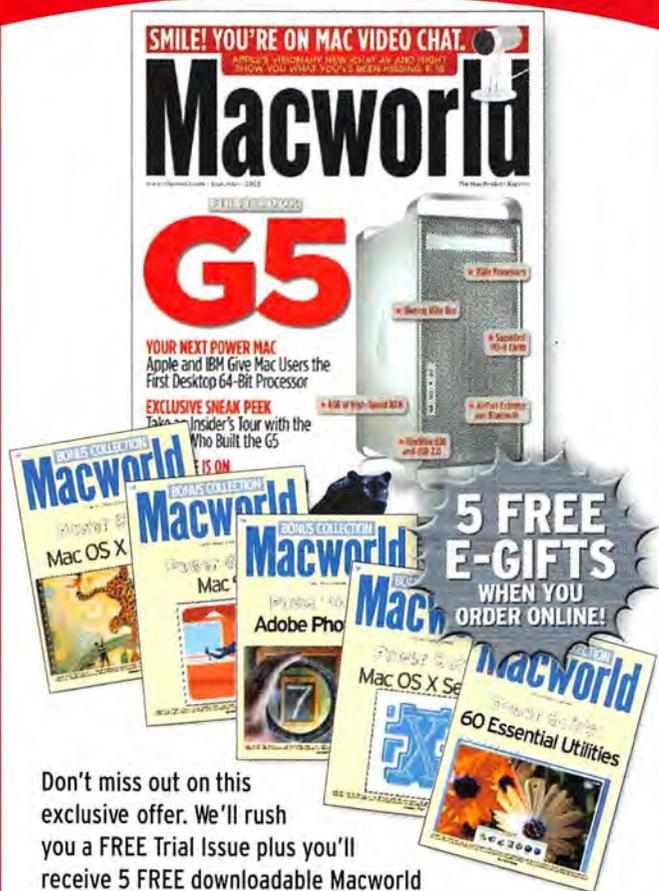
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FEEDBACK

Everything in Its Place

Feedback is an archive of Mac-related musings that may not fit anywhere else in the magazine. And here at *Macworld*, we do try to find a place for everything. So it's fitting that this month we include responses to October's "Tame Your Brain" feature, which was about organizational tools and techniques. You'll also find readers' comments about our coverage of digital photography, their thoughts about a few of our product reviews, and a couple of letters that defy categorization. Keep sending your feedback—knowing what our readers think helps us keep *Macworld* in order. □

Unfit to Print?

ELIZABETH SHARPE

I'm greatly disappointed with your review of the Hewlett-Packard DesignJet 120nr (October 2003). It's well researched and points out real problems, but it lacks a vital piece of information: the \$335 Adobe PostScript 3 RIP that actually makes this a graphic-arts printer doesn't work with OS X. And HP doesn't have a target date for an OS X version.

Some graphic artists will buy this product thinking that they'll get color matching with the additional RIP, only to find that they can't use it with OS X.

This is a good point. Although we noted the RIP's existence, we didn't test it. It doesn't work in OS X. If you must have a RIP, we suggest that you look into one of the third-party OS X RIPs that now support this printer.—Ed.

Honorable but Not Mentioned

ERIC H. DURBROW, PH.D.

In your October 2003 issue, you reviewed organizational tools such as OmniOutliner and NoteTaker ("Tame Your Brain"). You made a serious omission: Circus Ponies' NoteBook. Although similar to NoteTaker, NoteBook triumphs in tech support, ease of use, good looks, and grace.

SEAN O'DWYER

When October's *Macworld* arrived, I flipped straight to the article on outliners. Lately, after many workflow headaches, I've been using one for project management. I'm an OS 9 holdout and have looked at Inspiration but find it slow and clunky on my iBook. OmniOutliner probably suits my

needs best, but it runs only under OS X. Remember Acta? I picked up a copy about two weeks ago, and it's been just brilliant. It's available for free and has everything I need. It allows text styling across siblings and generations, has some decent print options, and even records sound.

TOM CANFIELD

How can an article on outlining programs fail to mention the granddaddy of them all, More? It's old software, easy to use, and free. I use it every day.

Several readers wrote in to suggest a favorite outlining tool, expressing regret that we hadn't included it. In this article, we examined tools that provided a visual way of organizing ideas. (The exception, OmniOutliner, was included because of its integration with OmniGraffle.) And our decision to focus on OS X applications forced us to exclude some venerable (and still very popular) programs.—Ed.

Cold Steel

PATRICK CONLIN

Thank you, Andy. "Monsters of Metal" (*Ibnatko*, October 2003) hit the nail on the head. As a lifelong Mac fan, I tolerate iTunes and its metal windows—a couple of times a week. But Safari or any app that's constantly in use? Sorry. I don't care how fast or how free it is—the fake metal constantly irritates. It's sad that Steve Jobs's definition of elegance has come to this. Apple: the PT Cruiser of computing. Pretty cool if you're 17.

This Way, That Way

DENNIS B. SWANEY

Under step 1 of "Make Your Mac Faster" (*Secrets*, October 2003), Anton Linecker

says that even if you're running OS X, you have to boot up in OS 9 to launch Apple System Profiler (ASP) and find your firmware version. That's the hard way. In OS X, the easiest way is to go to the Apple menu and choose About This Mac: More Info. This launches ASP and displays the Boot ROM information.

It's true. You can check your Boot ROM in OS X, but if you need to update the firmware, you must do so from OS 9. Apple's Firmware Updater for the computers in this article doesn't work with OS X.—Anton Linecker

The Whole Picture

SUE KRIEGSMAN AND LEE MANDELL

We applaud you for your recent article on digital images ("Hot Shots," October 2003). We were happy to see a brief mention of metadata and archival issues, but long-term preservation goes beyond simply burning CDs, storing them off-site, and preserving the bits. Analog photographs can be viewed with our eyes and light. Digital images require a known file format, stable physical media, a mechanism to read the media, an operating system, an application, and compatible hardware. Long-term preservation requires that we address all of these issues.

Lab's Labour's Lost

JOHN ALBRIGHT

More than 5,000 independent photo and imaging labs around the country can print from any digital file and produce an archival print that's higher in quality, lower in cost, and less time-consuming for the customer than a print from an online photo service. It's easy to find a certified digital-photo processor near you.

KURT OLSON

As to your recent article on digital printing, you would be remiss if you didn't let your readers know that there is no faster, higher-quality, or cheaper way to get prints from a digital camera than to go to your local digital-photo lab.

MIKE STEVENS

Independent photo labs are responsible for the initial growth of the digital-photo labs. My lab has been processing online photos since 1998. We use services such as Fotowire to download images from your home directly to your local lab. And soon, Fuji Photo will launch its digital-photo-developing Web site, with a Web-based order form for sending digital-photo orders to your local lab from any Web browser.

On the Wrong Track

KEITH BARNHART

As a musician, I appreciate Apple's plea that the public not steal music. However, with its introduction of Soundtrack, which boasts license-free loops and lets

amateurs create broadcast-quality music, I wonder where Apple's interests really lie. More professional musicians make their living by composing jingles, special promos, and the like, for film, TV, and video, than work as major-label artists. Apple is fostering a trend that Sonic Foundry's Acid started, and placing more and more legitimate musicians out of work. No self-respecting working musician would ever buy Soundtrack.

Road Rage

JON CAMMARATA

In Peter Cohen's review of SpyHunter (*The Game Room*, October 2003), there was a glaring omission on the part of Aspyr that Peter failed to mention. Aspyr took a console game and ported it to the Mac, and that's great. But in its haste, the company neglected to add compatibility for steering-wheel and pedal input devices that control the G-6155 Interceptor. I don't know anyone who drives a car with arrow keys or a game pad, so this seems like a gigantic oversight to me.

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CORRECTIONS

"Canon's Rebel Yell" (November 2003) included incorrect information about the lenses the Canon EOS Digital Rebel supports. It supports Canon's EF-series lenses, including the high-end L-series.

In our review of G4 upgrade cards (October 2003), we said that a G4 with any of the four cards was just barely slower than a 1GHz Quick-silver Power Mac G4. In fact, it was just barely slower than a 1GHz mirrored-drive-door Power Mac G4 with FireWire 800. This FireWire 800 Mac is the same machine described in the benchmark chart as the Apple Power Mac G4/1GHz (DDR).

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HERE'S WHAT YOU CAN EXPECT FROM THE ITUNES MUSIC STORE'S NEW FEATURES

Changes in Store

Apple doesn't release software for Windows users every day, so it's understandable that the fall launch of iTunes for Windows (see "Windows in Tune," *Mac Beat*, Brown December 2003) overshadowed the company's other musical maneuvers. But Apple has had a lot going on lately—particularly with its iTunes Music Store. The online music service has seen some big changes. Here's a look at the iTunes Music Store's major new features and how they'll change the way you shop for music.—PHILIP MICHAELS

Making Allowances

Allowance lets you set a monthly stipend—between \$10 and \$200—for your kids to spend on music. Apple says that this will accustom kids to paying for online music, and you won't have to hand your credit card over to Junior.

Star Search

Apple has tapped a diverse array of musicians to assemble Celebrity Playlists of their favorite music. It's a gimmicky feature—"Hey, I can listen to the same music Sting likes!"—but it's also a helpful way to find new music.



Musically Gifted

The Gift Certificates feature lets people send e-mail gift cards of \$10 to \$200. When you enter a confirmation number, a small window appears and shows you how much store credit you have.

More for Your Buck

The iTunes Music Store came online with 200,000 songs. Now that figure stands at more than 400,000. Much of that music continues to come from the five major record companies, but Apple has also broadened the store's selection by striking deals with 200 independent labels.

ITUNES ROCKS—BUT DOES IT WALTZ?

Appreciating the Classics

Apple has won a standing ovation for creating a new way to buy music. But fans of classical and jazz music give the the iTunes Music Store only a polite round of applause; many see flaws in the store's setup. "Illogically labeled albums, mislabeled tracks, and inconsistently listed artists are the standard," notes *Macworld* reader Paul Schleuse—and he's not the only shopper to notice.

To be sure, the recent remodeling of the iTunes Music Store has addressed some of the problems. The store's classical section is now subdivided by musical periods (Early Music & Renais-

sance, Baroque, Classical, Romantic, Post-Romantic, Contemporary, and Opera & Operetta). And the search engine has been improved. Still, other problems remain.

Short Supply It's understandable that an online music store featuring 400,000 songs would skew heavily toward popular music. Still, even major classical works from big names such as Beethoven, Bach, and Wagner are MIA. (Similarly, jazz fans will find a lot of partial albums and anthologies.)

Finding Faults Cataloging classical music can be complicated, but searching for a particular piece—for example, a symphony or a piano sonata—in the iTunes Music Store is a nightmare. Even if you search for *Symphony No. 9* with *Beethoven* as the

Behind the Music

Clicking on an artist's name used to give you a page simply listing the albums and top downloads for that particular musician. Now you can customize how that data gets displayed, using a drop-down menu to sort albums by name, release date, and downloads. Some artist pages also add a Biography tab, which gives you the performer's history and discography. Another new tab, Influencers & Contemporaries, provides links to the music of similar bands and singers that preceded and followed the artist you're searching. Below the familiar Top Downloads panels, you'll sometimes find a list called Essentials, which highlights the performer's significant albums. All of this new data comes to iTunes courtesy of Muze (www.muze.com). President, CEO, and founder Paul Zullo says that the goal of providing biographical information about musicians and links to similar artists is to give online shoppers "the proper sense of knowledge and anticipation" that they'd get shopping in a small record store staffed by music lovers. "That, coupled with a 30-second clip, is a wonderful way to step off and hear something new," Zullo adds.



The Right Notes

Muze also contributes another heavily requested feature to the iTunes Music Store—album notes. Click on an album title, and iTunes takes you to the album page. Below the cover art, you'll see notes on which musicians and backup singers appear on the record, where it was recorded, and other pertinent facts about assorted tracks. Like the other Muze-provided material, album notes help flesh out the iTunes Music Store's offerings, turning music consumers into connoisseurs.



Word Play

The iTunes store isn't just for music anymore—a deal between Apple and Audible.com gives shoppers access to 5,000 audiobooks. Select Audiobooks from the Choose Genre drop-down menu to browse through the store's selection by author, title, or category (though the store's current setup makes it difficult sometimes to tell whether you're looking at a list of authors or narrators). Audible.com offers free 90-second previews. Prices start at \$2.95, for archived *Fresh Air* interviews by Terry Gross, and climb from there—a 15-hour, 10-minute file of Frank McCourt reading the unabridged version of *Angela's Ashes* costs \$31.95, for example.



composer, the results almost always include works by other composers. Even with the Power Search feature, slight variations in search terms produce different results. Artists are listed alphabetically by first name, which makes browsing a search list difficult. (Much of this problem may be beyond Apple's control. The iTunes Music Store listings may be only as accurate as the information supplied to Apple, whether from an online-database service or from the record companies. Apple declined to

comment on where its data comes from, or on any customer feedback about its music store.)

So what should Apple do? It's now much easier to search by soloist, conductor, and composer—continued improvement would be welcome. As for selection, Apple could repeat what it's doing on the pop-music side of the store and make deals with the independent labels, which is where some of the most interesting classical and jazz recordings come from. A few of these modest changes similar to the ones introduced last fall could go a long way toward making the iTunes Music Store as orderly as a Bach fugue.—BEN BOYCHUK

Windows Tune-Up

Opening the iTunes Music Store to PC users might make good financial sense, but it forced Apple to do something outside its normal area of expertise—develop Windows software. Still, Apple contends that Windows users downloaded their version of iTunes one million times in less than four days after its release, so maybe Windows development isn't that tricky for Apple after all.



At the heart of the iTunes Music Store is the iTunes software itself. "Part of our strategy is to have Windows users be aware that this is the best jukebox on the market even before they encounter the music store," says Chris Bell, senior product-line marketing manager for iTunes. Apple created a version of iTunes for Windows that matched the Mac OS program "bit for bit, screen for screen," Bell says. The only difference: the Windows version uses Windows conventions. Mac OS's red, yellow, and green buttons in the upper left corner of the application window are moved to the upper right corner and replaced by the minimize, maximize, and close buttons common to Windows. Apple also built drop-down menus into the iTunes window itself.

Mac users have become accustomed to using the power of Apple's Rendezvous zero-configuration technology to automatically find and connect with other Macs running iTunes on a network. That same functionality appears in the Windows version, so sharing music is easy.

Even though iTunes made it over to Windows, don't expect to see other i-apps make the move to the dark side. "[The iLife suite] is only available to Mac users," Bell says.—JONATHAN SEFF

THE STORY BEHIND APPLE'S "1984" TV COMMERCIAL

Big Brother at 20

Twenty years ago, Apple's "1984" ad featured a heroine smashing an image of Big Brother—and introducing the brand-new Mac. The ad was a huge success for Apple and is still remembered fondly by Mac enthusiasts today.

Yet when it was first shown to Apple's board of directors, the ad was almost spiked on the spot.

"There was a stunned silence at the end of the screening," recalls



John Sculley, Apple's CEO at the time. "Two members put their heads in their hands and said, 'You're not really going to run that thing, are you?'"

One objection was that at no point in the ad—which cost \$700,000 to make and \$1.5 million to air during the Super Bowl—did the product appear. "The board felt it would be irresponsible to spend all that money on an ad that didn't even show the Mac," says Lee Clow, TBWA/Chiat/Day's creative director.

Chiat/Day, Apple's advertising agency, wasn't necessarily looking to

break new ground with the ad. "We wanted to have a thundercloud and get people's attention," says Steve Hayden, a copywriter for the ad and now the worldwide vice chairman of ad agency Ogilvy & Mather.

The ad certainly did that, even if it didn't make sense to everyone at first. "I was fascinated to see the reaction of other people," says ad analyst Bob Garfield, who instantly liked the commercial. "It was clear that the literal message was not apparent to them, but they certainly felt the emotional impact."

One reason the "1984" ad still resonates is its look and feel, courtesy of Ridley Scott, who was just establishing himself as a feature-film director. "Cinematically, it continues to hold up," Garfield says.

Sculley liked the ad—"The commercial wouldn't have worked if the product hadn't lived up to its expectations," he says. But he had to follow the wishes of Apple's board, which wanted to sell back the Super Bowl advertising time. Chiat/Day managed to sell back only some of the time, and the "1984" ad appeared as scheduled, much to Apple's benefit. "It was the beginning of a message, a brand philosophy that Apple has stayed with to this day," Garfield says.—ADELIA CELLINI

Who Was That Monolithic Man?

Let's see—an all-powerful entity blathering on about Unification of Thoughts to an army of soulless drones, only to be brought down by a plucky, Apple-esque underdog. So Big Brother, the villain from Apple's "1984" Mac ad, represented IBM, right?

According to the ad's creators, that's not exactly the case.

The original concept was to show the fight for the control of computer technology as a struggle of the few against the many, says TBWA/Chiat/Day's Lee Clow. Apple wanted the Mac to symbolize the idea of empowerment, with the ad showcasing the Mac as a tool for combating conformity and asserting originality. What better way to do that than have a striking blonde athlete take a sledgehammer to the face of that ultimate symbol of conformity, Big Brother?

And don't let Big Brother's glasses or his clunky interface fool you into thinking he represents another Apple archnemesis. Back in 1984, Bill Gates was still just a humble software tycoon tinkerer with MS-DOS (and he was two years away from making his first billion).—ADELIA CELLINI

WHERE ARE THEY NOW?

APPLE

STEVE JOBS

THEN: Cofounder and Chairman, Apple.

NOW: CEO, Apple and Pixar.



JOHN SCULLEY

THEN: President and CEO, Apple.

NOW: Partner, Sculley Brothers LLC (an investment firm).



CHIAT/DAY

LEE CLOW

THEN: Creative Director, Chiat/Day.

NOW: Creative Director, TBWA/Chiat/Day; followed up "1984" with memorable ad campaigns such as the Energizer Bunny and Taco Bell's talking Chihuahua.



STEVE HAYDEN

THEN: Copywriter, Chiat/Day.

NOW: Vice-Chairman, Ogilvy & Mather.



THE COMMERCIAL

RIDLEY SCOTT

THEN: Director of *Alien*, *Blade Runner*, and Apple's "1984" commercial.

NOW: Three-time Academy Award nominee for Best Director.



ANYA MAJOR

THEN: A model whose experience as a discus thrower won her the part.

NOW: Like the image she smashed, Ms. Major has faded from view; our efforts to track her down were unsuccessful.



Don't Think Different In the "1984" ad, Big Brother controls the oppressed masses.

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CHANGES AROUND IN OS X SERVER 10.3 UPDATE

Panther Shows Its Server Side

The Panther OS X update grabbed all the attention, but it's only one of the operating-system overhauls introduced by Apple recently. The company also released Mac OS X Server 10.3 (www.apple.com/server/macosx/)—dubbed Panther Server—which offers plenty of new features to small-office and cross-platform settings.

As with previous server-software releases, Apple layers its own interface and customized configuration on top of mostly open-source and free software. But with Panther Server, the company abandoned even more of its proprietary packages. Instead, Panther Server incorporates server packages with a broader range of easily configured features—a boon for offices with small or nonexistent IT departments.

Apple replaced OS X Server's mail system with a much more extensive collection of open-source packages for sending mail, handling mail accounts, running mailing lists, and providing browser-based e-mail access. The four packages—Postfix, Cyrus, Mailman, and SquirrelMail—are not only widely used but also continually under development by the open-source community. Panther Server can also enable secure mail connections using the Secure Sockets Layer/Transport Layer Security standard supported by most e-mail clients—good for unsecured networks, including wireless or remote networks such as those at client locations or cafés.

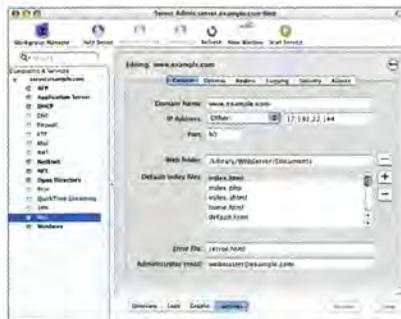
Windows users will find Panther Server friendlier than previous versions, thanks to the addition of Samba 3. Samba lets an OS X Server act as a Windows domain controller, providing Windows users with an authenticated login and access to shared directories on any machine on the network. Likewise, Mac users can connect to their accounts via a Windows PC and mount shared directories.

Panther Server includes two different virtual private network (VPN) servers, which encrypt all traffic between a client computer and itself.

VPNs are particularly useful for wireless networks, because the encryption renders intercepted traffic indecipherable to sniffers—software that grabs transmitted data. The updated OS X Server also supports both Microsoft's Point-to-Point Tunneling Protocol and the more robust IP Security standard with Layer 2 Tunneling Protocol.

Panther Server's combination of server software, ease of use, and low price—it costs \$499 for as many as 10 users and \$999 for unlimited users—could allow

offices that use a combination of locally hosted software and hardware and ISP-managed services to move to a single system. OS X 10.3 features such as Finder improvements may streamline the workflow for lone users, but for OS X Server, a few strategic software additions could be the best Panther features of all.—GLENN FLEISHMAN



FROM MACWORLD LAB

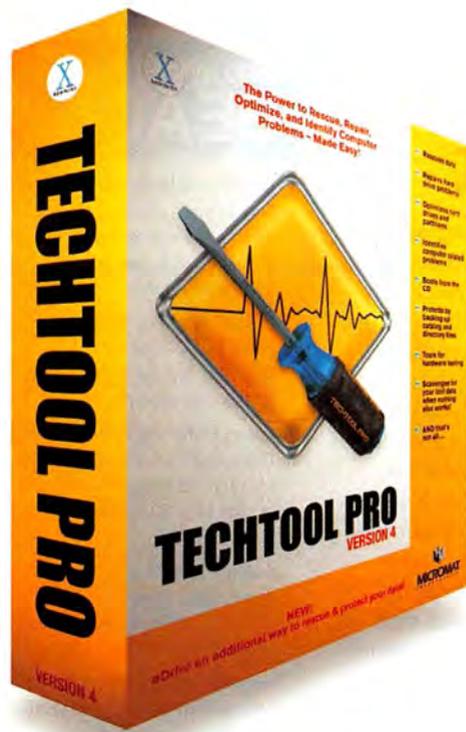
Panther Purrs Along

Panther's 150 new features and enhancements have overshadowed talk of any performance boost from the OS X update. But make no mistake—Mac users with a need for speed will find plenty to love about OS X 10.3. Macworld Lab compared the performance of Panther to that of Jaguar on two systems—a dual-2GHz Power Mac G5 and a 1GHz Power Mac G4—in seven task-based tests. The G5 system using Panther finished on top of its Jaguar-running counterpart in four of our seven tests; the two G5 systems finished in a dead heat in our Photoshop test. A single-processor G4 with Panther outperformed the OS X 10.2.6 system in five of the seven tests. Encoding an MPEG-2 file using Compressor saw no boost from OS X 10.3, and a find-and-replace command in Word X took a little longer to complete using the updated OS. Still, Panther's overall performance makes it Apple's fastest cat yet.—MACWORLD STAFF

	System	Compressor	Entourage X	iMovie 3.0.3	Photoshop 7.0.1	Quake III v1.32	Word X
	STARTUP	MPEG-2 ENCODE	DOWNLOAD E-MAIL	RENDER	SUITE	FRAME RATE	FIND AND REPLACE
G5/dual-2GHz, Panther (10.3)	0:41	6:02	0:09	0:25	0:18	297.8	0:19
G5/dual-2GHz, Jaguar (10.2.7)	0:47	5:58	0:13	0:27	0:18	292.6	0:16
G4/1GHz, Panther (10.3)	0:51	15:13	0:11	0:42	0:50	79.9	0:31
G4/1GHz, Jaguar (10.2.6)	1:00	14:54	0:17	0:50	0:52	75.9	0:25
	<Better	<Better	<Better	<Better	<Better	>Better	<Better

BEST RESULTS IN BOLD.

Quake scores are in frames per second; all other scores are in minutes:seconds. All systems were configured with 512MB of RAM. We tested the G5 systems with Energy Saver's Processor Performance set to Highest. We set displays to 1,024-by-768-pixel resolution and 24-bit color. For the Startup test, we started timing when we hit the power button and stopped when the desktop icons appeared on screen. We tested MPEG-2 encoding with a DV file that was 6 minutes and 45 seconds long, using the MPEG-2 60minute Fast Encode preset in Apple's Compressor application. We recorded the amount of time Entourage took to download 20 e-mail messages with a mix of attachment sizes and types. We timed the export of a 51.2-second iMovie to QuickTime:Email. The Photoshop Suite test is a set of ten scripted tasks using a 50MB file. Photoshop's memory was set to 100 percent and History was set to Minimum. We tested Quake III at a resolution of 1,024 by 768 pixels, with Graphics set to High Quality. We recorded the time it took Microsoft Word X to find 17,448 instances of one word and replace it with another.—MACWORLD LAB TESTING BY JAMES GALBRAITH



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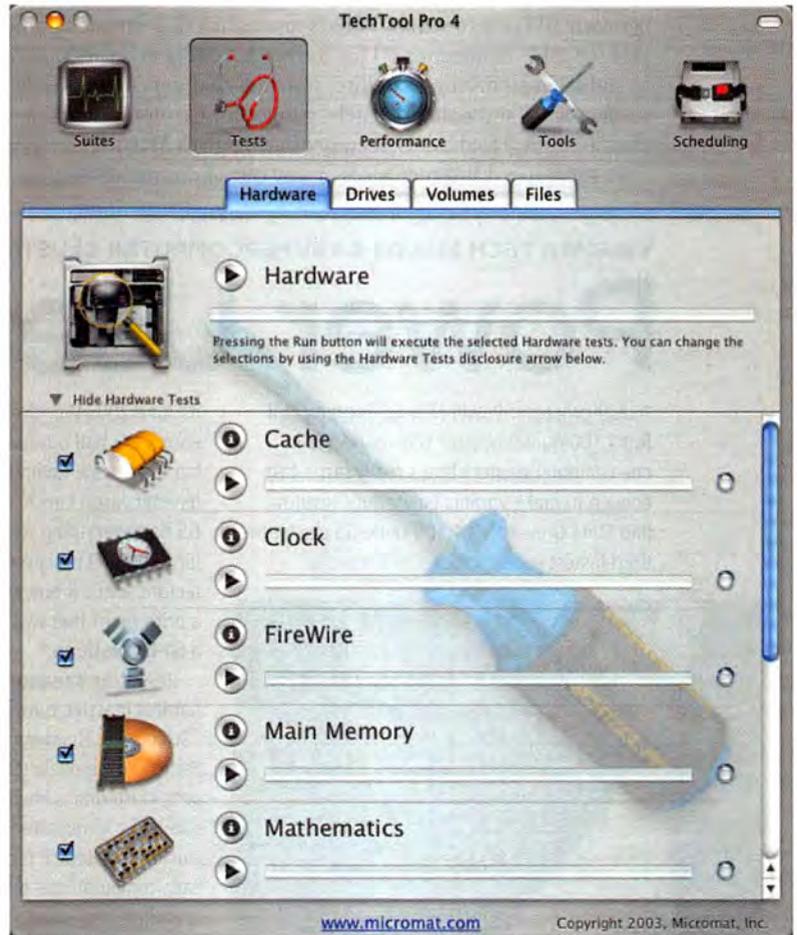
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MAC-COMPATIBLE SATELLITE BROADBAND SERVICE ARRIVES

Direcway to the Net

Until very recently, Mac users out in the boonies who wanted high-speed access to the Internet had two options: move or buy a PC to use a Windows-only satellite broadband system. Some Mac users might not be able to say which option is worse. Fortunately, Hughes Network Systems (www.direcway.com) has upped those options by one:

stay right where you are and enjoy an always-on, Mac-friendly, two-way satellite-based Internet connection for \$60 a month.

This is possible thanks to Hughes's Direcway DW6000—a system designed for residential customers. It consists of a satellite dish nearly twice the size of a standard TV dish, and a satellite modem. What distinguishes the DW6000 from other residential satellite broadband systems is the terminal's "headless," or platform-agnostic, nature. StarBand's Model 360 Modem works only in concert with software installed on a Windows PC. The DW6000 terminal, on the other hand, requires no special software or drivers to function with either a Mac or a PC. The Direcway DW6000 costs \$600 for equipment and installation and then \$60 per month, with a one-year commitment required.

Hughes promises download speeds between 300 and 500 Kbps and upload speeds between 100 and 150 Kbps. That's faster than dial-up but significantly slower than DSL or cable connections. Due to the transmission delays inherent in beaming data to and from an orbiting satellite, activities that depend on low latency—iChat video-conferencing and online "twitch" games, for example—work poorly (or not at all) over satellite. Still, Hughes's Direcway offering gives Mac users who are too far removed from high-speed Internet access a way out of the woods.—CHRISTOPHER BREEN



VIRGINIA TECH BUILDS G5 SUPERCOMPUTER CLUSTER

Power Users

A dual-processor Power Mac G5 is pretty fast. But 1,100 dual-processor G5s connected in one computer cluster? That's *really* fast—fast enough to make Virginia Polytechnic Institute and State University's 1,100-node G5 cluster the third-fastest supercomputer in the world.



The Blacksburg, Virginia, school—commonly known as Virginia Tech—wasn't planning on using Power Mac G5s for its clustering project. The school's Terascale Computing Facility considered Intel Itanium 2-based and AMD Opteron-based computers, but it rejected both as too expensive. Then Apple unveiled the G5 at

its June 2003 Worldwide Developers Conference. "We had our platform dropped in our lap," Terascale Computing Facility associate director Jason Lockhart says. "The Power Mac G5 had everything we were looking for: 64-bit IBM PPC 970 processor, 6.4GB memory architecture, a PCI-X bus with 133MHz speed, and a price point that was impossible to beat for a 64-bit platform."

Researchers use computer clustering to harness massive computational power (see "Strength in Numbers," *Mac Beat*, June 2002). Particularly appealing to labs with limited budgets, clustering is ideal for computation-intensive tasks; Virginia Tech plans to use its G5 cluster for research projects in quantum chemistry, computational biochemistry, cell-cycle modeling, and other areas.

After last November's SuperComputing 2003 conference was when Virginia Tech learned that the cluster's speed had been ranked the third highest in the world. It trails only Japan's Earth Simulator and the dedicated weapons computer at Los Alamos National Laboratory. However, the Virginia Tech project is the fastest university supercomputer.—LISA SCHMEISER

HARDWARE
BEAT



CanoScan 3200F, from Canon (www.canon.com): Color image scanner can scan 35mm slides, 35mm negatives, photos, and documents (\$130).

Epson Stylus Pro 4000, from Epson (www.epson.com): 17-inch-wide desktop printer targets professional users (\$1,795).

Epson Stylus Photo R800, from Epson (www.epson.com): Desktop photo printer supports resolutions as high as 5,760 by 1,440 dots per inch (\$399).

Gallery 1900, from Formac Electronics (www.formac.com): 19-inch LCD features SXGA resolution of 1,280 by 1,040 pixels (\$849).

iGP-100, from iRiver America (www.iRiverAmerica.com): 1.5GB MP3 player transfers data via USB 2.0 (\$250).

OWC Mercury Extreme G4/700MHz, from Other World Computing (www.macsales.com): 700MHz G4 processor-upgrade card compatible with Power Mac G4 AGP-equipped models (\$200).

PlasmaSync 42MXM2, 50XM3, and 61XM2, from NEC Solutions America (www.necvisualsystems.com): 42-inch, 50-inch, and 61-inch plasma displays (\$6,495, \$9,995, \$19,995).—COMPILED BY PHILIP MICHAELS

INTERNET
BEAT



AOL Communicator for Mac OS X, from America Online (www.aol.com): Application provides separate access to e-mail, instant messaging, and address-book data (free for AOL members).

CuteFTP Mac, from GlobalScape (www.globalscape.com): File-transfer application runs on OS 8.5.9 and higher, including OS X (\$20).

Mailblocks, from Mailblocks (<http://about.mailblocks.com>): Web-based e-mail service aimed at eliminating spam has been optimized for OS X (service starts at \$10 per year).

SpamSlam v2.0, from ileasa Software (www.ileasa.com): Spam-blocking tool for POP e-mail adds self-training filter (\$25).—COMPILED BY PHILIP MICHAELS

Think of them as a Mute button for the world around you.

Whether it's the engine roar on airplanes, noise of the city, bustle in the office or the blare of neighborhood yard work, these headphones let you hush them all. And they do it with the flick of a switch. You savor delicate musical nuances in places where you couldn't before. And when you're not listening to music, you can use them to quietly enjoy a little peace. Clearly, Bose QuietComfort® 2 headphones are no ordinary headphones. It's no exaggeration to say they're one of those things you have to experience to believe.

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David Carnoy reports on CNET that our original noise-reducing headphones "set the gold standard." And according to respected columnist Rich Warren, our newest headphones "improve on perfection." They electronically identify and reduce noise while faithfully preserving the music, speech or silence that you desire. As Jonathan Takiff reports in the Philadelphia Daily News, "Even in the noisiest environment, wearing these phones creates a calming,

quiet zone for easy listening or just snoozing."



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After trying QuietComfort® 2 headphones, audio critic Wayne Thompson reports that "Bose engineers have made major improvements." The sound is so clear, you may find yourself discovering new subtleties in your music. CNET says "All sorts of music – classical, rock, and jazz – sounded refined and natural."



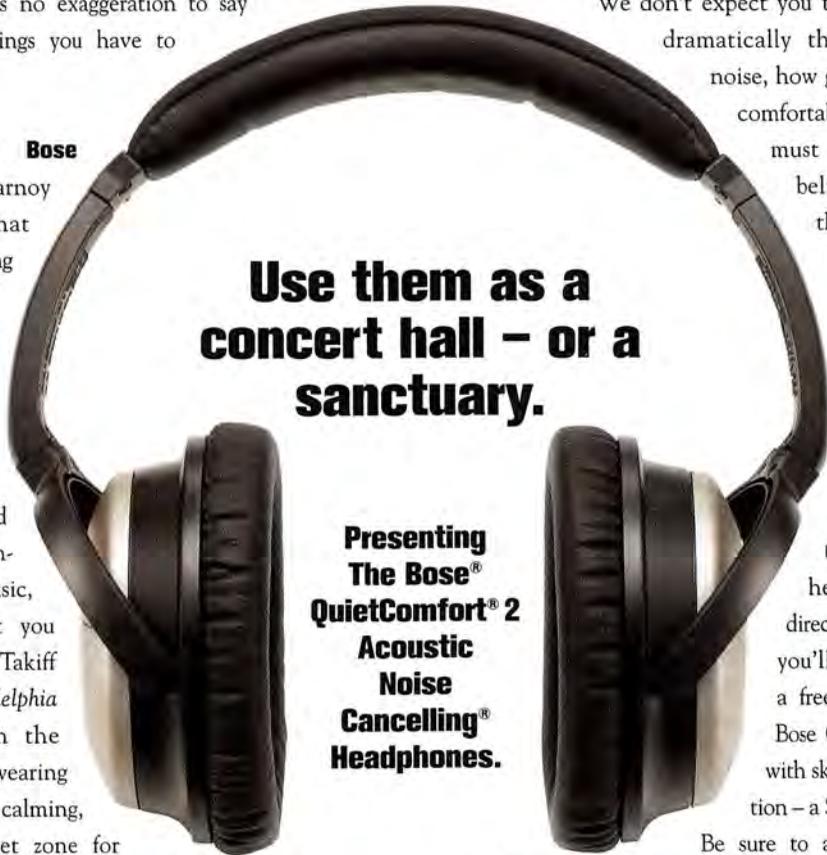
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G5, iMAC GET UPDATES

Apple Supersizes Desktop Macs

Whoever said less is more isn't designing hardware for Apple right now. The company just added a 20-inch flat-panel monitor to its iMac line that threatens to dwarf the 15- and 17-inch models. Apple also released a new dual-processor 1.8GHz Power Mac G5, bringing the power of multiprocessing to more Mac users just months after the G5's debut.

The Wide View

It turns out that the iMac's stainless-steel neck hadn't reached its weight limits when it held up a 17-inch monitor. The display on the new 20-inch iMac (pictured) features a 1,680-by-1,050-pixel resolution, compared with a resolution of 1,440 by 900 pixels on the 17-inch iMac.

Other than screen size, the \$2,199 20-

inch iMac matches the specs of the 17-inch version—a 1.25GHz PowerPC G4 processor, a 167MHz system bus, 256MB of Double Data Rate RAM (with support for as much as 1GB of memory), and an 80GB hard drive.

Like the 17-inch iMac, the new 20-inch desktop also comes with an Nvidia GeForce FX 5200 Ultra graphics card with 64MB of video memory and a DVD-burning SuperDrive.

Seeing Double

Apple has updated the relatively young G5 product line by cutting the price of the single-chip 1.6GHz Power

Mac G5 by \$200, to \$1,799. But more exciting is the introduction of the dual-1.8GHz Power Mac G5, which replaces the single-processor model that Apple introduced last summer. This new dual-G5 configuration costs \$2,499—just \$100 more than its single-chip predecessor.

Apart from adding a second 900MHz frontside bus for the second processor, the specs on the midrange Power Mac G5 remain unchanged. It continues to ship with 512MB of 400MHz PC3200 RAM, a 160GB hard drive, an Nvidia GeForce FX 5200 Ultra graphics processor, and a SuperDrive.

Apple had plenty of incentive to boost the processing power of its G5 offerings, given the major speed advantage that two-processor Macs have over single-processor models. In Macworld Lab testing, the single-1.8GHz G5 wasn't much faster than a dual-1.42GHz Power Mac G4; in some tests, the dual G4 outperformed the single-processor G5 (see *Reviews*, November 2003). By adding a second processor to its midrange G5, Apple figures to have an easier time convincing Power Mac users to upgrade.

