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From the Editor's Desk

JASON SNELL

This month, Macworld abounds with great Web tips and holiday gift ideas. And Macworld.com has a new look and new features. Take a look.

Feedback

Readers respond.

MAC BEAT

Twentieth-anniversary Mac quiz, the latest on Adobe InDesign and QuarkXPress, what happened to Virex 7.5?, iMoviefest.com, editing HD on the Mac, the iTunes Affiliate program, and a digital-music update.

The Virtual CD

All readers now have free access to the contents of the CD-ROM that comes with some copies of Macworld. To view the contents of the CD, go to the following URL (broadband Internet recommended): http://cd.macworld.com/2004/12/duck-belt

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The Search Is On

A few months back, we polled a group of Macworld readers to find out which Mac programs they used on a regular basis. I was shocked at the results: while old standby Microsoft Word came in third, the top two spots were taken by Apple’s iTunes and Safari.

In hindsight, I suppose that this makes sense. Lots of us keep iTunes open in the background all the time, playing music while we do something else. Ditto for Safari, which I use constantly (although I admit I’ve enjoyed using Mozilla’s Firefox and The Omni Group’s OmniWeb, too). Seeing Safari place so high on the list of favored apps reminded us that we shouldn’t underestimate the power of the Web just because it’s so familiar.

It also started an interesting conversation among the editors here. We all surf the Web, but it’s not always as easy to use as we’d like. Steve Jobs may claim that finding pages on the Web is easier than finding files on your hard drive, but it’s still not easy to wade through all those search results to find what you really want.

That’s what we were thinking as we developed our story “Untangle the Web” (page 54). Our goal is to help you quickly find what you need on the Web. We’ve also put together a bunch of Safari tips and a list of add-ons that will help you get more out of Apple’s streamlined Web browser. And we’ve rounded up and compared the leading Safari alternatives.

If you use the Web, I think you’ll find that the results are worth more than a casual browse.

Online Expansion

If you haven’t visited Macworld.com or its sister site, MacCentral.com, lately, you should. We recently completed a redesign of the two sites that unifies them under a single look. We’ve also introduced several new features. I’m excited about our Apple Hardware Guide (www.macworld.com/products/apple), which puts all the information about currently shipping Mac hardware—including Macworld mouse ratings, Speedmark test scores, and constantly updated pricing—on one page.

In the coming months, you’ll find even more on Macworld.com, as we expand our online coverage and add special features for magazine subscribers. You’ll start finding more links in our pages pointing to extra resources, deeper information, and up-to-the-minute online coverage that just couldn’t make it into print. I hope you’ll come to rely on our Web site as an excellent complement to Macworld in print.

Got a favorite search engine, browser, or Mac gadget? Is there something you’d like to see on Macworld.com? Send your comments to jason_snell@macworld.com, or post them online in the Macworld.com forums.

If you regularly use Microsoft Office 2004, you may have noticed some funny behavior. We certainly did. So we sent Contributing Editor (and our resident Office guru) Rob Griffiths on a search for answers. In this month’s Working Mac (page 86), Rob reveals solutions and workarounds for 14 of the suite’s most annoying quirks, bugs, and pitfalls—from unexpected quits to trouble copying and pasting text between Word 2004 and Apple’s iChat.

Apparently, Microsoft has been listening. As this issue was going to press, Microsoft released the Mac Service Pack 1, a collection of bug fixes and performance and security improvements for Office 2004. You can download the free update from Microsoft’s Web site (find.macworld.com/0131). This update fixes problems with stability, security, and more—including a few of the glitches that Rob mentions in his column.

But it doesn’t solve them all. For an updated version of this month’s Working Mac column—and a look at which glitches weren’t addressed by Microsoft’s update—go to find.macworld.com/0132.

Got a favorite search engine, browser, or Mac gadget? Is there something you’d like to see on Macworld.com? Send your comments to jason_snell@macworld.com, or post them online in the Macworld.com forums.
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Time for Tiger

It’ll be a few more months (at least) before Mac OS X 10.4 is ready for prime time, but that’s not stopping Macworld readers from grabbing Apple’s Tiger by the tail. After reading the September 2004 preview of Tiger’s announced features—and our wish list of things we’d like to see—readers flooded us with suggestions of their own. Where do Mac users find the time to analyze an OS update that’s yet to appear? We’d like to think that the 66 time-saving tips we included in the same issue helped a bit.

Tiger Tales

GERRY DAVENPORT

Reading “10 Tiger Features We’d Like to See” (“10 Things to Know about Tiger,” September 2004), I was quickly reminded of a piece of software I use. You wanted spring-loaded folders in the Dock; Workstrip, by Softchaos (www.softchaos.com), is a great tool for this. As for quick access to files and smarter files, Workstrip does that, too. As much as I would love to have every conceivable cool and neat feature in my OS, that just isn’t going to happen, because everyone is different. What you like may not be what I want to deal with. To load up your computer with many, many small widgets, little apps, and other scripts to do small tasks and alter the system is not a wise thing to do.

STEPHEN C. LANGFORD

Here is a suggestion for iChat AV: a transparent image of the “speaker” that appears superimposed over a document on screen (as pictured). The listener can point to things on screen and ask questions or make suggestions. You can edit the document in real time in the application of your choice. The technology, called FaceTop, implements several standard OS X extensions. David Stotts, at the University of North Carolina, Chapel Hill, estimates that a Mac version would take a couple of months to implement. Interested commercial or private developers should contact the Office of Technology Development at the University of North Carolina.

BENJAMIN OSTMOR

Regarding “Typing Tiger” (“From the Editor’s Desk, September 2004): While keyboard strokes are useful to keyboard people, I’m a GUI guy, and I’m addicted to my Wacom tablet-and-pen interface. What I would dearly like to see in Tiger is the ability to take any program’s drop-down interface and then drag and drop an instruction to an overlay of that program’s main menu. For instance, I use the Select All command a lot in many programs, but it always requires a mouse or pen move to the drop-down menu. Why not simply create an easy way to customize any program with a do-it-yourself icon? Tiger would remember the new, user-customized GUI each time you opened that program.

Time Is on Our Side

PHIL ZAMPINO

I picked up a few interesting tricks from “Save Time with Shortcuts” (“Working Mac, September 2004). I’m a fast touch typist and prefer to keep my hands on the keyboard whenever possible. I’ve given up in many cases, and instead use a trick that has saved me enormous amounts of time, though I’ve never heard anyone else mention this idea. What I do is program the two side buttons on my four-button Microsoft mouse to issue a forward delete (front button) and a return (back button). Since my hand is on the mouse so often, and these are two of the most-used keys, I find that I am able to move much more speedily around my system with less back-and-forth between the mouse and the keyboard. My other favorite keyboard macro uses CE Software’s QuicKeys to program a left-hand return and delete key. I make option-Q a forward delete and option-tilde a return key. I use these less than I do the mouse delete and return buttons, but when I’m mousing around the screen and deleting—great for filling out forms in a browser—it’s more efficient to use both hands rather than clumsily move my fingers from button to button on the mouse.

A Discreet Mention

TODD JAQUITH

While Ben Long mostly hit the nail on the head with his review of Discreet’s Combustion 3 (September 2004), he was wrong about some of the new features. The Grain Management tool has been in the product since Combustion 2, as have the selection and mask feathering controls.

Fonts of Information

THERESA MESA

With FontAgentPro 2.1 (September 2004), you don’t have to add fonts to a set to compare them in Font Compare. Just press the # key as you click on the font in the left column—this trick works even with All Fonts selected.

MICHAEL MYERS

There is one major thing none of the current font managers do that we designers desperately want and need and that we lost in OS X—WYSIWYG font menus in all programs. So far only AppleWorks has it. Yes, I can go to Font Book and look them
up, but that takes too long. I need to see them in the list, whether I'm in Quark, Illustrator, or Photoshop. I currently use Extensis Suitcase, but I found out that it doesn’t have WYSIWYG menus. Please, get us our WYSIWYG menus back!

You Software’s $30 You Control: Fonts (www.yousoftware.com) adds a WYSIWYG menu to many apps.—Ed.

Stifled Voices

SHAWN KING

In his review of iPod voice recorders (September 2004), Cyrus Farivar writes that “there are no options for recording in other formats” and lists this as a con for the Belkin Voice Recorder for iPod and the Griffin Technology iTalk iPod Voice Recorder. That’s a bit unfair — both devices are limited by the iPod’s capabilities. Apple has limited the recording ability of the iPod to 8kHz, 16-bit mono WAV files. Also, he doesn’t make it abundantly clear that neither device is suited to high-quality recording. Again, the Apple-imposed limitations make them recommendable only to people who want to do simple voice recordings.

Enjoying Encoding

GRANT GRUBB

I want to thank Jim Heid for “iTunes Encoding Strategies” (Digital Hub, September 2004). I recently added an AirPort Express to my living room, and I love listening to my computer in the afternoon. The “Rebuild Your Library” box was especially helpful. I didn’t care much for the quality of my music when I first set things up — it sounded a bit mushy. Increasing the bit rate to 192 Kbps on several CDs has made a world of difference, and I plan to reencode them all soon.

Much Ado about Bit Rates

TREVOR COOK

Reader John Burt warns against using variable bit rate (VBR), saying that his files ended up with a rate between 164 and 184 Kbps (Feedback, September 2004). First, he may have been using average bit rate, which focuses on a certain spectrum of bit rates and is not in fact true VBR. Second, that’s all his music needed. The concept behind VBR is that not all music, not all parts of a song, require the same bit rate. VBR analyzes your music and gives out what it determines to be the highest bit rate required to ensure the best sound possible, assigning high and low rates as needed for file-size economy. In short, the reason his music may have hung around at same bit rate was merely that it needed nothing more to sound transparent (that is, as close to the original CD as possible).

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December 2004 MACWORLD 11
TEST YOUR MAC KNOWLEDGE WITH OUR ANNIVERSARY QUIZ

Hands on Buzzers

A lot can happen in two decades. To celebrate the end of 2004—the 20th-anniversary year of the Mac—we tapped Owen W. Linzmayer, the author of Apple Confidential 2.0: The Definitive History of the World's Most Colorful Company (No Starch Press, 2004), to stump you with 20 tricky trivia questions. Once you think you know the answers, turn to page 20 to see how your knowledge stacks up.

1 What was the first product Apple cofounders Steve Wozniak and Steve Jobs sold together?
a. Blue boxes for illegally making free telephone calls.
b. Blueprints for the Apple I computer.
c. Pints of blueberries at Casa de Fruta in Gilroy, California.

2 When did Macintosh revenue first surpass that of the venerable Apple II product line?
c. 1986.

3 When did Steve Jobs first become a billionaire?
c. In 1996, after he sold Next to Apple.

4 To what was Roger Heinen, manager of Mac software architecture at Apple, referring when he said, "All the MBAs in the world can't convince us it's a good model"?
a. Licensing the Mac operating system in 1985.
b. Adopting Unix as the underpinning of Mac OS X in 1998.

5 On what computer did the proprietary Apple Desktop Bus (ADB) make its debut?
c. The Lisa XL in 1983.

6 Who was not sued by Apple?
a. Steve Jobs in 1985, for dereliction of duties as chairman when he resigned from Apple to form what would become Next Computer.
b. Microsoft in 1988, for appropriating elements of the Macintosh graphic interface and using them in Windows 2.03.
c. The Beatles' recording company—Apple Corps—in 1989, for the similarity of its name to Apple’s user group division.

7 Whom did Apple pay for rights to use the Macintosh name for its computer?
a. The Oregon State Apple Growers’ Commission.
b. The heirs of Charles Macintosh, the chemist who invented the first waterproof raincoat.
c. Audio equipment manufacturer McIntosh Laboratory.

8 What was the nature of the $5,000 bet Steve Jobs and Lisa product manager John Couch made in 1981?
a. That the Mac would make it to market before the Lisa.
b. Who could abstain from showering the longest.
c. Who could charge the most for a slow, underpowered computer.
How did former Apple CEO Gil Amelio respond when asked, “If you were going to prescribe a medicine for Apple, what would it be?”

- “Frankly, I’d administer a heavy dose of morphine to Steve.”
- “Give everyone a free bag of pot every day.”
- “There’s nothing wrong in Cupertino that a little caffeine couldn’t fix.”

About whom was Jef Raskin, “the father of the Macintosh project,” speaking when he said, “He would have made an excellent king of France?”

- Jean-Louis Gassée, Apple’s vice president of product development.
- Steve Jobs, Apple’s chairman.
- Gaston Bastaens, the head of Apple’s Personal Interactive Electronics Division.

What was Compaq’s vice president of corporate development Robert W. Stearns talking about when he said, “They are smoking dope. There’s no way it’s going to work?”

- The “Star Trek” project—Apple’s attempt to port the Mac operating system to Intel processors.
- The Newton MessagePad’s handwriting recognition.
- The alliance between Apple and IBM to develop the PowerPC processor.

About whom was software wizard Andy Hertzfeld speaking when he said, “He was a total poseur”?

- Apple CEO Michael Spindler, for demanding $3.7 million in severance pay.
- Apple CEO John Sculley, for appointing himself Apple’s chief technology officer.
- Apple CEO Gil Amelio, for insisting on being called “Dr. Amelio” because he had earned a Ph.D. in physics.

Which of the following was not designed by Jonathan Ive, now Apple’s vice president of industrial design?

- The Newton MessagePad 110.
- The eMate.
- The MacTV.

Who or which of the following did not sue Apple?

- Folk singer Bob Dylan in 1994, to prevent Apple from releasing the Newton’s programming language under the name Dylan.
- Fig Newton producer Nabisco in 1992, to prevent Apple from releasing its PDA under the name Newton.
- Xerox in 1989, challenging the validity of Apple’s copyrights covering the Lisa and the Mac graphic interface.

To what was former Apple software evangelist Guy Kawasaki referring when he said, “Medicine will cure death and government will repeal taxes before Steve [Jobs] will fail. You can quote me”?

- The Power Mac G4 Cube.
- The Macintosh Portable.
- The Nextstation.

Which of the following quotes was not uttered by feisty Frenchman Jean-Louis Gassée?

- “We don’t want to castrate our computers to make them inexpensive. We make Hondas, we don’t make Yuges.”
- “One’s experience with the personal computer should be better than the greatest orgasm you could have.”
- “Forcing Apple to buy its next-generation operating system from Be makes my nipples hard.”

What did Apple CEO John Sculley predict in 1992 would become a $3 trillion market by the beginning of the 21st century?

- Personal digital assistants.
- Digital music downloads.
- Macintosh clones.

Complete this quote by Apple CEO Michael Spindler: “If anybody makes a Mac cheaper than we do from a cost standpoint, with our volume of a couple million machines...”

- “...we should be shot.”
- “...we’ll buy the company.”
- “...I’ll resign to go pick edelweiss in Germany.”

Who said, “If I were running Apple, I would milk the Macintosh for all it’s worth—and get busy on the next great thing. The PC wars are over. Done. Microsoft won a long time ago.”

c. Next CEO Steve Jobs in 1996.
QUARK AND ADOBE BATTLE FOR YOUR BUCKS

Publishing Dustup

Quark and Adobe have been competing for the loyalty and dollars of graphic designers for years. But lately, the two companies have stepped up the pace, and that competition is good news for customers choosing between QuarkXPress 6 ($1,045; www.quark.com) and InDesign CS ($699; www.adobe.com).

Over the years, Quark has earned a reputation for having rather poor customer service—a problem it hoped to remedy by appointing a new CEO in February. "Quark has not always listened to its customers," admits Glen Turpin, director of corporate communications. Turpin says that, since the switch, Quark has tripled the number of people available to help customers, added phone lines, and brought back its online forums. It has also eased its restrictive licensing policies.

Furthermore, the upcoming QuarkXPress 6.5 (which may be shipping by the time you read this) adds many customer-requested features, such as QuarkVista—an XTension that lets you edit images without leaving XPress—and improved support for Adobe Photoshop's PSD file format, according to Dan Logan, a technical product analyst at Quark.

But Adobe believes that people are shifting from XPress to InDesign, pointing to coups such as the adoption of Adobe Creative Suite by publishing giant Hearst Magazines. Will Eisley, InDesign's group product manager, says that the migration is due to the close integration with the company's other creative tools: Photoshop, Illustrator, and GoLive. "All the cool features in the world won't convince someone to shell out money for software," says Eisley. "But if you can prove that someone will save time and money, you really have their attention."

Eisley also insists that Adobe has always valued its base. "I welcome Quark to the idea of listening to customers," he says. "But customers will see who has the track record."

Michael Gartenberg, vice president and research director at JupiterResearch, agrees that integration makes InDesign very attractive. But, he adds, "both programs are very good. This battle will continue to rage on."—TERRI STONE

VIREX BUG FORCES PULL OF VIRUS APP

Cure Causes Disease?

A few days after McAfee released the new version of its antivirus application Virex, in late August, reports started pouring in that the software's e-mail-scanning function deleted users' entire e-mail in-boxes when it found certain types of viruses. The problem was particularly troubling because Apple includes Virex with every Mac account. What went wrong? A bug that McAfee (www.mcafee.com) wishes it had caught before it shipped Virex 7.5.

"Similar problems were reported in McAfee's beta-testing process, and the company believed that the problem had been corrected," says Teney Takahashi, a market analyst at the Palo Alto, California–based Radicati Group. "However, a small percentage of viruses were still able to trigger a mailbox deletion in the final version."

McAfee and Apple pulled the product from their respective Web sites.

Candace Worley, McAfee's director of security products management, says the problem is currently being fixed—Virex 7.5.1 should be available by the time you read this. The update will eliminate the problematic e-mail-scanning function. "It's not optimal, but it's the only short-term solution that would ensure the delete risk was removed," Worley says. "But this doesn't mean there's no protection at all; if someone were to open an e-mail with an infection, the active scanner would catch it."