The company also optimized Final Cut Pro 4, DVD Studio Pro 2, and Shake 3 for the G5 processor, as further incentive to upgrade.—PHILIP MICHAELS



WHAT'S HOT A Quick Look at the World of Macs

- 1 The Macintosh celebrates its 20th birthday this year. Look for the Mac to celebrate like any other 20-year-old—by buying peach schnapps with a fake ID.
- 2 Apple reports a \$44 million profit for its fourth quarter. Revenue soared, thanks to the Power Mac G5, the 15-inch aluminum PowerBooks, and thousands of downloads of "Stacy's Mom," by Fountains of Wayne.
- 3 Pepsi drinkers can win free music from the iTunes Music Store as part of an Apple promotion launching at the Super Bowl. Guess you can change the world by selling flavored sugar water, after all.
- 4 Apple upgrades its iBook line with G4 processors. Mac users express their gratitude and then demand to know when they can expect G5-based iBooks.

PRODUCTIVITY BEAT



ConceptDraw V, from Computer Systems Odessa (www.conceptdraw.com/en/): Flowcharting and diagramming application adds built-in scripting language (Standard: \$149; upgrade, \$79; Professional: \$349; upgrade, \$99).

FileMaker Tasks, from FileMaker (www.filemaker.com/): New task-management application is based on FileMaker Pro 6 database (\$69).

Location X 2.0, from Alex Keresztes and Greg Novick (<http://homepage.mac.com/locationmanager/>): Location manager offers new user interface (\$20).

MYOB AccountEdge for 2004, from MYOB (www.myob.com/us/): Updated accounting software adds integrated business services including credit card authorization (\$299; upgrade, \$119).

QuickBooks 6.0, from Intuit (www.intuit.com/): Accounting software adds ability to convert files to Windows format for sharing data (\$300; upgrade, \$200 with mail-in rebate).

USB Overdrive 10.3, from Alessandro Levi Montalcini (www.usboverdrive.com/): Universal USB input-device configuration software adds support for OS X 10.3 (\$20; upgrade, free).—COMPILED BY PHILIP MICHAELS

STORAGE BEAT



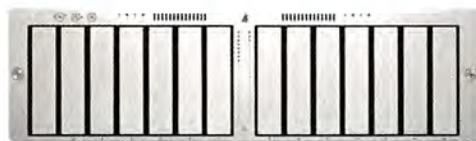
DesktopGB+800, from WiebeTech (www.wiebetech.com/): Hard drive with dual FireWire 800 and single USB 2.0 interfaces ranges in capacity from 80GB to 300GB (\$240 to \$580).

Disk Jockey, from Diskology (www.diskology.com/): Hard-disk copy and diagnostic device (\$300).

RaidTech, from WiebeTech (www.wiebetech.com/): Self-contained automatic RAID storage system features hot swappable dual-drive bays (\$600 to \$1,300).

VXA-2 PacketLoader 1x10 1U, from Exabyte (www.exabyte.com/): This rack-mountable, automated backup and restore product provides 1.6TB of capacity (\$2,500).—COMPILED BY PHILIP MICHAELS

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Apple Xserve RAID



Apple Xserve



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OUTSTANDING: 
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GOOD: 
FLAWED: 
UNACCEPTABLE: 

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Studio MX 2004

Video-Playback Capabilities, Support for Cascading Style Sheets Highlight Web-Focused Suite

Dreamweaver MX 2004

BY DAVID SAWYER McFARLAND

Dreamweaver has become an indispensable part of any Web-site developer's tool kit, and Dreamweaver MX 2004 is the latest incarnation of Macromedia's powerful Web-site-development tool.

Each version of the program has seen added features to support the ever-changing technologies and standards that Web developers employ—from JavaScript, to sophisticated site management, to XHTML, to rapid application development. Using Cascading Style Sheets (CSS) to create sophisticated, user-accessible, and fast-loading Web pages is Dreamweaver's newest cause, and Dreamweaver

CSS: Here, There, and Everywhere

Dreamweaver MX 2004 is all about CSS. Almost every aspect of how the program creates, displays, and understands CSS has improved from prior versions. Using this version of Dreamweaver, you can create complete CSS-based (table-free) layouts. This approach works well with the evolving techniques of Web designers (and substantial CSS support of current Web browsers). Designs that looked like a complete mess when displayed in the visual design view of previous versions of the program look fine in Dreamweaver MX 2004. In most cases, your designs will closely match what will appear in Microsoft Internet Explorer or in Apple's Safari. So the design process is less frustrating, and editing pages is easier.

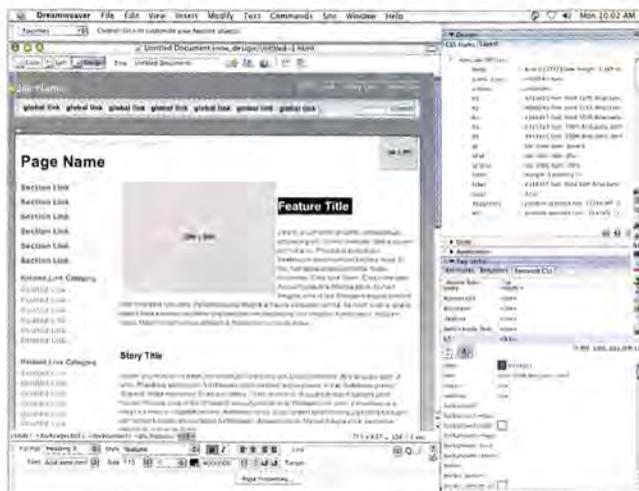
Creating and editing styles are dramatically different in Dreamweaver MX 2004, and the program sports many new additions aimed at seasoned CSS users. While

property, press return, and let Dreamweaver fill out the rest.

Dreamweaver MX 2004 also includes CSS enhancements aimed at less experienced Web developers. The program ships with several CSS-based designs to get users started with table-free layouts (see "CSS Reigns"). In addition, the revamped Property Inspector uses Microsoft Word-like controls such as a font menu to make formatting with CSS painless. To ensure that Web pages work with the browsers you're targeting, use the Check Browser Support tool to identify HTML tags and CSS code that those browsers don't support—the program includes profiles for various versions of Safari, Mozilla, Opera, Netscape Navigator, and Internet Explorer.

Working Faster

Dreamweaver MX 2004 also incorporates features that streamline your workflow. The program includes simple image-editing tools, so if you need to crop, sharpen, shrink, or adjust brightness and contrast, you needn't jump to another program. Dreamweaver MX 2004 has also added support for secure FTP (SFTP) and boosted the performance of its basic FTP tool, so you can spend less time waiting for files to transfer and more time building cool Web sites. A new Favorites tab lets you gather all your most commonly used tools into one space on the Insert bar—no more jumping from tab to tab to access the handful of tools you use daily. If you paste in text from Microsoft Word and Excel documents, you'll be happy to know that Dreamweaver MX 2004 keeps basic formatting such as paragraph breaks, bold, italics, and headings, and translates Excel cells into HTML tables. Dreamweaver MX 2004 will convert graphics that are embedded in a document to JPEG files and place them inside the Web site you're working on. In addition, the Paste Formatted com-



CSS Reigns Dreamweaver MX 2004's most significant changes relate to CSS, with predesigned CSS-based (table-free) layouts, as shown in this "Halo" design.

MX 2004 succeeds admirably at displaying, creating, and editing sophisticated CSS designs.

This new version has a variety of productivity enhancements but doesn't include a significant update to one of Dreamweaver's biggest selling points—its powerful server-side programming tools.

you can still use the simple, dialog-driven method of creating a style, power users now have the option of using the Tag Inspector for editing CSS style information. This straightforward grid lists all CSS properties either in one long list or in grouped categories. In addition, properties that are currently part of a style you created are highlighted in blue and listed at the top. Editing or adding a property to a style is as easy as clicking next to the property's name and typing a value. For example, to add a background color to a style, just click on the Dreamweaver color box to the right of the background color property and select a color. For hand-coders, new CSS code hints can help you avoid excess typing by providing pop-up lists of CSS properties and values; just type the first few letters of a

More Info:

Looking for a review of FreeHand MX (★★★★), the fourth program in the Studio MX 2004 suite? You'll find it in our July 2003 issue.

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The Macworld 2003 Game Hall
of Fame awards this year's finest:
including Zoo Tycoon, Unreal Tournam-
ent 2003, Tiger Woods PGA Tour

2003, Noiz2sa, Jedi Knight II:
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Nikon Coolpix 5400,
Toshiba PDR-M700

mand preserves complex page formatting such as text color, size, and font—but it does this at the expense of creating some strange and bloated CSS code.

Unfortunately, Macromedia has to work out some glitches related to copying and pasting text into Dreamweaver MX 2004: opening single quotation marks (') paste correctly, but closing single quotation marks (') paste as single straight quotation marks ('); punctuation marks occasionally have extra spaces before or after them; and bulleted lists don't always paste with the proper HTML tag.

What's Getting Old

Sadly, other program features are collecting dust. Dreamweaver Behaviors were a breakthrough when they debuted; they gave non-programmers a simple way to add JavaScript effects such as pop-up browser windows, graphical rollover buttons, and complex dynamic HTML animations. This version of the program, however, offers no new Behaviors, nor improvements on existing Behaviors. For example, the Show Pop-Up Menu Behavior still doesn't work with templates, so forget about using this tool for building dynamic menu bars if you also use templates. In addition, Dreamweaver still can't export its JavaScript code into external files, which would be useful for reducing code and decreasing download time.

Likewise, Dreamweaver doesn't add much to its powerful tools for building database-driven Web sites. A few new PHP tools have been added—bringing support for that technology almost to the level of other server models such as Microsoft's Active Server Page technology. But there's plenty of room for new features such as improved SQL query building, e-mail tools, server-side form validation, and more-advanced application-development features. It's a shame that one of the most exciting additions in Dreamweaver

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Flash MX 2004

BY MARTIN GITTINS

Flash may have started out as a vector-animation tool, but thanks to Macromedia's steady improvement of its authoring program and its Flash Player, the application has moved closer to being an application-development tool. Since Flash can now handle media types such as MP3s and incorporate flexible and in-demand Web technologies such as XML and database integration, it's the development tool of choice for anyone wanting to create rich Internet content, including animation, games, Web sites, and Web applications.

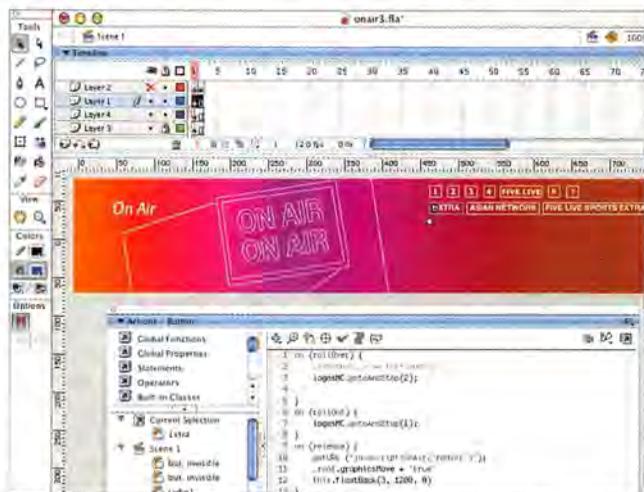
With Flash MX 2004, Macromedia has extended the functionality of previous versions, and released a Professional edition with some exciting new features for power users, albeit at a cost: sluggish performance.

Simultaneously Simple and Complex

As Flash has become increasingly more complex and feature laden, Macromedia has tried to lessen the intimidation factor for new users by providing easy-to-use design templates, behaviors, and timeline effects. Behaviors offer drag-and-drop functionality for common actions such as loading a movie clip or going to a Web page; they automatically create the required ActionScript code, thus allowing nonprogrammers to quickly add functionality and interactivity to movies.

Timeline effects are a quick way to add transitions and animation to objects onstage, such as fade-ins, blurs, and so on. The number of timeline effects is a bit limited, and if you have prior Flash experience, you can achieve the same effects without resorting to the Timeline. However, timeline effects are easy to use, and the architecture of the software allows programmers to create and add additional timeline effects.

Flash sports some minor improvements for handling text. You can now specify whether text should display with an aliased font—this can be useful when working with small font sizes. However, the antialiased fonts can be a fuzzy mess. There's also some support for Cascading Style Sheets (CSS), so you can ensure consistency between any fonts used in Flash and other fonts across a Web site. But the support for CSS is limited; it manages only a small handful of



The More Things Change The user interface's outward appearance has changed little. You can now work with multiple scripts in the script editor—a handy feature.

properties, such as font family, color, margins, and text alignment. Flash has also added a built-in spelling checker, and a new Strings panel lets you track where a particular chunk of text is used across a site, thus making it easier to localize content into different languages.

Flash users can modify their authoring environment by using the Flash JavaScript application programming interface (JSAPI) to develop scripts, commands, and plug-ins; third-party developers can use the JSAPI to

continues

RATING: ★★★★★

PROS: Great CSS display; improved CSS editing tools; Word and Excel copy-and-paste support.

CONS: No significant new server-side programming features; no new JavaScript Behaviors; diminished integration for managing Contribute-built sites.

PRICE: \$399; upgrade, \$199; as part of MX Studio 2004, \$899

OS COMPATIBILITY: Mac OS X

COMPANY: Macromedia, 800/470-7211,
www.macromedia.com

RATING: ★★★★★

PROS: Professional development tool set; improved text handling; video support.

CONS: Temperamental performance; timeline effects add little value.

PRICE: \$499; upgrade, \$199; as part of Studio MX 2004, \$899

OS COMPATIBILITY: Mac OS X

COMPANY: Macromedia, 800/470-7211,
www.macromedia.com

create new authoring-environment behaviors as well. They can also take advantage of *components*, or prewritten controls, that simplify aspects of the development process within Flash. Components in Flash MX 2004 are greatly expanded from the previous version and are grouped into three categories: data components, for database access; media components, for adding controls for media, such as video control buttons; and user interface (UI) components, for building application UIs. The JSAPI, combined with a History panel that records previous actions, makes it easy to record macros to automate repetitive tasks.

Bring In the Professionals

Flash MX Professional 2004 is intended for people who want to develop advanced Web applications, develop Web sites for mobile devices, or work with advanced video features. Like the basic edition of Flash MX 2004, the Professional edition features a new version of the proprietary scripting language, ActionScript 2.0.

ActionScript 2.0 offers a more structured, class-based approach to programming and is more akin to Java in scope and syntax. It underscores Macromedia's desire to have Flash taken seriously as a development environment. Fortunately, using ActionScript 2.0 is optional, and you can still happily code in the more familiar, JavaScript-like ActionScript 1.0 format, and even compile ActionScript 2.0 code for backward compatibility with previous versions of Flash Player.

For Web applications there are a number of additional components, such as a calendar, a data grid for laying out dynamic information, and a data connection that lets Flash exchange information with an external data source such as a database. Previously, this kind of functionality was available only via the Firefly Components of the separately available Data Connection Kit.

An interesting new feature of the Professional edition is a Project mode, which manages multiple Flash movies as part of the same project and integrates with a source-control application.

A new Forms view provides a different format for developing applications that does away with the Timeline in favor of forms, a more familiar development environment similar to programming languages such as Visual Basic. Both of these bolster Flash's move toward being a comprehensive development environment.

The video integration within Flash MX is something of a revelation, because it means Flash is now a viable video-playback tool. You can integrate database information into your Flash movies; you can also control and stream external video files in Flash Video (FLV) format, so creating Flash video-jukebox applications is a snap. You can export directly to FLV from leading video applications such as Apple's Final Cut Pro and Discreet's Cleaner,

or from an improved video encoder built into Flash itself. The Professional version's video capabilities make it the best value for Flash users who want to upgrade.

Macworld's Buying Advice

Flash MX 2004 is a comprehensive update of a fantastic application. It's got some

great new features for rookies, experienced users, and ActionScript aficionados alike. The introduction of separate standard and Professional editions lets the high-end application really take off as a solid development platform without eliminating the ease of use that made Flash so popular in the first place. □

Fireworks MX 2004

BY MARTIN GITTINS

Macromedia's Fireworks is the established standard application for creating and optimizing graphics for the Web. The company has given it an overhaul as part of the Studio MX 2004 release, but we were curious as to how much Macromedia would improve the new version with added features and enhancements.

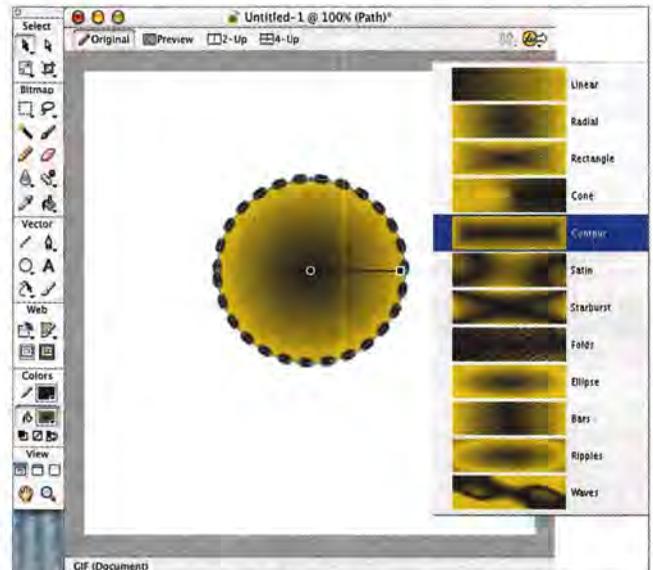
The answer? Very little in terms of the core application's key functions and performance—that is, creating graphics for Web sites. It still handles the grunt work—creating slices, hot spots, interactive rollovers, and menus—better than any other application out there. But apart from improvements in speed, the average pixel flinger won't find major new improvements in Fireworks MX 2004.

Improved Workflow, Enhanced Features

One thing even the most jaded user will appreciate is this version's streamlined graphics-saving process. You used to have to save your images as

time-saver, particularly when all you want to do is open an image and shave a few pixels off the top.

The user interface has changed little, apart from the Start page, which appears when the application first opens and gives you quick access to recent documents, tutorial help, and a History palette. The latter keeps track of document changes and lets you revert back to a previously performed action. However, given that it has always



The Real Thing Fill and stroke options have graphical previews—shown here, the new Dashed Stroke and Contour Gradient options.

PNG files before exporting them to GIF or JPEG format. Now you can open a GIF or JPEG, work with it, and then save it in the same format without having to resave it as a PNG prior to exporting. This is a real

RATING: ★★★

PROS: Improved range of options in AutoShapes feature; faster performance; better text-aliasing control.

CONS: Lacks easy batch processing; photo touch-up tools add little value.

PRICE: \$299; upgrade, \$149; as part of Studio MX 2004, \$899

OS COMPATIBILITY: Mac OS X

COMPANY: Macromedia, 800/470-7211, www.macromedia.com

been easy in Fireworks to revisit changes and undo them, the History palette isn't totally necessary.

The application has some neat new features and enhancements—you just have to dig deep to find them. You'll find a whole new set of vector-graphic AutoShapes beyond the standard ellipse and rectangle; these include forms such as doughnuts, rounded-edge rectangles, and polygons. All these AutoShapes have control points for editing their properties, so you can set the inner radius of a doughnut shape or the amount of rounding on a rectangle's corners. You can also break polygon and star shapes into sectors, and apply different stroke and fill options to each segment.

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Nisus Writer Express

Powerful Word Processor Starts Fresh in OS X with Unsatisfying Results

BY JEFFERY BATTERSBY

Few applications have been able to overcome Microsoft's word processing juggernaut, but Nisus Writer has maintained a respectable following in a field littered with also-rans. Nisus Writer Express marks Nisus's entry into the world of OS X—native applications, and the end of updates to Nisus Writer. As such, the program sports a new interface with features—such as drawers containing the program's tools—typical of Cocoa applications. But because it's essentially a brand-new program, Nisus Writer Express doesn't yet include all the features that were available in Nisus Writer; it will need them in order to be a tenable replacement for your current word processor.

time word count. Plus, Nisus Writer Express is highly scriptable, with either PERL or AppleScript—there are already several third-party scripts available that add to or enhance the program's features. That said, scripting isn't likely to be a feature high on your "can't live without it" list.

People familiar with Nisus Writer will be pleased that Nisus Writer Express also supports noncontiguous-text selection (within a document) and multiple editable clipboards. Unfortunately, the clipboard feature is poorly implemented: unlike Microsoft's similar feature, it offers no way to preview what's being stored on the clipboard, short of opening the stored text in an editing window or pasting it into your document.

ments, any line spacing and paragraph formatting set by a Word style doesn't translate well. For example, if you create a document in Word's default style and then format the text as boldface, Nisus Writer Express can open the document and display it all without a problem. But if you set up a style that formats documents this way, the line spacing gets lost in the translation. Also, Nisus Writer Express provides no support for tables, footnotes, or endnotes—omissions that may surprise students working on term papers.

Nisus Writer Express's spelling checker uses the squiggly red underlines familiar to anyone who has used TextEdit, Mail, many Cocoa applications, or Word, but it also includes two confusing options. If you select Check Spelling from the Edit: Spelling menu, the program scans your document and highlights questionable words—and that's all. Unlike typical spelling checkers, this one doesn't suggest an alternative word or offer to replace a possibly misspelled word. To access a standard spelling checker, you need to select Spelling instead. You'll probably want to stick to the in-line spelling checker. And plan on keeping your favorite thesaurus handy; this program doesn't have one.

New and Not Always Improved

Inherent in any redesign of an application, especially one as extensive as Nisus Writer Express, is the possible addition of new features that inhibit or limit the program's usability. One example in Nisus Writer Express is the sliders, which you use to adjust everything from line spacing and font size to the percentage at which you're viewing the page. In most programs, you control these functions with drop-down menus or clickable arrows, but Nisus Writer Express's sliders are so imprecise that you're better off typing in your font size or line spacing.

Macworld's Buying Advice

Nisus Writer Express has great roots, and it's an excellent foundation for future versions. But while Nisus has succeeded in cutting back on features, it hasn't yet created an OS X word processor for everyday use. Unless you can make do with the most-basic features of a word processor, this program will need significant changes in order to make the grade. People still searching for an alternative to Word should continue using AppleWorks or Mariner Write—both are similarly priced and offer fuller feature sets. □

RATING: ★★½

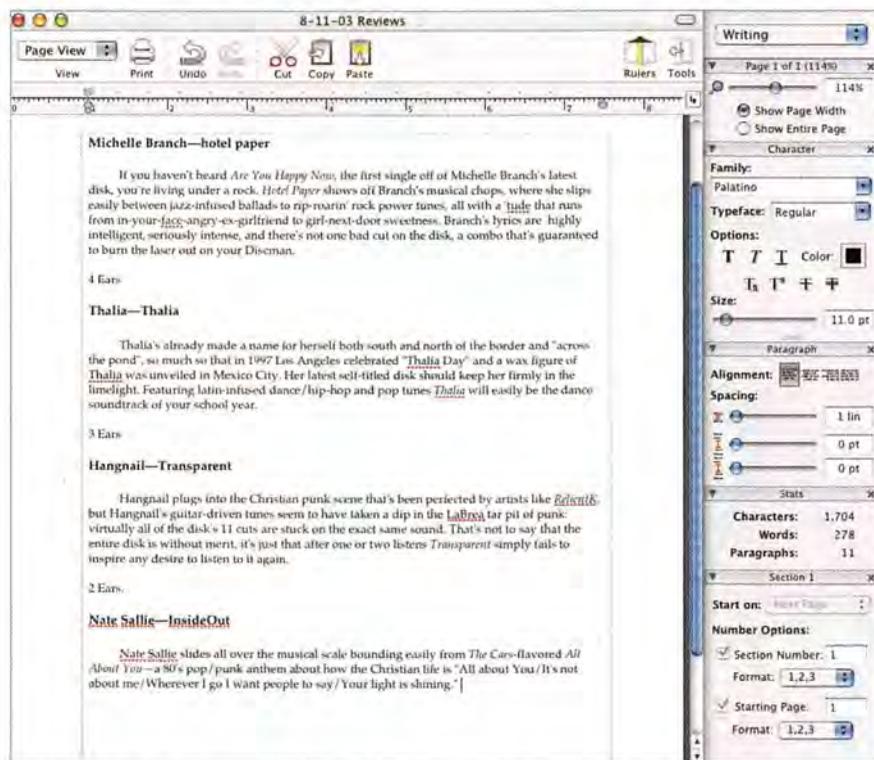
PROS: Good basic word processing tools; powerful Find command; highly scriptable.

CONS: No footnotes, endnotes, style sheets, or tables; imprecise sliders; confusing spelling checker.

PRICE: \$60

OS COMPATIBILITY: Mac OS X

COMPANY: Nisus Software, www.nisus.com, 858/481-1477



Just Another Pretty Face Nisus Writer Express's stripped-down interface highlights the program's lack of features.

Back to Basics

According to the company, Nisus Writer Express is for "users who don't want or need a lot of features that they can't or won't use." It's kind of like the original Volkswagen Beetle: a solid engine, limited features, and a low price. In short, Nisus Writer Express is a word processor for people who want to type, save, and print documents, with no fanfare whatsoever.

This stripped-down product does sport some powerful features. It offers standard text formatting, support for multiple columns, pagination within sections, and a real-

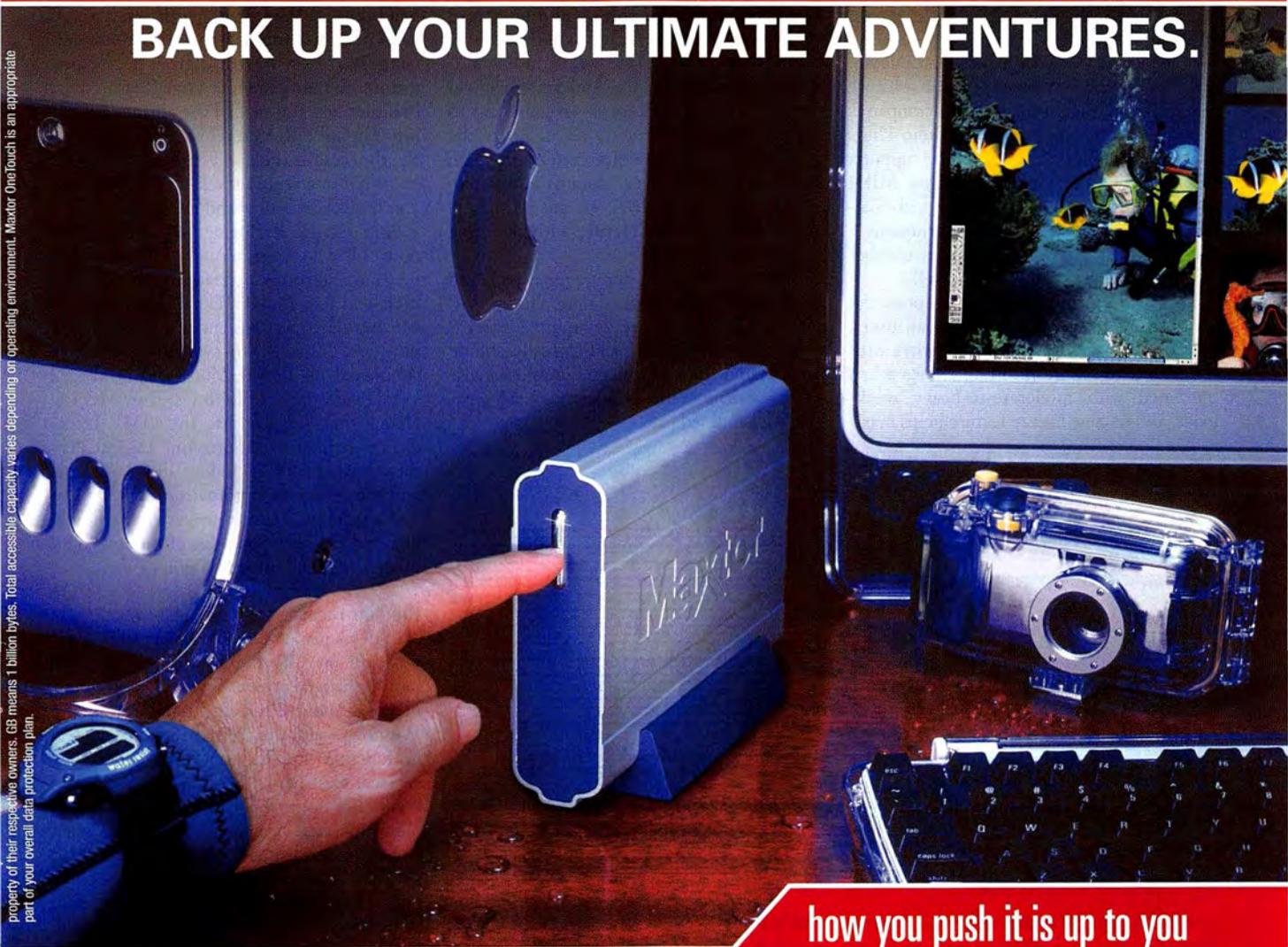
The program includes a very powerful Find feature with which you can use a multitude of predefined expressions for finding and replacing words, sentences, and phrases within a document. You can also save your custom searches for future use.

Stuck in the Lowdown

For all its capabilities, Nisus Writer Express is fairly deficient in ways that will irk you if you plan on using it for anything other than basic documents. For instance, it provides no support for style sheets. Although you can convert and read Microsoft Word docu-

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Digital Performer 4.1

Simply Put, New Version of Music-Production Program Rocks on OS X

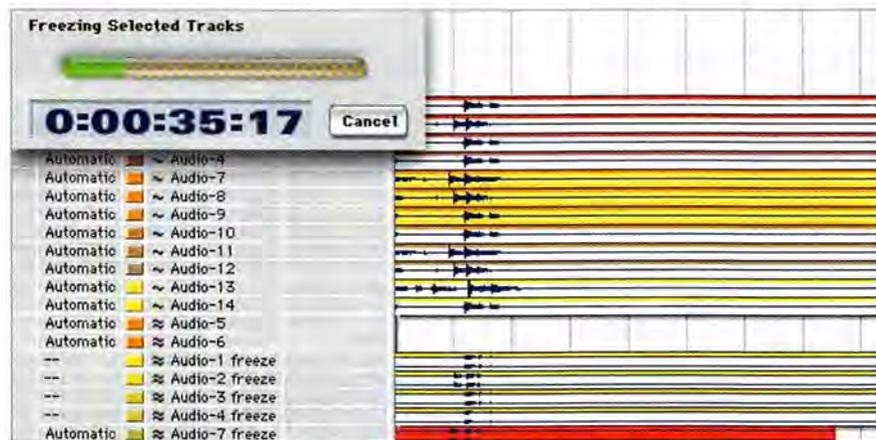
BY DAVID LEISHMAN

MOTU's Digital Performer 4.1, the second upgrade to the OS X-only music-production app, is a robust, attractive piece of software that finally follows through on the company's promise of support for Apple's Audio Units plug-in technology. It also fully supports Apple's new Core Audio and Core MIDI technologies; this makes working with like-minded third-party software instruments a breeze. The program supports a large number of older hardware synthesizers as well.

Digital Performer's friendly yet powerful interface will be familiar to veteran users, and it lets new users get right to work with minimal setup. The program shines when burdened with moderate-to-heavy workloads, and its new Freeze feature helps maxi-

resources, so you're able to add or record new tracks. We froze six tracks and were able to add four more before we again encountered redraw problems. And your original tracks are just a click away—if you want to go back and tweak them, just unfreeze the tracks and make your edits; then freeze them again at will. (If Freeze sounds familiar to digital musicians, that's because Logic 6 introduced a similar feature with the same name in February 2003.)

Freeze works great, but note that you need to enable the Multi Record option in the Studio menu in order to freeze multiple tracks—a bit of information MOTU really should have shared. The documentation is otherwise stellar, with more than a thousand clearly written, well-indexed pages.



Freeze at Work You can't work with Digital Performer while freezing, but at least you'll know what's going on: the yellow-highlighted tracks in the background are being frozen, and the red-highlighted track is being created.

mize the number of tracks you can work with. (Note that we tested with Jaguar, using Digital Performer 4.1, not with Panther using version 4.11.)

Cool News

Audio data and sound effects—especially reverbs—are computer-resource hogs. We were able to work with 16 mono tracks and 6 stereo tracks, which were all loaded with individual MOTU reverbs and equalizers, at once before we began to experience a slowdown in screen redraws. That's respectable, but Emagic's Logic 6 and the OS 9-based Digital Performer 3.11 let us work with more tracks.

Digital Performer's hottest new feature, Freeze, lets you mix a number of audio tracks—including any applied sound effects—down to two tracks. The process happens in real time, and the app won't let you work with any part of the program while it's consolidating the tracks. But the result is worth the wait.

The original tracks are automatically deactivated, reducing the load on system

Hot Names

Further on the useful side, Digital Performer ships with more device- and patch-name lists (more than 330) than other major sequencers. With the lists, hardware-synth and sound-module users can quickly build a setup that lets them choose the Reverb Piano sound on their ancient Roland D-10, for example, rather than testing the 128 "Patch XX's" to find the right voice. Setup is simple: after you install version 4, you just go to Apple's Audio MIDI Setup and respecify any synth names and models you've entered.

But Digital Performer's lists work only with an instrument's stock sounds, so those old custom patches you've lovingly crafted aren't immediately usable. Robert Martin's CherryPicker (www.savagetranscendental.com/cherrypicker), designed to help convert MOTU's OS 9 FreeMIDI-format patch lists to OS X-ready documents, may get you up and running; otherwise, you'll need to spend a lot of time editing XML documents.

Plays Nice

Although Digital Performer is a comprehensive sequencing tool, it doesn't include a sampler. But its superb integration with the ubiquitous Propellerhead Reason makes this almost a nonissue. Propellerhead has a Web page with easy setup instructions (www.propellerheads.se/support/reason/rewire/digital_performer.html). You can sequence your Reason parts in either app and record the output directly into Digital Performer. You can then modify the results like any other tracks; we recorded four stereo tracks, reverbed them, and froze them, all without a hitch.

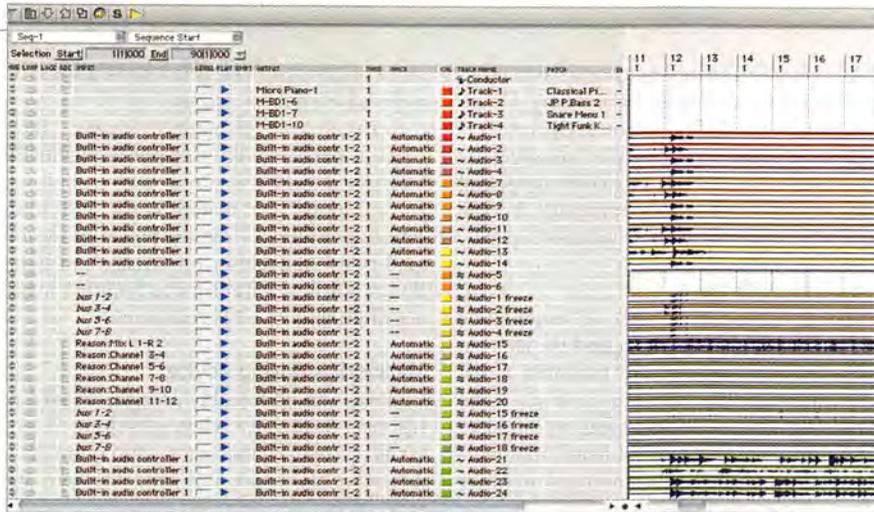
And Digital Performer, like Logic, can now utilize Digidesign Audio Engine (DAE) to act as a software interface for Digidesign's high-end Pro Tools|HD and Pro Tools|24 Mix hardware systems and associated TDM plug-ins. (The 24 Mix systems may not be supported on Power Mac G5s, however.) While we weren't able to test this, MOTU claims that you can use the OMF Interchange format to export your Digital Performer song files, including audio, volume, and most of your automation data, to Pro Tools systems. This preserves your original mix and can save you a lot of money you'd otherwise spend on studio time.

Familiar Faces

MOTU Aquafied Digital Performer while it was still an OS 9 app, and its interface hasn't changed much. There are five new menus—Audio, Project, Studio, Setup, and Windows—and they're actually more logical in function and location than those they replace. First, you'll need to visit the Setup menu. For optimal performance, you should follow the steps in version 4.1's PDF file when setting your disk input/output buffers. And, in a nice example of Core Audio support, Digital Performer lets you shift-click to specify using more than one audio interface in the Hardware configuration.

Digital Performer's adherence to the new Apple technologies also provides behind-the-scenes benefits. We were able to test a number of plug-ins, in both Audio Units and (MOTU's proprietary) MAS formats. All of Waves' high-end plug-ins were stable, worked and sounded great, and didn't use much more CPU power than the stock Digital Performer plug-ins. (Note that although Waves installs both AU and MAS controllers, it employs MAS.) Audio Ease's Audio Units version of the \$495 Altverb plug-in sounded superb and worked fine, but even using it on a single track resulted in a big performance hit. If you need to use it on multiple tracks, the Freeze feature will really come in handy.

Unfortunately, Digital Performer doesn't support VST, the most widely distributed plug-in format. If you need to use VST plug-ins, you can try FXpansion's VST to AudioUnit Adapter.



Tracks Overview The Overview window lets you see and edit your current sessions' audio and MIDI tracks.

Some software synths are still in the process of migrating to OS X, but we tested both Green Oak's free Crystal 2.4 and Arturia's \$329 Moog Modular V; they both worked well with Digital Performer.

Off Track

Using Digital Performer, we didn't find any deal breakers, but there are two issues to note. First, the 4.1 update clears up a problem from earlier versions: even under moderate track loads, the CPU Performance monitors would occasionally register massive power surges, causing a processor-overload warning to pop up. The surges could even bring operations to a screeching halt. Now, although it's normal to have surges on the Performance meter, you shouldn't experience audio or visual glitches.

Second, to hark back to power-user concerns: we didn't test with a Power Mac G5, but if you need extremely high track counts, you might want to consider using Digital Performer on a dual-processor G5. Digital Performer is already a good multiprocessor

RATING: 

PROS: Robust, stable, and approachable; support for native MAS and Audio Units plug-ins; integrates well with Propellerhead Reason.

CONS: Can't always handle enough tracks.

PRICE: \$795

OS COMPATIBILITY Mac OS X

COMPANY: MOTU, 617/576-2760, www.motu.com

citizen, and MOTU claims you can record at least 36 channels of audio at 192kHz simultaneously on the G5.

Macworld's Buying Advice

Digital Performer 4.1 is a great digital-music-production app. Its comfortable interface, adherence to Apple's OS X technologies, and new Audio Units support make for a great working environment. If you must work with a huge number of tracks, you may want to investigate Emagic's Logic or wait until you buy a G5; otherwise, there's no reason not to start using Digital Performer now. □

Dreamweaver MX 2004

continued from page 27

MX hasn't kept up with the growing demands of Web developers.

While Dreamweaver MX 2004 performs some actions more rapidly than it used to (rebuilding a site cache, basic text find and replace, and FTP), it doesn't feel significantly faster. In some cases, such as opening multiple Web pages, the program performs slower.

What's Gone

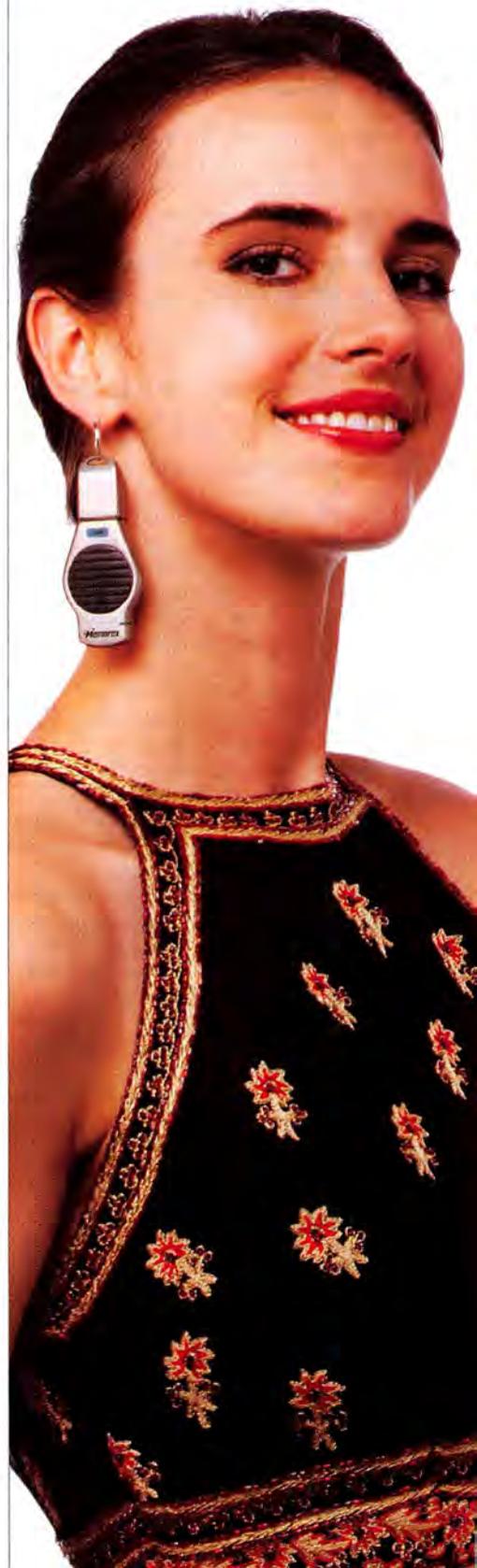
Current Dreamweaver MX users should be aware that a couple of things are missing from this latest release. OS 9 users can forget about this upgrade; Dreamweaver MX 2004 runs only in OS X 10.2.6 and later. The fast, fun, and admittedly code-heavy Timelines feature is also gone. So if you've grown accustomed to this simple tool for building dynamic HTML animations, you won't want to abandon

Dreamweaver MX. And finally, Dreamweaver MX (with the free version 6.1 updater) offered integrated tools for managing Contribute sites—sites that work with Macromedia's easy-to-use Web-site-editing program, Contribute. While you can still administer Contribute sites within Dreamweaver MX 2004, you have to buy the Contribute software (\$99) to access these controls.

Macworld's Buying Advice

Dreamweaver MX 2004 is a great tool for any Web developer working on the cutting edge of CSS design. It's too bad the same kind of innovation isn't demonstrated in other areas of the program. If you've reached the limits of Dreamweaver's server-side programming abilities, you'll have to keep expanding your own programming skills. If you already use Dreamweaver MX and don't need the new CSS improvements, you probably won't find a compelling reason to upgrade. □

Goes
anywhere.



Eudora 6.0

E-mail Favorite Gets Built-in Spam Filtering but Still Shows Its Age

BY JASON SNELL

More than ten years ago, Qualcomm's Eudora was one of the first programs to put a Mac interface on Internet e-mail. Eudora has continued to grow as e-mail has gone from a curiosity to a necessity. It has more power-user features than any other e-mail program out there, although they're largely buried under an interface in desperate need of an overhaul. While version 6.0 offers only a halfhearted attempt at improving that interface, it does make one great leap by adding an impressive junk-mail-filtering feature called SpamWatch.

Junk Begone!

Any Eudora user who's frustrated by the rising tide of junk e-mail—and that has to be just about every user—will appreciate SpamWatch, the biggest feature addition in Eudora 6. At its heart, SpamWatch contains two spam-filtering systems. The first lets Eudora interact with server-based filtering systems such as SpamAssassin. The second involves a content-based junk-mail system that you train by providing examples of good and bad messages (it's similar to Apple's Mail). Suspected spam is automatically sent to a Junk mailbox, and you can select any message and choose Junk or Not Junk to help train Eudora's built-in filters.

But SpamWatch is also a plug-in architecture that allows other spam-filtering applications to have the same control over Eudora as its built-in filters do. When I bypassed SpamWatch in favor of Michael Tsai's \$25 SpamSieve 2.0 with Eudora 6, it worked quite well. Although I found that SpamSieve was a more effective spam blocker than Eudora 6's built-in filters, users who don't want to spend the extra money for an add-on filter such as SpamSieve will find that Eudora's filters are excellent as well.

A Grab Bag of Features

The other new features in Eudora 6 pale in comparison with SpamWatch. People who prefer the multipaned, one-window interface of a program such as Microsoft Entourage will find that Eudora can now emulate it—a new feature lets you display all of Eudora's mailboxes in a drawer attached to your current mailbox. Clicking on another mailbox places its contents in the same window.

Fans of mailing lists may find Eudora 6's new Content Concentrator feature helpful:

it lets you see a stripped-down version of an e-mail thread in a preview window. When combined with a little-known Eudora feature that lets you group like messages by option-clicking on them, it makes navigating long threads easier by eliminating boring message headers and other wastes of space.

Interface Underhaul

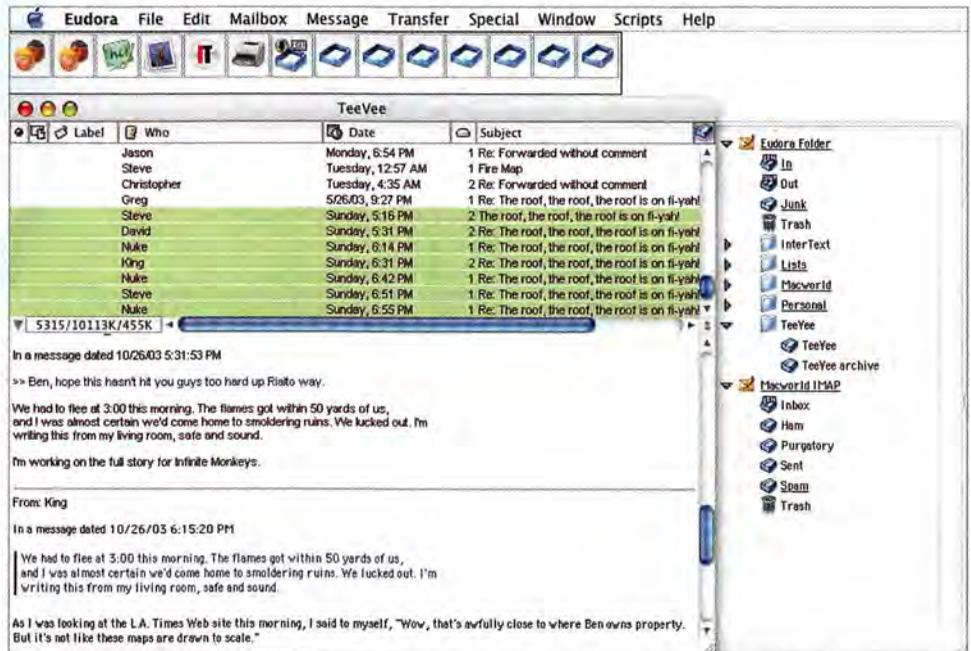
Eudora 6 comes with a completely redesigned application icon, and the icons in the program's toolbar are rendered much more attractively at the large icon size. The program has also finally been modified to support proxy icons (small icons, in a window's title bar, that you can drag into other

framework to provide Safari-style display of received HTML messages.

Perhaps the program's biggest flaw remains unchanged in this release: its mail-filtering interface is simply awful, limiting you to only two match items and four actions per filter. Given the powerful sets of mail rules available in Entourage and Bare Bones Software's Mailsmith, Eudora's meager filtering is an embarrassment.

Macworld's Buying Advice

Eudora is an undeniably powerful product. It's fast—especially when searching thousands of archived messages—and quite flexible once you take the time to learn its



Some New Features, Same Old Problems Eudora 6.0 has new toolbar icons, a drawer for mailboxes, and the new Content Concentrator, which summarizes e-mail threads. Unfortunately, the interface remains largely outdated.

windows or out to the Finder), a concept introduced in Mac OS 8.5.

However, these minor changes are the exceptions that prove the rule: Eudora's interface is outmoded, largely unchanged since the mid-1990s. Its toolbar is positively ancient and quite ugly. The program has almost no support for contextual menus, either in mailboxes or in messages themselves. Even worse, many powerful features are hidden away in one of the numerous settings panels or, more obscurely, in a secret stash of X-Eudora-Settings URLs available via download from the Eudora Web site. If you know that these features are there, they're great—but only the most hard-core Eudora expert will ever know of their existence.

Although e-mail with formatting and embedded images has become commonplace, Eudora is still quite limited in its ability to render HTML mail, mangling most e-mail newsletters beyond recognition. We're hopeful that in the future Qualcomm will update Eudora to use Apple's Web Kit

quirks. Its new spam-filtering features are first-rate, especially since they support third-party spam-filtering tools.

But many Mac users have been using OS X for some time now, and Eudora's interface feels stuck in the days of System 7. With a thorough update to its interface, it could be the hands-down best e-mail program on the Mac. Instead, it's a cult favorite with a face only its mother could love. □

RATING: ★★★½

PROS: Excellent built-in spam filtering; support for third-party spam tools; speedy; countless new options and features.

CONS: Confusing and outdated interface; limited filtering features; mangles complex HTML mail.

PRICE: \$50; free in Sponsored mode (displays in-application advertisements, doesn't include SpamWatch)

OS COMPATIBILITY: Mac OS 9, Mac OS X

COMPANY: Qualcomm, 800/238-3672, www.qualcomm.com

Cleaning Utilities

Spring Cleaning 6.0 and Internet Cleanup 1.0 Are Hampered by Overzealous Decluttering Efforts

BY T. PATRICK HENEGBRY

Browser cache files, duplicate documents, and unneeded programs waste space, and Spring Cleaning 6.0 and Internet Cleanup 1.0, both from Aladdin Systems, offer ways to sort through your files and toss the trash. Spring Cleaning can find and remove almost any file, while Internet Cleanup specializes in removing browser-related files and blocking pop-up browser windows. These tools are handy starting points for cleaning up your machine, but be sure to study the file list before you press delete—both programs occasionally target needed files.

Airing Out Your Directories

Spring Cleaning offers multiple search methods for finding extra files. You can find duplicate files, check for damaged files, look for broken aliases and orphaned preferences, and search for documents. You select files from the search results, and then you can quickly and efficiently move, store, copy, or delete them.

The program sports a number of new features. You can use the new Super Access mode to conduct searches across multiple users' files. A Secure Delete option overwrites a file's data with ones and zeros—handy for wiping out old financial records or anything else you don't want others to see. Also, you can use a language finder to delete the several hundred megabytes of foreign-language files that ended up on your hard drive courtesy of any standard OS X installation.

However, when it comes to deleting old applications, you're better off just dragging the application folder to the Trash. Spring

INTERNET CLEANUP 1.0

RATING: **★★**

PROS: Unobtrusively blocks ads and pop-ups.

CONS: Can't delete cookies from latest versions of Safari and Netscape; can't block ads in Netscape or AOL for Mac OS X; can't remove cache files from Netscape.

PRICE: \$30

OS COMPATIBILITY: Mac OS 9, Mac OS X

COMPANY: Aladdin Systems, 831/761-6200, www.aladdinsys.com

SPRING CLEANING 6.0

RATING: **★★★**

PROS: Easy, varied searches; many choices for managing found files.

CONS: Too easy to delete necessary files.

PRICE: \$50

OS COMPATIBILITY: Mac OS 9, Mac OS X

COMPANY: Aladdin Systems, 831/761-6200, www.aladdinsys.com

Cleaning's MacUninstaller utility always leaves the application's folder in place—sometimes with files in it—or lists unrelated files as the application files to be removed. When I tried to use the Orphaned Pref Finder to hunt down long-neglected application preferences, it listed the preferences for the text editor I use all the time.

Erasing Your Web Footsteps

Once you've cleaned up your documents and programs, you can tackle your browser-related files with Internet Cleanup. Like Aladdin's iClean utility, Internet Cleanup eliminates browser history files, cookies, and caches. It also goes a step beyond iClean and blocks pop-up ads.

Be warned that Internet Cleanup can't remove cookies from the most recent versions of Netscape and Safari, and it can't remove browser cache files from Netscape. To address this gap between software and browser, you'll have to wait for an upgrade to Internet Cleanup.

Internet Cleanup's NetBlockade cuts down on ads and pop-ups. But it didn't work with browsers that use the IP 7 protocol, such as Netscape and AOL for Mac OS X, in our tests.

Macworld's Buying Advice

Spring Cleaning is a good choice for managing the digital junk you've created, such as documents and QuickTime movies. But some of Spring Cleaning's features make it potentially dangerous for people who may not know what they're deleting. As for Internet Cleanup, if you use Internet Explorer, you may find it useful. Fans of other browsers should look elsewhere. □

Carries anything.



Sweeping Up Internet Cleanup lets you manage or delete cookie files (top). Spring Cleaning's Custom Search makes it easy to find files (bottom), but the program may let you delete files you need.

THIS MONTH IN DIGITAL CAMERAS



Model	Fuji FinePix F700	Fuji FinePix S5000	Kyocera Finecam L3v	Toshiba PDR-M700	Kodak EasyShare DX6490	Nikon Coolpix 5400
Rating	★★★★	★★★	★★★	★★★	★★★★	★★★★
Resolution (in megapixels) ^A	3.1	3.1	3.2	3.2	4.0	5.0
Price	\$599	\$499	\$349	\$449	\$499	\$699
Lens						
Zoom (35mm equiv.)	3× (35mm–105mm)	10× (37mm–370mm)	3× (38mm–115mm)	10× (37mm–370mm)	10× (38mm–380mm)	4× (28mm–116mm)
Maximum Aperture	f2.8–f4.0	f2.8–f3.2	f2.8–f4.7	f2.8–f3.1	f2.8–f3.7	f2.8–f4.6
Media Supported	xD Picture Card	xD Picture Card	Secure Digital/MMC ^B	Secure Digital	Secure Digital/MMC ^B	CompactFlash Type II
Size (in inches) ^C	compact, 4.3 × 2.1 × 1.1	midsize, 4.4 × 3.2 × 3.1	compact, 4.4 × 2.1 × 1.4	midsize, 4.3 × 2.7 × 2.6	midsize, 3.9 × 3.1 × 3.2	midsize, 4.3 × 2.9 × 2.7
Weight (in ounces) ^D	6.0	11.9	6.0	10.6	11.9	11.3
Bundled Software	Fuji FinePix Viewer, Pixela ImageMixer	Fuji FinePix Viewer, Pixela ImageMixer	Pixela ImageMixer (OS 9 only)	ACD Systems ACDSee	Kodak EasyShare	NikonView
Bundled Hardware	16MB xD card, cradle, USB and video cables	16MB xD card, lens adapter, USB and video cables	16MB SD card, USB cable	16MB SD card, remote control, lens adapter, USB and video cables	dock, AC adapter, USB and video cables	16MB CompactFlash card, USB and video cables
Battery ^E	lithium ion	AA (no charger)	AA (no charger)	AA (no charger)	lithium ion	lithium ion
Additional Features	SuperCCD SR (Super Dynamic Range) technology, can produce 6-megapixel images, AF illuminator	can produce 6-megapixel images, AF illuminator, supports add-on lenses, electronic viewfinder	large (2.5-inch) LCD	large (2.5-inch) LCD, supports add-on lenses, external microphone port, electronic viewfinder	large (2.2-inch) LCD; electronic viewfinder, EasyShare software, hybrid autofocus system, onboard memory	rotating LCD, hot-shoe, supports add-on lenses
Movie Mode	yes, with sound (maximum length dependent on card)	yes, with sound (maximum length dependent on card)	yes, with sound (2-minute maximum)	yes, with sound (maximum length dependent on card)	yes, with sound (maximum length dependent on card)	yes, with sound (3-minute maximum)
Image Quality	Very good; improved dynamic range in many situations; low red-eye.	Good; overcompressed and noisy; purple fringing.	Good; images are soft.	Good; some noise and purple fringing.	Very good; details can be muddy; some images are soft.	Excellent.
User Interface	Excellent; colorful, fast, and easy to use.	Excellent; colorful, fast, and easy to use.	Acceptable.	Very good; animated and easy to navigate.	Excellent; easy for beginners.	Acceptable; can be intimidating.
Pros	Top-notch performance; improvements in dynamic range; VGA movie mode; very high-quality LCD; full manual controls.	Unique SLR-style body; robust performance; many manual controls.	Some manual controls.	Full manual controls; supports add-on lenses and filters; fast continuous-shooting modes.	Many manual controls; high-resolution LCD; excellent EasyShare software; supports external flash; good low-light focusing; electronic viewfinder usable in low light.	Excellent photo quality; every manual control imaginable; support for external flash and add-on lenses; best macro mode on market.
Cons	Expensive for its class; limited image-quality choices; slowest shutter speed is 3 seconds.	Plastic body feels cheap; images are noisy and overcompressed; no image-compression options; slowest shutter speed is 2 seconds.	Softness and jaggies in images; movie, playback modes outdated; no AF illuminator; software not OS X native.	Poor low-light focusing; no AF illuminator; hard to see electronic viewfinder in low light.	Details in images soft and muddy; some red-eye and purple fringing; no manual white balance or focus.	No AF illuminator; interface is clunky and hard to use; small LCD; no Raw file mode; strange shutter-lag and buffering issues.
Contact	800/800-3854, www.fujifilm.com	800/800-3854, www.fujifilm.com	800/526-0266, www.kyoceraimaging.com	800/288-1354, www.dsc.toshiba.com	800/235-6325, www.kodak.com	800/645-6689, www.nikon.com

Cameras are listed first in order of resolution, and then alphabetically by vendor. ^AThe camera's effective resolution, not the CCD's resolution. ^BMMC = MultiMedia Card. ^CWidth × height × depth. ^DCamera only unless otherwise noted. ^EBattery charger included unless otherwise noted.

BY JEFF KELLER

It's nice to see some camera manufacturers trying new things these days. While many camera makers are just putting higher-resolution CCDs into tired camera bodies, Fuji is attacking a more important problem: photo quality. The new SuperCCD SR sensor in the company's FinePix F700 camera specifically tries to improve *dynamic range*, or the detail

in a photo's shadows and highlights. Though this camera does show noticeable improvements in dynamic range, the new sensor does not live up to Fuji's initial hype. But the F700 isn't a bad camera—it's compact, well designed, and fast, and photo quality is quite good. In addition to producing photos at its native 3.1-megapixel resolution, it can also interpolate to 6 megapixels with decent results.

If the price comes down a little, the F700 will be hard to resist.

Another camera using Fuji's SuperCCD technology (minus the dynamic-range improvements) is the FinePix S5000. At first glance, it looks like a miniature digital SLR camera. Once you pick it up, though, the plastic body tells you that it isn't one. The S5000 has a 10× optical zoom lens, an AF illuminator, and many

Fireworks MX 2004

continued from page 28

manual controls. Like the F700, this camera can produce 6-megapixel images, but the quality isn't as good as that of the F700. On both the F700 and S5000, Fuji doesn't give you any choices for image quality (compression level)—you just pick a resolution (image size) and go. On the other hand, both of the Fuji cameras have a Raw file mode, as well as unique continuous-shooting modes. In the end, the FinePix S5000 is just average in a growing field of ultrazoom cameras.

Another average ultrazoom camera is Toshiba's PDR-M700. Its main feature (besides the 10x zoom lens) is a 2.5-inch LCD, but it's too bad that the resolution of the LCD isn't very high. The PDR-M700 has plenty of manual controls, plus impressively speedy continuous-shooting modes. Its photo quality is better than that of the S5000 but not spectacular. Low-light focusing was not good, due in part to the PDR-M700's lack of an AF illuminator.

The best ultrazoom camera of the group is definitely Kodak's EasyShare DX6490. Like the Fuji S5000 and the Toshiba, the DX6490 has a 10x optical zoom and a healthy number of manual controls. The Kodak has a large 2.2-inch LCD, which is high-resolution, unlike the Toshiba camera's. Photo quality is very good, though details such as grass can look muddy at times. A hybrid autofocus system helps the camera focus well in low-light situations. The most interesting part of this Kodak camera is the EasyShare system, a two-part software package (see [Macworld](#), November 2003); one part is preinstalled on the camera; you install the other on your computer. When using the camera, you can mark photos for e-mailing, printing, or saving in photo albums. Then you connect it to your Mac, where the EasyShare software handles the photos you tagged.

Also impressive is Nikon's Coolpix 5400. With a 4x zoom lens (that starts at 28mm), a 5-megapixel CCD, a complete set of manual controls, a hot-shoe, and an incredible 1cm macro mode, this is one of the best high-end cameras out there. It's not perfect, though, as it lacks an AF illuminator and Raw mode, and the LCD is small for an expensive camera. Two other oddities include shutter-lag variations that depend on whether you have the fake shutter sound turned on, and a buffering issue where the camera will lock up as it finishes saving an image to the memory card.

The last camera for this month is Kyocera's Finecam L3v, an average 3.2-megapixel model that's interesting only because of its 2.5-inch LCD. As with the Toshiba camera, the L3v's LCD is large but low-resolution. Photo quality is decent, but images are on the soft side. Also, the camera lacks an AF illuminator, its playback and movie modes are a little outdated, and the included ImageMixer software is not OS X native. □

JEFF KELLER is the editor of the Digital Camera Resource Page (www.dcresource.com), which includes reviews and ratings of more than 530 digital cameras, and [dvspot](http://www.dvspot.com) (www.dvspot.com), a consumer-oriented DV-camcorder site. Send feedback about this column to reviews@macworld.com.

There are new stroke and fill options, including a Dashed Stroke option and a Contour Gradient pattern. A nice new touch is a Preview feature for the selected stroke or fill options, which makes it easier to pick the right effect before applying it.

In previous versions, Fireworks had problems with text rendering, especially with smaller font sizes. This version eliminates those problems, so you can now use the operating system's Quartz text aliasing or specify custom options.

Fireworks MX 2004 also features some new bitmap- and photo-editing tools. The red-eye removal tool and color-replacement options let you quickly touch up digital photos. There are also new LiveEffects—Motion Blur and Add Noise. Like the existing LiveEffects, these are nondestructive filters, so you can remove them or change their properties at any time.

One of the program's main strengths is its improved integration with the rest of the Studio MX range. Once you've defined a site in Dreamweaver, you can automatically launch Fireworks to edit files, and use file-management options for source-code control. This means you can check files in and out to make sure someone else can't overwrite them while you work. Fireworks can also work with Dreamweaver's FTP server settings to retrieve assets remotely and upload them automatically once edited. While this is a nice option, I doubt that many Web designers will want to edit the files they've published online. Instead, they'll probably want to change the original source PNG document.

Although Fireworks' look-and-feel has changed little, there are some overhauls under the hood. Thanks to a new JavaScript-based API, developers can now customize Fireworks and automate some of their tasks. Macromedia has also improved the methods for creating data-driven graphics: you can now use an XML data source to create a number of buttons automatically—each with a different name, for example.

Unfortunately, this version's batch-processing features don't compare well with Adobe Photoshop's. Fireworks' continued omission of an Actions palette limits its automated batch processing to applying filters and simple menu commands.

Macworld's Buying Advice

Fireworks MX enjoys a well-deserved reputation as a solid tool for producing Web graphics, but this release maintains, not enhances, that status. It also introduces new features that try to compete with Photoshop in creating bitmapped graphics, but they fall short. For people who are already content with Fireworks MX, this update offers very little reason to upgrade. □

Fits everyone.



17-Inch iMac G4/1.25GHz

★★★★; Apple Computer, 800/692-7763, www.apple.com; \$1,799

Apple's latest 17-inch iMac looks like its predecessor but sports numerous improvements. In addition to giving it a 250MHz bump in processor speed, Apple has increased the system-bus speed from 133MHz to 167MHz, throwing in faster RAM to go with it, and the company has upgraded the USB ports to USB 2.0 speeds (480 Mbps instead of 12 Mbps). All these improvements were apparent in our Speedmark testing: the 1.25GHz G4 beat the 1GHz model by 25 points—a gain of about 19 percent. (To see the benchmarks, go to www.macworld.com/2004/01/reviews/imac125/.)

In processor-intensive 3-D-rendering and MPEG-2-encoding tasks, the new iMac topped the older model by roughly 17 percent, while it managed a 19 percent gain in our Photoshop tests. The iMac still isn't a powerful gaming system, but its new GeForce FX 5200 Ultra graphics chip improved Quake's frame rates by almost 25 percent.

This iMac comes with 256MB of PC2700 RAM (expandable to 1GB); an 80GB, 7,200-rpm ATA hard drive; a 4x SuperDrive; and support for AirPort Extreme and Bluetooth. It has three USB 2.0 ports; two FireWire 400 ports; VGA, S-Video, and composite-video output; 10/100Base-T Ethernet; and a 56-Kbps V.92 modem.

As with all iMacs, the flat-panel screen suffers from noticeable color shifting (colors change on the screen when viewed from different angles). But speed and improved performance make this a great all-in-one Mac.—JONATHAN SEFF

Correct+Apply Color 9X

★★★★; Asiva, 512/732-2886, www.asiva.com; \$49

Adobe Photoshop includes a number of color-correction and -replacement tools, but invariably there comes a day when you just can't get any of them to do exactly what you want. Asiva's Correct+Apply Color plug-in gives you an alternative.

Correct+Apply Color has the same type of interface as Asiva's Sharpen+Soften plug-in, with three curves you can use—one each for hue, saturation, and luminance—to execute the precise color adjustment or replacement you want.

You can use the Correct Color option to replace a range of colors in your image, or the Apply Color option to adjust an existing color. The advantage of Asiva's curve-based approach is that you don't have to create selections to isolate your corrections to particular areas. So with a single command, you can apply varying degrees of correction to different color values—a lot of correction to

dark browns, for example, and little correction to bright reds.

Thinking in terms of hue, saturation, and luminance values can take some getting used to, but Correct+Apply Color's results can be very good. If you do a lot of color-correction work, the elegant interface might ease your chores.—BEN LONG

Sharpen+Soften 9X

★★★★; Asiva, 512/732-2886, www.asiva.com; \$69

As this plug-in's name suggests, Asiva's Sharpen+Soften for Adobe Photoshop adds sharpening and blurring facilities to Adobe's existing Sharpen and Blur filters. But while Photoshop's filters operate on an entire image uniformly, Asiva's plug-in lets you apply varying amounts of sharpening or softening to particular colors in the image.

In Sharpen+Soften, you limit your operations by using three adjustable curves to constrain the effects to pixels with particular hue, saturation, or luminance values. For instance, you can specify that you want to sharpen or soften only brown midtone pixels, thus limiting your operation to your subject's hair without affecting flesh tones.

With its well-designed interface, Sharpen+Soften provides a streamlined tool for creating targeted adjustments. However, you'll need to learn how to create curves that target the areas you're after. And you'll want a very fast Mac, because while you can speed through the interface, you'll likely be in for a wait while the program processes the image.—BEN LONG

FireVue FireWire/IDE SMART Hot-Swap Drive System

★★★★; Granite Digital, 510/471-6442, www.granite-digital.com; \$279

The FireVue FireWire/IDE SMART Hot-Swap Drive System is a versatile drive enclosure that can do a lot more than turn your IDE drive into a zippy external FireWire 400 drive. The FireVue takes advantage of the Self-Monitoring Analysis and Reporting Technology (SMART) built into many IDE drives; this technology lets a computer keep tabs on the hard drive's performance. To use the FireVue, you simply unlock the FireVue's drive tray, plug in your drive, and slide the loaded tray back into the FireVue. If your drive is SMART-enabled, you can wipe, partition, run diagnostic tests on, and benchmark your drive, using the buttons and the small LCD display on the FireVue's case, without ever connecting the drive to your computer. You can purchase additional trays to make swapping drives a breeze. This will be handy if you like keeping a backup drive off-site for security reasons. The FireVue

may be overkill for some users, but if your data is important to you, it could be the easy and reliable backup device you've been looking for.—JAMES GALBRAITH

iceCAD X

★★★★; Macally, 626-214-2770, www.macally.com; \$49



The Macally iceCAD is probably the tiniest pressure-sensitive graphics tablet you'll ever see. Measuring roughly 4.0 by 4.5 inches, with an active drawing area of 2.25 by 3.0 inches, the sturdy USB iceCAD is a good choice for space-conscious travelers.

The included OS X-compatible iceCAD application provides a simple control panel for changing the stylus's pressure sensitivity and tablet tracking. In addition, you can program the stylus's side-mounted two-way button to act as a double-clickable mouse, an eraser, or a modifier key.

The iceCAD has some shortcomings. The iceCAD pen requires a AAAA battery, which slides into its barrel. Though the iceCAD has a nice surface, it was a little too sensitive and difficult to control. And we found that the tablet didn't always work after we put our Mac to sleep; we had to unplug it and then plug it in again to activate it.

Finally, the device's small size, though a great convenience for portage, makes it slightly uncomfortable to use, because you can't rest your hand on the tablet surface as you draw. Nevertheless, if you need a tablet for travel, and if the Graphire is too big, the iceCAD will serve you well.—BEN LONG

SBook5 X

★★★★; Simson Garfinkel, www.sbook5.com; free



SBook5 is a lightning-fast, free-form address-book database that's destined to replace any other address book you use. The beauty lies in the database itself. Unlike other apps, which require that you enter information into designated fields, SBook5 lets you enter data in any convenient order; the program figures out what it is. Enter a phone number anywhere, and SBook5 recognizes it and places a phone icon next to it. The same is true of e-mail, Web, and street addresses, each of which has an appropriate icon. Click on the icon next to an entry, and your Mac will dial a phone number, create a new e-mail message, go to a Web page, or print the entry on a label or envelope. The program's data lookups are intelligent and blazing fast. Type anything in the search field, and SBook5 will instantly display entries that contain what you've typed.

SBook5 is multiuser capable, which means that everyone in your company can access a single address database on a server. The program won't sync directly with your iPod or Palm-based device, but it does sync easily with the Address Book in OS X, which is nearly as good.—JEFFERY BATTERSBY

Backup Hard Drives

CMS ABSplus and Maxtor OneTouch Offer Easy Backup and Extra Storage

BY ADAM C. ENGST

You know you need to back up your files, so it's in your best interest to find a way to make that task as easy as possible. A FireWire hard drive with special capabilities—such as CMS Products' ABSplus or Maxtor's OneTouch—may be the answer. Either can preserve your valuable data and provide extra working space. We looked at the 200GB ABSplus and the 250GB OneTouch.



The Maxtor OneTouch

doesn't officially support the OneTouch as a boot device, so although you can install Mac OS on it, it may not boot your particular Mac.

External Storage

If you want to use the ABSplus for both external storage and backup, you must first partition the drive so it can accommodate both your backup and your other data.

That extra preparation is unnecessary with the OneTouch. You can also set the OneTouch button to open any file; if you have multiple OneTouch drives, you can assign each a different task.

Macworld's Buying Advice

Both drives do a fine job of simplifying backup and providing external storage space. The ABSplus is a focused backup device that's easy to use, right out of the box, for backup *and* restoration, whereas Maxtor's cheaper and quieter drive is better for people who want extra disk space and more backup flexibility. □

CMS ABSPLUS

RATING: ★★★★★

PROS: Extremely easy to initiate backups; bootable from OS 9 and OS X.

CONS: Loud fan; confusing interface for scheduling.

PRICE: portable model, \$279 to \$499 for 20GB to 80GB; desktop model, \$279 to \$499 for 80GB to 250GB

OS COMPATIBILITY: Mac OS 9, Mac OS X

COMPANY: CMS Products, 714/424-5520, www.cmsproducts.com

MAXTOR ONETOUCH

RATING: ★★★★★

PROS: Extremely easy to initiate backups; uses full version of Retrospect Express Backup; customizable OneTouch feature.

CONS: Mediocre default configuration choices; doesn't create bootable backup.

PRICE: 200GB, \$300; 250GB, \$350; 300GB, \$399

OS COMPATIBILITY: Mac OS 9, Mac OS X

COMPANY: Maxtor, 408/894-5000, www.maxtor.com

Backup and Restoration

When it comes to establishing a backup routine, the easier the better. The ABSplus software automatically backs up changed files whenever you connect or power up the ABSplus drive. (You may want to turn the drive off when it's not in use, so you aren't subjected to its constant fan noise.)

ABSplus lets you schedule one-time, daily, weekly, and monthly backups, and it can remind you if you haven't backed up recently. These features come in handy if you leave the drive on. However, we thought the process of scheduling backups was too fussy. The company said that a new version of the software would be bundled with the drives by the time you read this.

The fanless OneTouch is quieter than the desktop ABSplus. Initiating backups with the OneTouch is easy, since you merely press a button on the drive to launch Dantz Development's Retrospect Express Backup 5.0 (★★★★; July 2002) and back up changed files. However, setting up the drive and running the first backup require a number of steps, and the setup wizard is somewhat confusing.

Anyone who wants to go beyond the default Maxtor settings will appreciate the OneTouch's flexibility: Maxtor has improved the documentation, which now explains how you can use Retrospect Express Backup scripts to create backups that store multiple versions of files. This protects you from file corruption in a way that constantly updated duplicates don't.

Although backing up your files is important, restoring files is what matters when disaster strikes. Here's where the ABSplus shines. You can boot any Mac from it and get back to work instantly, so it's more useful out of the box as both a utility and a troubleshooting drive. Also, a new QuickRestore feature simplifies the previously awkward task of restoring an entire drive.

Unfortunately, the OneTouch's default settings don't create a bootable OS X backup; however, bringing back individual files or an entire disk isn't difficult. Maxtor

Introducing the Memorex ThumbDrive.

A whole new way to carry your files.



Whether you're looking for performance or style, the Memorex ThumbDrive® wins hands down. Incredibly small and durable, this beautifully sculpted drive represents the very best of Flash technology. With capacities ranging from 128MB to 1GB, it transfers tons of photos, music or data at rates up to 50% faster* than competitive USB™ 2.0 products. And the USB connection means it's compatible with both PC and Macintosh®, as well as many portable electronic devices. The go-anywhere, carry-anything, sleekly-styled ThumbDrive from Memorex—this thumb deserves a hand.

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Mathematica 5

Significant Speed Improvements Make Math App the Last Word in Numbers

BY CHARLES SEITER

Mathematica 5 is a major upgrade to a landmark application for engineers, scientists, and other people who work with complex math. It has many new functions, but more important is that most older functions run much faster than they did in version 4.2 (★★★★; November 2002).

There's only one disappointment: Mathematica 5 is optimized for many 64-bit systems, but not for the Power Mac G5—yet. Even so, on a G5, the program runs like a gift from a friendly alien spaceship.