Worley says that future versions of Virex will include architectural changes expected to eliminate the flaw altogether. Unfortunately, there's no remedy for those users who lost entire in-boxes—that data can't be recovered.

Still, analyst Takahashi says McAfee reacted well to the problem, quickly accepting responsibility. "The company has been prudent in pulling its product and working towards a solution," she says. "The impact for most users will be minimal, as only a small percentage of mailboxes were affected."—ADELIA CELLINI

CHARTCONSTRUCTOR 2.0

From Headshack

ChartConstructor 2.0 (www.headshack.com): Project-charting application adds multiple resources per task and the ability to export to iCal. It also allows you to customize calendars and change the percentage of resource allocation ($45; upgrade, free).

NISUS WRITER EXPRESS 2.0

From Nisus Software (www.nisus.com): The updated program for word processing now offers a built-in table-creation tool, user-defined style sheets, footnotes, endnotes, a high-lighter feature, and smart quotes ($59; upgrade from Nisus Writer Express 1.0; free from Nisus Writer 6.0, $45).—COMPiled by PHILIP MICHAELS

IMAGING BEAT

C-7000, from Olympus (www.olympusamerica.com): Seven-megapixel camera features 5x optical zoom and 30x maximum zoom capacity ($600).

DxO Optics Pro 2.0, from DxO Labs (www.dxo.com): Image-correction program uses a mathematical model of the camera and lens to perform precise corrections that remove image faults (pricing varies based on camera body and lens configurations).

Coolpix 4800, from Nikon (www.nikonusa.com): Four-megapixel camera features 8.3x optical zoom and a macro mode for shooting objects that are less than half an inch away ($400).

Coolpix 8400 and Coolpix 8800, from Nikon (www.nikonusa.com): Eight-megapixel cameras feature either a 24-85mm ultrazoom lens, in the 8400, or a 35-350mm zoom lens, in the 8800 ($840, $900; $860, $1,000).

PowerShot SD300 Digital Elph, from Canon (www.canon.com): Four-megapixel camera features 3x optical zoom ($400).—COMPiled by PHILIP MICHAELS
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iMovie and a personal Web site make it easy to create and share home movies with your friends and family. But what if you want the whole world to see your masterpiece? That’s the question Michelle Mendenhall answered a few years ago, when she came up with the idea for iMovieFest.com, a new iMovie community Web site that she and her brother, George Schmick III, launched earlier this year.

“I was using iMovie and made my first movie,” says the 30-year-old Mendenhall. “I really wanted to see what people thought, and I couldn’t really find anything back then.”

iMovieFest.com brings your movies to a global audience, and the site’s nearly 1,000 members can offer feedback and ratings. The site tracks a movie’s ranking and number of viewings. It also offers tips, tutorials, and a forums section where aspiring digital Coppolas can learn how to improve their craft. Mendenhall and the 20-year-old Schmick put the site together using Mendenhall’s iBook and Power Mac G4, with Linux as the backbone.

“The whole Web site was designed on a Mac, but we pretty much wrote the code from scratch,” says Mendenhall.

A. J. Rickert-Epstein and Chris Cowan, a pair of student filmmakers from Ohio, like the site because it offers them a higher level of feedback than they’ve found elsewhere. “I think it’s very helpful in that it’s an older, more professional-based audience,” says Cowan.

iMovieFest.com membership is free, but $45 buys you a VIP membership, which provides 50MB of storage, among other perks. Seeing your own movie rise to the top of the ranks is, of course, priceless.—MATTHEW HONAN

LOS ANGELES MUSICIAN USES MAC TOOLS TO CREATE MUSIC

Soundtrack Mac

Burton Paul wears many hats. On any given day, he may be a singer, a songwriter, a lyricist, a composer, a producer, or an engineer (and he’s often a little of each). The Los Angeles–based Paul (www.burtonpaul.com) recently finished a soundtrack for Mnemosyne Pictures’ upcoming independent movie Armageddon Jones—and he did most of the work on his 15-inch PowerBook G4 using Apple’s Soundtrack application. He used a combination of Soundtrack’s built-in sounds, third-party loops such as Sonic Foundry’s R&B Drums: Groove Spectrum, and some loops he created. “I even took a break and went to Palm Springs for a couple of days,” says Paul, “and I sat by the pool writing the songs and creating loops on my PowerBook.”

Working out of both his home setup and the professional studios he uses to record vocals, Paul also coproduced the song “It’s Already Written, Pt. 2 (Thunder)” on the debut gold album of hip-hop artist Houston, in 2004. And he’s currently negotiating his first album with a large record label. The album includes the AISD-awareness song “Need,” which Paul cowrote and recorded for the World Health Organization.

In addition to his laptop, Paul uses a 733MHz Power Mac G4 (he’s upgrading to a 2.5GHz Power Mac G5 soon) and a 17-inch Apple Studio Display (a 20-Inch is on the way), and he runs Pro Tools LE on Digidesign’s Digi 001 and Mbox.

So why does he work on the Mac? “Because I don’t have a hole in my head,” says Paul. “I cannot understand why anyone in their right mind would not work on a Mac—it’s just beyond me.”—JONATHAN SEFF
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NEW FORMATS MAKE MAC HD EDITING A REALITY

Your High-Def Mac

High Definition (HD) video—once limited to people with very deep pockets—is catching on as financially viable for even the most modest budgets. By renaming its professional video-editing software Final Cut Pro HD, Apple has also acknowledged the growing popularity and viability of HD on the Mac. Last month we introduced you to the world of HD video (“Meeting HD,” Mac Beat, November 2004); now let’s take a look at how Mac users can get in on the game.

BlackMagic Design’s DeckLink HD Pro

level—with expensive equipment, superb quality, and high data rates—and consumer level, which is typically more affordable and highly compressed.

Professional HD facilities usually edit with uncompressed HD, which requires staggeringly high data rates. A 1080i HD signal, for example, needs 160 MBps of throughput (to compare data rates for several common formats, see “Data Deluge”). As a result, editing uncompressed HD requires a hefty Final Cut Pro system, preferably with a dual-processor G5, and large and very fast RAID storage—an hour of that uncompressed 1080i HD video gobbles up more than half a terabyte of hard-drive space (see “Getting Cheaper All the Time” for what you’ll need in a typical editing setup).

Editing HD video in Final Cut Pro has been possible since the introduction, back in the OS 9 days, of Pinnacle Systems’ CineWave HD capture card (www.pinnaclesys.com)—which now supports Power Mac G5s and Final Cut Pro HD in OS X. But Pinnacle has plenty of competition. AJA Video (www.aja.com) and BlackMagic Design (www.decklink.com) are releasing second-generation versions of their HD cards that support both Standard Definition (SD) and HD video: the $2,490 Kona 2 HD and $1,995 DeckLink HD Pro, respectively. And Aurora Video Systems has entered the HD space, with its $1,499 PipeHD card (www.auroravideo.com).

Apple finally tackled the HD onto the Final Cut Pro name in April 2004 because editing professional HD content without any extra hardware or drives had finally become possible. How? With FireWire.

Panasonic has an HD format, DVCPRO HD, that is based on DV. In fact, people in the industry sometimes call this format DV100 because it uses DV-type compression to record to tape at 100 Mbps (four times the rate of normal DV). Two years ago, Apple vowed to support the Panasonic platform and Panasonic vowed to add FireWire to all its decks—the result was HD over FireWire this year. (Even standard FireWire 400 has plenty of bandwidth for DVCPRO HD.)

Although DVCPRO HD cameras are still in the $50,000-plus range, you can capture that professional-quality video into Final Cut Pro HD using a Panasonic AJ-HD1200A HD deck. Even at $21,000 (plus the $4,000 FireWire add-on), the deck costs less than half of what you would have paid for an HD deck before this one came out. The system requirements are so basic that you can use a PowerBook to capture and edit HD.

Final Cut Pro HD also has the ability to play HD footage out to a Cinema Display or a DVI projector. The 23- and 30-inch Apple Cinema Displays work particularly well with this feature, since their optimal resolution settings surpass the HD pixel count.

For the Rest of Us

Nonprofessionals—whether they’re watching an HD signal from satellite, cable, or over-the-air sources, or recording with an HD video camcorder—never deal with uncompressed HD. Highly compressed video formats (usually HD MPEG-2) are far more manageable and easier to store, in the range of 2.4 MBps. Because this signal is so highly compressed, you can easily capture it to stock hard drives.

Consumer HD got a big boost when JVC (www.jvc.com) introduced the first HDV camcorder, the $3,500 GR-HD1, in 2003. (HDV is for the masses—it lets users record very compressed HD MPEG-2 video onto DV tapes, as both 720P and 1080i. The quality for the price is astounding, and the data rate is in the same ballpark as conventional digital video’s.) The GR-HD1 was followed by the $3,995 HD10U. And Sony’s $3,700 HDR-FX1 should be out soon.

These HDV camcorders also come equipped with a FireWire port that lets users transfer footage to computers to edit and also send video to HD DVHS tape. Unfortunately, the editing program that JVC currently includes with its HDV camcorder supports only Windows XP. MPEG-2 is notoriously difficult to edit because of its interframe compression, but Apple has promised native support of HD MPEG-2 in a future update to Final Cut Pro HD. Currently, if you want to edit HDV in Final Cut Pro HD, you’ll need a third-party application such as Heuris’s XtractorHDV (part of the $500 Indie Tool Kit; www.heuris.com) or Lumiere HD’s $179 eponymous product (www.lumierehd.com) to import and use the footage.

And there’s more good news for Mac video creators—with Mac OS X 10.4, Apple plans to add support for H.264/AVC (Advanced Video Coding) video, one of the video types approved for the new HD DVD standard—which will make HD content even easier to distribute.—ANTON LUNECKER
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WHAT'S HAPPENING IN THE DIGITAL MUSIC WORLD

Listen to the Music

Apple continues to chug along as the leader in both digital music players and digital music downloads, but there are other goings-on in the realm of digital music to pay attention to.—JONATHAN SEFF

MICROSOFT LAUNCHES MUSIC STORE

Microsoft opened its digital doors in August with the beta version of its Windows-only store, offering 500,000 tracks (of the 1 million expected at launch) in the 160-Kbps WMA format. Pricing is similar to that of the iTunes Music Store—most tracks go for $0.99; most albums, for $9.90—but some tracks cost twice as much (http://beta.music.msn.com).

RealNetworks Takes on Apple

Not long after RealNetworks promised that its digital music files would play on the iPod, much to Apple's chagrin (see "Music Battle Gets Real," Mac Beat, November 2004), the company tried to take some sales away from the iTunes Music Store. In late August, Real slashed prices to $0.49 per track and $4.99 per album—but only for three weeks. Real says it sold more than 5 million tracks during the time period (www.real.com).

ITUNES AFFILIATE PROGRAM OFFERS COMMISSIONS ON SALES

Insert Link Here

When Amazon.com first started, it offered Webmasters a deal: mention a book on your site and put a link to the book on Amazon.com's site, and the company would pay a commission on any resulting sales. The program helped Amazon.com become synonymous with online book sales. Now Apple's hoping to do the same thing with online music.

The company's new iTunes Affiliate Program, launched in September, pays a five percent commission on all sales generated via links from participating sites. Apple provides the links and (if you want it) the artwork. A company called LinkShare tracks the leads and cuts the checks.

While Apple won't give out any details about how many sites have signed up or how many sales it has driven, the program appears to be an early hit: A Web search a week after the launch turned up dozens of participating sites, from online music magazines to homespun fan sites.

Nathan Wright, who runs the pop-culture zine Monkeycube (www.monkeycube.com) out of Des Moines, Iowa, was one of those first adopters.

Wright managed to generate forty leads in his first four days. At press time, he was still waiting for his first commission check.

Still, signing up thousands of Monkeycubes isn't going to drive millions of downloads. This is about marketing, not sales. At a time when Microsoft and other competitors are ramping up their own online music efforts, the Affiliate program is a way to keep the Apple and iTunes brands in front of as many surfers as possible.

"It's driving awareness for consumers to whom online music is still a new thing," says IDC analyst Susan Kevorkian. "Just by expanding the reach of program, it's bound to help." The real question, though, is how long that boost will last.—DAN MILLER

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The Power to Recover, Repair, and Optimize - Made Easy!
The drives and chips that filled Apple's Consumer Desktop Strikes a New Pose

BY HENRY NORR

Cross an iPod and an eMac and what do you get? The new iMac G5, the third generation of Apple's trendsetting desktop design for the home and school.

The latest iMacs are the slimmest and slickest models yet. But stylistically, they're the most conservative. Gone are the bulging curves and florid colors that made the original design such a sensation; gone, too, are the igloo-shaped base and the amazing flexible neck of the first flat-panel version.

This time around, Apple has gone minimalist. At first glance, the new machine doesn't even seem to be a computer. It looks like just another flat-panel display, distinguished only by its snow-white plastic bezel. The drives and chips that filled the old iMac's dome are now built into the back of the display, spread out behind a 17- or 20-inch LCD panel.

Apple is hardly the first computer manufacturer to adopt this approach—NEC, Gateway, and others first tried it years ago. But their designs sacrificed the trim lines and easy adjustability that make flat-panel displays so appealing—to one degree or another, they all looked like flat-panel displays with PCs strapped to their backs. To cool their tightly packed innards, most of them had noisy fans—and they were all fairly expensive.

Apple's design team solved nearly all of these problems. The iMac G5 is only a couple of inches thick—not quite as svelte as the latest LCD monitors but close enough to pass for one. On the front of the machine, the only indication that it might be something more is that the bottom section of the bezel is four inches high, creating a large expanse of white plastic. (On the back, there are a couple of giveaways: a big iMac label and, along the left side, 10 neatly aggressively cut prices.)

Don't Forget the Memory

More Power

The new entry-level iMac has a 17-inch screen; a 1.6GHz G5 processor; 256MB of memory; an 80GB, 7,200-rpm Serial ATA hard drive; and, built into the system's upper right side, a slot-loading DVD-ROM/CD-RW Combo drive. It costs $1,299.

For another $200, you can move up to the midrange model, which is similarly configured except for its slightly faster processor (1.8GHz) and its SuperDrive. In addition to watching movies on DVD-ROM and playing or burning CDs, you can burn your own DVD discs (in DVD-R format).

The top-of-the-line iMac G5, featuring the same 1.8GHz processor and SuperDrive as the midrange model, has a 160MB hard drive and a huge, 20-inch display. This model goes for $1,899.

If you're wondering whether Silicon Valley continues to deliver more bang for the buck every year, just compare these systems to their predecessors, the last of the iMac G4s. At the low end, you'll need as many bucks as before, but you'll get a lot more bang today: $1,299 used to buy only a 15-inch screen and a mere 1GHz G4 processor. In the middle and at the top of the line, Apple hasn't just beefed up its offerings—it has aggressively cut prices: At $1,499 and $1,899, the top two configurations cost $300 less than the G4 models they replace.

Don't Forget the Memory

Of course, you'll want to budget for additional memory. All three new configurations, like their predecessors, come with just 256MB of RAM. To take full advantage of OS X and the iLife applications—iTunes, iPhoto, GarageBand, iMovie, and, with SuperDrive configurations, iDVD—we recommend adding at least another 256MB. If you order from Apple's online store, you can upgrade to 512MB for $75, to 1GB for $225, or to the new iMacs' maximum, 2GB, for $1,125. (If you're willing to open the iMac and install memory yourself—a task that's extremely easy with Apple's new design—you can save considerably by buying your RAM from third-party discounters.)

We're always frustrated when Apple fails to provide adequate memory in its entry-level systems, mainly because there are always users who don't know how to add more, and they end up grousing—with some justification—that their systems are sluggish. The good news in this case is that the iMacs have two DIMM slots, and the factory-installed 256MB fill only one of them. So you can boost your system to as much as 1.25GB—plenty for most people—without having to unload memory you've already paid for.
IBM ran into unexpected difficulties as it moved to a new generation of production technology. For a year, the G5 stalled at a maximum speed of 2GHz, and when Apple announced new Power Macs in June of this year, the best it could offer was 2.5GHz—embarrassingly short of Jobs's promise. And IBM even had trouble living up to that commitment: the new high-end Power Mac, with dual-2.5GHz G5 processors (that is, two completely separate chips, not one chip with dual processing cores) was supposed to ship in July, according to Apple's announcement, but didn't actually begin to reach impatient customers until late August.

Still, the new model is finally here, along with new versions of its dual-2GHz and dual-1.8GHz siblings, and it delivers a substantial, if not earthshaking, speedup. The improvement is noticeable even in mundane tasks like unstuffing files, scrolling through PDF documents, and browsing the Web—but as you'd expect, the benefits are most significant in demanding image- and multimedia-processing work (see the benchmark chart, page 25).

**Three Times Two**

As usual, Apple offers three standard Power Mac configurations, but now they all have dual processors. The top-of-the-line system is priced, as before, at $2,999, but it now comes with a pair of the new 2.5GHz G5 processors. The midrange, $2,499 configuration, formerly powered by dual-1.8GHz processors, now has two that run at 2GHz. And what used to be the least-expensive Power Mac, with a single 1.6GHz G5 chip and a price tag of $1,799, has been replaced by a dual-1.8GHz model priced at $1,999.

All three configurations now have 8x SuperDrives, up from 4x in the previous generation. That advance hasn't attracted a lot of attention, but if you burn many DVDs, you'll definitely appreciate it.

As before, 512MB of memory and a 160GB, 7,200-rpm Serial ATA hard drive are standard in the top-of-the-line and midrange models, while the entry-level configuration has only 256MB of RAM—barely adequate to run OS X—and an 80GB, 7,200-rpm hard drive.