Retooling the Engine

Mathematica has always consisted of two parts: the interface and the underlying computation engine, or kernel. The original kernel was mainly Stephen Wolfram's symbolic-math program, adapted for numerical computation and combined with a generic C-like language. Users could draw on the language and a large library of mathematical functions to tackle science and engineering problems:

Now, 15 years later, you can state your problem as an equation or as a set of equa-

tions and conditions, and Mathematica generally takes over at that point and delivers an answer without your programming help. Always the state of the art in symbolic math, the kernel has been retooled with numerical methods and solvers that compete with the best practices in special-purpose math packages. There used to be a class of problems with which you could work fastest by programming directly in C and using an optimized numerical algorithm library. Not any more: with version 5, a few lines of Mathematica code replace pages of C.

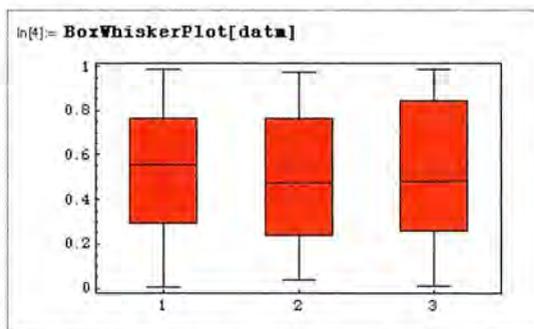
Much of the numeric speed increase is due to version 5's algorithm-selection code. To solve nontrivial numeric problems (ordinary differential equations are a prime example), Mathematica recasts the problem in symbolic terms for the best match to available algorithms, picks numerical precision conditions, and monitors progress, switching methods if necessary for faster results. You don't usu-

ally see any of this—but you will see most numeric calculations running 5 to 500 times faster than in version 4.2.

In the case of differential equations solved with NDSolve, you can choose the solving algorithm yourself and see intermediate results. Although Mathematica 5 performs complex functions automatically, advanced users can override most of its automatic decisions.

The Old Dog's New Tricks

Mathematica 5 adds a good assortment of visible features, too—some basic and some sophisticated. One basic feature is support for new graphics file types: SVG (Scalable Vector Graphics, a science and engineering



Simplicity Mathematica is known for its ability to generate 3-D color graphics; StatisticsPlot, a new add-on package, adds simple but useful graphs, such as this box-and-whisker plot for stock-market analyses.

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

THE UTILITY COMPANY

ALSOFT

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

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standard), PNG (Portable Network Graphics, a Web standard), and DICOM (Digital Imaging and Communications in Medicine, for MRIs and other diagnostic images). This is significant because Mathematica may be the world's most powerful environment for image analysis. Another basic feature is the add-on package StatisticsPlot (see "Simplicity"), which adds a lot of useful textbook statistical plots.

Also in this category are Mathematica 5's improved authoring tools. There are now tools for comparing different Mathematica notebooks—useful for keeping track of evolving notebook versions. Since serious Mathematica work may eventually be presented to an audience, there is now a special authoring palette for slide shows.

One sophisticated new feature is the new Rsolve function, for solving difference equations (also called recurrence equations). These describe changes that occur in finite time steps, and they appear in a wide range of fields outside science and engineering, including business and finance. Mathematica still lets you roll your own difference-equation programs, but Rsolve saves you this effort, and it may do a better job than you (some difference-equation problems are notoriously difficult). The new function also handles systems of difference equations (linear and nonlinear) and algebraic difference equations.

In another advance, the numerical functions FindFit, FindRoot, FindMaximum, and FindMinimum—and for that matter most simpler numeric functions—now operate on vector and array variables, so one-line programs in version 5 can replace dozens of lines of version 4.2 code.

The Matrix, Revisited

A matrix is a rectangular array of numbers; many important calculations in electrical and mechanical engineering are cast as matrix problems. Since matrices can be huge—commonly 1,000 by 1,000 numbers or larger—there's a large set of special tricks for quickly calculating them. The larger a program's library of matrix shortcuts is, the less brute force the program needs to use. The original Mathematica was quite weak in this area compared with MathWorks' Matlab (which, after all, stands for "matrix laboratory"). Version 5, however, goes head-to-head with Matlab: of eight common speed tests for matrix calculation, Mathematica 5 won four and roughly tied on two. Matlab users who have written their own code libraries for particular problems will see no need to switch, but now Mathematica users can take on large-scale engineering calculations that used to be Matlab's home turf.

In addition to speed improvements, Mathematica 5's matrix features now include generalized eigenvalues, Schur and

Cholesky decomposition, matrix norms and rank, and characteristic polynomials. Virtually every operation described in a matrix-math textbook now corresponds to a Mathematica function.

Macworld's Buying Advice

If you already use Mathematica, you should upgrade to version 5—the speed improvements alone are reason enough. The program's overhauled matrix operations make Mathematica competitive with Matlab on most engineering matrix problems, and new solvers for business problems will prove valuable in financial modeling. In version 5, Wolfram has identified most of the areas that called for user programming, and it has done the work for you. With its enhanced authoring tools and its new graphics format, version 5 is the friendliest version of Mathematica yet for Web-based math collaboration. □

RATING: ★★★★★

PROS: Spectacular speed improvements in numerics; sophisticated automated algorithm selection expands range of solvable problems.

CONS: No G5 optimization.

PRICE: \$1,880; upgrade, \$350

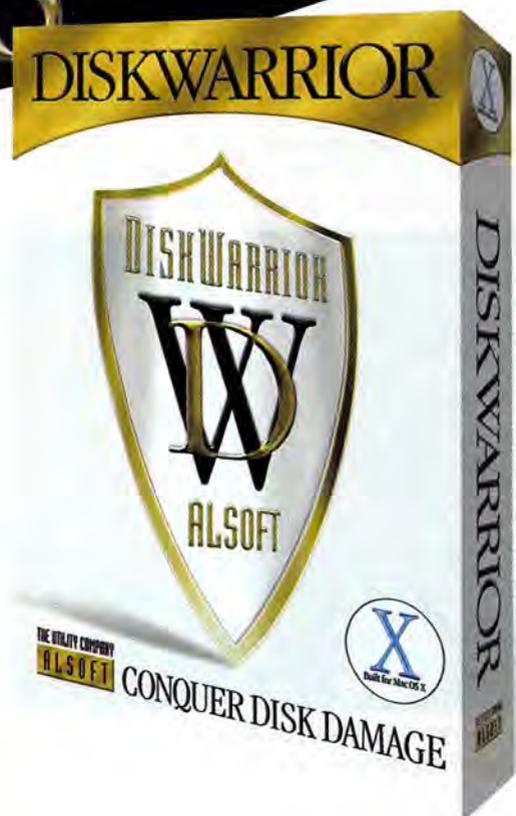
OS COMPATIBILITY: Mac OS 9, Mac OS X

COMPANY: Wolfram Research, 217/398-0700, www.wolfram.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."





Macworld's 2003 Game Hall of Fame

ONCE AGAIN, IT'S TIME TO ROLL OUT THE RED CARPET AT THE Macworld Game Hall of Fame and honor the year's best pulse-quicken- ing, mind-tingling games. For those of you who haven't made the pilgrimage to these hallowed halls, the Game

Hall of Fame is located in historic Pitts- field, Massachusetts, a few hours away from my homestead on Cape Cod. Thank goodness the management lets me tele- commute most days (the three-hour drive up the Mass Pike is a killer).

As I walk through the halls, polishing fingerprints off of the brass statues of past inductees and making room for the newest crop of winners, I can't help but look back on the past year with fondness. Sure, there were a few titles that made me want to give up my joystick forever—I won't name any names. But after all was said and done, 2003 shaped up to be another solid year for games on the Mac. From old-school arcade games to futuris- tic shooters, zoo management to covert military operations, there was truly some- thing for everyone.

Best Use of Animal Husbandry

Zoo Tycoon **★★★★**

This real-time strategy game, which lets you build, stock, and maintain your own zoo, emerged midyear and quickly became

one of my favorites— thanks in part to a feature that lets you knock down the walls of your zoo exhibits. (Nothing releases a little pent-up aggression like watching your lions and tigers eat demanding zoo patrons.)

Zoo Tycoon combines the voyeuristic thrill and strategic planning of Sim City with a nice dose of learning. As you build your zoo, you'll learn about the animals' natural habitats and what they need to keep happy and healthy. Do your job well, and you'll make the park a fun place for patrons to spend money—and perhaps earn a small fortune. Do your job poorly, and your zoo may be shut down for animal cruelty.

What's Cool: A recently released Marine Mania expansion pack lets you add oce- anic critters and dinosaurs to the mix.

Who It's For: Strategy- game fans who dream of running a wildlife safari. **From:** Aspyr Media, 888/ 212-7797, www.aspyr .com; \$50.

Best Way to Kick PC Gamers' Butts

Unreal Tournament 2003 **★★★★**

MacSoft took its sweet time getting Unreal Tournament 2003 (UT 2K3) into the hands of Mac gamers, but the game was worth the wait. Chock-full of death and dismember- ment, this unapologeti-



In Your Crosshairs Become a gladiator of the future and cause some serious damage in Unreal Tournament 2003.

cally aggro first-person shooter is brim- ming with mayhem. Like its wildly popu- lar predecessor, UT 2K3 lets you wield a variety of weapons as you participate in futuristic gladiatorial combat. But this time around, the graphics are better, the action is faster, and the contestants are tougher.

While you're blasting away your ene- mies, you can collect adrenaline capsules to activate special modes that enable you to move faster, shoot quicker, and more. And almost every aspect of the game is cus- tomizable, from player characteristics to networking options.

The best part of the game, of course, is playing online against PC gamers, blasting them to smithereens and then letting them know that you're playing on a Mac.

What's Cool: Hacking the game's INI file to maximize performance on your Mac—for example, you can reduce the number of active audio channels (check out *The Game Room*, September 2003, for details). **Who It's For:** The Gatorade- swilling crowd. **From:** MacSoft, 763/231- 8100, www.macsoftgames.com; \$50.



Lions and Tigers and Bears, Oh My! You can create and manage your own wildlife safari with Aspyr's Zoo Tycoon.



Par for the Course Play as Tiger Woods or create your own golfer in Aspyr's excellent golf simulation.

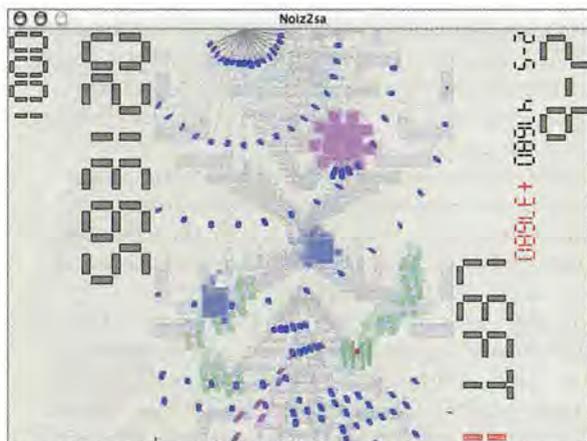
Best Celebrity Endorsement

Tiger Woods PGA Tour 2003

Spectacularly rendered golf courses and stunningly realistic character animation alone don't earn this Mac golf title a spot in the Game Hall of Fame. A lot of the credit belongs to TrueSwing—an intuitive swing-control system that really puts players in the game. The visages of Tiger Woods and other well-known PGA golfers are icing on the cake.

Tiger Woods PGA Tour 2003 features a Career mode that lets you work your way up the rungs of the PGA ladder. Other PGA golfers will even challenge you to games of skill that will test your mettle and put money in your pocket—if you win.

The second of two major golf games reviewed by *Macworld* in 2003, Tiger Woods was truly the superior game—notwithstanding a few graphical glitches on certain Mac configurations. In fact, it looks better, plays better, and offers more challenges than any Mac golf game I can think of.



Distilled Gaming The hypnotic Noiz2sa focuses on what makes shoot-'em-ups—or *shmups*—fun to play.

What's Cool: Watching Tiger get more and more frustrated as he keeps duffing easy shots. **Who It's For:** People who took that "I am Tiger Woods" commercial seriously. **From:** Aspyr Media, 888/212-7797, www.aspyr.com; \$40.

Best Difficult-to-Pronounce Game

Noiz2sa

Having grown up on a hearty diet of classic arcade games, I'd happily trade in 3-D graphics for a good 2-D shoot-'em-up (or *shmup*, in gamers' parlance) almost any day of the week. So developer Kenta Cho has a special place in my heart for distilling classic 2-D shooters down to their core and turning them into wonderful, abstract, psychedelic—and just plain weird—games. Noiz2sa is a perfect example.

A follow-up to Cho's earlier—and equally unforgettable—rRootage, Noiz2sa has players flying over a scrolling landscape and firing at anything that moves. The game eschews colorful, cartoonish graphics—common in *shmups*—for a minimalist presentation with an allure all its own: ships, bullets, missiles, and laser beams are all represented by simple geometric shapes. And once the bullets start flying, you'll be hypnotized by the action. Put simply, Noiz2sa is a visual extravaganza in motion. You have to see it to believe it.

What's Cool: People at Starbucks tapping you on the shoulder while you're playing Noiz2sa and begging for details about where to find the game.

Who It's For: People who have a library of console *shmups* and wish there were more of these games on the Mac. **From:** Kenta Cho, www.victoly.com/~adam; free.

Best Use of the Force

Jedi Knight II: Jedi Outcast

The *Star Wars* and *Star Trek* movie franchises have both fallen victim to a wealth of mediocre—and at times, utterly *craptastic*—games. But a notable exception is Aspyr Media's Mac conversion of Jedi Knight II: Jedi Outcast. Based on the Quake III: Arena engine, Jedi Knight II lets you control Kyle Katarn, a Jedi bad boy who's turned to mercenary work to put food on the table.

Although Jedi Knight II uses a few tricks we've all seen before—Max Payne's *Bullet Time* slow-motion mode, for example—it uses them in ways that don't feel hackneyed or, pardon the pun,



Saber Rattling In addition to being a lengthy single-player game, Jedi Knight II lets you go head-to-head online.

forced. Best of all, when you tire of the single-player mode, you can enter online arenas and pit your skills against those of other Mac and PC players.

What's Cool: Getting to slice and dice with a lightsaber. **Who It's For:** People who wish that Darth Vader were their father. **From:** Aspyr Media, 888/212-7797, www.aspyr.com; \$50.

Best Military Training

Tom Clancy's Ghost Recon: Desert Siege

Squad-based military games are odd ducks: they're not quite action games, and they're not quite strategy games. They are, however, incredibly challenging and complex simulations of real-life military exercises. And this year, Aspyr brought an outstanding example of this genre to the Mac.

continues



Covert Ops You're deep inside enemy territory in this Tom Clancy-inspired military combat game.

In Tom Clancy's Ghost Recon, you're in charge of a team of elite commandos called Ghosts. With each mission, you must complete a series of objectives and get your team out alive. There are secondary goals, too, which will raise your status as a covert-ops hero if you're able to complete them in time. Although the game is set in the near future, the weapons and situations—such as quelling East African unrest or putting an end to an uprising that threatens Russian stability—are definitely current.

Ghost Recon gives you more action and requires less planning than past Tom Clancy games, so there's a quicker payoff for the attention-deprived player. Improved graphics and more-realistic sound effects add to your sense of immersion. (The game goes so far as to provide birdsongs from the areas you visit.) And kudos to Aspyr for bundling both the original Ghost Recon game and its expansion pack, Desert Shield, in this combo.

What's Cool: Taking over a fellow commando's body to get the job done. **Who It's For:** Folks who'd rather be in Tom Clancy thrillers than read them. **From:** Aspyr Media, 888/212-7797, www.aspyr.com; \$35.

Best Hacking and Slashing

Dungeon Siege ★★★★★
As much as I wanted to love the long-awaited Mac release of Neverwinter Nights, and as much as I

admire Geneforge 2's deep and varied story line, the Mac dungeon crawl that captured our hearts and minds most thoroughly this year was MacSoft's Dungeon Siege.

Best described as an action and strategy game with role-playing elements, Dungeon Siege breaks the role-playing-game (RPG) mold by offering greater game-play variety. Dungeon Siege combines RPG fun—collecting stuff and leveling up your character with new abilities—with heavy doses of action that encourage you to use squad-based strategy. Add to that an innovative graphics engine that doesn't make you wait for levels to load every time you visit a new location, and you've got hours of hacking and slashing to relish.

What's Cool: A pack mule that can carry tons of supplies but has a habit of running away from battle. **Who It's**

For: Players looking for a successor to Blizzard's Diablo series. **From:** MacSoft, 763/231-8100, www.macsoftgames.com; \$30.

Best Recycled Idea

ThinkTanks ★★★★★
Here at the Game Hall of Fame, I often find myself reminiscing about the eighties—the golden age of coin-operated video games, and a time when a game's graphics could easily be duplicated on fabric by any neophyte cross-stitcher. One of the all-time classics of that era was Combat, an Atari 2600 game that placed you and a friend in tanks on opposite sides of a 2-D battlefield. This game was the inspiration for Bravetree Productions' ThinkTanks.

ThinkTanks puts you in the turret of a metal machine and sends you across a 3-D battlefield to take on anyone who crosses your path—online or on your own computer. Strategically placed power-ups charge your cannon with special abilities, continues



Medieval Madness You'll hack and slash your way through the expansive, violent world of Dungeon Siege.

Best Place to Get Classic Games

In 2003, I reviewed MacMAME (Mac Multiple Arcade Machine Emulator), a free emulator that revives classic arcade machines from the seventies, eighties, and nineties on your Mac—in much the same way that VirtualPC emulates a Windows-compatible computer (www.macmame.org). But although MacMAME emulates the technology underlying arcade games, it doesn't actually include the games themselves. For that, you need ROM image files culled from the arcade game's original chips.

Until recently, MacMAME users who wanted to get these ROM files had two options: buy the original arcade games and use byzantine equipment to read the data; or download ROM files from the Internet via pirate Web sites and peer-to-peer services. The former is a daunting, time-consuming, and expensive process, while the latter is an easier and cheaper, but more legally precarious, approach.

But now a company has stepped in to give gamers legal and easy access to game ROMs. Based on the same concept as Apple's iTunes Music Store,

StarROMs (www.starroms.com) sells vintage-arcade-game ROMs that work with MacMAME and its kin. The company kicked off last October with dozens of ROMs from classic Atari arcade games such as Missile Command, Tempest, Asteroids, and others.

As this issue went to press, the selection on StarROMs' Web site was limited to Atari games. However, with dozens of classics to choose from, there should be enough to keep even extremely ardent arcade enthusiasts busy for hours. The company says it plans to flesh out its selection as soon as deals with other license holders are finalized.

ROM files will cost you anywhere from \$2 to \$6—a small price to pay to own a legitimate piece of gaming history. You can get an even better deal by using your credit card to buy StarROMs credits—the coin of StarROMs' realm—in bulk. Once you buy the games, they're yours to keep. There are no restrictions due to digital-rights management, as there are with music you buy through the iTunes Music Store.

The Circle is Complete



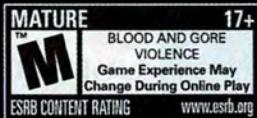
HALO

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MacSoft

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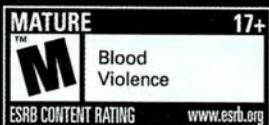
Tom Clancy's
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Nouveau Retro ThinkTanks is at heart a classic arcade game, but it has graphics that will impress the Unreal Tournament crowd.

while jump pads let you snatch a brief bird's-eye view of the battlefield. It's an old concept smartly updated for gamers whose graphical tastes tend toward Unreal Tournament, but who still have a hankering for simple game play.

What's Cool: Being able to run your own multiplayer server from your Mac. **Who It's For:** People who get a twinge of nostal-

gia when they see the black, rubbery, single-button joystick of the Atari 2600 in video game retrospectives. **From:** GarageGames, 541/345-3040, www.garagegames.com; \$20.

Best Great Game Made Greater

Warcraft III: The Frozen Throne



Expansion packs too often fall into the trap of just padding original games with more fluff but not offering anything substantive. This is definitely not

true of Warcraft III: The Frozen Throne. This official add-on to 2002's Warcraft III: Reign of Chaos makes an already good game even better.

As a role-playing strategy game, Warcraft III puts you in charge of heroes of each of the four races that populate the war-torn world of Azeroth. The Frozen continues

Best Gaming Twosome

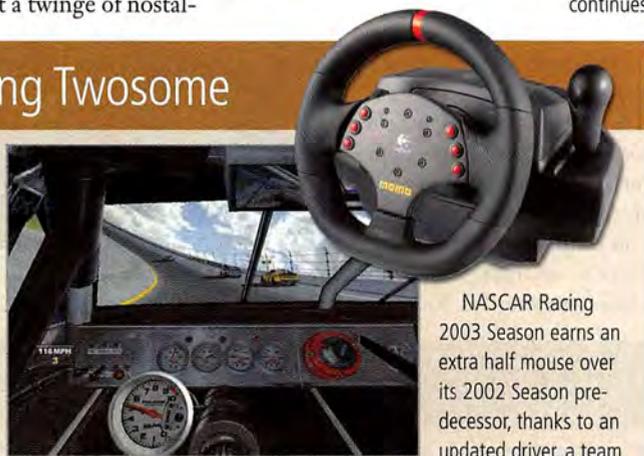
NASCAR Racing 2003 Season and Logitech Momo Racing Wheel



With some games, it doesn't matter whether you use the keyboard or a game controller—the experience is about the same. But for others,

the difference is like night and day. NASCAR Racing 2003 Season is that kind of game. It's also the swan song of a terrific game franchise that carefully simulates what it's like to muscle a roaring NASCAR racing vehicle around real-world tracks.

People unfamiliar with the sport may not see much challenge in NASCAR driving—after all, you're just taking left turns continuously, right? No, not by a long shot—riding in bumper-to-bumper traffic on the freeway is one thing, but at 190 miles per hour, it's a whole different story. Careful fuel management, listening to cues from your pit crews, and keeping an eye on your gauges and other drivers all add up to a nail-biting experience that won't let you look away from the screen for even a moment—unless you want to end up as roadkill.



NASCAR Racing 2003 Season earns an extra half mouse over its 2002 Season predecessor, thanks to an updated driver, a team and sponsor roster, all

23 real-world NASCAR tracks, and a dramatically reworked physics engine. These features, along with new graphics and AI improvements, make the game even more realistic and challenging than before.

But to really experience the true power of this game, you'll need Logitech's Momo Racing Wheel. NASCAR's new support for force feedback brings a whole different level of realism to the game by making the steering wheel shimmy and shake as you plow your 800-horsepower rocket-sled around the track.

What's Cool: Taking a U-turn out of pit row and plowing your car into oncoming traffic just to watch the other cars flip over, and then replaying the chaos from different angles. **Who It's For:** Jeff Gordon wannabes. **From:** Aspyr Media, 888/212-7797, www.aspyr.com; \$30; and Logitech, 888/863-8312, www.logitech.com; \$100.

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Azeroth Awaits Return to the land where humans, Orcs, and others vie for control in *Warcraft III: The Frozen Throne*.

Throne has an additional single-player campaign that starts off where the first one ended. You'll also find tons of new objects, units, and other goodies—including a new level editor for folks who want to make their own mods. And *The Frozen Throne* offers new depth when you go head-to-head against PC and other Mac gamers online through Blizzard's free Battle.net matchmaking service.

In case you've somehow missed *Warcraft III* altogether, Blizzard has now put the original game and the expansion pack together—along with a pair of strategy guides to help you along—in a package called the *Warcraft Battle Chest*.

What's Cool: Replaying the game from the beginning and finding new ways to win. **Who It's For:** Players who just can't

get enough of *Warcraft III*. **From:** Blizzard Entertainment, 800/953-7669, www.blizzard.com; \$35.

Best Sense of Humor

The Operative: No One Lives Forever ★★★

Many games take themselves way too seriously. So when MacPlay released *The Operative: No One Lives Forever*, it was a welcome respite from the usual posturing and pontificating. Brandishing a corny

sense of humor and outrageous, tongue-in-cheek caricatures, *The Operative* mixes first-person-shooter game play with sixties-era style. In it, you assume the role of Cate Archer, an undercover agent charged with foiling the efforts of an evil underground group that's bent on world domination.

Although the game's graphics look a bit dated, *The Operative* is a whole lot of fun. It definitely kept me laughing. And as in classic spy movies, just when you think you've seen it all, there's another stunt to challenge you. It's one part

James Bond, one part *The Avengers*, and a dash of *Austin Powers*—served up shaken, not stirred.

The Operative: No One Lives Forever 2 should be hitting store shelves around the time this issue lands in your hands. While I haven't had a chance to put it through its paces, the sequel has the same trappings that made the first installment so much fun. Dramatically improved graphics and other embellishments should make this title worth keeping an eye on.

What's Cool: The nifty sixties-era lounge music, included in the box as an audio CD. **Who It's For:** Anyone who's ever dreamt of being (or being with) Emma Peel. **From:** MacPlay, 214/855-5955, www.macplay.com; \$30. □



Spy Games It's up to you to save the world in the wonderfully corny *The Operative: No One Lives Forever*.

On the Horizon

Although these titles arrived too late to be considered for this year's Game Hall of Fame, they certainly have me on the edge of my seat. In fact, most of these games should be hitting stores in time for the shopping season.

Halo

Few who witnessed Halo's debut at the June 1999 Macworld Expo keynote speech would have believed it would be 2003 before MacSoft finally got the game into the hands of Mac users. If you've already played Halo on your Xbox, you can expect a very different experience on the Mac. For one thing, it looks much better, thanks to support for high resolutions (as high as 1,600 by 1,200) and the pixel-shading technology found in newer graphics cards. Halo also sports a new weapon, new vehicles, new maps, and several customizable multiplayer games—including PC-to-Mac multiplayer gaming support.

Tom Clancy's Rainbow Six 3: Raven Shield

If you like *Ghost Recon*, take a look at Aspyr's Mac conversion of Tom Clancy's *Rainbow Six 3: Raven Shield*. As the leader of a special operatives unit called *Rainbow*, you'll lead missions against a hidden terrorist threat as you travel to locales such as London, the Caribbean, and Rio de Janeiro. Also keep an eye out for Tom Clancy's *Splinter Cell*, which puts you in the role of a stealthy undercover operative working for the U.S. government.

Unreal Tournament 2004

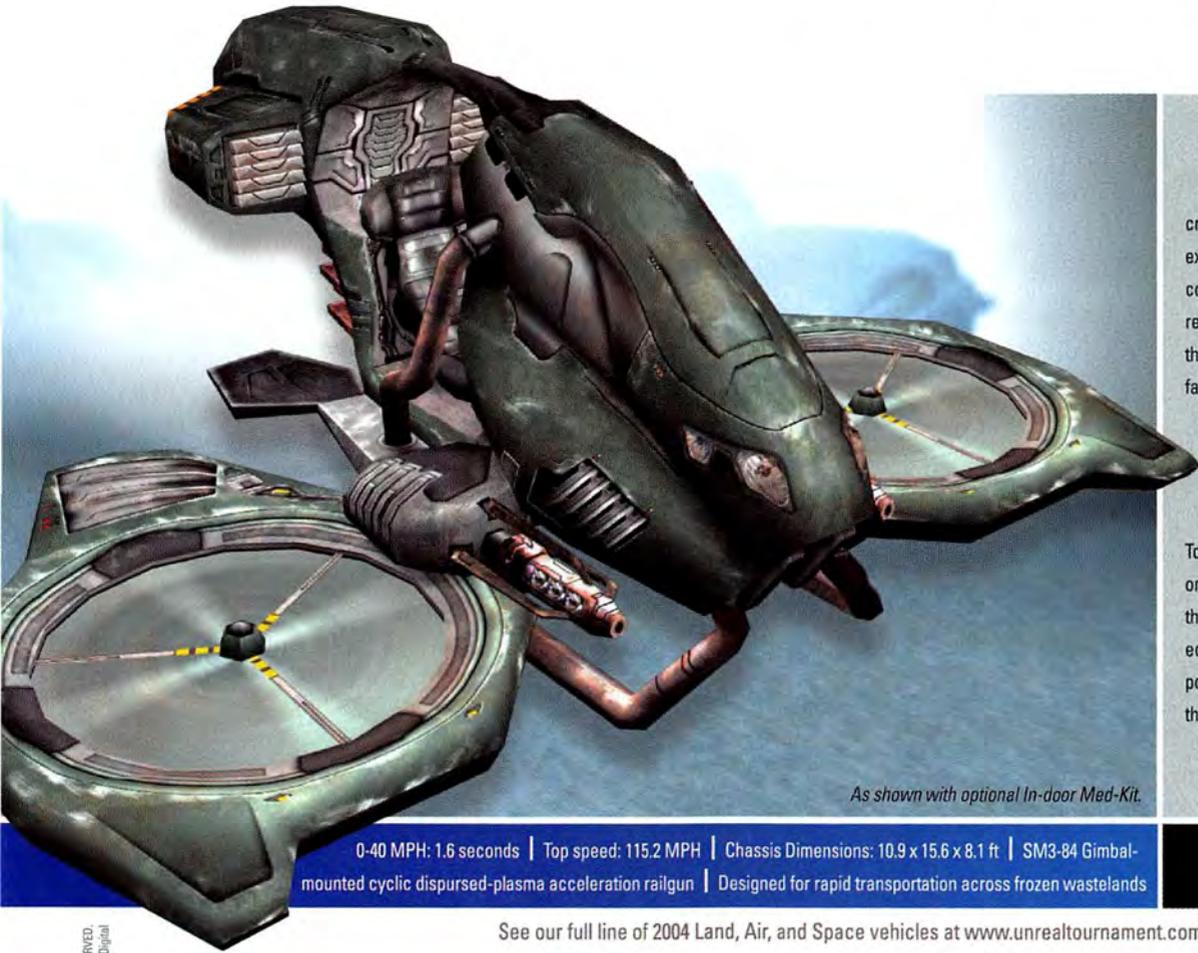
The Mac version of *Unreal Tournament 2003*, from MacSoft, may have arrived more than half a year after its PC counterpart, but the next installment is shipping at almost the same time. The latest edition of this futuristic arena combat series offers new game-play modes, weapons, player modes, and vehicles.

Favorite features included with the original *Unreal Tournament* but missing from *UT 2K3*—for example, the Assault mode, where players try to achieve mission objectives—will make a comeback in *UT 2K4*. And fans of long-range shooting will be happy to have the Sniper Rifle back in their arsenals.

Law & Order: Dead on the Money

For something totally different from just about any game discussed this month, there's Aspyr's 3-D mystery game based on the hugely popular television drama series *Law & Order*. The game features the faces and the voices of the actors you know from the show. You'll help Detective Lennie Briscoe collect evidence and information about a Central Park murder, and then you'll present those findings to Lieutenant Anita Van Buren. Once you've got a suspect in custody, it's up to you to help Assistant DA Serena Southerlyn build a compelling case worthy of a guilty verdict.

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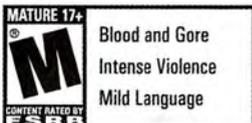
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* *Mac Developer Journal* frequency: 4 issues per year. Future issues will be delivered digitally by the Zinio Reader.

- > iSeek
- > DejaMenu
- > WireTap
- > PocketDock
- > iSight Case

Searching and Seeking

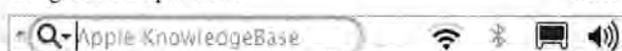
I ADMIT IT: I'M ALL ABOUT CONVENIENCE AND EFFICIENCY.

I like things to be as easy and as trouble-free as possible (that's why I use a Mac, right?). In my line of work I do a *lot* of Web searching, and I get

impatient with the whole "switch to Web browser, go to search page, type in search phrase" routine. For the past year or so, I've been using the excellent Searchling (★★★★; "More Mac Software Bargains," May 2003) to perform Web searches. The bad news is that Searchling is no longer available. The good news is that its author, Michael Thole, worked with shareware pioneer Ambrosia Software to come up with something even better—the \$15 **iSeek 1.0** (★★★★; www.ambrosiasw.com).

Clicking on the spyglass icon in iSeek's menu-bar search box presents you with a bevy of possible search sites. Choose from CNN.com, eBay, Google, NationalGeographic.com, Rotten Tomatoes, and VersionTracker, to name just a few—you can even pick the iTunes Music Store. Just type your query in the menu bar's text field, and then press return to see your search results pop up in your Web browser. What makes iSeek even more of a gem is its keyboard friendliness. Press a user-defined key combination, and the search field appears immediately, waiting for your input. You can even use the tab key or the arrow keys to scroll through the list of search sites. You can search for almost anything, from within any application, without taking your fingers off the keyboard. If you frequently search a particular site, you can assign that site its own keyboard command via iSeek's preferences.

And there are more nice touches: the iSeek search field supports OS X's built-in spelling-checker engine and even has an autocompletion feature. If you've previously searched for a particular string, iSeek will finish it for you the next time you start to type that string—helpful when you're searching for the same thing on multiple sites.



The Seeker With the very handy iSeek, a Web search is always at your fingertips—from within any application. It's even better than Searchling.

iSeek can search nearly 50 Web sites by default, but if you know the format of a particular site's search engine, you can add a new entry for that site via iSeek's preferences; it will then appear in the iSeek menu like any other site. (The iSeek Help files explain in detail how to figure out a site's search for-

mat.) Even better, someone who has already created a search site in iSeek can send you the URL—clicking on it in an e-mail message adds it to your iSeek menu. And you can visit Ambrosia's Web site for a list of sites you can add with a single click.

Given the popularity of searching the Internet, iSeek is sure to be a real find for almost any user.

Menus in Menus

Speaking of convenience, isn't it a hassle to have to mouse all the way to the top of the screen to access menu items? It takes up time, and it can be hard on your wrist over the course of a day—especially if you're using the trackpad on a PowerBook or an iBook. And as screens keep getting larger, you have to do even more mousing.

Karl Hsu's free (donations accepted)

DejaMenu 1.0 (★★★★; <http://homepage.mac.com/khsu/DejaMenu/DejaMenu.html>) takes a unique approach: it brings the menus to your mouse. The first time you launch DejaMenu, it prompts you to create a keyboard combination to access menus; I use control-shift-Z. (It also opens OS X's Universal Access preference pane. You'll need to make sure that Enable Access For Assistive Devices is selected, since DejaMenu works by taking advantage of features built into OS X.) Once your key combination is set, pressing it brings up a menu, directly underneath your mouse pointer, that contains all the menus for the current application. Each menu item provides a hierarchical submenu that includes that menu's contents, just as if you had clicked on it in the menu bar. You can choose any menu command, and it will function just as if you had chosen it normally.

If you use a multibutton mouse that lets you set up mouse buttons to perform keystrokes, you can even designate one of your buttons to bring up the DejaMenu menu. (If you've ever used NextStep OS, this behavior will look very familiar.)

In addition to being useful for laptop users, DejaMenu is especially helpful if you use multiple moni-



Minimal Mousing

DejaMenu makes the menus come to you, instead of making you go to the menus

tors—if you're working on a secondary display, you no longer have to mouse all the way back to the main display just to access a menu.

My only complaint about DeJaMenu is that it doesn't allow you to navigate menus via the keyboard. However, that's more a wish for an additional feature than a critique of what it does. After all, you can always navigate the menu bar by activating OS X's Turn On Full Keyboard Access feature in the Keyboard & Mouse preference pane. DeJaMenu has reduced the amount of mousing I have to do, and that appeals to my efficient (or perhaps lazy) side.

iPodapter

When Apple introduced the redesigned iPod in early 2003, users praised its slimmer, more elegant design, but this improvement came with one catch. Doing away with the standard FireWire port and replacing



Be a Convert
Turn all your FireWire cables into iPod dock connector cables.

it with a new dock connector meant that the accessories that used the FireWire port—such as autochargers—were no longer compatible. And instead of being able to use any standard FireWire cable to sync and charge your iPod, you had to make sure you always carried a special dock cable with you.

In light of the many new dock-oriented third-party peripherals that have since been released, the dock connector doesn't seem like such a bad idea anymore. But it would still be nice to be able to use a standard FireWire cable in a pinch—so I welcome SendStation's tiny \$19 **PocketDock** (★★★★; www.sendstation.com). Quite simply, the PocketDock is an adapter. One end plugs into the dock connector on your iPod, and the other provides a standard FireWire port. Anything you could do with an older iPod's FireWire



Tapped In You can use WireTap to record any audio on your Mac.

port—sync with iTunes, charge the battery, use the iPod as a portable hard drive—you can do with a newer iPod via the PocketDock.

Thanks to this little device, I can finally use my old iPod car adapter, and the PocketDock is small enough that I can keep it in my iPod case or laptop bag. I never have to worry about forgetting my dock cable again.

Audio Capture

OS X lets you record audio from a microphone or audio-input jack, but it doesn't let you record sounds *originating* from your Mac. Internet radio, sound effects from a game, a RealPlayer broadcast of your favorite team, dialogue from a DVD, an iChat audio conversation—these types of things are off limits without third-party software.

Although a number of tools out there let you capture audio on your Mac, Ambrosia Software's free **WireTap 1.0** (★★★★; www.ambrosiasw.com) is clearly the easiest to use. (We're assuming that you want to record sounds only for personal use.)

WireTap's diminutive control window floats above all other windows by default, so it's always accessible (you can turn this option off). It has just three buttons: Record, Stop, and Pause. Click on the Record button to capture any audio playing on your Mac (including alert sounds). A mini level meter shows the left and right channel levels, and you'll also see the recording time and the size of the audio file WireTap is creating. Since the app taps into QuickTime, you can record at different bit rates and bit depths, in stereo or mono, and using any of QuickTime's AIFF codecs (you can always use iTunes or QuickTime Player to convert these files to MP3 or AAC later).

Click on the Stop button, and WireTap saves the recorded audio to your hard drive. If you want to store multiple recording sessions in the same file, use the Pause button instead. Note that you can access these controls and WireTap's other controls via its Dock menu.

WireTap is also AppleScriptable, and Ambrosia includes a few sample scripts you can use to schedule recordings—it's sort of a budget TiVo for audio.

Ambrosia says it will use the WireTap technology to allow audio recording in an upcoming version of its excellent screen- and video-capture utility, Snapz Pro X (★★★★; January 2002). But for those who just want the sound, WireTap is here now and works great as is—and it's free. □

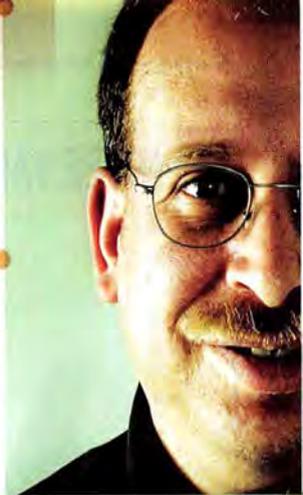
The Quickie

When you buy an iSight, Apple includes a compact plastic case that fits the camera perfectly. The only problem is that you can't use the iSight without a FireWire cable, a stand, and a mounting clip—and those items don't quite fit in the case. If you're looking for a better way to carry your iSight setup, check out WaterField Design's \$24 **iSight Case** (★★★★; www.sfbags.com). With a ballistic-nylon exterior and custom-fit, padded compartments inside, it holds your iSight (with or without the plastic case), as well as all the required accessories, in style. And at only 7.25 by 3.32 by 1.25 inches, it's small enough to fit in any laptop bag.



Contributing Editor DAN FRAKES is the author of *Mac OS X Power Tools* (Sybex, 2003) and an editor at MacFixIt.com. He can be tracked down at www.danfrakes.com. Send your thoughts on this column, or on things you'd like to see in future columns, to macgems@macworld.com.

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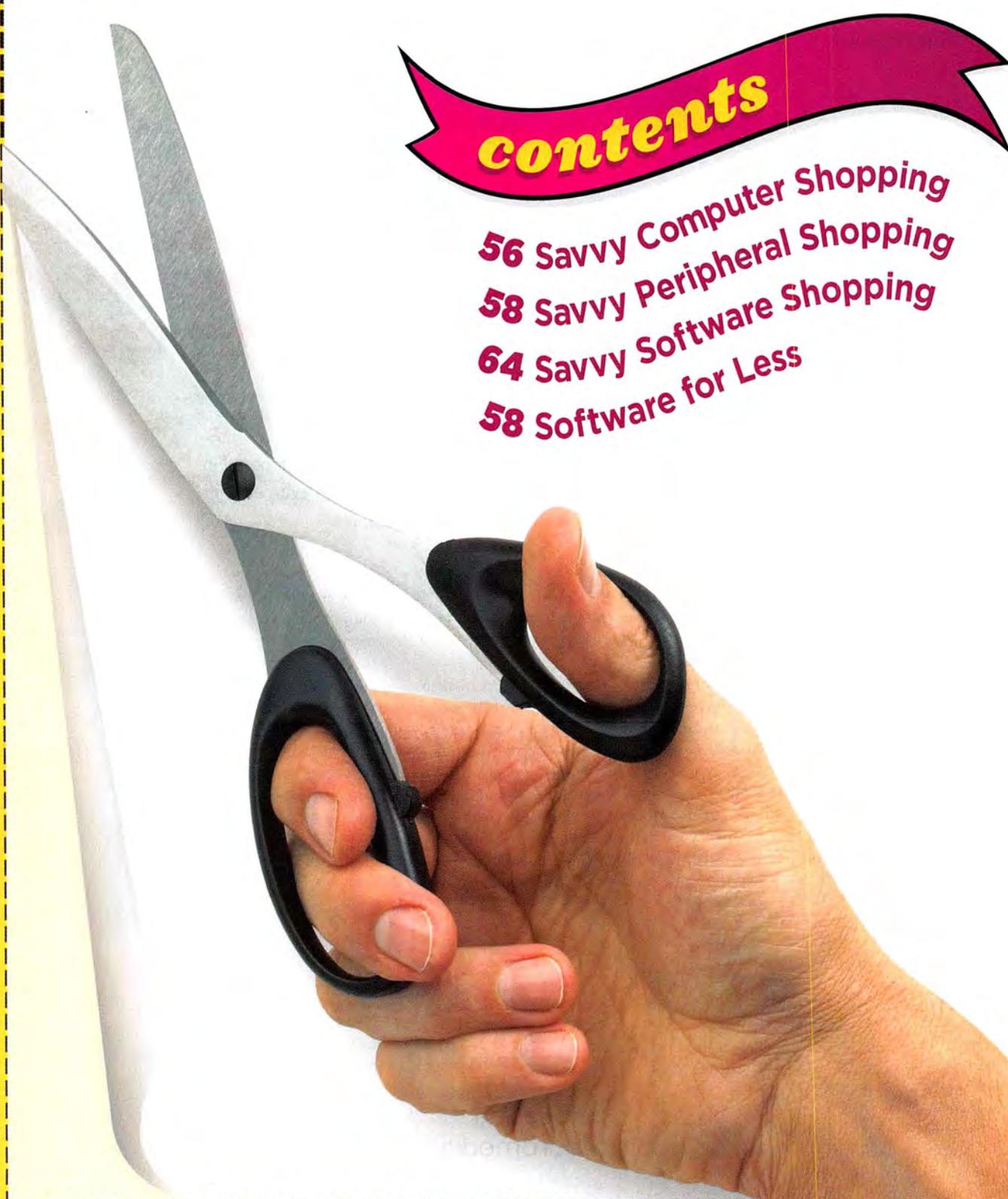
Introducing
Macromedia MX 2004.

www.macromedia.com/go/2004



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OFFER VALID FOR MAC USERS WHO AREN'T MADE OF MONEY NEVER EXPIRES



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Shop Smart

When, Where, and How to Get the Best Mac Deals

They say that money can't buy happiness—but we think “they” probably live off of extravagant trust funds. If you ask us, *saving* money feels pretty darn good. And the ugly dent that keeping up with new Mac technology can put in our wallets? That makes us decidedly *unhappy*.

We're here to give you something to smile about. Although systems, software, and peripherals get better, faster, and smarter by the month, you don't need to plunder your 401(k) account to live a lavish Mac life. This wealth of tips will help you find the best deals on Macs and Mac products. Just turn the page to learn how to spend less and work better.



Savvy Computer Shopping

A system, whether it's a desktop or a laptop, is the biggest investment most Mac users make. Fortunately, there are ways to get more Mac for your money, and to extend the life of the system you already have.

THE BEST TIME TO BUY

Apple often introduces additions or updates to its hardware line at major conferences, such as Macworld Conference & Expo (both in the United States and abroad) and the Worldwide Developers Conference. So to avoid buying a top Mac on Sunday and then seeing it replaced—and its price dropped—on Wednesday, don't buy right before a conference.

Apple also announces new machines at random times, so keep an eye on the analyst reports that are often quoted on Mac news sites such as MacCentral (www.maccentral.com) and in general-technology newsletters such as NewsFactor (www.newsfactor.com). Signs that may point to an imminent hardware upgrade are reports of Apple clearing out inventory or halting shipments of certain products. And if Apple hasn't updated a product for a long while, an upgrade may be just around the corner.

In 2004, Apple may have a presence at the following major conferences: Macworld Conference & Expo San Francisco (January 5 through January 9), the Worldwide Developers Conference (usually in May or June), and Apple Expo Paris (in September).—ALAN GRAHAM

SECOND TIME'S A CHARM

Apple-refurbished products are often great deals. Whether someone has returned a Mac or a Mac is found to be defective, Apple puts the machine through a stringent refurbishment process and gives it an original Apple one-year limited warranty. Buying refurbished equipment could save you 10 to 30 percent of the price of a new Mac.

We compared prices for an eMac and an iBook—both new and refurbished—at three suppliers. We chose the online Apple Store (<http://store.apple.com>; go to the Special Deals section), the Small Dog Electronics Web site (www.smalldog.com), and a brick-and-mortar CompUSA store (www.compusa.com). The refurbished items won the price war every time. (For full details, see "Second Time Around.")—AG

Second Time Around

	Vendor and Hardware Condition		
HARDWARE	APPLE STORE	SMALL DOG ELECTRONICS	COMPUSA
eMac [†]	\$1,299 plus tax and shipping (new)	\$1,059 plus shipping (refurbished)	\$1,300 plus tax (new)
iBook [‡]	\$1,499 plus tax and shipping (new)	\$1,299 plus shipping (refurbished)	\$1,500 plus tax (new)

Comparison was done in September 2003. [†]1GHz PowerPC G4, 80GB Ultra ATA drive, DVD-R/CD-RW drive, 256MB RAM. [‡]14-inch, 933MHz PowerPC G4, 40GB Ultra ATA drive, DVD-ROM/CD-RW drive, 256MB RAM.

PUT YOUR EDUCATION TO WORK

You may be eligible to purchase a Mac for less through an educational discount. At an Apple Store, the hoi polloi can buy a 1.25GHz Power Mac G4 with an 80GB hard drive and a DVD-R/CD-RW drive for \$1,299. With an educational discount, it costs only \$1,199.

But you can't just waltz into a store, announce yourself as a teacher at the School of Hard Knocks, and expect to save 100 bucks. To qualify, you must be an employee of a K-12 institution, a school-board member, a PTA or PTO executive, affiliated with a qualified home school, or an employee of a preschool. College and university faculty, staff, and students also qualify.

You can get the educational discount through your institution's hardware-purchasing program; to find out more, contact your school's MIS department. Or go through the Apple Store Web site—just click on Educational Discount on the main page. After you enter your school name and complete your order, Apple calls your institution to verify that you're appropriately involved in bookish endeavors.

If Apple doesn't sell the product you're looking for, Gradware (www.gradware.com) also offers significant educational discounts (often as much as 50 percent). You'll need to fax them proof of your student status, such as a student ID, a class schedule, or a letter on your school's letterhead.—AG

PACKAGE DEALS

If you don't need a new computer right away, keep an eye out for special package deals that can make the most of your money. For example, at press time, ClubMac (www.clubmac.com) threw in a free Epson Stylus C84 color ink-jet printer (which has a list price of \$99) with any Mac purchase. Just be sure to read the fine print. Many packages are a deal only after a mail-in rebate. If you don't take that extra step, you won't save any money.—AG

FINANCE IT

Gotta have a Mac now but can't afford to pay the full price all at once? Consider using the Apple Instant Loan, which gives you as long as five years to pay. Depending on your credit history, you can get a credit line of up to \$10,000. Interest rates start at 9.99 percent and go up from there, so you could end up with a painfully large bill, but there aren't any penalties if you pay off the loan early. Plus, there are no processing costs or annual fees. You can apply for the Apple Instant Loan at the Apple Store site.—AG

TIP

You can still buy an Apple extended warranty, as long as you're covered by your original warranty.

PREVENTIVE CARE

"Would you like to purchase an extended warranty?" Who hasn't heard that question from a salesperson? Some retailers push extended warranties to drive up commissions, but that doesn't mean they're always a bad deal. Apple offers an extended warranty, the AppleCare Protection Plan. It can add substantially to a Mac's price—as much as \$249 for an iBook and \$349 for a PowerBook. But if your Mac has serious problems (and especially if you're not comfortable tackling repairs yourself), an extended warranty can pay for itself on your first visit to the repair shop. (Just remember that if you're willing to crack open your Mac's case, you can save a lot of money. See "Before You Replace It, Repair It" for more.)

What You Get The AppleCare Protection Plan extends coverage of Apple-certified repairs from one year to three years, and it gives you free phone support for three years.

CompUSA also offers extended warranties on Apple products (with the iBook, for example, the extended warranty costs \$249); however, coverage length is only two years. Also, CompUSA's protection doesn't include direct Apple phone support.

Buy It Now or Later You can add the AppleCare Protection Plan as long as your original warranty is in effect. CompUSA isn't so lenient—you must buy it when you buy the Apple product. Both companies let you purchase the extended warranties at their online and retail stores.—AG

Before You Replace It, Repair It

Your Mac has serious problems, or maybe it's just outdated. In either case, if your equipment's original warranty has expired, consider repairing or upgrading it before you replace it. With a little bit of information and the right tools, you can save yourself a lot of money.

Diagnose the Problem

Before you can fix a problem, you need to know exactly what's wrong. There are several ways to find out; we've included a few of our favorite troubleshooting resources here.

AppleCare: Knowledge Base Check the AppleCare channel in Sherlock or go to <http://kbase.info.apple.com>. You can search the Knowledge Base documents by keyword or browse by subject. Unless your problem is unique to your equipment, Apple may have the answers you need.

MacFixIt The MacFixIt site (www.macfixit.com) is divided into free and subscription areas. The troubleshooting information you'll gain is well worth the \$25 yearly subscription fee.

Accelerate Your Mac Roam this site (www.xlr8yourmac.com) for a huge amount of Mac-tweaking information provided by the site operator, Computer Resources, and site readers.

Forums The Macworld forums (go to www.macworld.com and click on the Forums tab) are another resource for diagnosing problems. You can search past entries for similar problems and post your own dilemma—people with comparable experiences can often tell you how they resolved their issues.

Old Manuals Though many of us don't read them, equipment manuals can be very helpful. If you've lost your manual for an Apple product, search for it at www.info.apple.com/support/manuals.legacy.html.

Print and Online Books Because they are applicable to general Mac maintenance as well as to specific problems, books that give

troubleshooting advice can be good investments. Check out *Mac OS X Disaster Relief*, updated edition, by Ted Landau (Peachpit Press, 2002); *Mac OS X Help Desk*, by Ted Landau (Peachpit Press, 2004); *Mac 911*, by Christopher Breen (Peachpit, 2002); and *Macintosh Troubleshooting Pocket Guide*, by David Lerner, Aaron Freimark, and Tekserve Corporation (O'Reilly, 2002).

If you don't have time to go to the bookstore or order print copies from an online seller, you can preview and buy electronic copies of many of these titles on the publishers' Web sites. As a bonus, it's easy to search for specific text strings in digital books.

Repair Tools

The right tools are crucial when you're making repairs. Here's a list of the tools I keep in my toolbox:

- > a multimeter to test for voltage and resistance
- > a Torx wrench set
- > small Phillips screwdrivers with magnetic tips
- > containers to hold screws
- > a label maker
- > a digital camera so I can take pictures of original configurations
- > a wire cutter with a stripper
- > needle-nose pliers
- > a static strap to discharge electricity
- > static bags
- > double-stick tape to keep things from slipping off work surfaces

Upgrade Guides

Even if your Mac isn't broken, pokey performance or an inadequate drive can make you want to break something. There are several upgrades you can perform to keep the peace.

One of the easiest improvements is to add more RAM. But if this simple operation doesn't net the results you're after, you may want to

upgrade your processor. This can be more complicated. For a little help, see "Upgrade Your Processor" (www.macworld.com/2001/08/bc/20howtoupgradeprocessors/), which has step-by-step instructions for the blue-and-white G3 and beige G3 tower. To learn how to goose Power Mac G4 models from 1999's graphite AGP-graphics model through the 2001 Quicksilver model, turn to "Make Your Mac Faster" (*Secrets*, October 2003).

Not enough hard-drive space or the wrong kind of drive can also be the impetus for upgrades. If your desktop Mac has brackets for two internal drives, adding a second hard drive is straightforward (see "Starving for Storage?" *How-to*, January 2001). "Soup Up Your PowerBook" (*Secrets*, January 2003) walks you through internal hard-drive upgrades in the PowerBook G3 (Wall Street) and Titanium PowerBook. Instructions for the Lombard and Pismo laptops are at www.macworld.com/2003/01/features/upgrade/index.html. You can even install an internal DVD-RW drive in a Power Mac G4 and create your own version of Apple's SuperDrive (see "Install a SuperDrive," in "The Do-It-Yourself Mac," August 2003).

When even upgrades like these aren't enough, you may want to go the thrifty route by keeping your old Mac and using it for secondary tasks—such as a backup server, a Web server, a kitchen assistant, a home-automation command center, or an MP3 jukebox. There's detailed advice for doing just that in the *Macworld* series "Old Mac, New Tricks" (go to www.macworld.com, and type Old Mac, New Tricks in the Search box).

Finally, if you do decide that it's time to say good-bye to your Mac (and if that Mac is in good condition), consider donating it to a charitable organization (and claiming the donation on your taxes). For details, see "Recycle Old Macs" (*Secrets*, January 2003).—ALAN GRAHAM



Savvy Peripheral Shopping

Seeking to save dough on computer peripherals? The following tips will help you shop for printers (and their consumables), media, cables, and adapters.

THE REAL PRICE OF PRINTERS

After the keyboard, mouse, and monitor, the first device likely to be tethered to your Mac is a printer. Finding a cost-effective printer requires more than comparing price tags. To get the best value, you must consider not only the price of the printer but also the cost of keeping that printer fed.

Ink-Jet versus Laser Stroll through your local computer-mart, and you'll discover that an ink-jet printer can sell for the price of a Friday-night surf-and-turf dinner special. Conversely, monochrome laser printers cost between \$400 and \$1,500. But depending on the kind of printing you do, a laser printer may be the more economical choice.

The determining factor is consumables—the paper and ink or toner your printer requires. Although laser printers cost more initially, they can be better bargains over the long haul because their per-page cost is lower than that of ink-jet printers. We compared two Hewlett-Packard printers (www.hp.com) to demonstrate just how this works. (For a quick breakdown of the numbers, see “Printer Costs: Ink-Jet versus Laser.”)

The \$20, standard black-ink cartridge used in HP's \$99 DeskJet 5550 ink-jet printer can produce 450 pages at five percent coverage, for a little over \$0.044 cents per page. The \$72 cartridge used in HP's \$400 LaserJet 1300 laser printer can print 2,500 pages at five percent coverage, for about \$0.028 per page. Were you to produce those same 2,500 pages with the ink-jet, you'd pay \$110 for the ink alone. Tack on the additional expense of higher-priced ink-jet paper and average ink coverage greater than five percent, and you're looking at a cost of between \$0.05 and \$0.10 per page for black-only documents produced on the ink-jet printer.

If an ink-jet printer uses a single cartridge that contains black and color inks (such cartridges are more expensive than one-

Printer Costs: Ink-Jet versus Laser

MODEL	PRINTER PRICE	BLACK-CARTRIDGE PRICE	PAGES PER CARTRIDGE	COST PER PAGE
HP DeskJet 5550 ink-jet printer	\$99	\$20	450	\$0.044
HP LaserJet 1300 laser printer	\$400	\$72	2,500	\$0.028

SOFTWARE FOR LESS

Thanks to a thriving developer community, there are thousands of top-notch OS X applications and utilities that can help you work smarter, customize your system, or perform tasks that are otherwise impossible—all for a fraction of what you'd shell out for a big-name application.

To give you a taste of what's available, we pulled together some of the best low-cost and free software reviewed in *Macworld* (many developers of free apps do accept donations). Whether you want to blend two images, create mailing labels from your Address Book, or filter out annoying spam,

there's something in here for you. These applications may not have all the features of Adobe Photoshop or the applications in the Microsoft Office suite, for example, but they do their job well. And in many cases, they offer tools and features you won't find in high-end packages. Best of all, none of these programs costs more than \$30.

To find even more inexpensive software gems, check out VersionTracker (www.versiontracker.com). There you can see reviews from other users, search by software category, and even download the programs you want.

FREE SOFTWARE

HTML Checker: BLT 0.2 X

★★★★; Braxtech, www.braxtech.com/blt/

Full-featured Web-authoring programs search for broken links, but if you're using a smaller program for coding, BLT can fill the gap. It checks your hard drive or the Web to make sure that all of a page's objects—not just its links—are OK (May 2003).

Backup Utility: Carbon Copy Cloner 2.1 X

★★★★; Bombich Software, www.bombich.com

Carbon Copy Cloner puts a simple interface on a series of complex Unix-based scripts, so you can easily make backups or transfer data from one Mac to another (May 2003).

Mousing Shortcuts: Cocoa Gestures 1.1 X

★★★★; bitart, www.bitart.com

Cocoa Gestures lets you to use mouse movements to perform actions in all Cocoa applications. For example, you could assign control-clicking and a down mouse

motion to closing a window. The possibilities are endless (May 2003).

Web Searcher: Huevos 1.1 X

★★★★; Rancho Software, www.rancho.com

If you spend a lot of time searching the Web, this keyboard-based, intuitive desktop search tool that accesses 15 different sites is a tremendous time-saver (September 2003).

Weblog Updater: iJournal 1.5 X

★★★★; William Coldwell, www.planetcryo.com

Coldwell's Weblog tool is easy to use, and it supports keyboard shortcuts. A little bonus is that the program can show site viewers the iTunes song you're currently playing (July 2003).

Text Editor: jEdit 4.1 X

★★★★; Slava Pestov, www.jedit.org

jEdit is a programmer's text editor written in Java. jEdit's features—such as unlimited undo and redo levels, and syntax coloring for more than 50 languages—and the fact that it's free make it an excellent alternative to commercial editors (May 2003).

color cartridges), per-page costs are even steeper, as the cartridge has less capacity for black ink—you have to replace cartridges more frequently. So if you're shopping for an ink-jet printer, find one that offers separate black and color cartridges.

If your color printing is limited to business graphics—charts and graphs rather than photos—a color laser printer may make more sense than an ink-jet. Color laser printers start at around \$700 and offer a per-page cost of around \$0.095. Although color ink-jet printers are far less expensive than laser printers—some cost less than \$100—documents produced on a color ink-jet printer cost upwards of \$0.20 per page.

Multifunction Printers If you're seeking to save money when putting together a home office, you may be tempted by a multifunction printer. These devices print, scan, and copy (some fax, too). Multifunction printers can be either ink-jet or laser. Ink-jet models cost between \$150 and \$200, and laser models such as Brother's MFC-8420 (www.brother.com) start at \$550.

Although multifunction printers are convenient, they have disadvantages. The first is that if the device massively malfunctions, you lose not only your printer but also your copier and scanner. Second, these devices often don't do as good a job as discrete components do. For example, in a recent review (*This Month in Printers*, November 2003), we found that the copies produced by both Lexmark's \$150 X5150 All-in-One (www.lexmark.com) and HP's \$700 LaserJet 3330mfp were too dark. And the scanning quality of HP's PSC 2175 and of the Lexmark

device was poor compared with the results of a dedicated scanner.—CHRISTOPHER BREEN

PRINTING FOR PENNIES

Laser printers may be more economical than ink-jet printers, but how do you pinch pennies if you already own an ink-jet? While you can eke out some savings by using an economy-mode setting, you'll save more if you extend the life span of your cartridges.

Resellers offer a wide range of discounted and specialty inks, and the terminology can be confusing. Here's a brief guide.

Ink-Refill Kits A popular alternative, refill kits include a bottle of ink and a syringe with which to fill the cartridge. On average, you can refill cartridges five times. Though it's a bargain—reducing costs by as much as 80 percent—the refilling process can be messy, and there's no guarantee that the cartridge will work perfectly. For Epson owners, Media Street (www.mediastreet.com)

offers the \$25 Universal Chip Resetter, a battery-powered device that can reprogram the chips on cartridges. The chips monitor the amount of ink in the cartridge and talk to the printer driver. If you don't reprogram them, the refilled cartridge won't work or will show the wrong amount.

Recycled and Remanufactured Cartridges Many ink companies can recycle cartridges for you. Recycling fits the bill for people who appreciate the savings of refilling but want to avoid the fuss. You mail the cartridge to the supplier in a prepaid envelope, and the company returns a filled cartridge. However, this



Weblog Updater:

Kung-Log 1.44

★★★★; Adriaan Tijsseling, www.kung-foo.tv

A rich feature set helps Kung-Log manage Weblogs on multiple servers. As a plus, the developer is very responsive (July 2003).

iChat Searcher:

Logorrhea 1.2.1

★★★★; Spiny Software, <http://spiny.com/software>

Logorrhea is a great utility that can help you quickly find text in archived iChat logs via browsing or searching (October 2003).

Journal Organizer:

MacJournal 2.1

★★★★; Dan Schimpf Software, <http://homepage.mac.com/dschimpf>

If you keep a journal, diary, log, notebook, or scrapbook, MacJournal can help you organize your

thoughts. MacJournal handles multiple journals, each with any number of entries that can be sorted by date, topic, or the first few words of text in a file. You can export files as text, RTF, or HTML (May 2003).

Image Editor: MorphX 2.5

★★★★; Martin Wennerberg, www.software.com/~martin

MorphX changes one image into another via a series of blended images. If you have QuickTime Pro, you can save the series of images as a movie (May 2003).

News Reader:

NetNewsWire Lite 1.0

★★★★; Rancho Software, www.rancho.com

NetNewsWire Lite collects content from multiple sites into a three-paneled browser window, with sites on the left, headlines at the top, and

summaries at the bottom. It can help you scan a lot of news sites or blogs quickly (May 2003).

Palm Reader: PorDiBle 2.1

★★★★; Rura Penthe, <http://pordible.victoly.com>

PorDiBle converts text and HTML files into DOC files for your Palm, via an easy drag-and-drop operation. It can also convert PDB files into text files (May 2003).

Full-Featured Clock:

PTHClock 2.3

★★★★; PTH Consulting, www.pth.com

PTHClock gives you everything Apple's menu-bar clock provides, but it offers more control over time format; date format; and font size, color, and style. You also get a drop-down calendar, chime settings, and spoken alerts. It's the best menu-bar clock and calendar available (May 2003).

Image Viewer:

QuickImage CM 2.1

★★★★; Pixture Studio, www.pixture.com

A handy image-viewing utility, QuickImage CM is more convenient and has better editing capabilities than Preview (October 2003).

Search Utility: Searchling 1.1

★★★★; Michael Thole, <http://web.ics.purdue.edu/~mthole>

Searchling is the ultimate use-anywhere search tool. It lives in your menu bar; when you click on it, you get a small one-line search box for Google, Slashdot, eBay, and more (May 2003).

Virtual Network Server:

Share My Desktop 1.2

★★★★; Bombich Software, www.bombich.com

Share My Desktop is an OS X-native Virtual Network Computing server that's easy to set up. If you want the

Where to Shop Online

The Web is heaven for bargain shoppers—in fact, the sheer volume of choices can be a little overwhelming. We investigated each of the following sites and discovered their distinct characteristics.

dealmac (www.dealmac.com) is a comprehensive site for all things Mac—hardware, software, supplies, and services. Along with the obvious tips on where to find the best prices for Mac items, experts on this site advise on how to save even more with shopping savvy. For example, they explain how much consumers can save if they pay in cash instead of by credit card (when the option is available), offer details about which merchants have the highest and lowest restocking fees, and provide an updated list of Web sites and brick-and-mortar stores currently having sales.

dealram (www.dealram.com) is an offshoot of dealmac. This focused site lets you compare computer-memory prices. It's an easy tool for finding the lowest prices from top merchants. Prices include shipping and sales tax, so you don't have to do the math when comparing prices.

MacPrices.com (www.macprices.com) is not your average robot site mechanically rounding up prices and availability numbers from online vendors. This site uses real humans to surf the Web (and occasionally even pick up the phone to verify information). They update prices weekly. It's a great place to find free bundles and other goodies.

Macworld.com (www.macworld.com) uses the search engine PriceGrabber.com to compile a raft of product information, from technical specifications and user reviews to the lowest prices, on one page.

mySimon (www.mysimon.com) is a shopper's nirvana. In its software, electronics, and hardware sections, you can search for specific items, scroll through different categories, or see price comparisons for the most-popular items in any given category.

Overstock.com (www.overstock.com) is a virtual outlet mall. For computers and other tech buys, concentrate on the Electronics & Computers section. You'll find name-brand merchandise discounted as much as 80 percent and backed by

warranties. It all comes from companies that need to unload excess inventory.

PowerBook Central (www.powerbookcentral.com) is a good resource for reviews, specs, current prices, and deals related to PowerBooks and iBooks. It also boasts extensive classified ads with deals on used computers. The site uses MacPrices.com's Price Tracker to find the best prices on new computers available from Apple Authorized Resellers. The site also gives information on stock availability.

Price.com (www.price.com) carries all sorts of stuff (including cars!), but Macs and other computing gear make up a large proportion of the site's offerings. You can read ratings written by site visitors and even add your own.

Price Watch (www.pricewatch.com) isn't big on bells and whistles; its focus is efficient price comparisons. Either type in what you're looking for or scroll to find what you need. From systems to memory to peripherals—it's all there. Retailers advertise their prices in real time on this site.—ADELIA CELLINI

service isn't available for all printers. Remanufactured cartridges cost more than recycled cartridges, since the vendors disassemble them and replace any worn parts.

Off-Brand Cartridges Your printer vendor's ink is dubbed "original equipment manufacturer" (OEM), and it's the most compatible but most expensive choice. Many stores, catalogs,

SOFTWARE FOR LESS

server to run continually, it can even be configured as an OS X Startup Item (May 2003).

Resolution Emulator:

SmallScreenX 2.2

X

★★★★; Loren Brichter, www.lorenb.com/software

SmallScreenX displays resizable borders to simulate different screen resolutions—helpful for Web designers who want to get an idea of how a page will look on different monitors (May 2003).

Audio Editor: Spark ME

X

★★★★; T.C. Electronic, www.tcelectronic.com

This OS X-only two-track editor allows direct recording and lets you import and manipulate any QuickTime-compatible audio file. Spark ME includes the Normalize, Resample, Fade, Gain Control, Reverse, Invert, and Spark One Band EQ plug-ins. It supports the

popular VST plug-in format—unusual in a free application—and lets you open a QuickTime movie and edit the soundtrack to picture (July 2002).

Envelope Formatter:

Snail Mail 0.2

X

★★★★; Nixanz, www.nixanz.com

Snail Mail does one thing: print envelopes from your Address Book. It lets you format the envelope to show or hide specific fields, and you can change the fonts and margins or even paste in a custom logo (July 2002).

Mailing Labels:

SwordfishExpress 1.0

X

★★★★; buyolympia.com, www.buyolympia.com

SwordfishExpress links to the United States Postal Service's Web site to help you make mailing and return labels for Priority, First Class, or Media Mail. It even does delivery

or signature confirmation, generating the required bar codes and tracking numbers (May 2003).

Multimedia Player:

VLC media player 0.5

X

★★★★; VideoLAN, <http://videolan.org>

VLC is the most versatile video player available on the Mac; it lets you watch files such as DivX and MPEG-1, -2, and -4 movies without a hitch. Although the interface leaves a bit to be desired, VLC is a godsend (May 2003).

\$1-\$10 SOFTWARE

Font Viewer: FontBook 3.8

X

★★★★; Lemke Software, www.lemkesoft.com, \$10

The best little font-specimen tool for OS X, FontBook offers a wide range of pages for printing; it doesn't perform well when displaying hundreds

of fonts—but not everyone is as font-crazy as our reviewer (July 2003).

Address Book Menu:

iAddressX 2.1

X

★★★★; MibaSoft, www.mibasoft.dk; \$8

iAddressX displays a list of your Address Book entries in the menu bar, providing a shortcut to this information from any application. You can copy phone numbers or addresses into the active application with a single click (May 2003).

Media Scheduler: iSleep 2.3

X

★★★★; FlyMac, <http://isleep.free.fr>; \$8

iSleep adds a sleep function to iTunes and Apple DVD Player. When the timer hits zero, your music or movie fades out and then stops. You can also choose to put your Mac to sleep, log out, or shut down. iSleep can even wake up your Mac at a certain time and start playing iTunes (May 2003).

and online shops offer discount brands, which may not support all the features of your original cartridges (for example, micro-processors that monitor ink levels).

Continuous-Ink Systems Several ink vendors, including Media Street and Inkjetart.com, sell user-installed continuous-ink kits, which cost between \$125 and \$250. You run thin plastic hoses from your printer's ink head to easily refillable external bottles of ink. The kits work with most current Epson printers and will soon work with several Canon printers. You'll save money, and you'll never run out of a color during a print job (as long as you watch the levels in the bottle).—DAVID MORGENSTERN

PHOTO PRINTING

There's no denying the satisfaction that comes from whipping out your digital camera, taking a snapshot, downloading the picture to your Mac, and producing a quality print in a matter of minutes. But photo printing can be a costly proposition. You pay more for a photo-quality printer—such printers cost between \$150 and \$700—and quality photo paper is expensive, at about \$0.45 (and higher) per 8.5-by-11-inch sheet. There's also the very real possibility that you'll print a picture more than once as you fine-tune color values.

If you're willing to wait for delivery, using a printing service may save you several pennies per print. In our October 2003 "Hot Shots" article, we reviewed 14 online photo printers, judging them on price, quality, and features. Of the top four services (Ofoto, PhotoAccess, PhotoWorks, and Shutterfly), PhotoWorks ([photoworks.com\) was the least expensive, with 3-by-5 and 4-by-6 prints priced at \\$0.29, 5-by-7 prints at \\$0.99, and 8-by-10 prints at \\$2.99. You can also investigate brick-and-mortar labs such as Ritz Camera \(\[www.ritzcamera.com\]\(http://www.ritzcamera.com\)\). Prices aren't always competitive, but special discounts may make these labs worth using.—CB](http://</p></div><div data-bbox=)

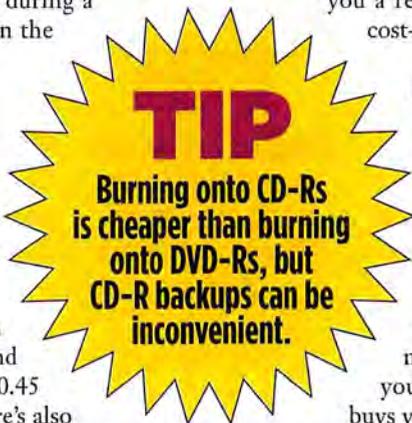
MEDIA MATTERS

You've got a new Mac with a SuperDrive. You understand that it's wise to back up your data and that your SuperDrive gives you a ready-made way to do so. But which is more cost-effective—CD-R or DVD-R?

As we go to print, CD-R remains the less-expensive option. Name-brand, 700MB CD-R discs (which format to 660.7MB) cost around \$0.33 each when purchased in bulk (on spindles and without cases). Do the math, and you'll discover that with CD-R, you can back up approximately 20MB for a penny.

Name-brand DVD-R discs cost around \$3 each, and a 4.7GB disc holds approximately 4.28GB. Punch these numbers into your calculator, and you find that each penny buys you a little more than 14MB of storage.

Although you can purchase CD-R and DVD-R discs for much less than the aforementioned prices at such outfits as Meritline.com and AllMediaOutlet.com, these inexpensive media don't work well with all drives. Fortunately, both of these companies offer sample collections of the off-brand media they carry, thus allowing you to try a variety of discs before you heavily invest in a brand that may not work with your Mac.



Remote Control Phone: Sony Ericsson Clicker 1.5 X

★★★★; Salling Software, www.salling.com; \$10
This preference pane lets you use your Sony Ericsson Bluetooth phone to remotely control your Mac, making it one of those wondrous little utilities that demonstrate the power of interconnected technologies (June 2003).

Spam Fighter: Spam Vaccine 1.3 X

★★★★; Matterform Media, www.matterform.com; \$9
Spam Vaccine can save you a lot of heartache if you've got a Web site with a lot of pages containing e-mail addresses. The program rewrites all your e-mail addresses as JavaScript code, which is not easily processed by spammers. A Pro version is available for \$19 (May 2003).

iTunes Controller: Synergy 0.9 X

★★★★; Wincent Colaiuta, <http://synergy.wincent.org>; \$5
There are many iTunes controllers and information displays out there, but none do it all as well as Synergy. Synergy places playback controls for iTunes in the menu bar, provides systemwide hot keys for playback and volume control, and adds a translucent informational display that fades in and out at the start of each track. You get full control of iTunes no matter what you're doing (May 2003).

\$11-\$20 SOFTWARE

Envelope Printer: Addressix 1.3 X

★★★★; A Sharp, www.a-sharp.com; \$13
This application can print envelopes in any of 12 U.S. and international sizes, and you can create custom

sizes. Addressix is smart, and it does its task very well (July 2003).

Project Tracking and Billing: AtWork 2.4 X

★★★★; IGG Software, www.iggsoftware.com; \$15
This solution for designers, consultants, and others who need to track and bill for projects and time lets users predefine clients, events (projects), and even currencies. An optional timer alerts you when a certain amount of time has passed, and invoices can be prepared with the click of a button. It works well, though documentation is light (July 2002).

Digital Bartender: BarWare Deluxe 2.5 X

★★★★; Digital Fried Chicken, www.digitalfriedchicken.com; \$13
BarWare Deluxe comes with instructions for creating more than 70 mixed drinks. You can search by type

of spirit, mixer, or garnish. There are even drawings of different glass types. Never be stumped by a friend's drink order again (May 2003).

On-Screen Rulers: charlieX Screen Rulers 3.1 X

★★★★; charlieX software factory, www.kotarac.freeuk.com; \$15
charlieX Screen Rulers is indispensable for anyone who needs help measuring or aligning screen objects. It includes five different on-screen rulers and measurement tools (May 2003).

Backup Utility: ChronoSync 1.1 X

★★★★; Econ Technologies, www.econtechnologies.com; \$20
ChronoSync is one of the most flexible backup programs; it offers numerous options to give you complete control over your backups (May 2003).