Those aren't the only ways in which the new dual-1.8GHz configuration resembles...
the discontinued 1.6GHz model—it also shares some inherent technological limitations. The logic boards, for example, have only four DIMM slots and are limited to a maximum of 4GB of RAM, compared with eight DIMM slots and a maximum of 8GB on the higher-end configurations. And while the expansion slots in the high-end models are based on PCI-X technology, those in the new dual-1.8GHz configuration handle only cards built for the older, slower PCI standard. Apple has marketed three Power Mac G5s with 1.8GHz processors so far. Both the original single-processor model and the dual-processor version that replaced it had PCI-X slots and could handle 8GB of RAM; the latest version has PCI and a 4GB limit on memory. All this could add up to a nightmare for system administrators in organizations with many Macs. It’s enough to make you pine for meaningful model numbers.

Of course, not everyone—not even every pro user—needs 8GB of RAM or PCI-X slots. In fact, 15 months after Apple announced its first PCI-X systems, the Made4Mac database of third-party products on the company’s Web site still showed only four Mac-compatible PCI-X cards. Still, you should consider your future, as well as present, hardware needs before you shell out about $2,000 for a system Apple has deliberately hobbled.

**ADC RIP**

Like their predecessors, all three new machines have an AGP (Accelerated Graphics Port) 8x Pro slot. Nvidia’s GeForce FX 5200 Ultra, with 64MB of dedicated memory, again fills it on the standard entry-level and midrange configurations, while the high-end system now comes with the 128MB ATIS Radeon 9600 XT; successor to the 9600 Pro that was standard in the old high-end setup.

If you have your Power Mac configured to order, you’re free to upgrade to higher-performance graphics; buyers of the low-end and midrange models can move up to the Radeon 9600 XT for $50 more, to the new ATIS Radeon 9800 XT for $150, or to the Nvidia GeForce 6800 Ultra DDL (required if you’re going to use Apple’s new 30-inch Cinema HD Display) for $200; from the high-end Power Mac, the upgrades are $50 less. (We tested only the standard cards.)

All of these cards support dual displays and have two DVI ports; a DVI-to-VGA adapter is included. Apple apparently has given up on its proprietary, single-cable ADC connector—a setback for people who can’t stand cable clutter, but a win if you prefer industry-standard ports and a wide range of displays to choose from. A word of warning, though: some third-party displays may not work with the cards Apple offers. An AG Neovo flat-panel display we’ve used with Power Mac G4s wouldn’t work at all when connected to the Nvidia card in the new dual-2GHz G5, though it worked fine with the Radeon 9600 XT in the high-end model. Users of Apple’s online support site report problems with displays from Samsung and several other manufacturers.

**Any Port in a Storm**

In other respects, the new Power Macs are basically similar to their predecessors. They have the same enormous enclosure with brushed-aluminum surfaces and a hole-punched grille on the outside, and an elaborate thermal-management system, with plastic baffles and nine fans, on the inside. In the high-end model, a water-cooling system built into the processor modules—and therefore invisible to the user, even when you remove the Power Mac’s side panel—helps keep the dual 2.5GHz processors from melting down. You’ll still hear the fans kick in fairly often—particularly when you’re doing processor-intensive work, but sometimes for no obvious reason. Like the original G5s, however, the new systems are noticeably quieter than Power Mac G4s.

In terms of connectivity, the new G5s sport the same rich variety of options as last year’s models. A USB 2.0 port, a FireWire 400 connector, and a headphone jack are conveniently located on the front panel. On the back, there’s an even dozen ports: two for USB 2.0; one each for FireWire 800 and 400; Gigabit Ethernet, and the built-in 56K modem; four audio jacks (analog and optical in and out); and antenna connectors for optional internal AirPort Extreme and Bluetooth cards ($79 and $50, respectively).

**The Price:Performance Ratio**

In the previous generation of Power Macs, the midrange model was the clear standout, in terms of bang for the buck, once Apple added a second 1.8GHz G5 processor. In the new lineup, the price:performance ratios look quite different. First of all, the high-end configuration, with its 2.5GHz processors, now holds a much larger speed lead—17 percent on our Photoshop test, for example—over the new midrange model.

At the other end of the spectrum, now that the base configuration also has dual processors, it’s no longer the relative laggard the entry-level Power Mac used to be: on our Speedmark benchmark, the new dual-1.8GHz system trails the dual-2GHz model by only 8.5 percent; in the previous generation, the base model, with a single 1.6GHz G5 processor, came in almost 23 percent behind what was then the midrange configuration (with two 1.8GHz chips).

**Macworld’s Buying Advice**

For the graphics and media pros the Power Mac G5 line is designed for, we think the clear speed advantage of the dual-2.5GHz model makes it well worth its $2,999 price. But if your budget is tight, if you can live with a little less than maximum performance, and if you don’t foresee any need for PCI-X or more than 4GB of memory, then our recommendation is the $1,999 Power Mac model. It’s only a little slower than Apple’s midrange offering, and even after you add some RAM and maybe a larger hard drive, you’ll still save several hundred dollars.

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**POWER MAC G5S COMPARED**

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<td>Apple Computer</td>
<td>Power Mac G5/</td>
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<td><a href="http://www.apple.com">www.apple.com</a></td>
<td>Extremely large size; comes with only 256MB of RAM and 80GB hard drive; hobbled compared with other G5s.</td>
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Equipped with sufficient RAM, the new iMacs' G5 processors deliver impressive performance. In our Speedmark 3.3 tests, the new entry-level iMac, with a 1.6GHz G5 processor, scored 24 percent higher than its top-of-the-line predecessor, a 1.25GHz G4; the 1.8GHz G5 processor bested the same G4 system by about 35 percent (see the benchmark chart).

On some common tasks, the improvement is even more dramatic: encoding a 45-minute audio CD track into MP3 format is even more dramatic: encoding a 45-minute audio CD track into MP3 format took 3 minutes and 20 seconds on the old 1.25MHz iMac G4; the same task took only 2 minutes and 6 seconds on the new 1.6GHz G5, and 1 minute and 53 seconds on the new 1.8GHz G5.

### Hooking Up

Twin speakers are built into the bottom of the iMacs, pointing down at your desk for extra resonance. The sound was surprisingly good—certainly better than what built-in computer speakers usually deliver—but it's not as good as audio from external Apple Pro speakers hooked up to the iMac G4.

The ports on the iMac's back provide an array of connectivity options: three USB 2.0 ports (plus two USB 1.1 ports on the keyboard); two FireWire 400 connectors; an audio line-in connector; an output jack that delivers analog sound when headphones are plugged in, or digital audio (in S/PDIF, the Sony/Philips Digital Interconnect Format, used to transfer stereo digital audio signals between various devices and stereo components) when an optical cable is connected; a 10/100BaseT Ethernet jack; a 56K modem; and a video-out port that, with the addition of an Apple VGA or a Composite and/or S-Video adapter ($19 each), can drive an external monitor in mirror mode.

Internally, the only expansion options are AirPort Extreme ($79, installable at any time) and Bluetooth wireless cards ($50, available only in build-to-order configurations). Among other advantages, there's an aesthetic argument for going wireless with the new iMacs: the more cables you plug into the ports on the back—even if you route them through the hole in the systems' aluminum stand, where the power cable goes—the more you mar the new design's sleekness.

In fact, port placement is our one real gripe: we wish Apple had followed the example it set with the Power Mac G5 and put headphone, USB 2.0, and FireWire jacks in front, where they're readily accessible.

### Macworld's Buying Advice

The new iMacs don't deliver the same floating-in-thin-air, adjust-it-anyway-you-want experience that Apple rightly made so much of when it introduced the iMac G4 models. But in every other respect—elegance, performance, and price—the G5 generation is a big step forward. All three new models are appealing, but for people who can afford it, and particularly those who plan to work with video, we recommend the 20-inch model: its large screen, hard-drive capacity, and SuperDrive make it well worth $1,899.

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### iMac G5s Compared

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<tr>
<td>Apple</td>
<td>17-inch iMac G5/1.6GHz</td>
<td>★★★★★</td>
<td>$1,299</td>
<td><a href="http://www.apple.com">www.apple.com</a></td>
<td>Elegant design; big, wide-format screen; powerful CPU.</td>
<td>Insufficient standard RAM.</td>
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### Macworld's Lab Test

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

Speedmark 3.3 scores are relative to those of a 1GHz Power Mac G4, which is assigned a score of 100. Cinema 4D XL, Compressor, iMovie, iTunes, and Photoshop scores are in minutes:seconds. All systems were running Mac OS X 10.3.5 with 512MB of RAM installed. We used iMovie to export a movie that was 1 minute and 40 seconds long to QuickTime. Email. We tested MP3 encoding with an audio CD track that was 45 minutes long, converting it from the hard drive using iTunes' High Quality setting. The Photoshop Suite test is a set of 14 scripted tasks using a 50MB file. Photoshop's memory was set to 75 percent and History was set to Minimum. We used Unreal Tournament's Antalus Botmatch average-frames-per-second score; we tested at a resolution of 1,024 by 768 pixels. We used Compressor's Fast Encode preset. For more information on Speedmark 3.3, visit www.macworld.com/speedmark. **MACWORLD LAB TESTING BY JAMES GALLBRAITH.**
LANsurveyor 8.1
Network Mapper Gets Additional Advanced Features

BY DANIEL H. STEINBERG ANDREW T. LAURENCE

If you administer a network, Neon Software’s LANsurveyor 8.1 is a useful tool for mapping, monitoring, and tracking inventory. The program probes the network and gathers information to help you anticipate, diagnose, and fix network problems.

Version 8.1 offers improved Neon Responder agents, local agents you use to determine—and remotely start and stop—the applications running on individual networked machines. You can also determine the type of machine located at each node, and get detailed information on installed hardware and software.

Scant Changes in New Version
Version 8.1 is very similar to version 7.0 (★★★★; January 2003). This is clear even if you don’t own the previous release, as the current version ships with the version 7.0 user guide, supplemented only by a 13-page pamphlet that covers the new features. The Mac release lags behind the Windows version, which supports voice-over-IP devices, Session Initiation Protocol (used by Apple’s iChat), and a Continuous Scan option.

Aglets at Work
By itself, LANsurveyor provides only information from ICMP (Internet Control Message Protocol) ping responses. It’s also designed to gather such information from agents running on the networked computers. The program displays data provided by companion product Neon Responder, as well as the Dantz Retrospect (★★★★; June 2004), Netopia Timbuktu (★★★★; June 2004), and SNMP (Simple Network Management Protocol) agents. SNMP agents are most often found on network devices (printers, switches, and routers) in the workgroup and enterprise markets. The low-end routers and printers designed for home use are often not SNMP capable.

LANsurveyor is available in three versions: Management Station (with 20 Neon Responder agents), Workgroup Edition (with 100 Neon Responder agents), and Enterprise Edition (with 500 Neon Responder agents). Deciding which version to buy is a matter of figuring out how many Neon Responder agents you need—usually one for each computer you manage.

Easy Mapping
LANsurveyor makes it easy to begin mapping your local network. Just select New Map from the File menu and choose the services you’d like to map: Neon Responder agents, SNMP devices (such as printers and routers), Timbuktu clients, and computers backed up by Retrospect, ICMP ping, or AppleTalk networks. Enter the range of IP addresses and the number of the range’s hops (the devices the information passes through as it goes from one point to another), and the program generates a map (see “Mapping Your Network”). LANsurveyor with Neon Responder agents installed on client computers can save a lot of legwork by reporting a wealth of information. Neon Responder agents provide details on the operating system, mounted volumes, installed applications, and running processes. However, a bug caused the software to consistently misidentify a 700MHz iBook G3. Neon is aware of the problem and plans to address it in the next release.

You can create a software meter report based on the running processes and a software inventory report based on the installed applications.

Depending on a device’s support for SNMP, it may already offer a wealth of information. For example, a high-end Cisco router shows details about its software version, all configured networks (including virtual LANs and variable-length subnets), IP transmission statistics, and its ARP cache. New in version 8.1 is LANsurveyor’s ability to display a device’s physical port on a managed switch.

The software’s Map Notes feature lets you embed notes in a device’s map record, and optionally display those notes on the map. This is particularly useful if advanced agents aren’t available for a device, or if you want to add inventory information.

Powerful but Inscrutable
LANsurveyor is powerful, but its interface isn’t friendly, and it doesn’t look or feel like a native OS X application. Navigation is often awkward. For example, you click on the Reports button and then choose from additional buttons to bring up yet another window to customize the report. It’s easy to forget how you got to a certain option. Neon should consider adding scripting capabilities so users could automatically run custom reports. However, once you’ve mapped your network, you can easily generate a variety of software, hardware, process, disk-space, file-type, and other platform-independent reports.

The program’s IP Poll list is generated from each node on your network at a time interval of your choosing. Set the poll interval to something as long as five minutes, and you can identify nonresponsive polls and view statistics of missed packets to find out whether a problem is transient or needs to be addressed.

LANsurveyor also lets you remotely manage networked computers running Neon Responder agents. You can direct them to shut down, restart, sync their clocks, and more. Remote management of networked computers is a prime example of where scripting would allow automation of common tasks.

Macworld’s Buying Advice
LANsurveyor 8.1 is a powerful program for monitoring and managing a medium-size or smaller network, and it’s worth the price of the upgrade from version 7.0. But the interface is awkward, and the application lacks some of the automation features that would be appreciated by people running regular reports and remotely managing machines on a network.

RATING: ★★★:

PROS: Easy mapping and managing of small to medium-size networks; generates platform-independent reports; monitors nodes for availability; remotely manages clients; performs software audits; good for businesses with or without IT departments.

CONS: Unfriendly interface; requires proprietary client software to obtain any real benefit; difficult to automate common tasks.

PRICE: Management Station, $495; Workgroup Edition, $995; Enterprise Edition, $12,500; upgrade, $199 to $2,999, depending on the number of Neon Responder agents.

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Maya Complete 6


BY SEAN WAGSTAFF

Maya Complete 6, the latest version of Alias's do-everything 3-D-animation and -effects system, doesn't offer bucketfuls of flashy new features. But it has enough of them, as well as enough welcome improvements in usability and performance, to make an already good package significantly better. The upgrade is a no-brainer. And while newcomers might balk at the $1,999 price tag, Maya Complete 6 competes with visual-effects packages that cost thousands more.

More Complete

Alias has squeezed some cool new features and improvements into Maya Complete. The new Soft Mod Deformer tool allows smooth sculpting of any group of objects. For instance, if you select and move the points that form a character's nose, the region surrounding the nose will also deform with a smooth falloff, as if the whole face were made of elastic putty (see "Fantastic Plastic"). Other modeling enhancements include better beveling tools, and a new curve-editing suite that lets you lock the length of a curve or deform curves with Curl, Bend, Straighten, and Smooth functions.

Maya remains one of the most comprehensive dynamic animation systems, on any platform, for creating natural effects such as smoke, fire, and water. One new feature in version 6 that will delight effects artists is the ability to use deforming on particle systems. It's now easy to make smoke curl around an overhanging lamp, for example. And Paint Effects, Maya's unique feature for painting everything from three-dimensional fur to flowers on a surface, can now be used directly on polygon objects—it's far more user-friendly than it used to be.

Maya also includes mental images' mental ray rendering engine, which offers advanced rendering features such as natural sky lighting. And mental ray is more tightly integrated with Maya 6 than with previous versions; many features, such as Paint Effects and particle effects, now render correctly in mental ray. It's also now possible for almost any Maya scene to benefit from the realism that mental ray rendering offers. Maya 6 also includes support for advanced hardware shaders, and you now have the option of creating high-quality hardware-rendered previews in standard working windows.

Maya still lacks a built-in rendering manager for queuing jobs on one or more computers. You'll have to rely on your own command-line scripts, or third-party distributed-rendering software, to do something as simple as batch-rendering two jobs on a single machine.

Better Support

Perhaps the biggest productivity boost for many artists will be the support for Adobe Photoshop files as textures. The new PSD texture node acts like a standard layered texture, but it links to individual layer sets within a Photoshop file. You can now add, delete, and change layers in a Photoshop texture and have them instantly update in Maya.

In previous versions, the Hypershade module, which acts as a catalog and an editor for textures and shading networks, simply lumped everything together in one disorganized mass. In Maya 6, this module lets you sort resources into named folders, and you can now use filters based on name or other criteria to display only certain nodes. It also caches data, and it's many times faster after loading for the first time.

Alias has substantially rebuilt the Trax editor, which lets you compile sequences of animation as you might in a typical digital-video editor. Adding characters and sub-characters to the Trax control panel is now easier, and you can readily copy animation from one character to another, even if the characters have different proportions or skeletal hierarchies. It's now much easier to redirect a character's animation. For example, a character animated with a walk cycle can be made to continue its walk around a corner or down a flight of stairs. And blending different clips is easier, too.

Maya 6 also incorporates a Web browser, which can be opened in a standard Maya window. Web pages can be populated with MEL scripts, which can then be executed as if run in Maya's Script Editor. This feature makes it easy to distribute custom tools along with corresponding documentation—a good thing for software as complex as Maya. And the program's online documentation system has been completely revamped; it's much more reliable and functional.

Unlimited on the Mac

Maya veterans know that the program also comes in a high-end version, Unlimited, which adds a variety of advanced effects (such as fur, cloth, long hair, and fluids) and costs about $7,000. In the past, we've criticized Alias for its failure to offer a Mac version of Unlimited—anyone who wanted its specialized features had to switch to Linux or Windows to upgrade. Version 6 makes the debut of Maya Unlimited on the Mac. This may be academic to users with a more down-to-earth budget, but studios that were hesitant to buy a product with no upgrade options can now worry about price, and about which users need the extended functionality, rather than about cross-platform parity.

Macworld's Buying Advice

This isn't a radical upgrade. But for people who need an all-purpose visual-effects app, Maya Complete 6 packs a bunch of new features and improved usability, and it's still less expensive than most of its competitors.
MicroNet Introduces SANCube800™

The first patented FireWire800™ Storage Area Network designed for creative professionals. The SANCube800™ allows you to collaborate with multiple users, all the time. Whether you create and edit music, video, or image design, The SANCube800™ is the shared storage resource that is faster, dedicated, reliable, and portable. SANCube800™ is available starting at $4,995 for a 4 User/1 Terabyte configuration.

[ up to 2 terabytes of storage ]
Ulysses 1.1
An Outstanding Writing Environment

BY WILLIAM PORTER

The Blue Technologies Group's Ulysses 1.1 is not a word processor, an outliner, or a text editor, but it incorporates aspects of each of these into its streamlined writing environment. While Blue Technologies describes Ulysses as a tool for creative writers, it will appeal to other types of writers as well.

Documents, Projects, and Panes
In Ulysses' one-window interface, you work on a project that consists of many documents. Ulysses' project window has many panes; each gives you access to an aspect of the project: there's a list of documents, the document editor, a versatile area for writing notes and storing images, a pane that displays a document's word count and other information, and panes that show another document's text and notes for quick comparison. You can switch from one open document to another via OS X-style tabs. Reorganizing documents is a simple matter of dragging their names in the list.

Input and Output
Ulysses is great for brainstorming. If you have a flash of inspiration, just press ⌘-N and start typing. You can figure out where to put the new document later. This lets you focus on what you want to say rather than how it's going to look. (Ulysses' few formatting options are limited to font size, text color, and background color.) The program's Fullscreen mode provides a view of your primary document without the distractions of the other windows or the application's menu bar—there's nothing left on screen but your words.

Ulysses has no import command, but you can drag and drop HTML, Word, and RTF files onto the application icon (or an alias of the app). This creates a new Ulysses project. If a project is already open, Ulysses imports the text into a new document in the current project. If you paste text from Microsoft Word, however, all formatting is lost.

When the parts of a project finally gel, Ulysses' excellent export options allow you to save what you've written to another file (plain-text, RTF, or LaTeX) that can be formatted for presentation in a word processor. Within the document editor, you can mark three types of paragraphs (section titles, comments, and block quotations) for formatting after exporting to RTF. For example, I drafted an article in Ulysses, exported it to RTF, and then formatted it in Word. I exported from the Ulysses project only the documents I wanted to use in my finished article. Actual notes, as well as documents created for research or brainstorming, I left in Ulysses for reference.

What's Not to Like?
My main complaint about Ulysses is that all a project's documents are at the same hierarchical level and cannot be separated into folders. This makes organization cumbersome, and if you have more than 30 or 40 documents, you'll spend some time scrolling through them.

In addition, the relationship between saving documents and saving projects, and how the Revert To Saved command works with each, is confusing. You can't close a document in a project window without saving it, which makes sense. You can, however, close a project without saving all its documents, which doesn't quite make sense. Fortunately, when you do this, no changes to unsaved documents are lost, because the documents are saved in a cache.

Macworld's Buying Advice
If your writing process includes free-form note-taking and does not follow a straight line or a preordained structure, Ulysses 1.1 is an excellent writing environment. It's a snap to use, and its interface is conducive to brainstorming. But if your project will require extensive formatting, using a word processor from start to finish may make more sense.

RATING: ★★★★

PROS: Full-screen editing; great organizational features for brainstorming.

CONS: User interface can be confusing at first; can't organize and file documents inside folders.

PRICE: $120; academic version, $60

COMPANY: The Blue Technologies Group, www.blue-tec.com
Expressing your creativity has never been easier—or more affordable! The new HP Designjet 130 printer series lets you create professional, fade-resistant, photo-quality proofs and prints with stunning results. And from now until December 31, 2004, when you trade in your old wide-format printers for an HP Designjet 130 printer, you'll get up to a $700 rebate during the Extreme Exchange promotion! Trade up today, and express your creativity in a colorful way! For details on this great offer, visit www.hp.com/go/extreme24.

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www.hp.com/go/extreme24
SketchBook Pro 1.1
Combination Painting and Drawing Tool Debuts on the Mac

BY NICK SPENCE
SketchBook Pro 1.1, the first version of Alias’s painting and drawing app available for the Mac, is a simple tool designed to work with graphics tablets such as the Wacom Intuos2 (February 2002). Its clean, unfussy whiteboard interface lets you start sketching within minutes of launching the program. SketchBook Pro’s simplicity is its major strength; it’s easy enough for a child to use.

Flexible Interface
Initially, the application fills the screen with a white canvas. A small artist’s palette well, located at the bottom left, or bottom right corner, provides quick access to all pens, pencils, markers, and brushes. You hold your pen to select additional tools, layers, and options via a circular eight-option menu (see “Dialing for Brushes”).

Dialing for Brushes  Selecting the Brush icon brings up a circular menu of eight choices; then selecting the Current Tool icon reveals presets you can customize.

While you can begin sketching even if you have few or no drawing skills, SketchBook Pro has obvious benefits for professional illustrators, animators, graphic designers, technical engineers, storyboard artists, and even courtroom artists—especially pros who need to move through projects quickly.

The unobtrusive Marking Menu palette frees up valuable screen space and makes drawing more intuitive. You can hide the tool palette and menus completely to further maximize screen space. But if this feels too minimalist, you can allow both the brush and color palettes to remain on screen for a more traditional feel. Selecting the pens, pencils, markers, and brushes feels almost like drawing with traditional pen and paper. Pen responsiveness is excellent and customizable, with none of the delay sometimes associated with memory-hungry graphics programs. You can also create and save brushes, erasers, or airbrushes, and you can vary their size, transparency, roundness, slant, and stamp spacing (a brushstroke property).

Program Updates
Though Mac users have no basis for comparison, Alias has added new features to SketchBook Pro, including 26 hot-key functions, a single-layer copy tool, and a redesigned brush editor. A built-in screen-capture utility lets you take a snapshot in any application, including a Web browser. This feature saves valuable time when you’re importing images from third-party applications.

Nondestructive templates, including a library of background images such as storyboard panels, page layouts, charts and graphs, and musical notation, can be downloaded from the Alias Web site to help streamline your workflow. The layers option is useful but rudimentary, with none of the blending modes Adobe Photoshop offers. However, you can add an unlimited number of new layers (including imported photographs), and adjust the opacity with a simple slider for easy tracing. Notes to clients and art directors can be added on separate layers, for instance, without the need to duplicate images.

You can e-mail your masterpiece to a friend, colleague, or customer from within the program—it’s automatically attached in JPEG, PNG, or TIFF format within your default mail program. Support for Apple’s Rendezvous, however, would be a bonus, as would be the ability to save files in Photoshop’s native PSD format.

Color palettes are initially limited: preset colors are represented by a neat pack of digital crayons. SketchBook Pro 1.1 makes use of OS X’s Color Picker, which lets you save additional palette colors.

The program can open and save images as large as 8,191 by 8,191 pixels. The default canvas size is the size of your monitor. To change this, go to Preferences, click on Custom Size, and type in your chosen width and height (in pixels). SketchBook Pro 1.1 uses a best-fit approach when printing, which means results can look odd. Images are automatically created in landscape layout—not portrait. You can open SketchBook Pro’s TIFF documents in Photoshop and Painter, but any layers you may have created will be merged.

Using the pen tool in Adobe Illustrator and Macromedia FreeHand to trace a sketch done in SketchBook Pro 1.1 was simple and gave impressive results; this will save you scanning time.

Macworld’s Buying Advice
As part of the creative process, SketchBook Pro 1.1 is an excellent, though not essential, artistic tool. It won’t replace Photoshop’s vast range of functions or Painter’s ability to simulate natural media. Rather, SketchBook Pro 1.1 can render images and ideas with a minimum of fuss, allowing full artistic flow without the distractions of a heavy manual or complex commands.

FINAL DRAFT 7.0.0.52

$$; Final Draft, www.finaldraft.com; $229; upgrade, $85

In the August 2004 Macworld, our review of Final Draft 7 (★★★★) stated that the program didn’t live up to its predecessors’ good reputation. We noted problems with screen redraw, instant crashes when trying to print, text-editing tools, general instability, and horrible telephone support. Two updates later, Final Draft has released version 7.0.0.52.

This update brings Final Draft 7 to a usable level, similar in stability to version 6. Text editing is much more reliable. The scrolling artifacts are gone. We still noticed sporadic screen-redraw issues, most notably text creeping into the toolbar and ruler area (it disappeared after about 20 seconds).

We discovered another bug while testing this time. When outputting scripts to Rich Text Format, Final Draft 7 ignores the screenplay-style text-case formatting (putting lowercase letters where capital letters should be). And some punctuation marks, such as em dashes (—), are handled incorrectly.

Previously, it was impossible to reach Final Draft support. The company has since established a 24-hour toll-free support line. They do charge for support, but the first 20 minutes are free for new customers.

Final Draft’s 7.0.0.52 update puts its flagship product back on track. The support hotline is also welcome.—ANTON LINECKER

RATING: ★★★★★

PROS: Easy to use, intuitive interface; wide appeal; efficient visualizing tool; affordable.

CONS: Limited preset brush palette; layers will not be preserved when document is opened in other applications; no PSD support or print preview.

PRICE: $179

COMPANY: Alias, www.alias.com
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MailSteward 2.2
Mail-Archiving Program Improves Searching but Needs Work

BY JOE KISSELL
Searching through thousands of stored e-mail messages in Apple's Mail can be time-consuming and frustrating. The Spotlight feature in the upcoming OS X 10.4 (Tiger) will eventually facilitate this task—until then, John Seward's MailSteward 2.2, like John Carlsten's eMessage Archiver 4.0.2 and Moth Software's MailArchiver X, can provide a searchable e-mail archive. The program stores Mail messages in a database for fast, flexible searching, but it's limited in many ways.

One limitation is that MailSteward supports only POP (Post Office Protocol, a common e-mail standard) and .Mac accounts (as well as messages saved in local mailboxes). The developer plans to add support for IMAP (Internet Message Access Protocol, which stores messages on the server). In our test on a 1GHz PowerBook G4, MailSteward took more than an hour to store approximately 18,500 messages. And each time you add a message to the searchable database, MailSteward goes through the entire e-mail archive as it updates—a lengthy, cumbersome process.

A further limitation is that MailSteward doesn't archive attachments (the developer says that support for attachments is coming). Even worse, MailSteward stores and displays only plain text. It strips the formatting from Rich Text messages, and HTML messages without a plain-text alternative display as HTML code, which makes certain messages illegible.

MailSteward's strongest features are its searching speed and flexibility: you can comb through even a huge database quickly by searching for terms in the To, From, and Subject fields and the message body (or any combination thereof), by choosing a date range, and/or by employing a custom search string (if you know SQL).

Macworld's Buying Advice
MailSteward 2.2 is an unpolished implementation of a good idea. POP users with a moderate number of plain-text messages will find that the new searching capabilities are helpful, but the program offers other users little reason to buy it.

DiskWarrior is Now OS X Native

I’ts 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...
Diskology Disk Jockey
Hard-Drive Cloner Is a Mac Consultant's Best Friend

BY JEFFY K. MILSTEAD

Seasoned IT veterans have the battle scars: scraped knuckles from frequent plugging and unplugging of drives within the sharp metal confines of an open Mac chassis.

While Diskology's Disk Jockey won't dull those razor-sharp edges, it will minimize the number of replugging sessions by letting you quickly clone, verify, or wipe hard drives. And you won't have to dedicate an entire Mac to these tasks.

The Disk Jockey is a compact unit, featuring power and IDE connections for attaching two drives. It also has two FireWire 400 ports and one USB 2.0 port, to connect to your Mac. Its eight operating modes are Standard, Mirrored, Spanned, Copy, Compare, Disk Check, Erase, and Secure Erase.

RATING: ★★★★★

PROS: 
- Compact; clones hard drives without an dedicated computer.
- Can't automatically remap bad disk blocks; minimal interface.

CONS: 
- Can't automatically remap bad disk blocks; minimal interface.

PRICE: $329; Disk Jockey Expander, $25

COMPANY: Diskology, www.diskology.com

The Disk Jockey's strength lies in its stand-alone capability. The Copy mode clones one drive to another; a Compare operation is recommended after copying. Disk Check inspects the media for integrity, while Secure Erase is a more thorough version of Erase mode. These operations can be performed with two drives connected.

The minimal three-LED interface takes a little deciphering—you have to count the number of LED flashes to check the unit's progress. Drive operations can take a long time to complete, especially with large-capacity drives.

Unfortunately, the Disk Jockey has some disadvantages that conventional external FireWire drives don't: the Mac can't boot from a Disk Jockey volume, and after a power failure, someone has to manually turn the Disk Jockey back on.

While the Disk Jockey performed admirably in our tests, we did run into one obstacle: it discovers a bad disk block, it can't automatically remap the bad block to a good one. Instead, it stops in its tracks until you can repair the block with Apple's Disk Utility.

Finally, when you're cloning a smaller-capacity drive to a larger-capacity drive, the extra space is lost unless you run the Disk Jockey Expander utility, which costs $25. Since most users will need this, it should be included with the unit. Serial ATA and laptop drive adapters are also available.

Macworld's Buying Advice
The Disk Jockey is a worthy addition to the IT professional's toolbox. It's a compact unit for mundane disk cloning. While an LCD screen would be an immense improvement and bad-block remapping would be convenient, their absence won't put off a hard-drive-lovin' IT geek.

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."
REVIEW

SwordfishExpress 2.0

New Version Brings Postage Printing Back to the Mac

BY DAN FRAKES

For some time now, Mac users haven’t had a good way to print labels that include United States Postal Service (USPS) postage, but buyolympia.com, the maker of Swordfish-Express (www.buyolympia.com, “More Mac Software Bargains,” May 2003), has teamed up with the online postage service Endicia to change all that, with SwordfishExpress 2.0. The new version is currently the only USPS-authorized Mac client for creating postage-paid labels. (It does not support Express Mail or international mail, but the company says that both will be available in a future release.)

Express Mail SwordfishExpress 2.0’s main window asks you for all the information required to send your package via the United States Postal Service.

The SwordfishExpress 2.0 software is free, and it’s a great label-printing program even if you don’t want to print postage. If you do, you need to sign up for an Endicia account (www.endicia.com), which costs $20 per month or $200 per year, plus the cost of any postage used. Since the USPS discounts services such as Delivery Confirmation and Signature Confirmation when you use electronic labels, these savings will quickly make up for the recurring fee if you do a lot of shipping. However, users who ship only a few items a month will wish there were a per-package fee instead, based on the postage used.

Convenient Label Creation

To create a mailing label, you provide the software with all the relevant information, such as the recipient’s address, the service you want to use, and the weight of the package. (If you have a supported scale with a USB connection, the weight can be entered automatically; if you don’t have such a scale, you must weigh the parcel on a separate scale and enter the weight manually.) SwordfishExpress 2.0 then calculates the total fee and prints the label on 8.5-by-11-inch paper. Although you can’t yet print directly onto envelopes, the program can print to Zebra label printers and Dymo LabelWriters such as the LabelWriter 330 Turbo (www.dymo.com, March 2004). As you create and print postage labels, you’re shown the balance in your Endicia account. Adding postage to your account is simple. Click on a button and indicate the amount of postage you want.

To make inputting information easy, SwordfishExpress supports vCards, provides direct access to OS X’s Address Book (a downloadable plug-in, available from the buyolympia.com Web site, even lets you generate labels directly from a contact in Address Book), and supports OS X services—so you can create a label from an address in any services-aware application.

Good Track Record

SwordfishExpress 2.0’s Mailing Log keeps track of information on every parcel mailed via the application. You can even print official USPS mailing records or export the log for use in a spreadsheet or a database. If your business uses its own inventory or fulfillment software, you can also create workflows—using AppleScript, XML, or a downloadable command-line tool—that print labels and track costs from within your software.

When shipping valuable items, you have the option of purchasing insurance through Endicia. The company says that its service is less expensive than insurance from the USPS and less of a hassle when making claims; we didn’t test this service.

Macworld’s Buying Advice

If you run a Mac-based business with even a moderate USPS shipping volume, SwordfishExpress 2.0’s convenience and tracking features will likely be worth the service fee. If you’re a home user, the product’s usefulness will depend largely on how much mail you send. In any case, SwordfishExpress 2.0 is a handy (and free) tool for creating labels.

RATING:  

PROS: More convenient and less expensive than going to the post office; provides package log and tracking; integrates with OS X’s Address Book; works with other software via AppleScript or XML.

CONS: Can’t print Express Mail or international labels; service fee a drawback for low-volume users.

PRICE: free; postage printing, $20 per month or $200 per year for Endicia subscription, plus cost of postage used.

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Missing Sync for Palm OS 4.0
HotSync Manager Alternative Offers More Options, Faster Syncing

BY JONATHAN SEFF

For years, Palm's HotSync Manager, an application that synchronizes content between a Palm handheld and a desktop computer, has been problematic. An alternative, Mark/Space's Missing Sync for Palm OS 4.0, offers more features, a better user interface, and faster syncing.

HotSync Manager's flaws are apparent: it's slow, its interface is outdated and complicated, it has no real progress indicator, and it randomly duplicates calendar events. Also, after I used HotSync Manager to update contacts on either my Palm or my Mac, it often showed two records: the original and the new one. In comparison, Missing Sync, which works with existing Palm conduits (software plug-ins for the HotSync Manager application), didn't produce a single instance of erroneous duplication. It works quickly, and it synces with the Palm Desktop application (or with Address Book and iCal, using a free conduit from Apple). In addition, Missing Sync's Conduit Profiles let users specify single conduits or sets of conduits to be activated, a time-saving option.

One feature that's lost when you switch from Palm's HotSync Manager to Missing Sync is the ability to sync with Palm's Memo section. Missing Sync includes the MemoPad application for iCal and Address Book users, and MemoPad works fine for creating new memos and syncing them between software and handheld, but several problems arose when I edited existing memos: Missing Sync either added a second memo instead of updating the original, or failed to recognize changes at all.