Bear in mind, however, that even though backing up to CD-R may save you money, it's not the most convenient way to back up some data. For example, even modest iMovie project files exceed the capacity of a CD-R and must be split with a backup utility such as Dantz's Retrospect or Apple's Backup. Also, backing up several gigabytes of data to CD-R requires that you feed your burner disc after disc. In such cases, you may want to spend more money for the convenience of a single-disc backup.—CB

EBAY BONANZA

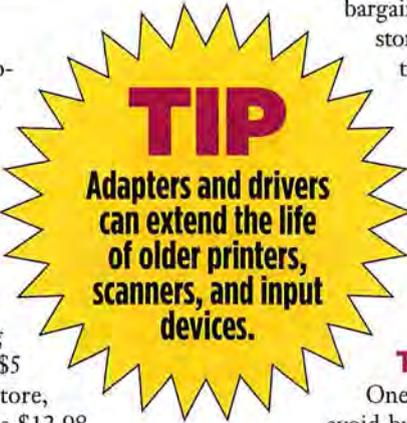
eBay is a great place to find miscellaneous equipment, both old and new. To demonstrate, we went shopping for cables at nationwide retailers and through eBay's Buy It Now feature.

Number Crunching We compared prices for three common cables (a 10-foot 6-to-6-pin FireWire cable, a 50-foot Cat 5e Ethernet networking cable, and a 10-foot A-to-B USB 2.0 cable). The auction site offered better deals than the retailer. Even with shipping costs, eBay's price for the FireWire cable was \$5 less than a CompUSA store's. At a Staples store, the Cat 5e cable was \$28.75; on eBay, it was \$12.98 (including shipping). The eBay seller charged only \$5 (free shipping) for the USB 2.0 cable; at Target, it cost \$10 more.

But Is It Right for You? To ensure that your existing equipment is compatible with the parts you're considering, read the auction description carefully. Most sellers will tell you which Macs the spare part is compatible with. If you're a little shaky on the particulars of your products, go to your OS X Mac's Utilities folder and launch the Apple System Profiler application. It lists your

Mac's model type, connected drives, and OS version. And for the history and technical specifications of almost every piece of hardware Apple has ever made, as well as information about other companies' printers, scanners, cameras, and more, download the free Mactracker application from www.mactracker.ca.

eBay Alternatives eBay isn't always such a clear-cut boon to bargain hunters. (For more on its potential drawbacks, see "eBay Buyer Beware.") Other sources for low-cost cables are bargain bins in office, electronics, and computer stores. For most kinds of parts, you may also want to cruise by Pre-Owned Electronics (www.preownedelectronics.com). It carries an extensive warehouse of new and used parts that are certified and come with a 180-day warranty. You can search its online knowledge base, which includes photos, for information on parts. (See "Where to Shop Online" for more sites that carry a wide range of peripherals, as well as systems and software.)—AG



THE LEGACY LIFE

One sure way to save money on peripherals is to avoid buying them. Although the ports on your new Mac may not match up with the ports on your old printer, MIDI interface, or keyboard, with the help of an adapter and a software utility or two, your legacy peripherals can get a new lease on life.

If you have a serial-port printer that supports LocalTalk, you can connect it to your new Mac with a device such as Asanté's \$129 AsantéTalk Ethernet-to-LocalTalk adapter (www.asante.com). GeeThree offers the \$50 Stealth Serial Port adapter (www.geethree.com), which lets you use serial-port

SOFTWARE FOR LESS

Break Manager:
Coffee Break Pro X 2.1 X
 ●●●●; Thomas Reed, <http://home.earthlink.net/~thomasreed>; \$20
 Coffee Break Pro helps you save your wrists, shoulders, and neck by enforcing periodic computer breaks. The screen blacks out and then displays suggested stretches. If you're in the middle of something, just hit snooze to delay your break (May 2003).

Backup Utility: Déjà Vu 2.3 X
 ●●●●; Propaganda Productions, www.propagandaprod.com; \$15
 Déjà Vu installs as a preference pane; it will back up, synchronize, and even clone your system disk to a bootable copy on whatever schedule you like (May 2003).

Web-Cam Utility: EvoCam 3.1 X
 ●●●●; Evological, www.evological.com; \$20
 EvoCam is a powerful but easy-to-

use program that turns any QuickTime-compatible FireWire video camera into a Web cam. You have access to QuickTime effects, so you can present yourself any way you like (September 2003).

Arcade Game: Helix X
 ●●●●; Phelios, www.phelios.com; \$15
 Helix is a side-scrolling arcade game that harks back to the glory days of 16-bit gaming. Well-executed graphics and animation make Helix a surefire hit for gamers who remember the late eighties and early nineties as a golden age of gaming (May 2003).

Photo Printing: ImageBuddy 2.1 X
 ●●●●; KepMad Systems, www.kepmad.com; \$15
 ImageBuddy has a clean interface and a deep feature set. Building pages with this program is quite interactive,

and ImageBuddy has options for adding captions, backgrounds, drop shadows, masks, overlays, and more to your pages (July 2002).

Label and Envelope Creator: Imprint 1.1 X
 ●●●●; Ampersandbox, www.ampersandbox.com; \$20
 This little utility can print labels and envelopes, and it includes more than 100 label templates. The interface isn't as smooth as Addressix's, but the program is powerful (July 2003).

Network Collaborator: iStorm 2.0 X
 ●●●●; Math Game House Software, www.mathgamehouse.com; \$20
 iStorm lets multiple users collaborate on documents simultaneously over a LAN. Edit text documents, draw on a chalkboard, and chat. It also includes a calculator and a Tex

equation interface for serious math work (May 2003).

Billing and Job Tracking: iWork 1.2 X
 ●●●●; IGG Software, www.iggsoftware.com; \$20
 iWork is a timing, billing, and invoicing application that's perfect for anyone who's self-employed. Use the built-in timer to track work hours with timed events, and add flat-rate and quantity-based items. When you're finished with your project, create an invoice with custom formatting and a logo (May 2003).

Keyboard-Shortcuts Creator: Keyboard Maestro 1.2 X
 ●●●●; Michael F. Kamprath, www.keyboardmaestro.com; \$20
 Keyboard Maestro not only provides a great keyboard-based application switcher, but also gives you the ability to automate, via keystrokes,

eBay Buyer Beware

Last year, a hacker tried to use my eBay account to sell a nonexistent 15-inch PowerBook for a phenomenally low \$850. In his product description, he told potential bidders with questions to e-mail him at the address in the description, not through the eBay system. Some people apparently knew better (or simply didn't follow directions), and I received many messages about the laptop. Some people asked to buy it directly, outside of the auction. Because of my complaints, the site halted the auction, but anyone who did bypass the official process may have been out almost \$1,000.

There are several ways you can protect yourself from fraudulent transactions on the auction site.

As my example demonstrates, you shouldn't circumvent the system. This violates eBay's terms of service, and it puts you at risk. If a seller wants

you to go outside the system, you're probably about to get scammed.

A seller's feedback rating can give you some indication of his or her reliability. People who have had dealings with a seller can send comments about their experience to the site, which then awards a seller one point for each positive comment and deducts one point for each negative comment. A seller gets feedback stars when he or she achieves a certain number of positive feedback comments. For example, a yellow star represents 10 to 49 positive comments; a blue star, 50 to 99; and so on. For sellers with less than 100 sales, investigate the kinds of items they've sold in the past so you're familiar with their track record.

If you feel unsure about a purchase, ask questions. For instance, are products identified as new

still in their shrink-wrapped boxes? If so, you can be more certain that the product hasn't had a previous life. Does a used product still have a warranty? That would add to its value. Has a used product been registered? That could detract from its worth. You can also ask why a seller is putting a product on the market. Some people may tell you about product drawbacks that aren't mentioned in the ads. And as some scam artists purloin photos from other auctions or sites, ask for additional photos to help prove possession.

And before you make the final commitment, read the seller's fine print, looking for details on the cost of shipping, special payment instructions, and refund policies. Also double-check the country of origin. If the product is coming from overseas, you may have to wait a while for the item to clear customs.—ALAN GRAHAM

devices (printers, PDAs, and MIDI interfaces, for example) with Power Mac G4s, blue-and-white Power Mac G3s, and rev. A-D iMacs. And keyboards and mice that bear the old ADB connector can be brought back into service with Griffin Technology's \$39 iMate ADB-to-USB adapter (www.griffin-technology.com).

In addition to an adapter, you may need software that allows your old peripheral to work with OS X. Thanks to support for

the Common Unix Printing Service (CUPS) built into Jaguar and Panther, and to the collection of free open-source drivers known as the Gimp-Print utility (<http://gimp-print.sourceforge.net/MacOSX.php3>), you may be able to print from your old HP, Epson, Canon, or Lexmark printer. Older scanners can likewise lead renewed lives with the help of Hamrick Software's \$60 VueScan (www.hamrick.com)—a collection of OS X-compatible scanner drivers.—CB

almost anything you can do on your computer (May 2003).

Crossword Reader:

MacXword 1.0.1

★★★★; Advenio Software, www.macxword.com; \$15

MacXword can read and solve crossword puzzles based on the Across Lite format (used by the *New York Times* and the *Washington Post*). It offers quick puzzle navigation, printing, hints, and clue-lookup hooked to the OneAcross Web service (April 2003).

3-D-Action Game:

Marble Blast

★★★★; GarageGames, www.garagegames.com; \$15

Marble Blast is a refreshing bit of arcade fun; you roll through a maze from the point of view of the marble. It's got a lot of challenging levels, but it may be too difficult for younger players (June 2003).

Screen Saver:

Marine Aquarium 2.0

★★★★; Encore Software, www.encoresoftware.com; \$20

This seemingly frivolous screen saver can turn your Mac into a sleek and stylish aquarium complete with fish, coral formations, and even algae (September 2003).

Image Editor and Printer:

Portraits & Prints 1.1

★★★★; Econ Technologies, www.econ-technologies.com; \$20

Portraits & Prints has 12 built-in layouts and tools for cropping, sharpening, removing red-eye, and adjusting saturation and brightness. If you want to build your own layouts, Econ's Template Maker is a great \$10 companion to Portraits & Prints (July 2002).

Voice Recorder:

QuickVoice X 1.7

★★★★; nFinity, www.quick-voice.com; \$20

This voice recorder lets you quickly record notes, create stickies with voice notes attached, or send recordings as e-mail attachments. Files are in QuickTime format, so they can be played on Macs and PCs (May 2003).

Project Tracker:

Sambucus 2.0.1

★★★★; Logiciels Malus Softwares, www3.sympatico.ca/fuzzies; \$20

Sambucus is a project-tracking program for anyone who bills by the hour. Use Sambucus to create projects and tasks, set unique billing rates for tasks within a project, track task time, add multiple notes to projects and tasks, and quickly generate reports. Reports are generated by an XML parsing system, so you can easily define and create customized versions to meet your needs (July 2002).

Text Cleaner: SmartWrap 2.1

★★★★; Selznick Scientific Software,

www.selznick.com; \$18

SmartWrap will bring a welcome sigh of relief if you spend a lot of time copying text from e-mail messages and pasting it into other applications. This program cleans up text, eliminating stuff such as > characters and hard returns (July 2002).

IRC Chatting: Snak 4.9

★★★★; Kent Sorenson, www.snak.com; \$20

Snak is one of the best ways to participate in IRC on the Mac. It offers a clean interface with AppleScript and ircl scripting support, automated actions, and a great HTML manual (May 2003).

Spam Filter: Spamfire 1.3.2

★★★★; Matterform Media, www.matterform.com; \$19

Spamfire is an add-on utility that takes over the job of checking your e-mail. It logs in to your mail server

Savvy Software Shopping

You can save money on the programs that make your Mac a worthwhile help-mate. For our favorite low-cost and free applications, see "Software for Less."

SOFTWARE STRATEGIES

If you must have the latest and greatest version of a program, there are a couple of ways to get it at a reduced price. As we mentioned earlier in the article, the first is to go to school. Institutions of higher learning offer academic pricing on software, and the reductions can be significant. You can also search online auction sites such as eBay—where current software titles are often up for bid—and many of the sites listed in "Where to Shop Online."

Bundles If you don't already own a substantial library of applications, software bundles can be an economical way to establish one. For example, if you're getting started in the graphics business, Adobe's \$1,299 Creative Suite—which includes the latest versions of Photoshop, Illustrator, InDesign, GoLive, and Acrobat, as well as Version Cue—is tempting. (For more on the Adobe package, see "Adobe Changes Everything," November 2003.) But if you already own most of these applications (or don't need many of them), you may find Adobe's upgrade price, \$549 for the Standard Edition, a little steep. (You must own a previous version of Photoshop to qualify for the upgrade.)

Another example of value in numbers is the \$199 Big 4 Graphics bundle, a suite of Photoshop plug-ins marketed by Alien Skin Software (www.alienskin.com). Aladdin Systems bundles popular OS X utilities such as Spamfire, Labels X, LaunchBar, and ExecutiveSync in its two \$49 Ten for X packages (www.aladdinsys.com). And Symantec's \$130 SystemWorks (www.symantec.com) costs less than half of what you'd pay for individual copies of the

bundle's Norton Utilities, Norton AntiVirus, Retrospect Express Backup, and Spring Cleaning.

Don't Buy the Big Names You can save money by choosing software from smaller companies. Although Apple's \$79 AppleWorks lacks the extensive feature set of Microsoft's \$380 Office v. X Standard Edition (www.microsoft.com), it's a perfectly capable program for word processing, spreadsheets, and simple databases. Deneba's \$400 Canvas 9 (www.deneba.com), Corel's \$429 CorelDraw Graphics Suite 11 (www.corel.com), and Stone Design's \$299 Stone Studio (www.stone.com) pack a host of graphics and page-layout functionality into low-cost packages. Apple's \$99 presentation application, Keynote, is far less expensive than Microsoft's \$229 PowerPoint. And if you want to create or open Microsoft Word and Excel documents, you have a host of inexpensive alternatives—including Apple's TextEdit and AppleWorks; Mariner Software's \$140 MarinerPak, which includes Mariner Write and Mariner Calc (www.marinersoftware.com); and ThinkFree's \$50 ThinkFree Office (www.thinkfree.com).—CB

THE BOTTOM DOLLAR

Shopping—especially shopping for Mac stuff—should be fun. Follow our advice on ways to get more for less, and the good times won't be diminished by financial concerns; plus, you'll be amazed at the returns on your minimal investment. Thinking different is good, but shopping smart—that is a necessity. □

SOFTWARE FOR LESS

and applies its points-based rules to mail stored there. Its accuracy is good, but you will take a hit on your bandwidth and storage (April 2003).

Spam Filter: SpamSieve 1.2.2 X

★★★★; Michael Tsai, www.c-command.com/spamsieve; \$20
SpamSieve works as an add-on to Microsoft Entourage, MailSmith, PowerMail, and Eudora. It accurately cuts down on unwanted e-mail (April 2003).

Internet Downloader:

Speed Download 1.8 X

★★★★; YazSo, www.yazsoft.com; \$20
If you have a high-speed Internet connection, Speed Download accel-

erates your downloads by opening multiple connections to the download site and then joining together the resulting pieces (July 2002).

\$20-\$30 SOFTWARE

CD Labeler: disclabel 1.1 X

★★★★; Smile Software, www.smilesoftware.com; \$30
Smile Software's disclabel lets you create disc labels and design CD and DVD case covers and tray inserts, right down to the text on the spine. What really sets this label software apart is clever integration with the iLife suite of products (November 2003).

Media Archiver:

DiskTracker 2.2.2 X

★★★★; Portents, www.disktracker.com; \$30
DiskTracker catalogs any removable media connected to your Mac. The catalogs are searchable by name, date, label, file type, and more. A double-click on a file in the results window will deliver a prompt for the disc or disk containing the file. DiskTracker can even print labels for almost all removable media (April 2003).

Media Organizer:

iView Media 1.2 X

★★★★; iView Multimedia, www.iview-multimedia.com; \$30
iView Media is a solid photo-cataloging program that handles a

wide variety of formats and often outperforms iPhoto; it's perfect for people who need to manage multiple media on a tight budget (October 2003).

Education Software: JumpStart Advanced Kindergarten X

★★★★; Knowledge Adventure, www.knowledgeadventure.com; \$30
Set against a backdrop of an auto-racing event, JumpStart (for ages 4–6) teaches kids about science, nature, music, simple arithmetic, and phonics, while offering activities such as painting and drawing. Various characters, such as a math whiz, offer different learning styles to help kids learn (May 2003).



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Ad Layout by enVision Dennis Romano. www.enVisionDR.com

Flow from Word to XPress

“WORDS, WORDS, WORDS,” MUTTERED HAMLET IN FRUSTRATION. But at least he didn't have to deal with getting all those words out of Microsoft Word and into a page-layout program. Word-processing and page-layout applications don't always play together nicely, leaving us with baffling text characters and incorrect formatting that can take hours to fix.

Those of us who perform this stunt daily rely on a bag of tricks that can ease the passage of words from one program to another. In this article, I'll cover several easy steps for preparing your Word files to flow into another program. Then I'll share a few in-depth techniques for massaging your text into shape once it has been placed in pages. Some tricks involve a bit of code, but fear not: a firm grasp of these techniques will lead to fewer headaches when you import Word files.

While this article focuses on using Word X with QuarkXPress 6.0, most of these techniques also apply to previous versions of those programs and to moving text from Word to Adobe PageMaker or InDesign. However, if you do use one of these programs, you'll have to adapt a few of the details (for instance, if you use InDesign, you'll have to insert “InDesign tagged text” wherever I indicate “XPress tags”). □

Contributing Editor DAVID BLATNER (www.moo.com) is the author of *Real World QuarkXPress 6* and *Real World InDesign 2* (both Peachpit Press, 2003), as well as *The Flying Book* (Walker and Company, 2003).

1 Prepare Your Word File

The first step in successfully importing Microsoft Word documents into a page-layout program is to prepare the Word document properly. Taking a moment to clean up your file can save hours later in the process.

I love Word's Track Changes feature, which uses underlines and strike-through formatting to track additions to and deletions from a file. But you have to make sure you get rid of all revision marks before you import text into QuarkXPress. Select Tools: Track Changes: Accept Or Reject Changes, and click on Accept All . Otherwise, text deleted in Word will reappear in XPress.

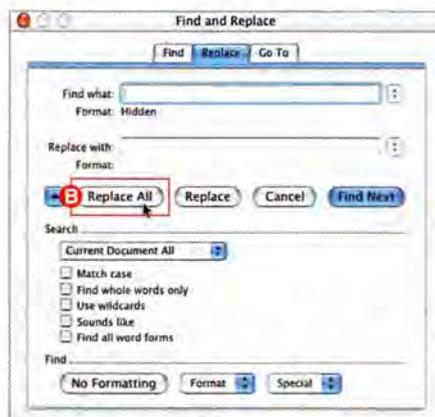


Similarly, you should delete all other extraneous information from the file, including comments, hyperlinks, bookmarks, hidden text, frames, and embedded graphics. At best, these elements will disappear upon import; at worst, they'll confuse XPress, causing errors and untold misery. The program can't import *anchored* (or in-line) graphics or frames, so you should delete those, too.

To delete graphics, select Edit: Replace and type  in the Find What field. Leave the Replace With field blank, and click on the Replace All button. If there are hyperlinks in

your document, select the whole document (press -A) and turn off all the links by pressing -shift-F9. This shortcut has the additional benefit of also unlinking “calculated fields” (such as page numbers and date fields) from their underlying codes, which can sometimes confuse XPress upon import.

To delete hidden text and comments, first turn on Hidden Text in the View panel of Word's Preferences dialog box (Word: Preferences), and then select Edit: Replace. Keeping the cursor in the Find What field, select Font from the Format pop-up menu (you may have to click on the down triangle in



the dialog box to see this menu); in the Find Font dialog box that appears, turn on the Hidden option. Click on OK, and then—after making sure that both the Find What and the Replace With fields are blank—click on Replace All .

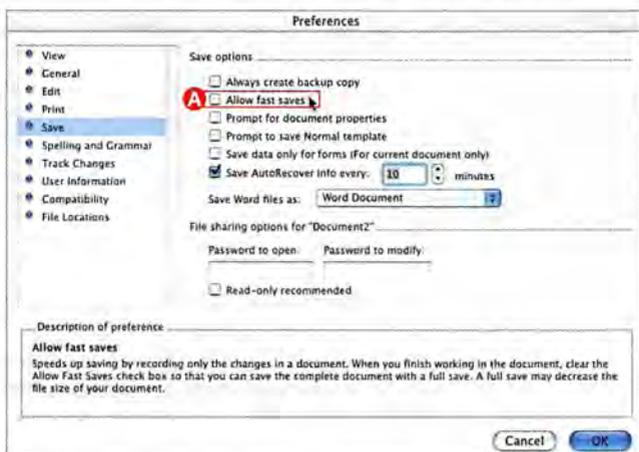
Finally, make sure your paragraph and character

styles in Word are applied consistently throughout the document. It's often easier to apply styles in Word than in XPress (as we'll see in step 3). Your styles should have exactly the same names as those in your XPress file—otherwise, XPress won't know how to format your text upon import.

2 Save the Word Document

Saving a file out of Word seems like such a simple task, but remembering to take a few precautions can make or break your workflow at import time.

Everyone who prepares Word files that will end up in a page-layout program must do one simple thing: In the Preferences dialog box (Word: Preferences), select the Save panel and turn off the Allow Fast Saves feature **A**. Sure, it'll take about four microseconds longer to save your file, but fast-save files are notorious troublemakers when it comes to XPress.



Theoretically, XPress should be able to import Word files from both Mac and Windows versions of Word, but I recommend opening Word for Windows files in the Mac version of Word and using Save As to create a new file. This often cleans up weird font or character-mapping problems, such as when one character turns into another (quotation marks, em dashes, and other high-ASCII characters are notoriously susceptible to these glitches).

In fact, even if the file has always lived on the Mac, I like choosing Save As to create a nice, clean version of it, without any gunk that may have crept in over the course of multiple saves.

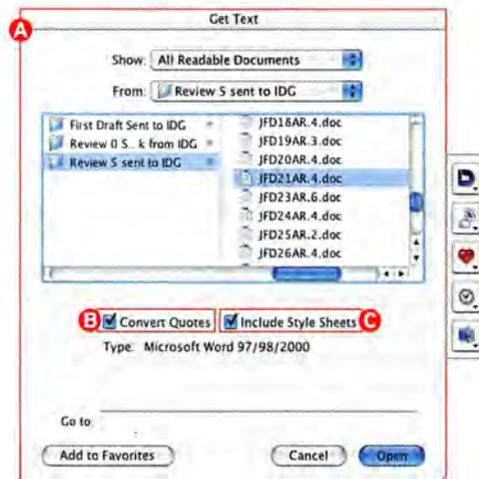
Many users report having trouble (mostly in the form of incorrect styles being applied) when importing native Word files into XPress. The solution is usually to save files in Rich Text Format (RTF), which is an option in the Format pop-up menu in the Save As dialog box. Note, however, that while QuarkXPress 6.0 can import RTF files, earlier versions of XPress for the Mac can't do it without the help of a commercial XTension.

No discussion of saving Word files for XPress would be complete without a mention of the qXport macro for Microsoft Word (\$99; www.bitmix.de/english/). This macro can perform everything I covered in step 1, and then it can convert your Word document directly into XPress tags (see step 5), stripping out irrelevant formatting and providing cleaner results than XPress's own Word import filter does.

3 Import the File

It's time to import your file into XPress. Paying attention to a few key options can make all the difference in what you end up with.

While you can copy and paste text from Word to XPress, I don't recommend it—some characters (such as bullets) get messed up, and all text formatting is lost in translation. Instead, use File: Get Text in XPress **A**.



When you import Microsoft Word documents, you should turn on both the Convert Quotes **B** and Include Style Sheets **C** options in the Get Text dialog box. Convert Quotes replaces straight quotation marks (") with true quotation marks (") and swaps out double hyphens (-) for em dashes (—). Include Style Sheets tells XPress to import any paragraph and character styles you've used. If you turn off this option, XPress ignores your styles, applies whatever style is currently selected in the text box, and then places Word's formatting on top of that style as local formatting. It's a recipe for disaster and a royal pain to fix, so do yourself a favor and leave this option on.

When you click on Open, XPress compares the styles in the Word document with the styles in your XPress document. Any styles with the same name trigger the program to ask you which style definition you want to use ("Normal" always triggers this question). In almost every instance I can think of, you'll want to choose Use Existing **D**, which tells XPress to ignore Word's definition and use the XPress document's. Click on the Repeat For All Conflicts option so that your choice applies to all the styles and you don't have to click on the Use Existing button repeatedly. As long as the style names



are the same, XPress now strips away Word's style definitions (which were probably designed to make text easy to read on screen) and uses XPress's

continues

style definitions instead (which were probably designed to make text look good in print).

Some text never comes in the way you wish it would. For example, XPress can read footnotes in your Word documents, but it turns them into endnotes (the notes are placed at the end of the story rather than at the bottom of the same page). Similarly, XPress strips out automatic bullets and numbers, which can cause no end of hair-pulling. Saving in RTF fixes this problem, but for some reason, footnotes don't seem to work reliably in RTF.

By the way, Quark occasionally updates its Word filter, so check out the company's Web site (www.quark.com) every so often.

4

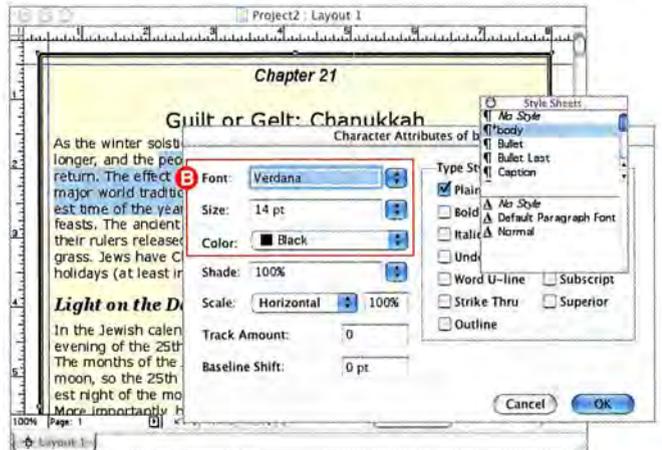
Clean Up Local Formatting

When I send a Word file to someone to edit, the text invariably returns in a different font or size or even color. The editor has applied local formatting on top of the paragraph or character style's definition, perhaps to make the text easier to read on screen. But it makes my job more difficult. To solve this sort of problem, you need to strip out that local formatting.

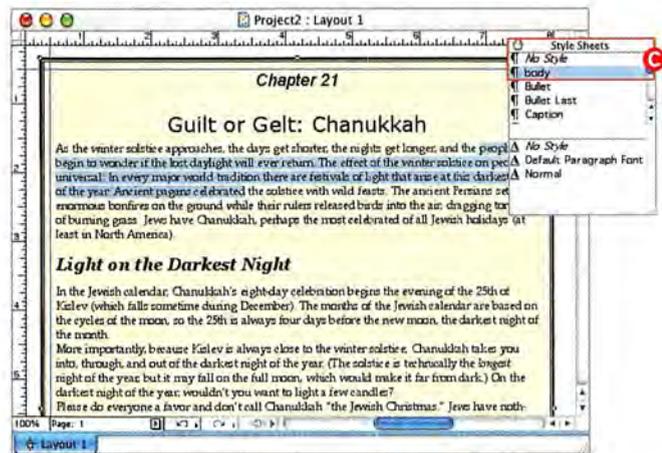
QuarkXPress tells you when your cursor is placed in text that has local formatting by displaying a plus sign next to the style name in the Style Sheets palette. When you import a Word file that has local formatting (like a font or size change) applied throughout, the plus sign never goes away, and no matter how often you try to apply or reapply a style, the local formatting remains.

You can get rid of all a paragraph's local formatting by option-clicking on a style name in the Style Sheets palette (which is a shortcut for applying No Style and then reapplying the style **A**). This is an easy way to fix headings, but because it wipes out even desirable formatting—such as italics added for emphasis—it's less appropriate for body text.

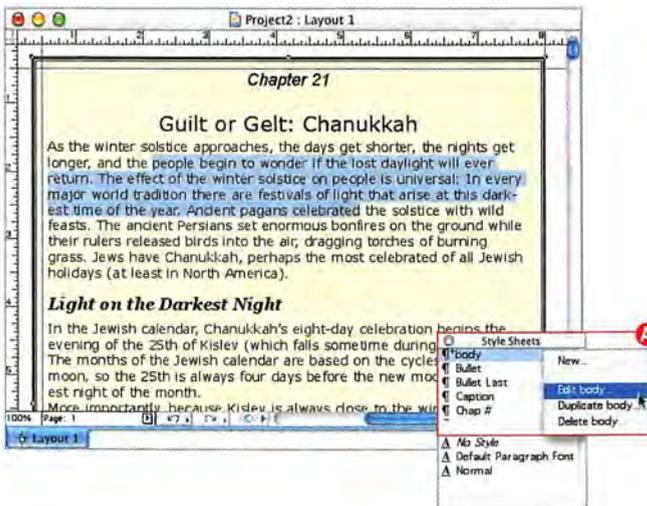
Instead, first change the paragraph style so that it contains the formatting you want to remove **B**. For example, if someone applied 14-point Verdana to all the text, then change your style definition in XPress to be 14-point Verdana, too.



Next, change the style definition back to what you want it to be (whatever it was before you chose 14-point Verdana) **C**. Now all the text should be formatted properly: you've gotten it to be the proper typeface and size, but you've retained the italic local formatting as well.



Also, XPress often imports more styles than you've actually used (it almost always adds the Default Paragraph Font character style). You can delete unused styles in XPress by choosing Edit: Style Sheets and then picking Style Sheets Not Used from the Show pop-up menu. Now select all the styles in this list (click on the first name and then shift-click on the last name in the list) and click on Delete.



5 Text Massage

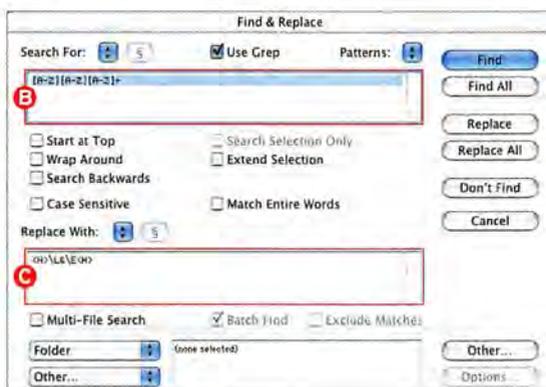
In the life of a page designer, there's almost nothing worse than converting words from the all-caps style to the small-caps style. That's because you have to manually retype the word in lowercase letters and then apply the small-caps style to it. Here's how to do it faster with XPress Tags and BBEdit.

XPress's Find/Change palette is good, but you can do much more powerful search-and-replace tricks by exporting your text as XPress tags. Place your cursor in a story; then choose File: Save Text and select XPress Tags from the Format pop-up menu.



You can open your XPress Tags file in any text editor that supports grep (Global Regular Expression Parser), such as BBEdit, TextWrangler, or the free-but-unsupported BBEdit Lite, all from Bare Bones Software (781/687-7000, www.barebones.com).

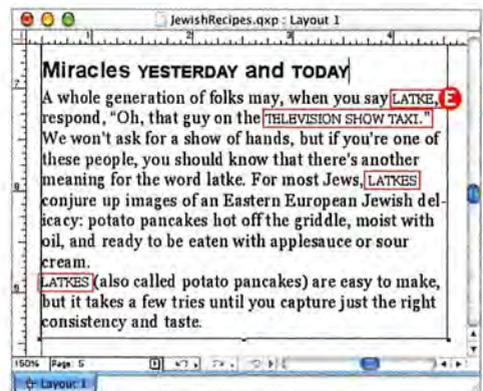
In BBEdit's Find & Replace dialog box (select Search: Find), click on the Use Grep option and then type `[A-Z][A-Z][A-Z]+` in the Search For field and `<H>L&E<H>` in the Replace With field. This tells BBEdit to look for all words that have three or more uppercase characters in a row, convert them to lowercase, and place the XPress tags code for the small-caps style around the result. Click on the Replace All button to make the change.



Now save your file (I like using Save As to give it a different name in case I need to edit the original).



Go back to XPress. Delete the text you exported and use File: Get Text in XPress to import the tagged file in its place. Make sure you turn on both Convert Quotes and Include Style Sheets; otherwise, you'll see the XPress tags instead of the WYSIWYG text. The resulting words will have the appropriate small caps.



6 Automate Boring Tasks

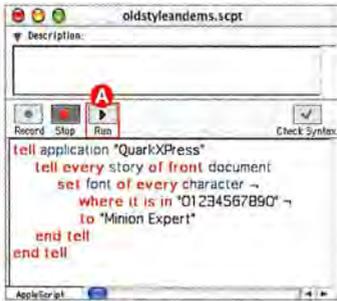
If you ever catch yourself performing the same steps over and over, you should stop and ask yourself whether you can perhaps automate them with a macro or an AppleScript. For instance, it's tedious to find all the numbers in a document and change them to an Expert font just to get old-style numerals. Here's a way to do it quickly.

Launch Script Editor, which is in the AppleScript folder inside your Applications folder. (In OS 9, it's in the Apple Extras folder.) Type the following into the editor:

```
tell application "QuarkXPress"
  tell every story of front document
    set font of every character to
      where it is in "01234567890" to
        to "Minion Expert"
  end tell
end tell
```

continues

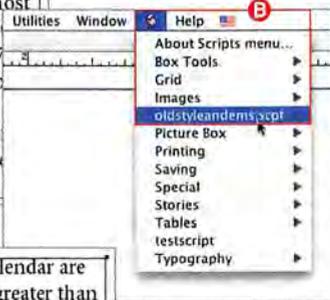
You can type the ~ character by pressing option-L; it just tells Script Editor that the line of code continues after the return. When you have a document open in QuarkXPress, click on the Run button **A**. However, note that you'll



get an error message unless there's at least one text box in the document that contains a number. Also, if you don't happen to have Minion Expert installed on your system, change this to an Expert font with old-style numerals that you do have on hand.

The years of the Hebrew calendar are always 3,760 or 3,761 years greater than the Gregorian calendar that most people use. For example, the year 2010 will be the Hebrew years 5770 to 5771 (the discrepancy is because the Hebrew year number changes at Rosh Hashanah, in the fall, rather than on January 1; see Chapter 18). The calendar is so far

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Once you're satisfied that the script works, return to Script Editor and save it in the Scripts folder inside the QuarkXPress folder. Now you'll be able to run

the script anytime from the Scripts menu in XPress **C**.

You could have performed this conversion using XPress tags, too, but AppleScript offers three benefits. First, it lets you convert the numbers in all the text boxes throughout your document in one fell swoop rather than one text box at a time. Second, once you've saved the script in the Scripts folder, it's easy for anyone (even someone unfamiliar with your system—a temp worker, for example) to run it. Finally, it gives you a good chance to use one of the coolest technologies on the Mac.

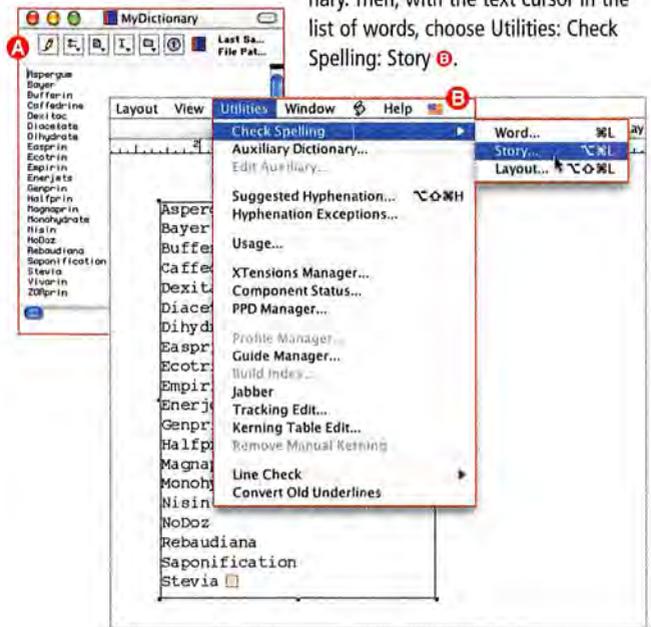
7

Converting Word Dictionaries

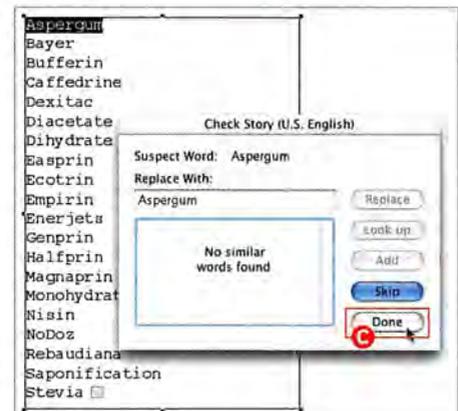
Do you find yourself with a last-minute need to check the spelling of your XPress files and wish you had your custom dictionaries from Word? No problem—you can convert your custom Word dictionaries to XPress auxiliary dictionaries.

To convert a custom Word dictionary, open it in a text editor such as BBEdit **A**. You'll see that custom dictionaries are just lists of words in alphabetical order. Select all the text from this file and copy it to the Clipboard (**⌘-C**). Switch to XPress and paste the list (**⌘-V**) into any empty text box.