Missing Sync also lets you share your Mac's Internet connection with your handheld via either the USB cradle or Bluetooth, and the program integrates with iTunes and iPhoto.

Macworld's Buying Advice
If you're happy with the free Palm HotSync Manager, you probably don't need to spend $40 on Missing Sync. However, PalmSource said it will not update HotSync Manager for the next generation of Palm devices, so getting used to Missing Sync's added features and ease of use now may be a good idea.

RATING: ****

PROS: Supports many handheld devices; fast; conduit grouping; Internet sharing.

CONS: Problems with editing memos.

PRICE: $50; download, $40

COMPANY: Mark/Space, www.markspace.com

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Iomega Rev 35GB 1394/ FireWire External Drive
Removable Hard Disks Offer Big Storage in Small Package

BY KRISTINA DE NIKE
It takes 123 CD-ROMs to back up the average 80GB hard drive. If your backup needs are overwhelming your CD drive—or even your DVD drive—an Iomega Rev 35GB drive could be the solution. It’s faster than a tape drive, and its removable disks are more portable than an external hard drive while providing a storage capacity that dwarfs optical media.

Each Rev cartridge contains a 2.5-inch hard disk and a spindle motor. Because the motor is inside a plastic case, there’s no danger that dust will clog the motor. The drive heads and electronics are contained in the compact Rev drive case, which is smaller than a Harlequin paperback. This design makes the Rev drive more durable than portable drives; you can’t damage the delicate drive heads by inadvertently dropping the cartridge. The whole package runs off the power from a FireWire 400 connector, but it comes with an AC adapter for operation with a hub. The drive also comes with Dantz Retrospect Backup.

In our testing, the Rev drive was a snap to connect. It also proved to be twice as fast as an optical drive or a desktop tape drive, though it wasn’t quite as fast as a FireWire hard drive. We were able to write to the Rev cartridge at 13 MBps and read from it at 23 MBps—just about what Iomega promises. A FireWire 400 external hard drive was twice as fast on writes and about 60 percent faster on reads.

A portable FireWire hard drive also costs less per megabyte than the Rev drive. You can get portable, 2.5-inch hard drives for around $3 per gigabyte, while the Rev drive starts at $13 per gigabyte. The Rev’s price is competitive with that of portable hard drives only after you fill up eight or nine disks.

Removable media such as Iomega Rev cartridges have one advantage over hard drives: they let you easily create multiple backup sets, which you can then store off-site for greater security.

But you do need to consider compatibility: only time will tell whether the Rev format becomes widespread enough that you can give the cartridges to a service bureau or to friends.

Macworld’s Buying Advice
The cartridges for the Iomega Rev 35GB drive hold a hefty 35GB but are small enough to easily transport and store. However, the drive-and-cartridge combination is more expensive than external-drive alternatives.

Juggling more than you can handle?
Get a grip with IOGEAR’s 8-Port MiniView Ultra+ KVM Switch.

The New MiniView Ultra+ lets you manage eight computers simultaneously from a single USB keyboard, video and USB mouse; saving time, money and resources. The dual interface support allows you to connect both PS/2 and USB computers on the same switch. The multi-platform support allows you to control Windows-based computers, Sun Solaris systems, Linux, and Macs.

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December 2004 MACWORLD 39
Audio Converters

Lynx Studio Technology L22, Metric Halo ULN-2

BY DAVID LEISHMAN

Want to improve the sound quality of your recordings without spending $1,500 or more on a FireWire digital-audio device (see Reviews, October 2004)? You might want to consider upgrading your current audio-conversion gear. We tested two dedicated converters—Metric Halo’s ULN-2 and Lynx Studio Technology’s L22—that leave the Mac’s built-in converters in the dust.

The portable, FireWire-based ULN-2 can handle 24-bit audio at 96kHz. It provides four inputs, as well as balanced ¼-inch send-return jacks for routing to hardware effects units. Its eight outputs include pairs for master monitoring and routing, S/PDIF, and AES; it offers Word Clock in-and-out; and its two mike preamps sound great.

If you’d prefer a PCI card converter, the L22 is a first-rate choice. It offers two channels of 24-bit, 192kHz in-and-out, and it runs on balanced XLR cables that attach to it. A second cable supplies Word Clock timing control (via two BNC and XLR connectors), and you can buy expansion I/O cable modules for 16 channels of ADAT ($249), or eight channels of AES/EBU or S/PDIF ($469).

Both ship with software mixers that let you route any input to any output. One tip: download the latest drivers (and the L22’s firmware update) for maximum compatibility.

Macworld’s Buying Advice

For high-quality audio conversion, either unit will provide best-of-class performance. Metric Halo’s ULN-2 is a great choice if you want a portable converter that’ll connect to your Mac via FireWire. Lynx Studio Technology’s L22 isn’t portable and has no mike preamps, but it is less expensive.

LYNX STUDIO TECHNOLOGY L22

RATING: ★★★★★

PROS: Superb sound conversion; relatively inexpensive.

CONS: None significant.

PRICE: $749

COMPANY: Lynx Studio Technology, www.lynxstudio.com

METRIC HALO ULN-2

RATING: ★★★★★

PROS: Superb sound conversion and mike preamps; portable; can receive power via FireWire.

CONS: None significant.

PRICE: $1,195

COMPANY: Metric Halo, www.mhlabs.com

SANcube800

Flexible, Shareable FireWire 800 Storage Hub for Small Workgroups Is in a Niche of Its Own

BY ANTON LINECKER

MicroNet’s SANcube800—designed to be a centralized storage hub for as many as four users—is a huge step up from the original SANcube. Significant performance enhancements make the SANcube800 far more robust and reliable than its predecessor. The original’s otherworldly style also has been replaced by a no-nonsense yet sleek enclosure.

A midlevel hard-drive storage device for multimedia or video producers, the SANcube800 fills a unique niche between FireWire 800 RAID drives such as the LaCie Bigger Disk Extreme or the Medea G-RAID, and more-powerful and more-expensive Fibre Channel SAN (storage area network) devices such as Apple’s Xserve RAID with Xsan.

As a SAN, the SANcube800 supports four simultaneous users: all can have read access to the volume, but as with many simpler SANs, only one user at a time can write. Curiously, the unit has only two FireWire 800 ports. If there are four users, two need to route through a desktop Mac with a PCI FireWire 800 expansion card (which acts like a FireWire hub with extra ports). While this is somewhat inconvenient, it works, even when the intermediary computer is off.

The SANcube800 uses Intech’s MicroSAN software to control the drive mounting and read-write permissions. It worked well and was relatively intuitive. As with other SANs of this type, read-only users can’t see newly written data unless they remember to refresh their index of the shared volume. This can be a drawback.

The SANcube800 is a noisy beast, with a fan that’s reminiscent of a hair dryer set to medium. The included FireWire 800 cables are only 10 feet long, so sound baffling may be required.

Some people may balk at the $4,995 price, but storage area networks are not cheap. Indeed, four seats of Xsan or comparable SAN software can set you back $4,000—add a Fibre Channel switch, Fibre Channel cards, and Xserve RAID storage, and you could spend $24,000 or more. From that perspective, the SANcube800’s price, though nothing to sneeze at, is competitive.

Macworld’s Buying Advice

For small multimedia firms or collaborative DV environments, the SANcube800, with its improved reliability and speed, is a perfect fit. Having RAID levels 3 and 5 available in a FireWire 800 product is a fantastic enhancement that provides plenty of peace of mind.

RATING: ★★★★★

PROS: Hardware RAID includes 3 and 5; serves multiple users.

CONS: Loud fan; SAN supports only one write user at a time; supports four users but has only two FireWire ports.

PRICE: $4,995 (1TB, serving four users)

COMPANY: MicroNet, www.sancube.com
Too much spam?

Intego Personal Antispam X3:
The ultimate tool to fight spam

Experts say that in 2005, 80% of e-mail sent around the world will be spam.
To fight this scourge of the Internet, Intego introduces Personal Antispam X3:
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**Scanners**

**MIDRANGE FLATBED SCANNER**

#### CanoScan 9900F ($400), from Canon (www.canon.com)

Inexpensive for its class, this flatbed scanner has a 3,200-ppi optical resolution, produces all-around good image quality, and includes hassle-free software (August 2004).

**Digital Cameras**

**8-MEGAPIXEL DIGITAL CAMERA**

#### C-8080 Wide Zoom ($999), from Olympus (www.olympusamerica.com)

Good photo quality, durable design, and in-camera image editing, among other nice traits, make this camera an excellent choice if you need to make very large prints of digital photos (September 2004).

**Printers**

**COLOR LASER PRINTER, $1,000 RANGE**

#### C510n ($1,019), from Lexmark (www.lexmark.com)

The C510n provides very good image quality at a low cost per page. Generous RAM and preinstalled toner just add to the package (June 2004).

**NEW: CAMCORDERS**

**MINIDV CAMCORDER**

#### Optura 40 ($999), from Canon (www.canon.com)

The Optura 40 produces excellent video and respectable stills, sports professional features such as a true 16:9 mode, and is easy to use (November 2004).

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**Macs**

**PORTABLE FOR GENERAL CONSUMERS**

#### 12-Inch iBook G4/1GHz ($1,099), from Apple Computer (www.apple.com)

This diminutive Mac's combination of performance, features, and affordability makes it a winner. You can pack it up with up to 1.25GB of RAM and add an AirPort Extreme card (September 2004).

**PORTABLE MAC FOR PROS**

#### 12-Inch PowerBook G4/1.33GHz with SuperDrive ($1,799), from Apple Computer (www.apple.com)

Our favorite out of the four we reviewed, the 12-inch PowerBook G4 packs a lot of power into a compact and elegant case (July 2004).

**DESKTOP MAC FOR GENERAL CONSUMERS**

#### 1.25GHz eMac ($999), from Apple Computer (www.apple.com)

This eMac may have received only a tiny speed increase, but its performance is impressive, due to a better graphics card and a fast SuperDrive. At this price, it's quite satisfactory for a bottom-of-the-line Mac (October 2004).

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**Hardware Products We Tested This Month**

#### Stylus Color CX4600 ($149), from Epson (www.epson.com)

An inexpensive general-purpose all-in-one that combines four-color, fade- and water-resistant printing with a 600-dpi scanner, the Stylus Color CX4600 can be used as a stand-alone copier and photo printer—just be prepared for slow printing and low-resolution scans.

#### SDM-HS74P ($599), from Sony (www.sony.com)

This shiny black 17-inch digital LCD is nicely bright and offers rich, accurate, saturated colors, as well as legible text. Its wide picture-frame bezel actually makes it larger than many 19-inch displays.
Liberated!
Now you're free to fly the latest in the F/A-18 Hornet series of combat flight sims on Mac OS X.

FEATURES:

- You fly the Navy/Marine workhorse, the F/A-18 Hornet.
- Landscape based on real satellite reflectance data covering over 95% of Iraq.
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- Accurate terrain elevations.
- Fly missions from an aircraft carrier in the Persian Gulf.
- Drop ordnance on enemy targets deep inside Iraq.
- Simple and visual setup menus.
- Create and fly your own "what-if?" scenarios with the included Mission Creation Tool.
- Fly cooperatively with other allied aircraft: F-16 Falcon, F-15 Eagle, A-10 Warthog, F-117A Nighthawk, B-2 Stealth Bomber, B-52 Bomber.

"FA-18 Operation Iraqi Freedom" game ©2003 Graphsim Simulations Corp. All rights reserved. The Graphsim Entertainment™ logo is a trademark of Graphic Simulations Corp. Mac is a trademark of Apple Computer, Inc., registered in the U.S. and other countries. The "Built for Mac OS X" graphic is a trademark of Apple Computer, Inc., used under license.
The Game Room

Railroad Tycoon 3, an expansive new strategy game by MacSoft, puts you in the shoes of a fledgling railroad entrepreneur. Your job is to become profitable by laying track, building stations, buying locomotives, and doing whatever you can to add to the bottom line. To succeed, you'll need a good deal of cunning, business savvy, and foresight. Strategy-game fans won't want to miss this one.

Laying track can be quite an engineering challenge: Costs will increase if you must grade your track through hilly or mountainous terrain or build bridges over rivers. You also have to match the engine to the track. Certain vehicles may be great for short trips between neighboring cities, but you'll want to pick a long-haul train for cargo runs between distant points. And if you don't build enough service buildings and towers along the way, your trains will break down and you'll lose money and time fixing them.

If you make a simple mistake while laying your track, you can undo it pretty easily. But be sure to pause the game first. If something else pops up on screen before you're able to undo your mistake—a collision alert, for example—you'll be stuck with your bad decision, which will then be costly to repair.

Just building a railroad network would be enough to challenge many players. But there's much more to this deep strategy game. You'll also have to consider the principles of supply and demand. Building a rail line between points A and B is one step in the process—but what if no one cares? To help you understand the market, Railroad Tycoon 3 offers map overlays that show you which areas offer particular goods and supplies, and which areas need them. Passengers may want to travel from Boston to New York, while a spurt of new population growth may require the transport of more lumber from Manchester, New Hampshire, to Worcester, Massachusetts. Nacogdoches, Texas, has oil, and Fort Worth has oil refineries. In this game, the devil is in the details.

And that's not all. As a railroad tycoon, you have interests that extend well beyond track and engines. The financial world is your oyster. You can issue stock in your company, pay your shareholders dividends to drive up demand (if your company is profitable, that is), issue bonds to finance your company's growth, and even attempt mergers with competitors.

You also can use your company's cash to invest in nonrailroad ventures. Have a line that services a busy hub city? Build a hotel, restaurant, and tavern for weary travelers. If you have the cash, you can acquire or create profitable businesses such as mills, refineries, car manufacturers, and distilleries.

Railroad Tycoon 3 features a series of single-player campaigns that you must complete in order to win—for example, hauling 30 cars' worth of coffee from Mexico to Texas. Along the way, you'll periodically receive a newspaper that can help you get a leg up on new technology or learn about new needs your company can serve. The missions get progressively more difficult as you go. And the challenges take on a wider scope. You'll move from the United States to Europe, to the rest of the world, and then to a short series of futuristic missions—such as building a rail system for the island of Cali...
DESIGNED AND TESTED BY
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We Trust You'll Find It Sufficiently Realistic

A TACTICAL FIRST-PERSON SHOOTER THE U.S. MARINES WILL USE AS A TRAINING TOOL.

RTFA
Keep your eyes and weapon forward. Marines are watching your back.

MARINE AIR GROUND TASK FORCE
A rifle in your hands, tanks and gunships at your call.

BEND YOUR ENEMY'S WILL
Devastate your enemy psychologically.

CLOSECOMBAT
FIRST TO FIGHT
THE REAL-LIFE COMBAT EXPERIENCES OF THE PROUD FEW.

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WHERE WERE YOU DURING THE ROMAN MISSILE CRISIS?

LIFE STOOD STILL FOR 13 MINUTES. History changes in an instant. Never more so than in Rise of Nations, a new real-time strategy game from Brian Reynolds, lead designer of Civilization II. Experience the depth of turn-based strategy games at an RTS pace through 6,000 years of history and 18 ancient nations. It's the most intense RTS of its kind. Think fast. Fight faster. Defend, defeat, bargain, befriend, plot and plunder. Do it all under the gun with zero margin for error. Nothing is historically impossible, and only the quick and the brazen survive.

TEEN
Blood and Gore Violence

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Richard Silverman

Railroad Tycoon 3

Railroad Tycoon 3 supports online competition with other Mac players through the GameRanger service. Alas, you won’t be able to compete against Windows players—the PC version relies on DirectPlay, a Windows-only technology.

The game’s graphics are terrific, with beautiful detail in locomotives, cars, and environments. Its 3-D graphics engine lets you zoom in from a satellite view of the terrain to an up-close look at your locomotives in motion. This is great for situational awareness: you can instantly check on how your lines and your competitors’ lines are doing. (For best results, I recommend using a multibutton mouse with a scroll wheel.)

Sound effects are also top-notch. Each locomotive has a distinctive whistle. And when you zoom in on a particular location and pan around, you’ll hear the sounds of people, livestock, and goods moving about. The music soundtrack is good—especially if you like the bluegrass and country strains traditionally associated with railroading. However, it gets repetitive after a while and is jarringly out of place in non–United States scenarios. Thankfully, you can turn it off.

The game requires a 400MHz or better Mac running OS X 10.2 or later.

Spidey Sense

It was inevitable that game makers would try to capitalize on the success of Spider-Man 2 with their own web-slinging adventures. Unfortunately, Aspyr has brought the worst of the lot to the Mac. Its new Spider-Man 2: The Game strips game play to its bare essentials. What’s left is mediocre, bland, and unappealing.

Aspyr bills Spider-Man 2 as “a unique family-friendly adventure for ages six and up.” That alone should be enough to send most self-respecting gamers running for the hills. But even as a family-oriented game, Spider-Man 2 fails. All but the youngest and least-experienced gamers are sure to be disappointed by the game’s simplistic action. For example, every time Spidey comes up against a significant villain, the game presents you with a diagram showing exactly what you must do to win.

The game even manages to take the joy out of Spider-Man’s greatest asset—his ability to swing from a web. Instead of offering a web-slinging system that lets you explore the expansive New York cityscapes, Spider-Man 2 forces you to continue...

SPIDER-MAN 2: THE GAME

RATING: ••

PROS: Easy enough for little kids.\nCONS: Simplistic game play; mediocre graphics; cheesy sound effects.\nPRICE: $30\nCOMPANY: Aspyr Media, www.aspyr.com

Star Wars: Knights of the Old Republic

Your City is On The Move

www.macworld.com

SimCity 4: Rush Hour

www.aspyr.com

 december 2004 macworld 47
aim your web at specific target icons on the sides of buildings. So you swing from block to block along a fairly linear pattern and end up feeling as though your enemies were on rails.

The game’s graphics are better than those of the first Spider-Man game, which Aspyr converted from a PlayStation title several years ago, but they’re far from impressive. Graphics are blocky and lack the sharp details and lighting effects you’d expect from a game like this. Sound effects are also disappointing, with some laughably bad voice-overs that call to mind Stan Lee’s worst comic-book dialogue instead of the taut, emotionally compelling movie.

The game requires a 700MHz G3 or better and OS X 10.2 or later.

**The Bottom Line** If you’ve got a young kid who loves Spider-Man, Spider-Man 2 will be worth your while. But if you’re looking for a serious web-slinging action game, skip this one and try the case in multiple-ball modes which make your shield grab balls as you move your platform round to grab power-ups as they whiz by, but it’s more fun to play with a shield that’s basically the same, although this mode will hold your interest for a while, the game’s strength lies in its graphics look fantastic; screenshots don’t nearly do it justice—You should download the demo and have a look for yourself.

The game’s system requirements are fairly modest: a 400MHz G3 or better with OS X 10.1 or higher. If you’ve registered the original Airburst through Freeverse, you’ll get an extra treat, by the way. Entering that registration code in Airburst Extreme will unlock...
new game mode—a nice little touch for loyal gamers.

**The Bottom Line** Airburst Extreme outdoes its predecessor in every way. The action is fast, furious, and fun. What are you waiting for?

**Jump and Run**

If you long for side-scrolling arcade games like Sonic the Hedgehog, you should check out Bud Redhead, a recently released shareware title from Phelios Software. Featuring fast-paced action and whimsical graphics, Bud Redhead is a lighthearted game with some classic flavor.

Bud Redhead is out with his girlfriend when Feyatta—a greenish, feline-looking alien on the run from galactic authorities—abseeds with her. As any good hero would, Bud immediately sets off to rescue his love. In the process, he travels through four different worlds, including a primeval forest, ancient Egypt, medieval castles, and a futuristic spaceship. Each world has five levels, including secret areas. To pass through each level, Bud has to collect coins that unlock a star gate (a game element heavily influenced by the movies and TV show of the same name).

Admittedly, Bud Redhead has a flimsy story and hackneyed plot. But this simple little gem is fun, and it has the perfect setting. You make Bud jump and run through imaginatively crafted levels chock-full of goodies to collect and foes to either avoid or dispatch. You vanquish your foes by using a pair of nifty antigravity shoes to bounce on them. Some of the levels and pitfalls, however, are challenging to the point of frustration.

My main complaint is with the game's clunky, console-like save-game system, which requires that you restart either from the beginning of a level or at a checkpoint. This limits the game's potential. Bud Redhead is a great diversion when you've got a few minutes at lunch or between meetings; it'd be great if you could simply save wherever you happened to be.

**The Bottom Line** Bud Redhead offers a return to the good old days of the early 1990s, when Sonic and the Mario Brothers ruled the world. Gamers looking for an homage to those classic titles should check it out.

MacCentral.com Senior Editor PETER COHEN wishes it were as easy to clean up his kids' model train set as it is to clean up after playing Railroad Tycoon 3.
Mac Gems

If you ever lug around a laptop or a PDA just in case you need contact or schedule information, the $16 BitPal 2.5 (★★★★; www.bitpal.com), from the company of the same name, may allow you to leave your portable computing devices at home. BitPal is a svelte information manager that keeps track of your contacts, calendars, and to-do lists.

It’s designed to be stored on solid-state media—a USB flash drive or a CompactFlash card, for example. Since the BitPal application and all its data are stored in the same folder, you need to copy only that one folder to your storage medium. When you need access to your data, simply mount your device or card on any computer and launch BitPal. When you’re done, you unmount and remove it, and no trace of your personal data is left behind. The BitPal folder, including your data, takes up only 5MB of space, so it will fit on any flash medium on the market and still leave room for documents and other files.

In case your life is cross-platform, BitPal also comes in a Windows version—you can store both versions on a Windows-formatted media card and have quick access to your information on any computer running Windows or OS X. And since it’s easy to lose a tiny flash drive, you can protect your personal data by encrypting it with the Blowfish algorithm.

If you’re already using OS X’s Address Book and iCal, BitPal can import your data from those applications. (Unfortunately, it doesn’t sync with them.) Furthermore, the Windows version of BitPal can import data from Microsoft Outlook, making BitPal one of the easiest ways to access Outlook contact and calendar information under OS X. Even if you don’t use BitPal as your primary information manager, it’s a great way to keep your data handy in case you need it in a pinch.

An Old Friendship Renewed

Speaking of contacts, last year I told you about one of my favorite OS X utilities, Tynsoe.org’s BuddyPop (★★★★; October 2003), which gives you quick access to your contacts without making you open the Address Book application—you simply press a keyboard shortcut and type the first few letters of a contact’s name. Over the past year, BuddyPop, which costs 7 euros (approximately $9 at press time), has been updated several times, and if you haven’t yet tried it, the current version, BuddyPop 2.2 (★★★★; find.macworld.com/0122), deserves a look—especially if you have a Bluetooth-enabled cell phone. Once your phone is paired with your Mac and in range, you can call any contact just by double-clicking on his or her phone number in BuddyPop’s contact window. Even cooler, the utility provides an on-screen Caller ID feature that’s more useful than the one Address Book provides: when someone calls your mobile phone, a window pops up showing the incoming phone number and—if the person is in your Address Book—the caller’s name and picture. You can choose to answer the call, silence the ringer, or deny the call altogether (which with most cell-phone providers will send the caller straight to voice mail).

The newest version of BuddyPop also includes modem-dialing features and many more display options. It’s a significant upgrade to the last version I looked at, and well worth the paltry shareware fee.

Wi-Finder

When traveling on business or just around town, I often find myself wondering if there are any nearby wireless networks to which I can connect my PowerBook for a quick e-mail check. Although there are a number of software products that can search for open networks, using them means unpacking your laptop, turning it on, and launching the application—a waste of time if no network is found (not to mention an unnecessary drain on your laptop’s battery). For free...
Don’t settle for less. Just pay less.

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Professional-strength editing tools from the people who changed the media world. Over 100 real-time effects. One-click expert color correction. Multiple real-time DV streams. Mac and PC compatibility. And much, much more. Everything you expect from Avid®. At an unexpected price.

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quickly view books that fit particular sets of criteria. If you have books overflowing your bookcases, Booxter might be the tool you need to keep track of them all.

**Sound Sorting**
Macs have many options for audio output—the built-in speaker(s), headphone jack, USB or FireWire audio, PCI audio cards, and (with G5-based Macs) optical output—but one of the limitations of OS X is that almost all audio must go through the same output. (OS X 10.3 lets you play system alerts through a different output.) Even though you can play games and movies through a set of external speakers to get great sound with bone-jarring bass, you’re also stuck with iChat AV notifications that can scare you out of your seat.

**Contemporary Card Catalog**
Our house is full of books: technical, history, fiction, and much more—we like to read. One problem we have is how to keep track of all those books. There are a number of great book-cataloging utilities for OS X, but Deep Prose Software’s $15 Booxter 1.5.3 (www.deepprose.com) has a feature that makes it stand out: the ability to add books to your catalog by “scanning” their UPC codes with an iSight or DV camera. (You can also use a handheld scanner.) You just hold a book up to your camera, make sure the bar code is in focus, and click on the Scan button in Booxter; the program extracts the book's ISBN (International Standard Book Number) and then searches the Library of Congress Web site and Amazon.com for all the details—title, author, publisher, number of pages, price, book description, cover design, and so on—and adds the book to your catalog. You can also add books by manually typing in their ISBNs—one at a time or in bulk—or by importing them from a text file or a spreadsheet.

Booxter also stores all the data you’d expect a book-cataloging utility to: personal rating, price paid, borrowing and lending information, series numbers, and much more—over 30 fields in all. The iTunes-like interface makes it easy to browse your library by any criterion, and you can even create Smart Book Lists to
Don't Just Take Our Word For It.

The award-winning Bose® Companion® 3 multimedia speaker system.

When we first introduced Companion® 3 speakers, we believed they would enable a whole new level of sound quality from your PC. Now the reviews are in, and others agree. You can expect newfound instrumental and vocal clarity from tiny satellite speakers. Resounding low notes from a hideaway Acoustimass® module. Spacious sound from TrueSpace™ stereo signal processing circuitry. Plus convenience and elegance: the satellites can sit on your desktop or easily attach to the sides of your monitor. And an elegant control pod puts speaker volume control, headphone jack and a second input – for a portable MP3 player, for example – all at your fingertips. Ready to experience more pleasure from music, movies and gaming soundtracks while at your computer? Upgrade to Bose® Companion 3 multimedia speakers...and give them a review of your own.

"...delivers surprisingly full, clean sound for music, movies and games."  
- Laptop

"The Bose Companion 3 multimedia speaker system sounds a lot larger than it is..."  
- Electronic House

"The Companion 3 satellites... deliver sound that doesn't play around."  
- MacHome

"...worth every penny."  
- Saskatoon Sun

For stores and dealers near you, call 1-877-696-BOSE, Ext. P81. Or visit www.bose.com/companion3
Can't Find What You Want?  
Fed Up with Your Browser?  
HERE'S HOW TO SURF SMARTER AND FASTER.

WHETHER IT'S TO FIGURE OUT Britney Spears's current marital status or find the latest security update from Apple, these days most of us turn first to the Web. But once you're there, it's easy to get tangled up. Weaving your way around the drivel takes time. And when you can't find that bookmark or, worse, when you hit a site that blocks Safari, your browser itself can be the challenge.

That's why we've assembled a collection of tips on smart searching and better browsing. Learn which sites will help you find what you seek. Enhance Safari with add-ons and discover its underused features. And in case you're sick of Safari, we've rated the best alternative browsers.
The Convenient Calculator You can use the Google calculator for simple or complex equations. Even better, you can use it to do conversions—try time (how many fortnights in a year?), mass (13 tons in stones), data (13 kilobytes in bits), volume (how many teaspoons in 12 gallons?), and much more. The Google calculator knows a surprising array of units, and it takes less than a second to find out whether it can convert the measurements you need.

Google, the Granddaddy of Them All It's news to approximately nobody that Google is an awesome and hugely popular search engine. In fact, the good engineers at Apple like it so much that they built a Google search box right into the Safari toolbar—so you don't have to hop over to www.google.com to run a Google search. Instead, just type your terms into the search box and let 'er rip. (If you're interested in a Google toolbar that has a lot more features, take a look at Mozilla's Firefox browser.) What few searchers realize is that Google has a lot of seldom explored—yet tremendously useful—features.

Find Images Fast If you want to find graphics on the Web—including photos, maps, cartoons, posters, and more—Google's Images is a trove of 880,000,000 pictures you can search by keyword. To use it, go to http://images.google.com, or click on the Images link on Google's home page. You can also run a regular search and then click on the Images link at the top of your results page to run that same search in Google's image bank. Google shows you your results in the form of thumbnail images; click on one to view the page where Google found it (see “Get the Picture”).

Get All the News Google also has a news site, which is constantly updated with stories culled from more than 4,500 sources (http://news.google.com). Of course, it's a good place to find breaking news. But because Google News draws from so many media sites, its real benefit is that it lets you compare the way different outlets cover the same story. For example, you can easily see how New York and Boston newspapers approach the Red Sox–Yankees rivalry differently, or whether big-city media cover NASCAR adequately.

Compare Prices Similarly, Froogle—Google's price search engine—lets you compare the prices different online retailers charge for the same goods. Try it, at http://froogle.google.com. (Incidentally, if you click on the Froogle logo, the list of recent searches is updated. That list is a good way to get ideas—or just to see the freaky stuff people have tried to price out.)

Do Conversions and Calculations In addition to its array of sites, Google has a few tricks up its regular search box. First, it's a calculator. If you type in $2+2-$ and then press return, Google recognizes that you're doing a calculation rather than looking for Web sites, and it shows you a results page with $2+2=4$ (see “The Convenient Calculator”).

The calculator is a great way to do math without moving your fingers from the keyboard. Incredibly, you're not limited to basic equations (use the aster-
The yellow pages feature, called Local Search, is town. Others can turn up different results or display whether there’s a space after the colon—your search will work either way.)

Google is also a reverse phone book. If you type in a phone number, you’ll get a name and address. And if you type an area code, you’ll get a link to a map of the corresponding area.

But Wait, There’s More! Here are two more Google tricks. First, to get the definition of a term (rather than pages that mention it), type define: and then the word you want to define. For example, define: hippocampus. (Don’t worry about whether there’s a space after the colon—your search will work either way.)

Second, to look up the status of a package delivery on a carrier’s Web site (FedEx, UPS, or U.S. Postal Service), simply type the tracking number into the Google search box. The first line of your results will be a link to the page about your package.

### Other Sites for Other Jobs

Of course, Google isn’t the only search engine in town. Others can turn up different results or display them in ways that may be more useful to you.

**Vivisimo** Most search engines show you results as a fairly straightforward list. Vivisimo (www.vivisimo.com), on the other hand, clusters your results into categories, which is a terrific system for helping you find exactly what you want—not just something close to it. For example, if you search Vivisimo for the word volleyball, the site clumps your results into groups such as Equipment, Adult Leagues, Beach Volleyball, Rules, and so forth, letting you home in on the aspect that interests you.

Even better, you can use Vivisimo to search specific sites, including eBay, whose own results are sometimes chaotic and hard to sift through. (The pull-down menu next to the search box lets you

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### START WITH THE RIGHT SITE

Looking for something really specific—like the text of an appropriations bill making its way through Congress? Bypass search engines altogether and go to a site that focuses on your topic. Here are some good sites for finding specific kinds of information.

<table>
<thead>
<tr>
<th>TO FIND INFO ABOUT...</th>
<th>... CHECK HERE</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td><a href="http://www.firstgov.gov">www.firstgov.gov</a></td>
<td>Thoughtfully designed portal to the astounding array of U.S. government sites.</td>
</tr>
<tr>
<td>Health</td>
<td><a href="http://www.medlineplus.gov">www.medlineplus.gov</a></td>
<td>Run by the National Institutes of Health, with links to tutorials, clinical trials, and medical journals.</td>
</tr>
<tr>
<td>Movies</td>
<td><a href="http://www.imdb.com">www.imdb.com</a></td>
<td>Look up the cast, crew, and other details about practically every movie ever made—or search by person and find every movie or TV show an actor or a director has worked on. You can also search for quotes from movies.</td>
</tr>
<tr>
<td>News</td>
<td><a href="http://www.topix.net">www.topix.net</a></td>
<td>Very well-organized news from more than 7,000 sources.</td>
</tr>
<tr>
<td>People</td>
<td><a href="http://www.nolo.com">www.nolo.com</a></td>
<td>Surprisingly detailed information on individuals, but the site is not free.</td>
</tr>
<tr>
<td>Reference</td>
<td><a href="http://www.refdesk.com">www.refdesk.com</a></td>
<td>A treasure trove of links to every kind of reference information available on the Web—from almanacs to opinion polls to zip codes.</td>
</tr>
<tr>
<td>Words</td>
<td><a href="http://www.onelook.com">www.onelook.com</a></td>
<td>Runs your search in 970 dictionaries at once; also does translations.</td>
</tr>
</tbody>
</table>

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**Auction Helper** Use the pop-up window next to the Vivisimo search bar to limit your search to eBay. As you can see on the left side of the page, the search engine clusters your results by category. This search tool is a lot more sophisticated than eBay’s, and it lets you home in quickly on the goodies you want to buy.
UNTANGLE THE WEB

Go Fetch Multimedia! Dogpile lets you go beyond a simple search for images to choose exactly what you want to find. If you search for a song and select Audio, you’ll get a list of sites offering the song for download.

QUERY TRICKS

SEARCHING IS SIMPLE, RIGHT? Just head over to a search engine, type your search term—for example, Milky Way—and press return. Within milliseconds, you’re staring at a list of six trillion pages that contain your query words. Unfortunately, 99.9 percent of those pages probably aren’t about your favorite galaxy. You need to filter out the flotsam. These simple yet sophisticated tricks work with nearly all search engines.

1. Include Quotation Marks If your search term is actually a phrase, put it in quotes, like this: “Milky Way.” Doing so eliminates any pages that contain just milky or only way. This trick is also good for names (“Dan Rather”) and lyrics (“Mary had a little lamb”), and for ensuring that your search engine doesn’t ignore common and small words such as a, and, and the. Many search sites consider these words superfluous unless you specify that they’re part of a phrase. So typing “to be or not to be” can get you vastly different results than to be or not to be.

2. Be Negative When you put a minus sign in front of a word in your query, search engines ignore pages that contain that word—which is a fantastic way to weed out irrelevant pages and focus your results. For example, in your search for Milky Way, eliminate words such as chocolate and candy—so the whole query looks like “Milky Way” - chocolate - candy. The results of that search won’t include any pages mentioning either chocolate or candy. (Incidentally, this example shows you something else important: you can mix and match query tricks.)

3. Use Wildcards A wildcard is a symbol—usually an asterisk (*) but sometimes a question mark (?)—that stands in for words or partial words you don’t know. For instance, if you can’t remember just what it was Mary had, enter “Mary had a little *”. Your search results are likely to start with instances of Mary had a little lamb, but they could also include variations, such as Mary had a little headache. Some search engines—unfortunately, not Google—let you use a wildcard to substitute for part of a word, such as “G* Bush”—which gives you results including George Bush. The partial-word wildcard is critical when you can’t remember how to spell some-

choose a site or sites to search.) Because Vivisimo’s results are so well organized, you can get both a great overview of what’s up for auction under your search terms and a direct path to the specific stuff you’re interested in (see “Auction Helper”).