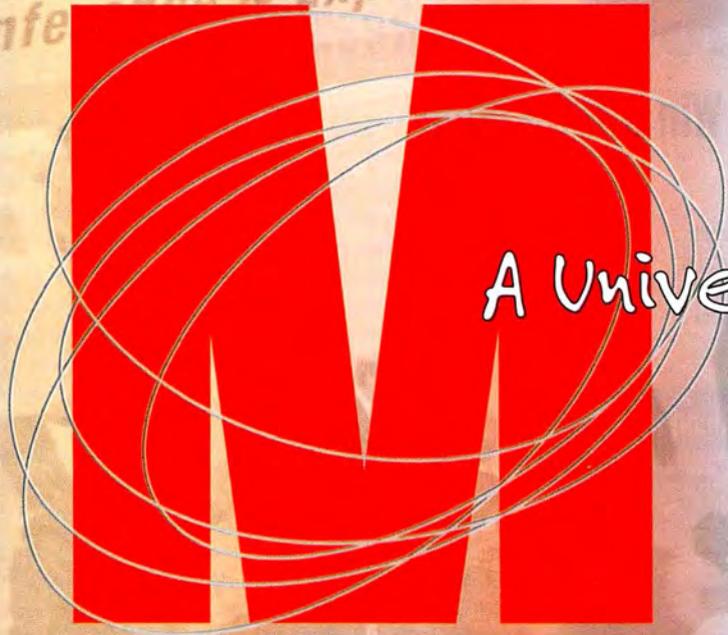
To add all these words to an XPress auxiliary dictionary, you must first create a new auxiliary dictionary (or select one you've already made) by choosing Utilities: Auxiliary Dictionary. Then, with the text cursor in the list of words, choose Utilities: Check Spelling: Story **B**.



Click on OK in the Word Count dialog box, and then hold down option and shift while clicking on the Done button in the Check Story dialog box **C**. This tells XPress to add all the suspect words to the auxiliary dictionary.



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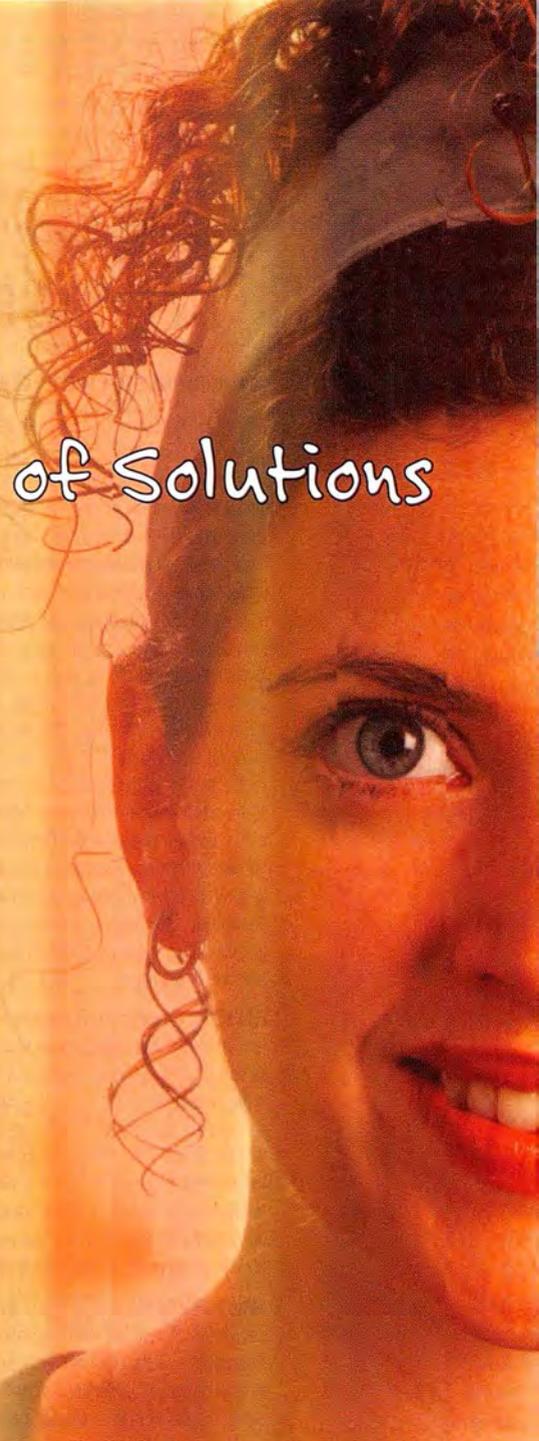
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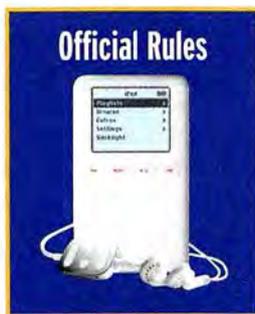
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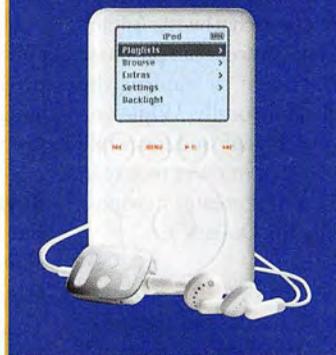
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iChat Questions Answered

MOVE OVER, DICK TRACY. ALTHOUGH IT MAY BE A WHILE before most of us get our hands on a two-way wrist TV, the latest in instant-messaging technology can get Mac users awfully close. Text-based instant messaging (IM) has long allowed people to carry on conversations that are more interactive than e-mail exchanges but less intrusive than phone calls. Now you can get iChat AV (www.apple.com/ichat) with Apple's \$129 Panther OS X update. (Jaguar users can purchase iChat AV separately for \$30.) Use it to leapfrog the telephone and interact visually and vocally. While you may have to rethink chatting with your buddies while wearing footed pajamas, IM offers a fun way to stay in touch with friends and family, and it creates new possibilities for work (see "Yakking for Dollars").

Ready, Set, iChat!

iChat AV can deliver nearly 30 frames per second—close to video quality. To get this frame rate, you'll need a FireWire video camera (see *Reviews*, December 2003), a reasonably fast Mac (a 600MHz G3 or better), and a high-speed Internet connection.

Even if you don't have a FireWire video camera, all hope is not lost. Thanks to the iChatUSBCam Application Enhancer module, from ecamm (\$10; [\[www.ecamm.com/mac/ichatusbcam/\]\(http://www.ecamm.com/mac/ichatusbcam/\)\), you may be able to use your old USB Web cam. Keep in mind that you may not get the same frame rate and image quality.](http://www</p></div><div data-bbox=)

If you've met all the requirements, iChat AV makes audio and video chatting easy. A quick look at the program's Buddy List window shows everyone's audio and video capabilities. To initiate a connection, just click on the camera or the phone icon.

Beyond the Basics

But what if you want to do more? I've got answers about using iChat's lesser-known features and trying other chat software.

Do I need a high-speed connection for videoconferencing?

Yes, although a 56K or better modem is all you need for audio chats. If you don't have a high-speed connection but want to experiment with nearly real-time video, you can use a Web-cam application such as Evological's EvoCam (\$20; www.evological.com/evocam.html) or International Web's Oculus (\$20; www.intlweb.com). These programs let you upload images to a server (or serve them to the Net via a built-in server) at regular intervals that you set.

Can I have an audio or video chat with someone who doesn't have a microphone or camera?

Strangely enough, you can, but it will be a one-sided conversation. Control-click on the user's name in the Buddy List window, and then select Invite To One-Way Audio (or Video) Chat. Once the chat has been established, you can send audio or video, but your buddy will be able to reply only with text.

You can even use this feature to send prerecorded video across the Net. Plug your video camera into your Mac, turn the camera on, and set it to playback mode. Start a one-way chat with another user (it also works for two-way chats), and then press play on your video camera. The other user will receive your recorded audio and video directly. This is a great way to share video footage with friends and family, as it spares them a lengthy download.

YAKKING FOR DOLLARS

So you think chat is only for hackers and teens? Consider using it at work.

- > Hold text-based meetings with employees in multiple locations. Create group chats for discussing team strategies, product-launch plans, or just where to meet for lunch.
- > Provide technical support via video chat to show company representatives' friendly faces, and grab screen images to help diagnose and solve problems.
- > Demonstrate a product to a potential customer, showing the actual product in use as you put it through its paces.
- > Use the Mac's built-in microphone and iChat AV to place free phone calls to other iChat users.
- > Install a program—such as Kanex Group's QuickPopup (\$50; www.macpopup.com) or Glass Bead Software's SnapTalk (\$29; www.glassbead.com)—that lets you send messages (without using an outside central server) between users on your office's local area network. QuickPopup runs on Macs and Windows PCs; SnapTalk includes automatic replies and the ability to send files back and forth.
- > Install CE Software's QuickConference and InOutTracker (\$120 and \$60, respectively; 800/523-7638, www.cesoft.com) to enable multiuser text conferences, and create an electronic in-and-out board to show employees' whereabouts.
- > Consider using an integrated Web-based service such as Netspoke (www.netspoke.com) or Caststream (408/379-5188, www.caststream.com) to present audio and video in a live, interactive session over the Internet.

SHARE YOUR WHITEBOARD

Brainstorm with clients and coworkers, both near and far, with the help of Luidia's eBeam System 3 wireless with Bluetooth technology (\$1,200; 877/463-2326, www.e-beam.com). This combination of gadgets and software lets you record or share anything you scrawl on a whiteboard. Notes, diagrams, sketches, and flowcharts appear on remote computers as you write. You can even use some PDAs to watch the show. All you have to do is pop a special receiver onto the corner of your whiteboard, plug it into a power outlet, and start up the software on your PowerBook. The eBeam's use of Bluetooth technology makes setup a quick and cordless affair.—SCHOLLE SAWYER McFARLAND



Can I use iChat to chat with more than one person at a time?

There are two ways to create a multiuser iChat. First, you can create a chat room by choosing File: Go To Chat. Choose a unique name, and send a regular chat message or e-mail telling your buddies to enter that name in their Go To Chat dialog box.

Alternatively, while chatting with one buddy, select Show Chat Participants from the View menu. Then click on the plus sign (+) at the bottom left and choose another buddy from the resulting pop-up menu.

Can OS 9 users chat with OS X users?

For basic text chat, the answer is an unqualified yes. If you're using iChat, you can chat with anyone using AOL Instant Messenger, or AIM (free; www.aim.com), because iChat is based on the AIM protocol. Many other chat clients have OS 9 and OS X versions, including Yahoo's Yahoo Messenger (free; <http://messenger.yahoo.com>) and ICQ's ICQ (free; <http://web.icq.com>). If you want audio and video chat, however, the options are more limited. iVisit (Lite version, free; Plus version, \$25 per year; www.ivisit.com) allows video chat between OS 9 and OS X users.

Can Windows users hold audio or video chats with Mac users?

Right now, iChat's audio and video features allow only Mac users running iChat AV to have two-way chats. However, AOL recently announced plans to offer audio- and video-chat capabilities in its Windows chat client, which is compatible with iChat. It may be only a matter of time until cross-platform audio and video chats are possible.

For now, check out iVisit and SquidSoft's Squid-Cam (\$25; 720/747-1840, www.squidsoft.com) if you want to hold video or audio conferences with Windows users. These programs aren't as easy to set up as iChat AV, but they'll do the trick. If you use iChat AV, text-based chatting with Linux and Windows users is no problem if they use a chat client that supports the AIM protocol.

Can I have audio and video chats or transfer files if I'm behind a firewall?

In most cases, yes—if you (or your system administrator) can open certain ports in the firewall. In particular, UDP port 5060 and ports 16384 to 16403 must be open for audio and video chats, and port 5190 must be open for file transfer.

At home, you need to configure your router to open the required ports, so data can pass through

them. Apple provides two Knowledge Base articles that explain the steps in greater detail. For audio and video instructions, see <http://docs.info.apple.com/article.html?artnum=93208>. For instructions on transferring files, see <http://docs.info.apple.com/article.html?artnum=107476>.

Can I record iChat conversations?

You can log text chats by selecting the Automatically Save Chat Transcripts option in the Messages section of iChat's preferences. To capture an audio chat, you need an application such as Ambrosia Software's WireTap (free; www.ambrosiasw.com) or Rogue Amoeba's Audio Hijack (\$16; www.rogueamoeba.com).

Ambrosia's \$49 Snapz Pro X can capture a screen movie, but it captures only your audio, not your chat partner's. If you need to get a high-quality capture of an iChat video chat, set up a separate video camera to record your screen and ambient audio. If you have an LCD display, this can look great.



Where can I find more information about videoconferencing on OS X?

Check out John Kenn's thorough videoconferencing site (http://homepage.mac.com/john_kenn/video.html). □

Forget the Phone

Once you've enjoyed using iChat's videoconferencing feature, a phone call just won't do when you want to chat with distant friends or family members—and really see how they're doing.

Contributing Editor ROB GRIFFITHS is the founder of macosxhints.com, Macworld's Mac OS X Hints columnist, and the author of *Mac OS X Hints: Jaguar Edition* (O'Reilly, 2003).



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Bring Old Photos to iPhoto

YOU LOVE YOUR DIGITAL CAMERA AND THE CONVENIENCE of iPhoto. But the past haunts you. You have boxes of prints, negatives, and slides that you haven't seen in years. If you could get them into iPhoto, you could organize them into albums and share them through Web galleries, slide shows, books, or DVDs.

To bridge the gap between print and pixels, you'll need a scanner. I'll show you how to pick the right one, and I'll share strategies for incorporating those old photos into your new digital workflow.

Scanning the Options

Before you run out and buy a new scanner, take stock of what types of media you need to digitize. Not all scanners are ideal for every task.

Piles of Prints If you'll be scanning printed photos, a *flatbed scanner* is your best bet. When you place a photo facedown on the scanner's glass, a sensor glides beneath it and captures the image. If you have a closetful of photos, you may want to look for a scanner that supports a document feeder so you can scan multiple photos without having to hand-feed the scanner. Some of Hewlett-Packard's flatbeds in the \$200 to \$300 range include photo feeders that can handle as many as 24 4-by-6-inch prints at a time (www.hp.com). Other scanners accept optional document feeders that generally cost between \$80 and \$200, depending on the model. Just be sure to verify that the document feeder can handle photos—many can't.

The Film Is Better Although you can get decent images by scanning prints, you'll get significantly better results by scanning the original film. A print is one generation away from

the original image, and it may have faded with time or been poorly printed to begin with. Worse, many photos are printed on linen-finish paper, which has a rough texture that blurs image detail when scanned.

Many flatbed scanners include a film adapter for scanning negatives or slides. With some scanners, the adapter snaps onto the scanner's bed. However, this means finding and installing the adapter each time you want to scan a negative. A more convenient option is a scanner with the adapter built into the lid, such as Epson's \$199 Perfection 3170 Photo (www.epson.com). The Perfection 3170 can scan negatives and mounted slides, and unlike many flatbeds, it can scan medium-format film such as the 120 format popular in old cameras.

For the Film Enthusiast If you've managed to keep the negatives for a majority of your old photos and you want the best possible image quality, a better choice may be a *film scanner*. Although not as versatile as a flatbed scanner—it can't scan printed photos—a film scanner provides much sharper scans of negatives and slides. This quality will cost you: film scanner prices start at about \$300 and rise steeply from there. (However, judging from all the film scanners for sale on eBay, I suspect that many people buy them, scan their photos, and then sell the scanners to recoup some of their investment.)

Scanning Right

Scanners offer an intimidating number of features and choices for optimizing image quality. The most important of these is *resolution*, the number of dots per inch (dpi) the scanner uses to represent an image. As long as you capture enough information, you can do a lot of fine-tuning in iPhoto or Adobe Photoshop Elements, which is bundled with many scanners (www.adobe.com).

Volumes have been written about scanning resolution, but it boils down to a simple rule of thumb: if you plan to print your scans on an ink-jet photo printer, you can get fine results with a resolution of 180 to 240 dpi. If you'll be ordering photographic prints from your scans, scan at 300 dpi. Scanning at more than 300 dpi won't usually improve quality—but it will definitely use more disk space.

Scanning for Ken Burns If you plan to apply iMovie's Ken Burns pan-and-zoom effect to an



THE SOUND OF MUSIC

Few iPod users offer high praise for the included earphones. As far as bundled earphones go, they aren't the worst—but they certainly leave much to be desired.

People willing to make a modest investment in better sound should check out the E2c, from Shure (www.shure.com). These \$99 in-ear earphones have a high-performance driver for optimal sound quality, and they come with three sizes of disposable foam sleeves and three sizes of flexible rubbery sleeves to ensure a perfect fit. So music stays in and noise stays out—you get cleaner sound at lower volume without outside interference. (The E2c earphones work so well that the company suggests that you not wear them while running or biking near traffic.)—JONATHAN SEFF

FADED MEMORIES

image, you'll want a high-resolution scan. A 300-dpi scan should have enough data to allow for tight zooms, but you may want to experiment to find the best resolution for a specific image and zoom setting.

Scanning with Cropping in Mind Similarly, if you plan to crop out unwanted portions of an image, scan at 300 dpi—or even higher if you plan to crop dramatically. Cropping discards pixels, effectively lowering an image's resolution, so the more data you have to begin with, the more cropping flexibility you have.

Format Strategies Which file format should you use for saving scanned images? iPhoto works best with JPEG files. However, the JPEG format is *lossy*, which means it sacrifices quality in order to save disk space. If this is the last time you plan to scan those old photos, you may want to get the highest-quality image possible. For this, a TIFF image is better.

When archiving my old slides, I scanned at 300 dpi and saved the images as TIFF files. Then I used Photoshop Elements' Batch feature to save a second set of photos in JPEG format. Now I have JPEGs I can use in iPhoto, while my original, uncompressed scans are safely archived. If you don't have Photoshop Elements, you can perform this automation chore using Yellow Mug Software's EasyBatchPhoto (\$14; www.yellowmug.com).

Photos, Meet iPhoto

Once you've scanned and saved your photos, you're ready to import them into iPhoto.

Divide Before Conquering To take advantage of iPhoto's filing features, you may want to have a separate iPhoto roll for each set of related photos. In the Finder, move related photos into their own folder and give each folder a descriptive name, such as Thanksgiving 1972. Drag each folder into the iPhoto window; the program will give each roll the same name as its corresponding folder. Delete the folders after you've imported their shots.

Turn Back the Clock To make your iPhoto library chronologically accurate, change the date of each roll to reflect when its shots were taken, not when you imported them. Click on the roll's name (if you can't see it, choose Rolls from the View menu) and type the desired date in the Date box near the lower left corner of the iPhoto window. Press return, and iPhoto immediately sorts the roll into the proper position.

Beware of Black-and-White If you're thinking of creating an iPhoto book from your newly scanned

Old photos do fade away, acquiring a blue or red tint as their dyes, well, die. If you have patience and a good eye for color, you can repair an old photo's color with Photoshop's built-in tools. But for the rest of us, there's an easier alternative: the \$49 Digital ROC plug-in for Photoshop and Photoshop Elements (www.asf.com). Developed by Applied Science Fiction (a Kodak subsidiary), Digital ROC does an amazing job of improving faded photos. Just look at what it did for this 1955 slide of my dad in a TV studio.

Equally impressive are the company's \$79 Digital GEM plug-in, which sharpens images and reduces grain and digital artifacts, and the \$49 Digital SHO plug-in, which optimizes brightness and contrast. You can download free trial versions of all three plug-ins before you buy.



images, avoid using black-and-white photos. According to Apple, such photos print poorly because of the process used to produce iPhoto books. You can, however, order prints from black-and-white shots.

Time for Retouching You can use iPhoto's Retouch tool to fix scratches and dust specks, and its Enhance button to fix color and exposure problems. For serious retouching, though, use Photoshop Elements or Photoshop. To learn more about digital retouching, check out Katrin Eismann's *Photoshop Restoration and Retouching*, second edition (New Riders, 2003). □

More Info:

www.scantips.com

For a good primer on scanning photos with the right settings, check out Wayne Fulton's *Scanning Basics 101*.

Contributing Editor JIM HEID is the author of *The Macintosh iLife* (Peachpit Press/Avondale Media, 2003), and he publishes iLife tips at www.macilife.com.



Digital Hub is a monthly collection of tips and strategies for anyone who creates movies, music, or photographs for personal use. We want to hear from you! If you've got secrets to share or suggestions for column topics—or if you just want to tell us what you think of *Digital Hub*—e-mail us at digitalhub@macworld.com.

Animatics in Final Cut Pro 4

ANIMATICS ARE ANIMATED STORYBOARDS—USUALLY SET to music, with sound effects and temporary dialogue—that professional filmmakers, commercial agencies, and special-effects artists use to visualize the look and tempo of their projects. To create your own animatic, all you need is a set of storyboard drawings, a batch-capable scanner, and a Mac equipped with Apple's \$999 Final Cut Pro 4 (800/692-7753, www.apple.com). With Final Cut Pro 4's RT Extreme feature, you can preview the animatic in real time as you build it. And when you're finished, you can output the animatic from Final Cut Pro 4 to tape, DVD, or a Web site.

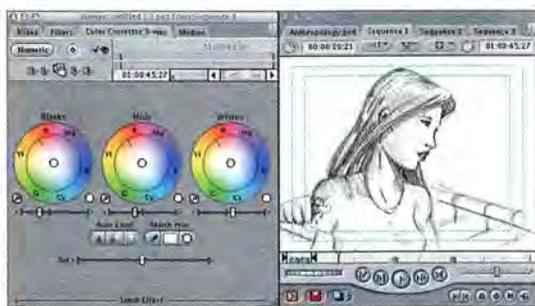
Anatomy of a Storyboard A storyboard is a collection of black-and-white pencil or ink sketches that visually tells a story. Each sketch depicts one shot's action, character positions, camera framing, and special effects. Animatics sometimes require additional keyframe images when a shot is complicated or has a lot of movement. For example, a long moving shot may have three or more images to better

describe the movement, the action, and how characters interact. You can hire a professional storyboarder, or can draw storyboards yourself if you're artistically inclined.

A traditional storyboard can have six or more story frames on an 8½-by-11-inch page. An animatic storyboard often has only one frame per page, and it doesn't have to be of those dimensions. Because you'll scan each frame into a computer, it's easier to scan multiple pages in a batch process than to play with scanner framing to pull multiple images off of each page. To simplify the batch-scanning process, make sure all your frames have the same orientation, and that the drawing area is consistent from page to page. Some animators even *peg-register* each page—this process requires a special type of hole punch for the paper; the holes in the paper fit over pegs that keep each page perfectly aligned when they're photographed.

Scan Me Up Animatics can easily contain hundreds, if not thousands, of individual drawings, so a scanner with an automatic page feeder is a smart investment. You'll also need scanning software that can handle batch scanning. I prefer Lemke Software's \$30 shareware application, GraphicConverter (<http://lemkesoft.com/en/graphcon.htm>). Scan your art using a gray-scale setting, such as true gray, rather than a line-art or a black-and-white setting (the exact terms depend on the scanning program you use). Choosing line art or black-and-white can make your scans too contrasty. Gray scale preserves detail such as shading and light pencil strokes. You should also think about lowering the brightness and contrast settings. This is particularly important with pencil art, but it can also enhance charcoal and ink drawings. Lowering the brightness will give you a grayer and flatter scan, but it preserves all your fine detail. You can tweak the results later using Final Cut Pro 4's color corrector. For a DV NTSC project, make your scan dimensions at least 720 by 540 pixels. (Scanners use square pixels; Final Cut Pro will convert these into nonsquare pixels when you import them into a 720-by-480 DV sequence.) This results in the exact frame size of your DV project—you won't have any wiggle room. If you want to pan across your image, as in a Ken Burns documentary, you'll need extra real estate. Also, if you're planning to zoom in on a picture, you'll need more pixels

Animate This You can adjust the contrast of your scans with Final Cut Pro's Color Corrector 3-Way filter (top). Once you've added motion and sound, you can output the finished animatic (bottom) to tape, DVD, or a Web site.



STORYBOARD BY MICHELLE MAUK

FAST FONT FINDING

so the picture isn't blurry when it's blown up. I often scan my 8½-by-11 animatics storyboards at 150 dpi.

Whatever dimension and resolution you choose, batch-scan all your pictures at one setting. While it may waste some hard-drive space to scan all the pictures at the maximum size you need, it will save time later. When saving your images, number them with leading zeros (for example, Scan001, Scan002, Scan003, and so on) so Final Cut Pro 4 will order the frames properly. Save your files in the PICT, TIFF, or Targe format.

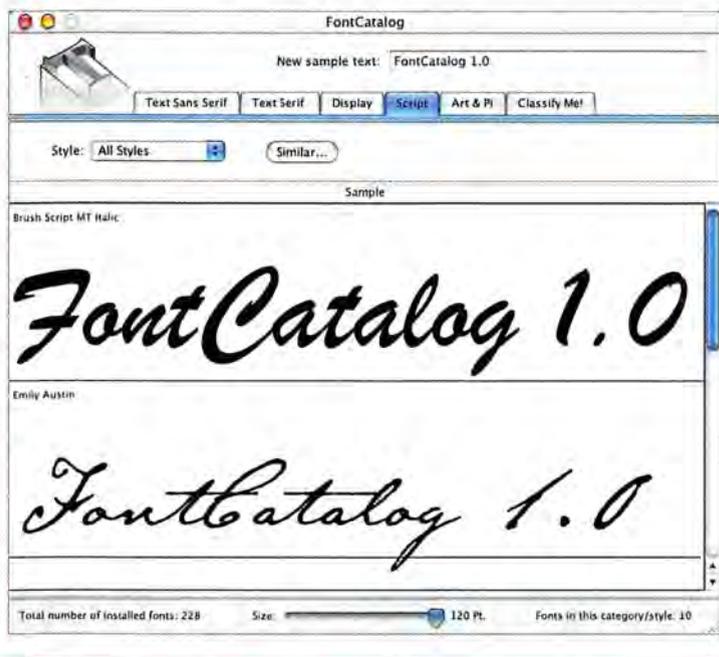
Bring Pictures to Life Once you've scanned your storyboards, open Final Cut Pro 4 and go to User Preferences. Under the General tab, choose a Stills/Freeze Frame Duration setting of whatever length you think you'll need. Give some thought to tempo. Will you need a shot longer than the default ten seconds? Do you need only six seconds?

Import the folder containing all your image files. It will appear in your browser with an expansion arrow next to it. If you click on that arrow, you'll see your numbered files. To create the structure of the animatic, start a new sequence and pick DV NTSC 48kHz. Now choose all the image files in your folder, either by pressing ⌘-A or by highlighting the folder itself, and drag it into the Canvas window or the timeline. The clips will align themselves in the sequence, with their lengths based on the duration setting in User Preferences.

Now you can set the overall framing and color for your animatic. To get real-time previews of your work, enable Final Cut Pro 4's RT Extreme from the RT pull-down menu on the upper left side of the timeline window. This way, you can work on the sequence without wasting time rendering footage. Unless your animatic is very short, you won't want to frame and color-correct each image individually. Final Cut Pro 4 lets you work on one image, get it right, and then apply the same settings to all the other clips.

Double-click on the first image of the sequence so it loads into the Viewer window. Click on the Motion tab. Set the scale of the image and center it properly. When you're happy with the image placement and

FontCatalog 1.0, from PrePress Consolidated Color (\$30; 305/378-4470, www.prepressmiami.com/fontcatalog), is designed for those of us who are more visual than systematic. You can search for typefaces by design, not just by name. You can also look at text displayed in several (even hundreds of) faces simultaneously. If you still don't like what you see, select the font that comes closest and click on FontCatalog's Similar button; the application will search your hard drive and activate any similar fonts it finds.—TERRI STONE



size, apply FCP's Color Corrector 3-Way filter to the clip (Effects: Filter: Color Correction: Color Corrector 3-Way). Select the Color Corrector 3-Way tab in the Viewer. If you did a low-contrast scan, you can boost the Whites level and lower the Blacks level to get acceptable contrast (see "Animate This").

Once the clip looks good, copy it and select all the other clips in the sequence (by pressing ⌘-A or using the All Tracks Forward tool). Select Paste Attributes under the Edit menu. In the Paste Attributes window, deselect Scale Attribute Times and choose both Basic Motion and Filters. Click on OK to apply the sizing and color characteristics of the first frame to the selected clips. At this point, you have a basic animatic. You can adjust individual clip lengths to match a soundtrack, create keyframed pans and zooms, and add temporary dialogue and effects. When you're done, you'll have a minimovie that conveys your intentions for the project. □

ANTON LINECKER is a writer and video technical adviser in Los Angeles. His previous articles for *Macworld* include "Make Your Mac Faster" (*Secrets*, October 2003).

IT'S ABOUT TIME

Pixar Animation Studios (800/937-3179, www.pixar.com) is bringing its RenderMan Pro Server to the Mac. RenderMan Pro Server will ship with RenderMan 11.5. This high-end rendering package has a list price of \$3,500, and it previously ran only on Unix, Windows XP, and Windows 2000.—TERRI STONE



Create is a monthly column for professional print and Web designers and audio and video pros. We want to hear from you! If you've got secrets to share or suggestions for column topics—or if you just want to tell us what you think of Create—e-mail us at create@macworld.com.

Leave Your Laptop at Home

SAVVY BUSINESS TRAVELERS KNOW WHICH CLOTHES THEY can pack to keep their luggage light and manageable, but they should also know how to keep their electronic gear compact and easy to transport. Unless you're working in Photoshop or editing audio and video files, a Palm OS-based handheld and a few accessories are all you really need. With a little effort, you can set up your handheld to work with Microsoft Office documents, check e-mail, and browse the Web. Today's handhelds make it practical to work away from the office with equipment that fits in your pockets.

Getting Online

If you don't want to feel as though you've been exiled to digital Siberia, your main concern will be getting online to use the Web and e-mail. You can connect to the Internet in three ways: via a cellular connection built into a Palm OS-based device, via a Wi-Fi (known

works at Ethernet speeds, in offices or public hotspots (such as those located in many airport terminals and coffee shops).

You can also turn to a handheld that supports Bluetooth, in conjunction with a Bluetooth-enabled cell phone (such as the Sony Ericsson T610, T616, and T68i), to connect wirelessly to the Web. Palm's Tungsten T, T2, and T3 models feature built-in Bluetooth, as do Sony's Clie PEG-UX50, PEG-NX73V, and PEG-NZ90 models. You can also purchase the \$129 Palm Bluetooth Card, an SDIO (Secure Digital I/O) card that fits into the expansion slot of recent Palm handhelds (such as the Tungsten E).

Setting Up E-mail

Once you've established an Internet connection, you can use the e-mail applications included on recent devices to check your e-mail. (Check the installation CD that came with your model if the program isn't already loaded.) You can also download third-party clients such as Snapperfish's \$40 to \$50 SnapperMail (www.snappermail.com), Corsoft's \$50 Aileron (www.corsoft.com), or Palm's \$35 VersaMail (www.palmone.com). These clients can access POP and IMAP accounts and provide basic e-mail functions, including sending and receiving; however, they can't synchronize directly with Mac e-mail clients. Make sure the program's preferences are set to not delete messages from your mail server, so the mail you receive on the road can be incorporated into your Mac client when you return. If you want to keep copies of mail you sent from your handheld, add your e-mail address to the BCC line of outgoing messages.

Dealing with attachments, such as Microsoft Office, JPEG, or PDF files, shouldn't be a problem. The latest e-mail software can hand off attached files to other applications on the handheld. One cool bandwidth-saving option is to receive only subject and header information, so you can download the full text of only the messages you choose.

Web Browsing

If you can't start the day without a morning Web news fix, you'll be happy that you can browse the Web from your handheld. As you might expect, viewing most Web sites on a small screen—even a high-resolution color screen—isn't the most fabulous



Turn It Sideways

If you've got a lot of work to do on a small screen, you may find that the Palm Tungsten T3's horizontal mode is worth the device's \$399 price.

to Mac users as AirPort or 802.11b) network, or through a cell phone that supports Bluetooth (a technology that enables short-range wireless connections).

Devices with built-in cellular capabilities—such as the Palm Tungsten W, the Handspring Treo family, and Kyocera's 7135 Smartphone—can connect to the Internet directly. You just need to enable digital-data features through your cellular provider, which will probably charge an additional monthly fee. Cellular connections tend to be much slower than your Mac on a standard 56K modem.

For people who need a faster connection, an 802.11b-enabled device such as the Palm Tungsten C or the Sony Clie PEG-UX50 can connect to wireless networks. Some Clie models also offer slots that can accept CompactFlash Wi-Fi cards. With a Wi-Fi-enabled device, you can connect to wireless net-

experience. Still, a Palm Web browser—such as Handspring's Blazer or Palm's Web Browser (free with a new Treo or Palm, respectively, or downloadable from the companies' Web sites)—can be invaluable for quick Google searches, news updates, or driving directions. You'll want to find out whether your favorite sites offer text-only or WML (Wireless Markup Language) versions of their content; then bookmark them.

Even if you don't go all the way and give your Palm OS device an active Internet connection, you can view Web pages on the go by transferring them to your handheld before you leave. To do this, feed URLs to programs such as DC & Co.'s \$20 iSilo (www.isilo.com) or Sejoong Namu Interactive's \$30 HandStory (www.handstory.com) on your Mac; these programs fetch the content of Web pages and store it on your handheld. (The former champion in this category, iAnywhere's AvantGo [www.avantgo.com], has not implemented Mac OS X support, but the free utility AvantGo USB Sync, available at http://homepage.mac.com/s_d/malsyncx/malsyncx_en.html, is a good work-around.)

Office, Out of the Office

Web browsing is one thing, but don't you have some real work to do? For lots of people, that means working with Office documents, traditionally a rough patch for Palm handhelds, due to memory restrictions and competing file formats. But new devices pack as much as 64MB of built-in memory, with more available if you use SD expansion cards. Adding DataViz's Documents To Go 6 Premium Edition (\$50; www.dataviz.com), will make it a breeze to take your Office files away from the office.

In earlier incarnations, Documents To Go converted Office files to a proprietary format, but the latest version supports native Word and Excel file

	Annual Income	Monthly Income	Interest Rate	Monthly Payment
1				
2				
3				
4				
5	Income			
6	Salary or wages	\$45,000	\$3,750	
7	Other salary or wages	\$12,000	\$1,000	
8	Rental income	\$0		
9	Investment income	\$800	\$67	\$57,800
10	Additional income	\$0		\$16,184
11	Total income	\$57,800	\$4,817	\$1,349
12				
13				
14				

Cell Blocks When you have to check an Excel worksheet when you're away from your Mac, DataViz's Documents To Go 6 Premium Edition gives you access to your numbers.



Mobile Mac is the place for tips on making the most of your PowerBook, your iBook, or their sidekicks. We want to hear from you! If you've got secrets to share or suggestions for column topics—or if you just want to tell us what you think of *Mobile Mac*—e-mail us at mobilemac@macworld.com.

THICKER SKIN

If you're a little tired of your iBook's all-white lid or the silver color of your PowerBook, it may be time for a change. MacSkinz—which makes thin plastic coverings for the lids of 12- and 14-inch iBooks, 12-inch PowerBooks, and 15-inch Titanium PowerBooks (designs for the new 15-inch PowerBooks are coming soon)—can give your iBook a brand-new look.

MacSkinz offers more than 30 designs, including clear skins for showing off your own pictures. Whether you want to proclaim your patriotism with the Stars and Stripes (or the Union Jack), express your inner beatnik with cool 1950s designs, or emblazon the word *single* on your iBook so lookers at the café know your marital status—MacSkinz probably has a design you'll identify with. And for people who would never dream of obscuring the mark of the Mac faithful, there are solid-color designs with Apple logos in the center. You can even order custom designs.

Each skin comes with four adhesive squares that semipermanently attach it to your laptop, and each costs \$30 (www.macskinz.com).—JENNIFER BERGER



formats, making it easier to edit documents on your Mac or your handheld. Excel users fare well as long as they don't mind frequent horizontal scrolling to view spreadsheet cells—though the horizontal modes of the Tungsten T3, Sony Clie PEG-NX73V, and Sony Clie PEG-UX50 can almost justify the higher costs of those devices (see "Turn It Sideways").

You don't have to use a tiny on-screen or on-device keyboard to work on your documents, either. Palm makes a compact \$99 Ultra-Thin Universal Keyboard, for Palm devices that have the Palm's Universal Connector, and the \$70 Palm Wireless Keyboard, which works with any Palm OS-based device that has infrared capabilities. Handhelds such as the Palm Tungsten C or the Sony Clie models that have their own tiny keyboards will do the trick if you're an adept thumb typist.

Bring It All Back Home

So it is indeed possible to be productive with a handheld device, but you'll be glad to come back to your Mac. When you HotSync the Palm to your laptop, Documents To Go transfers the edited versions of your documents to your hard disk. Although e-mail doesn't sync directly, you'll have copies waiting in your Mac e-mail client if you stored the messages on the mail server while you were gone. And most important, you can pack up your whole office again simply by slipping the handheld into your pocket or purse—even if you're just headed home for the evening. □

JEFF CARLSON is the author of *Palm Organizers: Visual QuickStart Guide*, third edition (Peachpit Press, 2004) and *iChat AV for Mac OS X: Visual QuickStart Guide* (Peachpit Press, 2004).

The Power of Preferences

SAFARI CRASHES ON LAUNCH. MAIL QUILTS WHEN YOU TRY to send a message. What to do? Most savvy Mac users will delete the application's preferences file, which stores changes made to the program's default settings. This creates a new (and hopefully problem-free) copy of the file, with default settings restored, the next time the application is launched. But you can do far more with these files. Editing OS X preferences files (also known as property list or .plist files) unlocks hidden features you can't access any other way.

Preferences files are plain-text files, so you can view or edit them in any text editor. But because they're written in XML format, it's easier to use a utility designed to interpret and format XML—just as using Adobe GoLive to edit HTML files is easier than using TextEdit to do so. Apple's Property List Editor does the trick (see "Cool Tools" for details). Once you've installed it, it'll be in the Applications folder inside the Developer folder at the root level of your drive.

Sync Your Bookmarks

The first time you launch Safari, it automatically imports bookmarks from Microsoft Internet Explorer. If you still use Explorer and continue to add bookmarks, at some point you might want to import your updated list. At first glance, you won't see a way to do

this, but appearances are misleading. All you need to do is convince Safari you're launching it for the first time, and it will import your latest Explorer bookmarks. Safari's preferences file holds the key.

You can trash the com.apple.Safari.plist file, and Safari will import bookmarks on its next launch. But this also eliminates any other preferences changes you've made via Safari's Preferences command. A more elegant solution is to delete or modify just the right item in the preferences file:

1. Quit Safari if it's open.
2. Locate com.apple.Safari.plist by selecting Go To Folder from the Finder's Go menu and entering ~/Library/Preferences. This will take you to the Preferences folder in your Home directory's Library folder. Double-click on the file to open it in Property List Editor. (If it doesn't open in Property List Editor, drag the .plist file icon to the Property List Editor icon in the Finder.)

3. In the Property List column, click on the disclosure triangle next to the word *Root*.

4. Scroll through the items that appear, and find the IEFavoritesWereImported property. (There's a related one for Netscape called NetscapeAndMozillaFavoritesWereImported, but we're concerned only with Explorer right now.)

5. Either select the IEFavoritesWereImported property and click on the Delete button, or select the pop-up menu in the Value column of the IEFavoritesWereImported item and change Yes to No.

6. Save your changes and close the document.

The next time you launch Safari, it will import Explorer's current bookmarks and add the IEFavoritesWereImported property (if you deleted it), with its value set to Yes. If you've previously imported bookmarks from Explorer and haven't deleted them, the newly imported URLs will merge with the existing list.

NOTE: Under some circumstances, a bug makes IEFavoritesWereImported invisible in Property List Editor. If that happens, never fear—open the preferences file in a text editor, such as TextEdit. Look for these lines:

```
<key>IEFavoritesWereImported</key>
<true/>
```

Change them to this:

```
<key>IEFavoritesWereImported</key>
<false/>
```

GEEK FAVORITES

Do you get worked up about disassembled PowerBooks? Do you go nuts for the details of a 1,100-node dual-2GHz Apple G5 Terascal Cluster? Share your love with others in this Apple-dedicated section of the venerable Slashdot Web site (<http://apple.slashdot.org>).—SCHOLLE SAWYER MCFARLAND

The screenshot shows the Slashdot website interface. At the top, there's a navigation bar with icons for various categories. Below that, a sidebar on the left contains links for 'Login', 'Who's Online', 'Sections', 'Map', 'Apple', 'Links', 'RSS', 'Archives', 'FAQ', 'Help', and 'Stories'. The main content area features a large article titled "NETBSD's COMPAT DARWIN Adds XDarwin Support" posted by "timothy" on Monday November 03, @ 12:30AM. The article text begins with "Dino writes: 'NetBSD's Emmanuel Dreyfus says that COMPAT_DARWIN is now able to run Mac OS X's XDarwin (this is, the X Window server for Darwin). The server is fully functional: display, keyboard and mouse work. He says that running Darwin has no interest in itself, but having it working ensures that NetBSD's iDK0 (1) emulation is good enough to be used. Darwin is Apple's Mac OS X core. A fully functional Darwin binary compatibility on NetBSD/i386 & NetBSD/i386 will imply getting Mac OS X libraries to run any Mac OS X program, just like NetBSD is now able to run binaries from Linux, FreeBSD, Solaris, and many other OSes.'" Below the article, there are sections for "Older Stuff" with dates like "Wednesday October 29" and "Monday October 27", and a "Fink Binaries for Panther Released" article posted by "pudge" on Sunday November 02, @ 09:42PM.

COOL TOOLS

The easy way to edit a preferences file is to use Apple's Property List Editor. If you purchased a Mac in the last year or so, you probably already have it. Select Go To Folder from the Finder's Go menu and enter `/Applications/Installers`. It's part of the Mac OS X Developer Tools suite—called Xcode Tools in Panther. (If you bought OS X separately, look for your Developer Tools CD.) Otherwise, download the tools from the Apple Developer Connection site (<http://developer.apple.com/tools/download/>).

Make the Finder Anew

Maybe you're a Unix geek and spend most of your time in Terminal, so you'd like it to replace OS X's Finder completely, launching whenever the Finder would (at login, for instance). Or perhaps you want to do the same thing with a Finder alternative, such as Cocoatech's Path Finder utility (\$34; 310/472-8710, www.cocoatech.com). A trip to Property List Editor will grant your wish.

1. Select Go To Folder from the Finder's Go menu and enter `~/Library/Preferences`. This will take you to the Preferences folder in your Home directory's Library folder. Find `com.apple.loginwindow.plist` and open it in Property List Editor.

2. Click on the triangle next to the word *Root*.

3. Then, with Root selected, click on the New Child button.

4. A new New Item property will appear. Change its name to Finder.

5. Double-click in the Value column to make the field active. Then enter the absolute path for the application you want to launch. For example, if you wanted Terminal to launch by default, you would type `/Applications/Utilities/Terminal.app`.

6. Save your changes and close the document.

To test your change, log out and log back in. When you do so, Terminal should launch. You can still launch the real Finder by clicking on its icon in the Dock. To undo your change, delete the Finder property from the preferences file.

TIP: How do I know about this Finder property if it isn't present in the default preferences file? Apple revealed its existence on the Apple developer Web site (<http://developer.apple.com>).

Tweak Your Hard Disk's Sleep

Your preferences are generally *your* preferences. They're stored in your Home directory. If another user logs in, the preferences in his or her Home directory become active. But a few settings, such as those made via the Energy Saver preferences pane, aren't stored in a Home directory and, as a result, remain the same regardless of who logs in. That's handy if you're a system administrator and want to make a global change in one fell swoop.

In Panther, you'll find the Energy Saver preferences in the `com.apple.PowerManagement.plist` file. Select Go To Folder from the Finder's Go menu and enter `/Library/Preferences/SystemConfiguration`. If you're using Jaguar, enter `/var/db/SystemConfiguration`. You'll find essentially the same file, but with `.xml` rather than `.plist` as the extension.

From the Energy Saver pane, you can access most of the properties listed here, with one exception: the length of time until your hard drive goes to sleep. You

can't set a *specific* time with a slider, as you can with your display. However, you can work around this limitation:

1. Double-click on the System Preferences icon in the Dock and choose Energy Saver. Select the Put The Hard Disk(s) To Sleep When Possible option. Quit System Preferences.

2. Open the `com.apple.PowerManagement.plist` file in Property List Editor and click on the disclosure triangles to open Root and then AC Power. (If you're using a laptop, you'll see a matching set of properties for Battery Power.)

3. Locate Disk Sleep Timer. Its value (in minutes) should be set to 10. Double-click to edit the value; change it to any value you like, up to 180.

4. Save your change.

Oops. Did you just get a "Couldn't save document" error message? If so, the root user owns the file, and you don't have permission to change it. Get Brian R. Hill's Pseudo utility (\$15; http://personalpages.tds.net/~brian_hill/pseudo.html), which lets an administrative user open an application as the root. Before launching Property List Editor, drag its icon to the Pseudo icon. You'll be asked for your administrative password. After you give it, Property List Editor will open as before, but you'll be able to save your change.

Don't Stop Now

We've just scratched the surface of what you can do with preferences files. Go on your own exploratory adventure: open a selection of `.plist` files and discover the surprises within, or scan Web pages for tips. Either way, you'll unlock one of OS X's hidden powers. □

See Ya, Finder Too geeky to use the plain old Finder? Make Terminal launch at login by tweaking the right preferences file. Use Property List Editor to add the highlighted line to your `com.apple.loginwindow.plist` file.



TED LANDAU is the vice president of SPUDOP (Society to Prevent the Unnecessary Deletion of Preferences). He is also the author of *Ted Landau's Mac OS X Help Desk* (Peachpit Press, 2004).



Geek Factor is a monthly guide to pushing your Mac to its limits—for fun, for increased productivity, or for both. We want to hear from you! If you've got secrets to share or suggestions for column topics—or if you just want to tell us what you think of Geek Factor—e-mail us at geekfactor@macworld.com.

Mac OS X Hints

DISPLAY FULL FILE PATHS IN SEARCH RESULTS, SEARCH more quickly for software updates, have some fun with Pong, make hidden apps *look* hidden in the Dock, see who's accessing your Mac, and more.

Make Hidden Apps Look Hidden

The easiest way to hide an application's windows is to press ⌘-H . But when you do this, the hidden application's Dock icon doesn't change—which may lead you to accidentally activate the hidden windows by clicking on the application's icon. With one simple Terminal command, you can command the Dock to differentiate between hidden and nonhidden apps (see "Hide and Seek"). Just open a new Terminal window, type the following, and then press enter: `defaults write com.apple.Dock showhidden -bool yes`.

Although you've told the Dock to give your hidden applications a unique look, you won't see the effect until you restart the Dock. Launch Process Viewer in 10.2 or Activity Monitor in 10.3 (both in Applica-

tions: Utilities), find and click on the Dock entry, and then select Process: Quit to restart the Dock. From now on, any application you hide will have a semi-transparent icon. To get things back to normal, just repeat the above command with `no` at the end, and then restart the Dock.

Take Ink's Font for a Spin

Are you addicted to fonts? Always looking to add another freebie to your collection? In OS X, Apple includes a font called Apple Casual for use with the Ink handwriting-recognition system. But even if you don't have an input pad, you can benefit from the Apple Casual font.

In the Finder, go to System: Library: Components: Ink.component: Contents: SharedSupport. Control-click on InkServer and select Show Package Contents; then go to Contents: Resources. The first item in the list will be AppleCasual.dfont. Open your user folder in a new Finder window, go to Library: Fonts, and copy the AppleCasual.dfont folder into your Fonts folder. The next time you start up applications, Apple Casual will be available for use.

Search for Software Updates Faster

Most people check for the latest and greatest Apple software in OS X 10.2 by clicking first on the Software Update preference pane and then on the Check Now button to see what's out there. Here's a simple time-saver for the next time you want to find new and updated apps—hold down the option key while clicking on the Software Update panel, and the Check Now process will begin. Panther users, you've got two even simpler methods of checking for software updates. You can either use the Software Update menu option under the Apple menu, or you can click on the Software Update button that you see when you select About This Mac from the Apple menu.

Play the Oldest Video Game in the Newest OS

Have a few minutes to spare for a game but not enough time to fire up Unreal Tournament 2003 or The Sims? Try a quick game of Pong, the original video game. Just open a new Terminal window and type `emacs`; this is one of the more powerful Unix text

Hide and Seek A simple Terminal command gives your Dock the ability to show clearly which applications are hidden—the semitransparent icons for Safari, Terminal, iChat, and so on indicate those applications' hidden status.



UNIX TIP OF THE MONTH

If you use the Personal File Sharing feature in the Sharing preference pane, you may wonder how you can tell who's accessing your machine. The Network Utility in the Applications: Utilities folder will give you detailed information on everything that's happening on your network, but its output can be hard to read unless you're well versed in the language of networking. To quickly see who's out there, type this command in Terminal: `netstat -na | grep 548`.

The command's output shows you who's connected to your machine (see "Who's There?"). The first output line displays an established connection between the host machine (IP address 192.168.1.150) and a guest machine (IP address 192.168.1.225). The last line shows a second connection from a machine with an IP address of 192.168.1.55.

If you see any IP numbers in your output that you don't recognize, it's possible that unauthorized users are using your shared folders, and you may wish to investigate further with your network's administrator or your ISP—and consider disabling Personal File Sharing until you figure out the source of the unknown connections.

```

[~] tcsh (tty4)
[~] netstat -na | grep 548
tcp4  0  0  192.168.1.150.548  192.168.1.225.49153  ESTABLISHED
tcp4  0  0  192.168.1.150.548  192.168.1.55.49485  ESTABLISHED
tcp4  0  0  *.548              *.*                  LISTEN
[~]
    
```

Who's There? Use the `netstat` command to see who's connected to your Mac.

CHANGE DESKTOP PICTURES

When you want to get a new collection of desktop images, you may think that you have to select Choose Folder from the Collection pop-up menu in the Desktop preference pane, and then navigate to the folder of your choice. But it's much easier to drag a folder from the Finder into the preview area near the bottom of the Desktop preference pane. When you do that, the Collection pop-up menu will change to reflect the folder's name, and the preview area will display the images in that folder. (You can also drag an individual picture icon from within a folder to change the available collection and set the desktop picture at the same time.)

editors. When the editor opens, press the escape key and then the X key, type `pong`, and press return.

You'll find a rudimentary Pong game on your screen. There's no computer opponent, so you'll have to use the left and right arrows to control the paddle on the left, and the up and down arrows to control the paddle on the right. When you're done being amazed at how far video games have come in the last 20 years, just press control-X followed by control-C to return to the Terminal prompt—and the present day.

Banish the Tilde from Users' Site Names

With OS X's built-in Personal Web Sharing (found in the Sharing preference pane), every user on your Mac



Go Ask Alice Adding the first line shown in this shot allows your users to access their sites without typing a tilde in the URL.

can have a personal Web site that others can access at a URL such as `http://your.ip.number/~user_name`. If you don't like having the tilde in the URL, however, you can easily remove it with Terminal and an admin password.

Open a Terminal window, and then type `cd /etc/httpd/users` to switch to the directory that Apache (the built-in Web server) uses to manage the user sites. If you're unsure of your users' short names, type `ls` to see a list of the available configuration files. Say you want to modify the settings for a user named Alice: type `sudo pico alice.conf` and enter your admin password when prompted to do so. Once the file is open, type the following above the first line (the one that begins with `<Directory>`): `Alias /alice "/Users/alice/Sites"`.

This `Alias` command acts just like an alias file in the Finder—it tells Apache that someone looking for a page at the `/alice` URL should be sent to Alice's Sites folder instead (see "Go Ask Alice").

Once you've added the line, press control-X to exit, and then press Y when pico asks if you'd like to save the modified buffer—this will write your changes to the file.

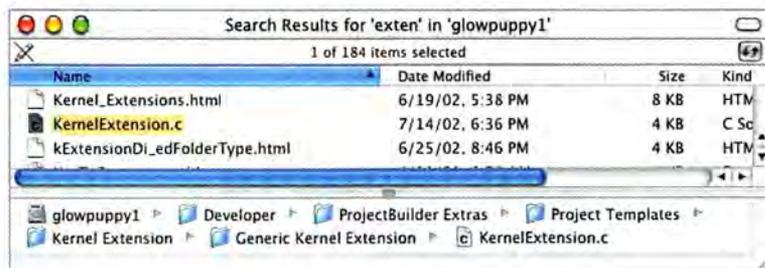
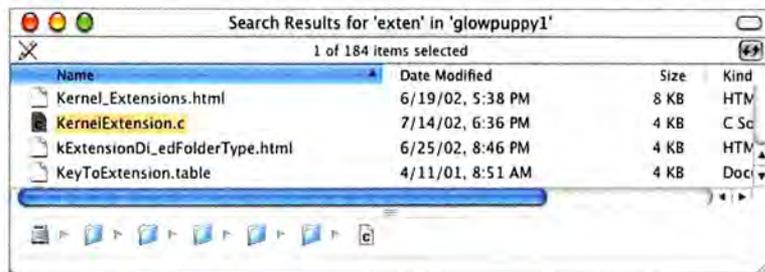
Return to the Sharing preference pane, and turn the Personal Web Sharing feature off and then back

on. This restarts Apache, which will then read the modified configuration. From now on, you can skip the tilde and just type `http://your.ip.address/alice` to get to Alice's Web site. Repeat this process for any other user URL you'd like to modify.

Display a File's Real Path

When you use the Find command in OS X 10.2's Finder and then select an item from the results, the item's path may not be clearly visible (see "Stay on the Path"). To see the full path, you can drag up the bar that separates the search results from the path until you have designated a large enough display space. An easier method is to double-click on the divider bar, which forces the results to display in the smallest possible space. Double-click again, and you'll see a hierarchical path display. In OS X 10.3, Apple has

fixed this problem, and the item's path will display correctly—though you can still drag up the divider bar to create the hierarchical path display. □



Stay on the Path

As displayed in 10.2, the path to the Finder's search results is basically useless (top); a simple double-click on the divider bar, though, gives you a much more useful display (bottom).

ROB GRIFFITHS is the author of *Mac OS X Hints, Jaguar Edition* (O'Reilly, 2003) and runs the Mac OS X Hints Web site (www.macosxhints.com).



Mac OS X Hints offers tips and tricks for using hidden features in OS X. We want to hear from you! If you've got suggestions for column topics or want to tell us what you think of Mac OS X Hints, e-mail us at macosxhints@macworld.com. For more hints, go to www.macosxhints.com.

Mac 911

ALTHOUGH THIS MONTH'S *MAC 911* FAILS TO TURN STRAW into gold, water into wine, or frogs into princes, it does offer slightly less-miraculous methods for converting your old Netscape bookmarks into book-

marks for the current Netscape, turning slide shows into Web pages, and dividing drawn-out discourses.

Change of Address

I've collected several hundred URLs in Netscape 4.7 by dragging and dropping the small icons at the left end of the Location field onto the desktop (where they turn into bookmark files). Then I upgraded to Netscape 7. Now when I double-click on one of the old icons, it opens as a file in Netscape, rather than directing my browser to the site. Is there a way to convert my older bookmarks to work with Netscape 7?

A. E. Siegman, *Stanford, California*

There is. Download, install, and launch a copy of Alco Blom's \$25 URL Manager Pro (www.url-manager.com). Create a new folder by selecting New Folder from the Bookmarks menu, and give it an intuitive name such as Convert. Drag your URLs into this folder and, once they appear, drag them right out again. This converts them into Web Internet Location files. Double-click on one of these files, and your default Web browser will launch and whisk you to the Web site associated with that URL.

Picture Disc

I read an article in a recent issue of *PC Magazine* that described how to create an HTML file with relative links to photos on a CD-ROM. It contained a lot of HTML code. Is there an easier way to do this on the Mac?

John Peterson, *Manhattan Beach, California*

This can be more difficult on a PC because of Windows' insistence on assigning letters to media drives and hard drives. If you use Windows' regular file

shortcuts, they may point to the pictures on the PC's hard drive rather than to the files you've burned to the disc.

And that, dear John, is *Why Windows Stinks: Reason 9,862*. There's no need to write a single smidgen of HTML code to accomplish this task on a Mac. Just launch iPhoto 2, select the photos you'd like to add to your disc, and select the Export command from iPhoto's File menu. In the resulting Export Photos window, click on the Web Page tab and enter a title for your photo album in the Title field (MyCoolPix, for example). If you care to, change the settings for the number of columns and rows of pictures, as well as for the size of the thumbnails and images, on the HTML pages iPhoto generates. Click on the Export button; in the sheet that appears, create a new folder to store the HTML files in. Select this new folder and click on OK. Your collection of photos will be saved as a series of HTML index files that display thumbnails of your pictures, as well as folders that contain those thumbnails and the full image files.

Insert a blank CD, copy the folder you created to the CD, and burn the CD. To browse the finished CD, simply shove it into a Mac or a PC and double-click on the index page (which, using the earlier example, would be called MyCoolPix.html). The computer's default browser will open, revealing the first page of the index, replete with thumbnails of your pictures. Click on a thumbnail to view the full image.

Short Clips

When I make an iMovie film, I like to archive it to DV tape. I occasionally need to edit an archived movie, but when I capture it into iMovie, the program automatically divides it into clips. Is there any way to make iMovie capture the movie into a single video clip?

Jeffrey Johnston, *Toronto, Ontario, Canada*

It depends on the length of your video. iMovie creates new clips when it detects a scene change—a convenient feature when you capture raw footage, but not desirable in your situation. Thankfully, you can easily put an end to this automatic clip creation. Just select Preferences from the iMovie 3 menu and deselect the Automatically Start New Clip At Scene Break option.

This may not completely free you from multiple clips. iMovie limits clips to 2GB (which works out to

UNSOLICITED ADVICE

When you select multiple picture files numbered in a series—Picture 01, Picture 02, and Picture 03, for example—and double-click on them, Preview doesn't display them in order. There are two ways to make the pictures appear in sequence: You can open a folder full of pictures in column view, select them all, and double click on them. You can also launch Preview, press ⌘-O to produce the Open dialog box, navigate to your pictures, ⌘-click on the pictures you want to view, and click on Open. With either method, the thumbnails will appear in the proper order.

TIP OF THE MONTH

Having your Mac read text documents to you is a great way to proofread your writing—you're more likely to notice mistakes when you hear them. The Services command in OS X's Finder menu offers a Speech command from which you can choose Start Speaking Text, but this service works only in applications such as Apple's TextEdit, Safari, and Mail. If you're using Microsoft Word, the service is unavailable. Although you could copy and paste your Word document into TextEdit, there's a simple way to hear your text within its original application.

Open the Speech preference pane, click on the Spoken User Interface tab, and enable the Selected Text When The Key Is Pressed option. Click on Change Key, and enter a keyboard command for activating text-to-speech (choose a key combination your applications don't use). Once you've set this up, you can select the text in any application and press your keyboard command to hear the text read aloud. Press the keyboard command again to stop it.

Garrick Chow, Harrisburg, Pennsylvania

9 minutes, 28 seconds, and 2 frames). If your video exceeds this length, iMovie automatically creates a new clip when it reaches the 2GB limit.

Broken Recording

We record the ministers in our church and then transfer the resulting audio files to a Mac, so we can make CD copies for members. We'd like to insert a break in the audio every 10 minutes, so members can choose a point at which to start listening. Is there a program that inserts such breaks automatically?

Stan Bemel, Portland, Oregon

I'd tackle such a project by dividing the sermons into separate, 10-minute audio files and then burning those files—in order—to CD. Creating such audio files is a cinch with HairerSoft's \$25 Amadeus II (www.hairersoft.com/amadeus.html).

Just open the sound file in Amadeus (it can read AIFF, WAV, and MP3 files) and select Generate Marks from the Selection menu. In the resulting Generate Marks window, enter 10'00'000 in the Time Interval field to create markers that appear every 10 minutes in the track. Enter something in the Text field that hints at the contents of the files—Sermon1, for example. Click on OK to dismiss the window.

From the same Selection menu, choose Split According To Marks. Click on OK in the Split window that appears (see "Long Division"). In the resulting Save As sheet, designate a location for your split files, select AIFF from the Format pop-up menu, and click on Save. Amadeus will split your file into 10-minute increments and sequentially number the segments—Sermon1 01, Sermon1 02, and Sermon1 03, for example.

Load these segments into iTunes and then into a playlist, ensure that they're in the proper order, and burn them to disc.

Missing Link

Is there any way to connect a number of tunes in iTunes, for background music behind a long slide show?

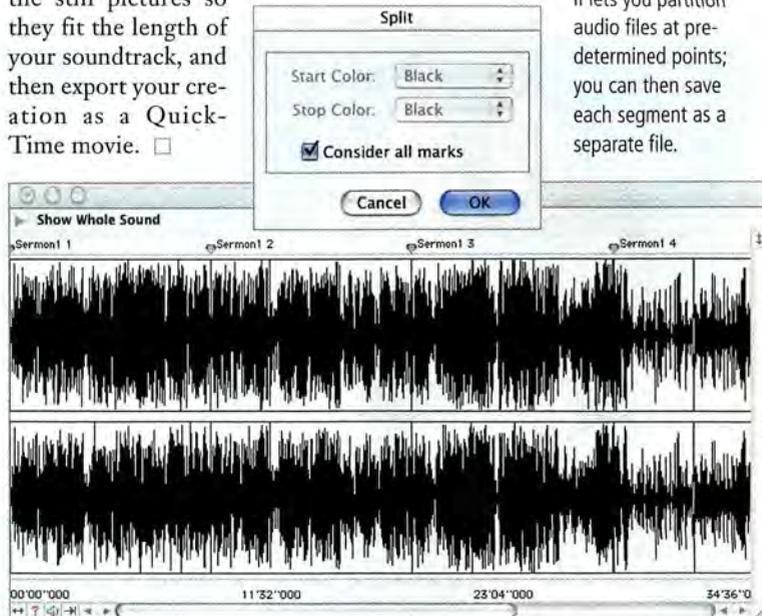
Bill Semplice, Wethersfield, Connecticut

I haven't found a slide-show application that can do this. However, there's no reason you couldn't stitch together the tunes you'd like to play during your slide show. The free way to do this is to import into iMovie 3 the songs you want to join.

Click on the Audio button in iMovie and drag the songs you want to string together into iMovie's timeline (these songs can be in any audio format iTunes supports, including the protected AAC files you purchase from the iTunes Music Store). Select

Export from iMovie's File menu, and in the iMovie: Export window that appears, select To QuickTime from the Export pop-up menu. Choose Expert Settings from the Formats pop-up menu and click on the Export button. In the resulting Save Exported File As window, choose Sound To AIFF from the Export pop-up menu; then name and save the file. Your tunes are now contained in a single audio file you can use to accompany your slide show.

If you're willing to convert your slide show into a QuickTime movie, you can create the entire slide show in iMovie. Add nothing except still clips to your movie, drag the song files you want to use into iMovie's soundtrack, adjust the length of the still pictures so they fit the length of your soundtrack, and then export your creation as a QuickTime movie. □



Long Division

HairerSoft's Amadeus II lets you partition audio files at pre-determined points; you can then save each segment as a separate file.

Yes, there are so secrets of the iPod, and you can find every one of them in the aptly named *Secrets of the iPod*, third edition (Peachpit Press, 2003), by Contributing Editor CHRISTOPHER BREEN.



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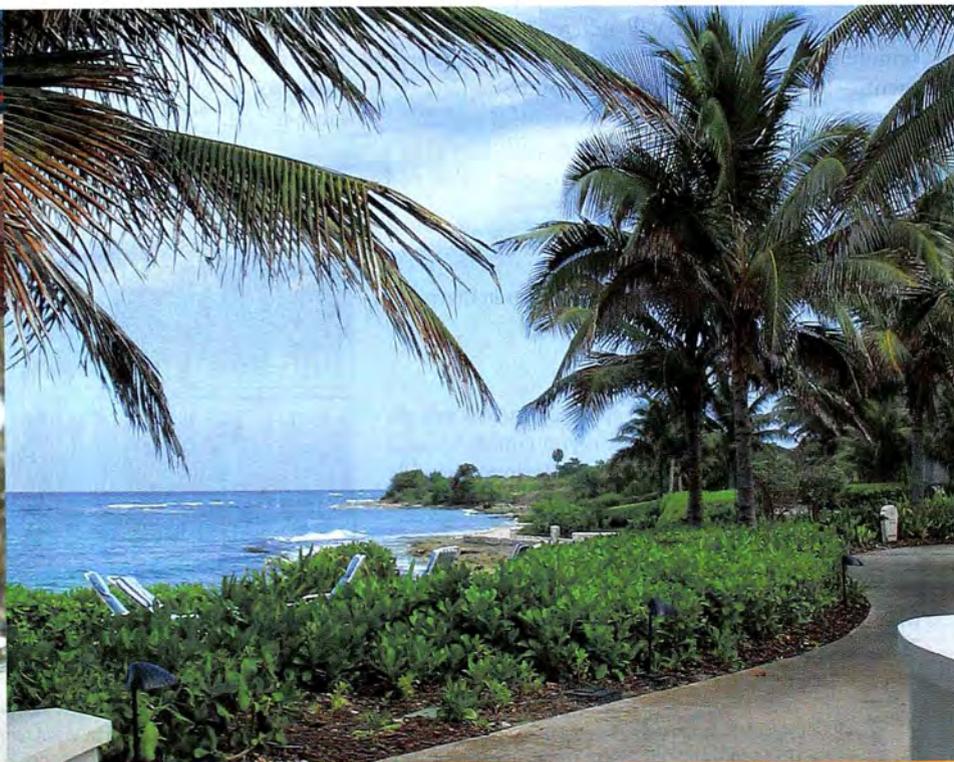
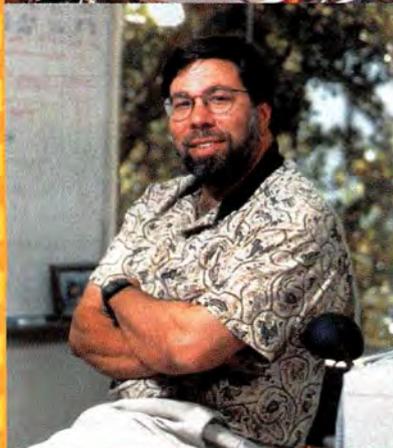
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Tues., Nov. 9, 2004	Cruising the Caribbean Sea		
Wed., Nov. 10, 2004	Philipsburg, St. Maarten	10:00 am	6:00 pm
Thurs., Nov. 11, 2004	Road Town, Tortola	7:00 am	4:00 pm
Fri., Nov. 12, 2004	Cruising the Caribbean Sea		
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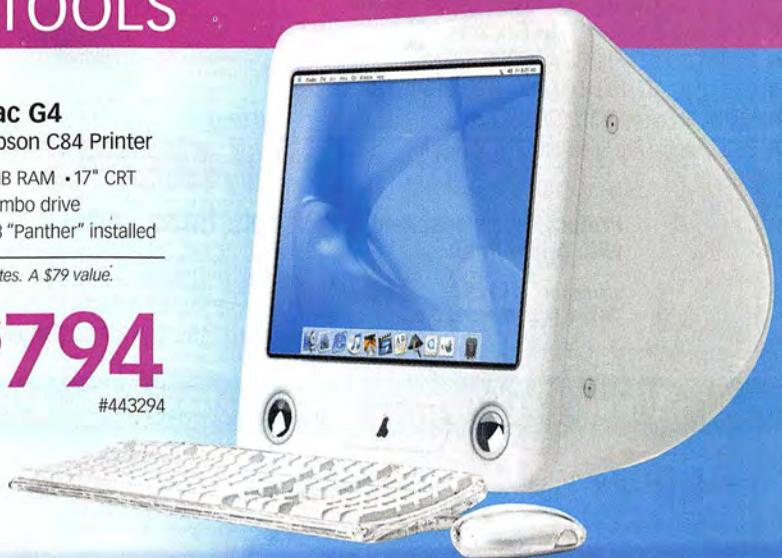
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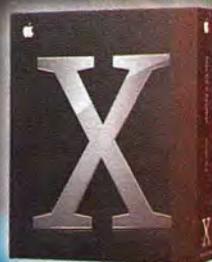
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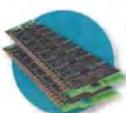
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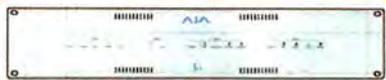
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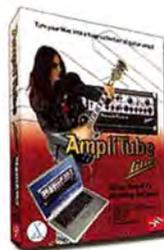
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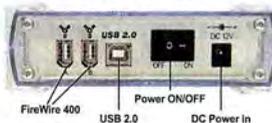
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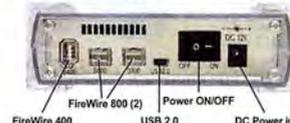
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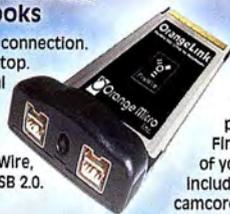
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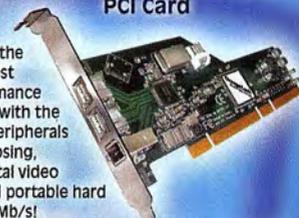
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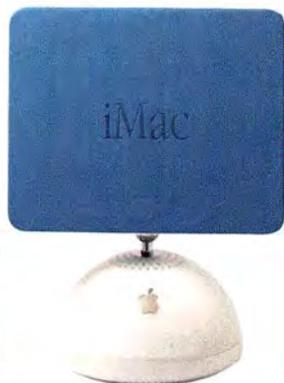
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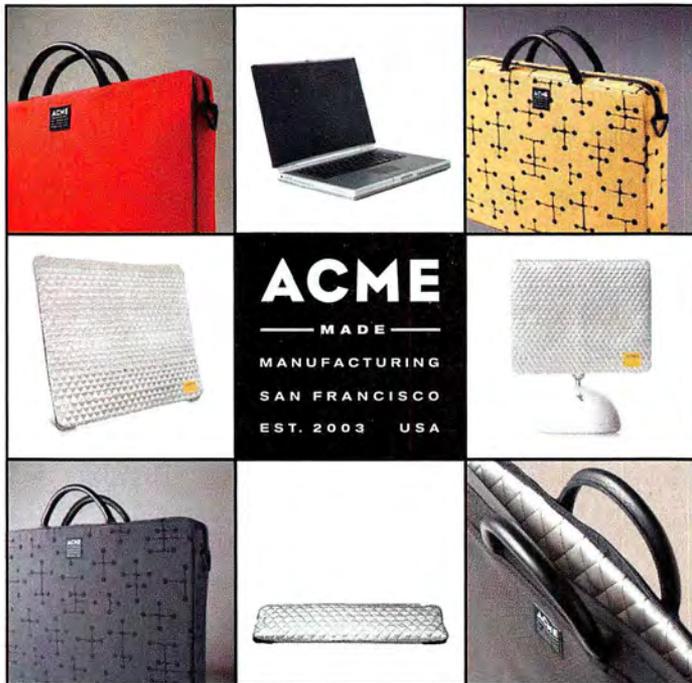


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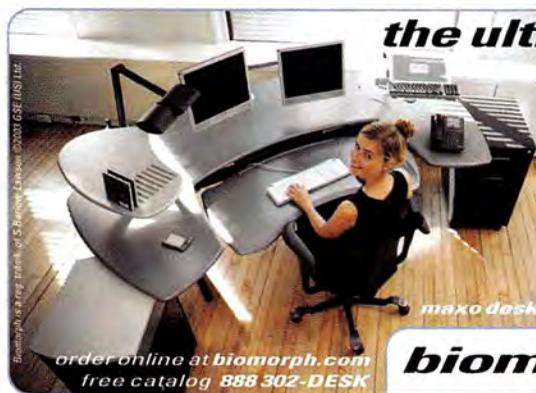
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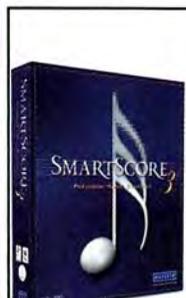


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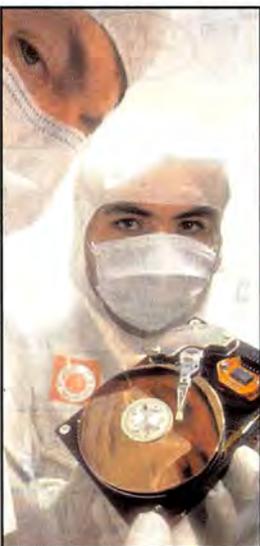
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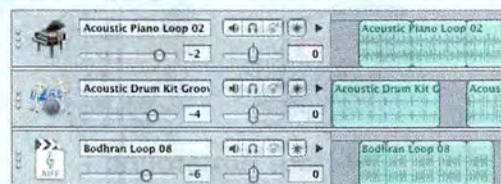
When this sweet speaker set for the iPod arrived, it was love at first sight. But after we'd heard the inMotion's clear sound, used its well-placed ports, and folded it up again, we knew we'd found much more than a mere infatuation. It connects to all iPods, but those with dock connectors are best (\$149; available only at www.apple.com).

Panther's Open and Save

Finally, we OS X users don't have to endure the column view when searching in the Open and Save dialog boxes. With Panther, you can choose a classic Mac OS-style list view, and Panther's handy sidebar gives you quick access to your favorite folders.

Grooving on Soundtrack

Apple's \$299 Soundtrack isn't just useful. It's flat-out addictive. We used it to make a great-sounding music mix in five minutes, and gave a muddysounding home movie from one editor's high-school days a modern flavor (★★★★½; December 2003).



Epson Stylus Pro 4000

Photo pros will smile when they see what Epson has been developing. Scheduled to ship in January, this printer promises 17-inch-wide prints at much faster speeds than previous Epson Stylus Pro printers (\$1,795; www.epson.com).



Konfabulator 1.5.1

Your city's weather, a Tetris-style game, your to-do list—Konfabulator's widgets basically let you have whatever information you want, right on your desktop (\$25; www.konfabulator.com).



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In case you had any doubt, we're here to tell you: Yes, it's true, a PowerBook can be used as an onstage musical instrument. At a recent Wilco concert, we spotted the band using a PowerBook to play cacophonous sample loops to complement their melodies. Upon further investigation, we learned that the setup was a 500MHz PowerBook G3 (Pismo) with 256MB of RAM, and Cycling 74's MAZ/MSP 4.1 installed for customized sample looping and signal processing. Wilco also uses a MOTU 828 FireWire interface to bring audio into and send it out of the Mac.

FireWire Web Cams

Apple iSight
★★★★; December 2003; \$149

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★★★★; December 2003; \$1,999 to \$2,599

17-inch PowerBook G4/1.33GHz
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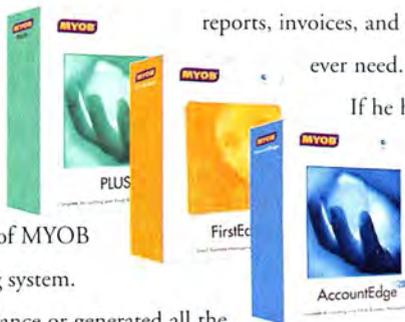
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See Dick. See Dick run his business
with software that wasn't written
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