Dogpile Dogpile (www.dogpile.com) is a metasearch engine, which means that it runs your search through a bunch of engines simultaneously and then shows you the best results from each—a great efficiency trick (and it clusters results, as Vivisimo does). For example, when you want to find the top results of a search for the term “history of poker chips” from Google, Yahoo, Overture, Ask Jeeves, About, LookSmart and FindWhat, you can use Dogpile to search all of them at once—saving you trips to seven separate search engines.
World’s Longest Lasting AA and AAA Batteries in Digital Cameras

Energizer® e² Lithium AA and AAA batteries are the only batteries built with advanced lithium technology so they last up to seven times longer in your power-hungry digital camera.® Energizer® e² AA and AAA Lithium batteries provide exceptional life in digital cameras, are lightweight and operate well in extreme temperatures.

*Vs. ordinary alkaline. Results vary by device.

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UNTANGLE THE WEB

TIP: AVOID UNDERCOVER ADS
With most search sites, you get results that include boxes with links to one side, or links with colored backgrounds. These are ads. For example, if you search Google for the term *My Life*; the Bill Clinton memoir, you’ll see ads for Amazon.com and Barnes & Noble. However, Yahoo includes paid listings in your results with no indication that somebody paid for placement. These make up a small percentage of most Yahoo results, but they can displace results that better meet your needs. So when you run a search in Yahoo, make sure to look beyond the first page, or try another engine to track down the best stuff.

Dogpile also offers a twist: it can look for things Google can’t, namely audio and multimedia files. If you run a search for a song title in Google (or any other engine that looks for text), you’ll get a list of sites that mention that song. If you type in the same title on Dogpile’s home page and then select the Audio option above the search box, you’ll get a list of sites from which you can download that song.

Yahoo’s most useful features—a form that lets you search for particular kinds of information—is totally buried. If you run a Yahoo search, your results page has a Shortcuts link in the upper right corner. This takes you to a page with a slew of very specific search options, including area codes, traffic reports, weather, movie show times, exchange rates, and a whole lot more. You can get to the shortcuts page directly by pointing your browser to find.macworld.com/0127.

Finders Keepers
A lot of people find that the hardest part of successful searching is training themselves to try a few different things. Get in the habit of testing different queries and alternative search engines, and soon you’ll be pulling needles out of the digital haystack every time.

• DO YOU WISH THERE WERE AN EASIER WAY to search sites other than Google? Do you long to read online PDFs without the hassle of downloading them first? You can do all this—and much more—by taking advantage of a diverse selection of Safari plug-ins. And like Apple’s browser, most of these add-ons cost absolutely nothing. Still not satisfied? Then check out “Beyond Safari” for browser alternatives.

1 The All-in-One Power Tool
Hao Li’s $10 Safft 7.0.1 (www.haoil.dnsalias.com/Saff) is one of the few Safari plug-ins that you have to pay for. But considering everything this add-on can do, it’s nothing short of a bargain at its low price.

Saft is packed with features you may not have realized you wanted—but which you’ll likely discover you can’t do without. The program lets you search your bookmarks and page history, save a group of tabs to reuse later, use the Google search box to target other search engines, quickly export a Web page as a single-page PDF file, and a lot more.

Here’s another neat trick: you can set Saft to automatically access all the sites you had open when you quit Safari. This means that you won’t lose your research if you need to leave suddenly. Saft also adds an RSS (Rich Site Summary) reader to Safari for quickly accessing news feeds—something Apple won’t have ready until the next version of OS X (see “Get the News”).

2 The PDF Viewer
One of the main features I missed when I moved from Microsoft Internet Explorer to Safari was Explorer’s ability to display PDFs inside the browser. So I was thrilled to find Schubert IT’s PDF Browser Plugin 2.1 (free for noncommercial use; www.schubert-it.com), which makes the other program’s PDF feature look positively anemic.

With PDF Browser Plugin installed, you’ll no longer have to worry about accidentally clicking on a link to a PDF and then being doomed to wait for Acrobat Reader to launch. Instead, PDFs will open right in Safari. The plug-in also lets you print, save,
World's smallest/lightest high-resolution camcorder and camera combination!

One Camera, Twice The Enjoyment...

Plus, it's easy editing with the Fisher High-Resolution Digital Pocket CameraCorder™

Take DVD-like quality digital video.
Take 3.2 mega-pixel digital still pictures.
Or take both at once! The Fisher CameraCorder™ is an all-in-one marvel (just 5.4 ounces) that has its own high-performance movie making and still picture software. Use the memory card in your PC or Mac or through the camera/docking station to connect to the USB port for fast downloading. Edit video or still material for transfer to DVD, video CD disc or email attachment.

New MPEG-4 technology optimizes the storage capacity for DVD-like quality video (30 frames/sec.). The Fisher CameraCorder™, which includes a 512-megabyte card, can store 1/2 hour of DVD-like video or over 3,900 photos.
Take it anywhere and be ready for any video/photo opportunity.

The Revolutionary Fisher CameraCorder™ is engineered by SANYO, one of the world's foremost digital imaging R & D sources.

www.fisherav.com
amazon.com The Apple Store

FISHER MULTIMEDIA

©2004, Fisher Multimedia. All rights reserved. LCD image behind is simulated. As of October 1, 2003, the Fisher FV-Cl CameraCorder™ is the world's smallest/lightest high-resolution MPEG-4 video camera and 3.2 megapixel digital still camera combined in one unit for consumer use.

SANYO
Safari Enhancer is a stand-alone piece of JavaScript code that lives in a program. You sometimes can.

### 3 Superior Searchers
Safari makes it easy to search Google—you simply type your search terms into the ever-present Google box and press return. But what if Google isn’t the search engine you want to use? If that’s the case, turn to one of three free plug-ins that let you specify your search destination: AcidSearch 0.23 (free; find.macworld.com/0099), SafariKeywords 0.5 (free; http://safarikeywords.sourceforge.net), or Sogudi 0.4.3 (free; find.macworld.com/0100). All three plug-ins use keyword searches or pull-down menus to let you quickly search the sites of your choice via the address bar and the Google search box. For example, with Sogudi you can enter mov.will.smith to search the Internet Movie Database for all movies that feature Will Smith. The plug-ins also let you add your own custom search shortcuts.

### 4 The Safari Customizer
If you’re comfortable working in Terminal, you can already change much of Safari’s appearance and behavior. But if you aren’t, there’s Safari Enhancer 2.5.2 (free [donations accepted]; find.macworld.com/0101), a free utility that lets you easily make those same changes. Safari Enhancer lets you set custom link colors, choose whether links should be underlined, adjust the number of items in your history, deactivate the cache, and so on. And unlike most other utilities, Safari Enhancer is a stand-alone program. You simply make your choices and then close the application—which means you won’t have to worry about it causing instability as other plug-ins sometimes can.

### 5 The Web Developer’s Toolbox
If you design and build Web sites, you’ll appreciate SafariStand, by Hetima Computer (free; find.macworld.com/0099). SafariStand includes some of the same tools you’ll find in Saft (such as exporting a page to PDF), as well as some unique features designed specifically for developers. For example, it supports syntax coloring, which color-codes a Web page’s source code to help you quickly scan for particular tags. It also lets you peek at a site’s cookies, CSS, and JavaScript files.

My favorite feature, however, will appeal to anyone who gets tired of squinting at tiny Web graphics. SafariStand lets you resize a site’s images in a new browser window. This is a wonderful way to work around developers who assume that everyone has great eyesight and a large monitor.

### 6 The Quick Fix
But what if you’re looking for something a little more specific? For example, maybe you need a one-click way to resize your browser window, or to turn selected text into a search term in the iTunes Music Store. In many cases, you can add small features like this to Safari via a bookmarklet—a tiny piece of JavaScript code that lives in Safari’s Bookmarks folder.

You can find many useful, prefabricated Safari bookmarklets on the Web. In fact, Apple has posted bookmarklets not only for the previously mentioned tasks but also for many others (find.macworld.com/0102).

If you’re handy with JavaScript, you can also create your own Safari bookmarklets. I use my homegrown bookmarklets many times a day—for everything from relocating browser windows to posting items to my Weblog and checking a page for standards compliance. For a tutorial on how to create these bookmarklets and much more, go to find.macworld.com/0103.

### Find Your Own Favorites
These are a few of my favorite Safari add-ons, but it’s certainly not an exhaustive list. There are many more available online. You can find these tools on shareware sites such as VersionTracker.com. It’s very likely that someone out there has created a plug-in for the exact feature you’ve been longing to have.
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Choose 119 at www.macworld.com/getinfo
IT'S EASY TO SEE WHY, IN THE TWO YEARS since it was introduced, Safari has quickly become the dominant browser for OS X. It's sleek, fast, and free, and it beats the pants off of former champion Microsoft Internet Explorer.

But that doesn't mean Safari is right for every person and occasion. Sometimes you might want a lean, mean browser that does little but render Web pages quickly and accurately. Other times, you might want a full-blown Web-application suite, with e-mail, chat, and HTML-editing tools. Whatever you need, there are plenty of Safari alternatives to choose from.

I looked at nine alternative browsers: Firefox 1.0 Preview Release, Camino 0.8.1, and Mozilla 1.8, all from Mozilla; America Online's Netscape 7.2; Microsoft Internet Explorer (IE) X 5.2.3; The Omni Group's OmniWeb 5.0.1; Freeverse Software's BumperCar 1.0; Opera Software's Opera 7.54; and Alexander Clauss's iCab X 2.9.8.

The first thing I noticed when taking these browsers for a spin was that they're all pretty much equal when it comes to speed. With the exception of IE, which is noticeably slower, rendering performance is roughly equal.

I also found that most have good if not excellent support for Web standards. In that respect, they're all superior to the most widely used browser on the Internet, IE 6 for Windows. The one exception I found was iCab, which simply failed to display most test pages correctly. As a result, I eliminated it from further consideration.

Under the Hood

One reason for the uniformity of performance is that these browsers are based on just five different rendering engines. (The rendering engine is the software core of a browser. It's responsible for interpreting the HTML, CSS, JavaScript, images, and other components of a Web page.) OmniWeb, BumperCar, and Safari all rely on Apple's WebCore engine. Firefox, Camino, Mozilla, and Netscape use Mozilla's Gecko engine. (Both WebCore and Gecko are open source.) Only Opera, IE, and iCab use proprietary engines.

Broadly speaking, browsers that use the same engine will perform almost identically in terms of speed, and the pages they render will look the same. What really separates the browsers are the features they do (or don't) have on top of those rendering engines.

Mozilla's Different Flavors Take, for example, the various Mozilla browsers. They're all based on Gecko, but they vary widely. At the one end is Mozilla itself, which includes tools for everything from e-mail and chat to HTML editing. At the other is Firefox, which removes everything extraneous, leaving only an excellent, uncluttered browsing tool.

For pure browsing, Firefox is hard to beat. My only complaint is that it lacks the Mac OS look-and-feel. For that, you need Camino, which melds the Mozilla code to Cocoa, so it looks and feels more Mac-like. But Camino has been updated sporadically over the past year, and it still lacks essentials such as automatic forms. Still, it's a browser to watch.

Then there's Netscape 7.2, which is just the Mozilla suite with the addition of annoying advertisements for America Online and an integrated AOL Instant Messenger client that isn't compatible with iChat. It's the weakest browser of the Mozilla bunch.

Making Mozilla Yours One great thing about the Mozilla browsers is that people have written plugins that let you add new features. There are hundreds of these extensions (available at find.macworld.com/0129), and they range from improved ad blocking to tools for Web developers. If Firefox and Mozilla lack a feature you want, you'll probably find an extension that has it.

Quick Like a Fox If you're looking for a lean, austere browsing experience, Firefox delivers.

Tabs Done Better OmniWeb puts thumbnails of tabbed pages in a drawer on the side of the browser window. If you have too many tabs open, you can switch to a text list.
Let me take you on a trip...

Quick, where do you most often listen to music? In your car, right? The easiest way to enjoy all of that music in your car is the Griffin iTrip. Snap itTrip on your iPod or iPod mini and suddenly your music is filling up your next road trip, daily commute or business trip — right through the built-in FM stereo of any car. Buy an iTrip for your iPod or iPod mini and your favorite song will always be on the radio.

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**SAFARI ALTERNATIVES COMPARED**

When it comes to OS X Web browsers, Apple's Safari isn't the only game in town. Using Safari 1.0 (November 2003) as a baseline, here's how we rate nine alternatives.

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>PRODUCT</th>
<th>MOUSE RATING</th>
<th>PRICE</th>
<th>CONTACT</th>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexander Cluss</td>
<td>iCab X 2.9.8</td>
<td>******</td>
<td>free</td>
<td><a href="http://www.icab.de">www.icab.de</a></td>
<td>Quick at displaying simple HTML pages; extensive preferences.</td>
<td>Unacceptably poor page rendering and scrolling continues.</td>
</tr>
<tr>
<td>Freeverse</td>
<td>BumperCar 1.0</td>
<td>******^</td>
<td>$50</td>
<td><a href="http://www.freeverse.com">www.freeverse.com</a></td>
<td>Simple parental-control settings; effective filters; fun launch page.</td>
<td>Some controls too advanced for younger kids; not free.</td>
</tr>
<tr>
<td>Microsoft</td>
<td>Internet Explorer X 5.2.3</td>
<td>******</td>
<td>free</td>
<td><a href="http://www.microsoft.com/mac">www.microsoft.com/mac</a></td>
<td>Scrapbook feature still unraveled; good Web-page rendering.</td>
<td>Slower than most browsers we tested; no pop-up blocking or tabbed browsing; no longer being updated.</td>
</tr>
<tr>
<td>Mozilla</td>
<td>Camino 0.8.1</td>
<td>******</td>
<td>free</td>
<td><a href="http://www.mozilla.org">www.mozilla.org</a></td>
<td>Native Mac OS look-and-feel from a Gecko-based browser; intuitive and uncluttered.</td>
<td>Lacks automatic forms; poor history implementation.</td>
</tr>
<tr>
<td>Mozilla</td>
<td>Firefox 1.0</td>
<td>******</td>
<td>free</td>
<td><a href="http://www.mozilla.org">www.mozilla.org</a></td>
<td>Excellent page rendering; uncluttered interface; extensible with plug-ins.</td>
<td>Lacks Mac look-and-feel.</td>
</tr>
<tr>
<td>Mozilla</td>
<td>Mozilla 1.8</td>
<td>******</td>
<td>free</td>
<td><a href="http://www.mozilla.org">www.mozilla.org</a></td>
<td>Excellent page rendering; extremely extensible with plug-ins, it includes e-mail, IRC chat, and HTML-composing features.</td>
<td>Too many features; outdated look-and-feel.</td>
</tr>
<tr>
<td>Netscape</td>
<td>Netscape 7.2</td>
<td>******^</td>
<td>free</td>
<td><a href="http://www.netscape.com">www.netscape.com</a></td>
<td>All the benefits of Mozilla, except AIM replaces IRC chat.</td>
<td>AIM implementation incompatible with iChat; annoying ads for America Online.</td>
</tr>
<tr>
<td>The Omni Group</td>
<td>OmniWeb 5.01</td>
<td>******</td>
<td>$30</td>
<td><a href="http://www.oominigroup.com/">www.oominigroup.com/</a></td>
<td>Innovative tabbed browsing and workspaces; per-site preferences; better searching and ad blocking; RSS reading.</td>
<td>Not free.</td>
</tr>
<tr>
<td>Opera Software</td>
<td>Opera 7.54</td>
<td>******</td>
<td>$39</td>
<td><a href="http://www.opera.com">www.opera.com</a></td>
<td>Small and fast; very good page rendering.</td>
<td>Ad-free version costs money; awkward interface.</td>
</tr>
</tbody>
</table>

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The Mac is famously “lickable”—and today’s Mac-compatible gadgets are enough to make you drool.

This selection of our favorites—a feast for the Mac lover’s senses—includes products that have universal appeal and products designed for a particular type of person. So read on to find the perfect gift for everyone: office workers, photographers, moviemakers, nature lovers, travelers, gamers, music lovers, new parents, teens, and geeks. And after you’ve crossed the last name off your list, reward yourself with your favorite Mac treat.
OFFICE WORKERS

Silence Is Golden

We all have days when we need to hunker down and shut out the sounds of our coworkers going about—or avoiding—their daily business. The ER-6i, from Etymotic Research, fit in your ears like earplugs to block out noise while providing stunning sound quality, letting you listen to a little Simon and Garfunkel—or to the real sounds of silence.—DAN FRAKES
$149; Etymotic Research, www.etymotic.com

OFFICE WORKERS

Mood Indigo

For people who keep an eye on stock-market trends, local weather, or even the Homeland Security threat-level status, Ambient Devices’ Ambient Orb is the perfect desk accessory. Wireless cellular networks beam the information to the glass orb, which you plug into a regular outlet. The color changes in sync with fluctuations in the data; for example, when you’re tracking the Dow and the market is up, the glass glows green; when it’s down, the color changes to red. But there’s a 20-minute delay for stock-market data, so don’t make trades based on the Orb’s color. Think of it as a mood ring for your life.—PAMELA PFIFNER
$150 plus $20 quarterly for premium service; Ambient Devices, www.ambientdevices.com

OFFICE WORKERS

Spyware

You’re an international spy entering the villain’s headquarters incognito. The guards search you. “She’s clean,” they say. “Nothing but a ballpoint pen.” Minutes later, you slip into the control room, plug your “pen” into a computer’s USB port, and download the bad guy’s plans for world domination. As you leap to freedom through the plate-glass window, you shout, “Thanks for Edge Tech’s 32MB DiskGO USB 2.0 Flash Drive Plus Ink Pen, QI!” (Editor’s note: also handy for transporting work files and writing nasty notes to the person who’s stealing your lunch from the fridge.)—TERRI STONE
$36; Edge Tech, www.edgememory.com

PHOTOGRAPHERS

Lighten the Load

With a bagful of camera gear, do you also want to haul a PowerBook or an iBook to your next shoot? The SmartDisk FlashTrax is an alternative to dumping digital images onto a laptop or carrying armloads of media cards. The built-in 3.5-inch screen is too coarse for detailed photo reviews, but that’s not the point of this device. A 20GB, 40GB, or 80GB built-in hard disk stores your pictures and video (taken from digital still cameras), and even holds audio files. Back at your Mac, connect via USB to mount the FlashTrax as an ordinary hard drive on your desktop, or use the video-out port to hook it up to a television.—JEFF CARLSON
20GB, $400; 40GB, $500; 80GB, $700; SmartDisk, www.smartdisk.com

continues
PHOTOGRAPHERS

Seeing Nemo

Your eyes may be looking at the bluest water you’ve ever swum in, but your camera sees only gray, blurry splotches. When your photo explorations take you into the ocean, invest in a waterproof housing for your digital camera. The Olympus PT-016 features easy-to-press controls (great for zooming) and a flash diffuser, and it’s waterproof down to 130 feet. A viewfinder hood lets you preview your images while you’re still underwater, rather than making you wait until you’re landlocked at home. Note that the PT-016 fits only three Olympus cameras; for a long list of other housings and compatible cameras, see find.macworld.com/0123.—JEFF CARLSON

$200; Olympus, www.olympusamerica.com

PHOTOGRAPHERS

Tripod Mini

It used to be that every self-portrait you took showed your stretched-out arm. Now your camera’s self-timer makes more-sophisticated pictures possible, but you’re still balancing your camera on a rock. Try the Hakuba Multipod. This miniature tripod extends to 10 inches, yet it folds down to 7.5 inches and weighs a mere 4.8 ounces. The universal ballhead mount fits small cameras, and the innovative clamp secures cameras without a screw thread—it even works for camera phones.—TERRI STONE

$17; Hakuba, www.hakubausa.com

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You don’t make movies—you create cinematic masterpieces. And when you burn them to DVD, you want your media to be special, too. With a look that mimics traditional film reels, Verbatim’s DigitalDigitalMovie DVD-Rs and DVD+Rs mark you as the auteur you are. The 4.7GB discs, which hold as much as two hours of your sequel to Citizen Kane, come in packs of three, five, or ten.—TERRI STONE

three-packs, five-packs, and ten-packs, contact Verbatim for pricing; Verbatim, www.verbatim.com

MOVIEMAKERS

Big On Rigs

Tired of loading up on Dramamine before watching your nephew’s shaky skateboarding videos? Help him develop a steady hand with Dan Selakovich’s Killer Camera Rigs That You Can Build (Angel Dog Books, 2003) and a gift certificate for $50 worth of supplies from Home Depot. The book’s 339 pages and 1,300 photographs meticulously detail the construction of 11 different camera rigs, such as a dolly for smooth tracking shots, a car mount to attach a camera safely to a moving vehicle, a crane for panning up to a second-floor window, and a camera stabilizer to make handheld shots actually look good.—DAVID SAWYER MCFARLAND

Killer Camera Rigs That You Can Build, $35; www.dvcamerarigs.com;
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Optio X

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Play-Doh, $1 a can; Hasbro, www.play-doh.com; iStopMotion, $40; Boinx Software, www.istopmotion.com

MOVIE MAKERS

Second Helpings

Digital video has become the monster that eats everything in its path. Remember when a 4.7GB DVD disc seemed like a lot of space? Ha! That’s a mere appetizer today. To keep up with digital video’s insatiable appetite, LaCie’s d2 burner handles newer DVD+R DL (also known as DVD+R9) media, which can store up to 8.5GB on a single dual-layer disc. That’s roughly four hours of MPEG-2 DVD video, which most DVD-ROM drives and consumer DVD players can play back. One downside: to turn on the d2, you have to push the power button in and to the left. But once you’re beyond that, this drive should keep digital video at bay... for now.—JEFF CARLSON

16x d2 DVD±RW Double Layer DVD Burner, $230; LaCie, www.lacie.com
NATURE LOVERS

Thanks for the Memory

No longer must your Swiss Army Knife be reserved for carving walking sticks or trimming tent ropes. The SwissMemory is a pocket knife with a blade, a nail file, a screwdriver, scissors, a ballpoint pen, and 64MB or 128MB of removable USB flash storage. It also comes in a version without the pointy objects that cause problems at airports.—JONATHAN SEFF

64MB, $63; 128MB, $81; Victorinox, www.victorinox.com

NATURE LOVERS

Charge!

Some outdoor types are minimalists who like to see how little they can carry into the woods. But for the rest of us, there's the Solar Jacket from ScottEvest. Its thirty pockets are designed to hold cell phones, PDAs, iPods, and other mobile devices. But the really cool part is the array of solar panels on the jacket's back, which let you keep all your USB-compatible gadgets juiced—as long as the sun is shining. If the Solar Jacket is too geeky (or pricey) for you, check out the Voltaic, a backpack with built-in solar panels that also carries and charges your gadgets.—DAN MILLER


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$40; Burton, www.burton.com

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Sometimes you can’t wait for a gift to come by snail mail; sometimes you can’t even dash to the mall. Turn to the Internet when you need instant—but thoughtful—presents.

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2. Every iPod-equipped music lover will welcome an iTunes gift certificate (www.apple.com/itunes/store). Amounts range from $10 to $200, accommodating a range of budgets. And you won’t have to guess what the kids are listening to nowadays.

3. A year of .Mac (www.mac.com) may befuddle some recipients—until they realize the world it opens. Thanks to your $100 gift, families can share photos and video, job seekers can post resumes, travelers can store files, and anyone can enjoy freebies such as downloadable games and music tracks.

4. Instant access to Consumer Reports research (www.consumerreports.org) is a great gift for people who want in-depth information before they buy. A one-year subscription to the Web site is $26. Who knows—you may save the beneficiaries so much money that next year they’ll give you a pile of presents!

5. Virtual credit at Powell’s Books (www.powells.com) has several benefits. The site not only has a huge selection of new, used, and out-of-print books, but also has indie cred to burn. The idea of supporting a scrappy David in a field of Goliaths should appeal to every Mac user on your gift list. You can purchase any amount of credit.—TERRI STONE

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December 2004 MACWORLD 73
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**iSkin eVo2**
Wrap your iPod with one of 9 protective (and festive) silicone skins. Tight fit, iTrip and PocketDock compatible, optional glow-in-the-dark goodness.

**iTalk**
Use your iPod to record who’s been naughty and nice, what you got for whom, and who remembered to clean the chimney for you.

**boosteroo**
Put the ho-ho-ho in your stocking. Plug in your iPod and share your playlist three ways while enjoying a 40% boost in power.

---

**naviPod** - Remote control for your iPod. TechTV says "the naviPod is a must-have accessory." Plus, green accents on the naviPod go well with mistletoe.

---

**Sportsuit Convertible** - "The best iPod case for a workout" says ExtremeiPod.com. The Convertible comes in a variety of colors, has a sporty removable case and a clip system that’s great for any athlete.

---

**LiliPod** - iPodlounge calls LiliPod "a great-looking watertight housing for the iPod." Snow-white and padded, LiliPod protects the iPod from bumps and splashes and lets you boldly take iPod where hydrophobes fear to tread.

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"Without question the best hard carrying case for the iPod mini -- and the best looking."
- iPod lounge

Retractable FireWire
This retractable FireWire cable will tuck into a corner of your backpack and be ready when you need it.

Dr. Bott Hubs
Our USB hubs are packed with innovation and style. They look great under the tree and even better next to your computer.

Safari
The Safari cuddles your mini in any of five animal prints, and just in time for all the New Year's parties.

Podium CoolPad
The ultimate in functional elegance. The CoolPad gives any PowerBook or iBook a healthy tilt to a more usable angle.

Sportfolio
Is there a PowerBook or iBook in Santa's bag? It shouldn't be without a Sportfolio case to carry it in.

PhoneValet
Get those elves off the phones and back to the factory. PhoneValet makes your Mac a feature-rich voice mail system.

TechTool Pro
Next generation system analysis for Mac OS X. TechTool keeps your Macs running on all cylinders by finding and repairing system problems.

iKlear
iKlear will remove the sticky goo from your iPod and leave it sparkling like new fallen snow.

Where Santa shops for all his Mac & iPod stuff
**TRAVELERS**

### Java Jive
Say you want to keep a beverage hot while you work, but you don’t have access to a microwave because you’re on the road. ThinkGeek’s USB Cup Warmer plugs into a Mac’s USB port and warms your mug for 30 minutes, providing heat directly from your computer. This gadget is also great for lazy office workers.—CYRUS FARVAR $13; ThinkGeek, www.thinkgeek.com

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### USB Juicer
Do you know Mac users whose cell phones always run out of juice? The Zip-Linq Wireless Phone Charger can restore their gift of gab. It plugs into a Mac’s USB port and includes a 6-volt booster. There are two versions (I and II), so check the lists of compatible phones on the company’s Web site before you buy. For more powering options, you can pair the charger cable with the company’s wall-outlet and car adapters.—TERRI STONE
versions I and II, $30 each; Zip-Linq, www.ziplinq.com

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76 MACWORLD December 2004
TRAVELERS

Keep Cool

While your PowerBook might make you look cool, the Kensington FlyFan actually makes you feel cool. This portable, lightweight fan draws power directly from your laptop's USB port. The cord is flexible and durable; you can bend it in nearly any direction and it will hold that position. The blades are made of soft nylon, so if you accidentally get caught in them, you won't get hurt. Now it'll never be too hot to work outside.—CYRUS FARIVAR

$10; Kensington, www.kensington.com

GAMERS

Satisfy a Sweet Tooth

If you'd like to treat a hard-core Mac gamer to the sweetest eye candy, ATI Technologies' Radeon 9800 Pro Mac Edition card is just the thing. It supports the pixel and shading effects you'll see in the latest games; includes DVI, VGA, and 128MB of VRAM; and even has an S-Video connector so you can hook up your Mac to a TV. There's also a Power Mac G5—only Special Edition version that doubles the VRAM to 256MB and nixes S-Video and VGA support, but adds an ADC connector for Apple's older Cinema Displays.—PETER COHEN

ATI Technologies, www.ati.com

GAMERS

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ATI Technologies, www.ati.com

continues
**GAMERS**

<< What's Your Sign?

Carrying a PDA and a Game Boy just means more clutter in your backpack. Combine the two with Tapwave’s Zodiac: a full-featured Palm OS–based PDA designed for gamers, with 3-D–graphics acceleration on a big screen, a built-in analog thumbstick controller with vibration effects, and a growing library of games. Built-in Bluetooth makes wireless synchronization a breeze, though you’ll need Missing Sync from Mark/Space (see our review, page 38) because the Zodiac doesn’t come with Mac software.—PETER COHEN

Zodiac, $309; Tapwave, www.tapwave.com; The Missing Sync, $40; Mark/Space, www.markspace.com

**GAMERS**

Surrounded by Sound >>

3-D positional surround sound is gaining traction in Mac games, thanks to M-Audio’s Revolution 5.1 card and OpenAL. Gamers looking for real 3-D sound that won’t annoy roommates or coworkers will appreciate Zalman’s ZM-RS6F Theatre 6 Surround Headphones, which use the discrete front, center, and rear inputs on sound cards such as the Revolution 5.1 to generate 3-D sound—no signal-delay trickery here, as on cheaper sets. Great for LAN parties, too.—PETER COHEN

$50; Zalman, www.zalmanusa.com

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MUSIC LOVERS

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$50; MacMice, www.macmice.com

**Digital Boom Box**
Remember the 1980s, the glory days of the boom box? Digital Lifestyle Outfitters’ new iBoom is a boom box for the iPod generation. Plop any dockable iPod in the iBoom’s dock slot, and you’ve got a 20-watt sound system that can hold 10,000 songs and still fit on your shoulder. (There’s also a small slot on top that serves as a handle.) The iBoom includes an FM radio and an auxiliary input, so you’re not limited to your iPod’s music selection. The iBoom runs off AC power or six D batteries.—DAN FRAKES

$149; Digital Lifestyle Outfitters, www.everythingipod.com

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**Naughty or Nice? Give an iSkin.**

For the iMac or PowerMac owner.
**ProTouch XT: Apple Keyboard/Wireless Keyboard Protector**
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For the iPod owner.
**iSkin eVo/iVo2: iPod Protector**
The iSkin eVo and iVo2 is the perfect gift for every iPod owner. It provides a snug form-fitting protective layer that includes a screen protector and removable belt clip. It comes in a variety of beautiful colors including glow-in-the-dark.

For the iPod mini owner.
**iSkin mini: iPod mini Protector**
The iSkin mini will bring a smile to the faces of iPod mini owners. It’s sleek and form fitting and gives a secure, anti-slip grip. It also comes with a ultra-clear screen protector and removable belt clip. It also comes in a variety of colors including glow-in-the-dark.

For the iBook/PowerBook owner.
**iSkin PB: Apple iBook/PowerBook Keyboard Protector**
The iSkin PB provides a layer of protection against dust, dirt and spills that could get between the keys of the book. It is soft and pliable and does not restrict normal typing. It’s available in a variety of cool colors!

iSkin.com

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MUSIC LOVERS

continues
MUSIC LOVERS
Share the Love
True music fans aren’t happy just enjoying their tunes alone; they want to recruit new disciples of their latest melodic discoveries. Two portable speaker systems from Harman Multimedia let the audiophiles in your life share their tunes wherever they go. The JBL OnTour (pictured) is a slick little package that hooks up to computers, MP3 players, CD players, and more through a stereo minijack. For better sound, try the JBL OnStage, a donut-shaped docking station; its included adapters can accommodate all iPods. (A stereo minijack lets you connect almost anything else.) Then add a copy of Playlist, Mac Publishing’s new cross-platform magazine devoted to digital music.—FRITH GOWAN
JBL OnTour, $100; JBL OnStage, $200; Harman Multimedia, www.harman-multimedia.com; Playlist, $6 on newsstands; www.playlistmag.com

NEW PARENTS
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With constant feedings, burping, and diaper changes, it’s a small miracle if parents can manage to take a shower, let alone get pictures made from digital images of their little bundle of joy. Help out with a printer that makes creating 4-by-6 prints of their baby as easy as can be. Harried parents can pop most digital cameras’ memory cards into the Epson PictureMate and have pictures in minutes.—FRITH GOWAN
$199; Epson, www.epson.com

continues
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NEW PARENTS

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$149; Apple Computer, www.apple.com

All-Around Camera
For parents with a new baby, every coo, giggle, and step is priceless documentary material. They can build a digital archive with Canon’s 5-megapixel digital camera, the PowerShot A95. It boasts 14 shooting modes (including a video mode that can capture a full three-minute giggle fest, walking attempt, or crying jag) and enough pixel power to print images larger than 8.5 by 11 inches. Nice touches like a rotating LCD monitor, variable autofocus frame selection, and manual shutter and aperture options ensure they don’t miss a moment.—FRITH GOWAN
$400; Canon, www.canon.com

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There’s more! We found so many great gadgets that we couldn’t fit them all in the magazine. Go to find.macworld.com/0125 for the rest.

Giving Tech for the Holidays?
Make sure it’s RAD!
TEENS

Not Just a Pretty Face
Kids today! They like bling, but they aren’t careful with it. Happily, the Olympus Verve Stylus digital camera is here to save you from another repetition of the “When I was your age” lecture. Its shiny, funky body (which comes in six colors) will please the most trend-conscious teen, and it’s rugged enough to withstand splashes of water and life in the bottom of a backpack.—TERRI STONE
$350; Olympus, www.olympusamerica.com

TEENS

The Coolest Cases
Don’t leave the iPod-loving teen princess in your life stuck with nothing but a boring black case to tote her tunes. An Aneta Genova case may be pricey, but to the lucky young fashionista who receives it, it’s worth every one of your hard-earned pennies. With everything from corseted, metallic pink cases to ones Sid Vicious would be proud to carry, you’ll find a model to suit any sartorial style. A metal hook and a detachable wrist strap even make them a tad—dare we say—practical.—FRITH GOWAN
cases range from $79 to $129; Aneta Genova, www.anetagenova.com

continues
In order to keep your company alive, you need to search for innovative ways to become more efficient and architect your content to be more purposeful. Along the way you’ll need to answer:
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GEEKS

<< I'm Too Sexy for My Shirt

What do you get the geek who has every gadget ever made? A T-shirt in which he or she can transport the gizmos, of course. Available in black or white, Koyono’s BlackCoat-T sports a red center zipper that speaks tantalizingly of the mysteries within—namely, two compartments that can safely stash PDAs, cell phones, MP3 players, or whatever else your geeky sweetie can stuff inside. The shirt works under clothing, but we can’t imagine why you’d want to hide style like this.—FRITH GOWAN

$35; Koyono, www.koyono.com

GEEKS

Card Carrier >>

Mac geeks are proud to display their allegiance at every opportunity. Give The Missing Bite’s Retractable Badge Holder to an office-dwelling geek you love, and every working moment will be an excuse to evangelize. The clip features the beloved Apple logo, and a retractable cord connects to a loop that snaps to an accommodating badge.—FRITH GOWAN

$10; The Missing Bite, www.missingbite.com

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December 2004
MACWORLD 85
14 Office Problems Solved

Microsoft Office 2004 is, in nearly every way, a great step forward for the productivity suite. But that doesn’t mean all is perfect. There are a few areas where Office doesn’t behave as you’d expect. In this article we’ll show you how to work around the worst of these annoyances.

Office 2004

Some (or all) of the Office 2004 applications quit at launch with no warning message at all. What should I do?

Incorrect file permissions on some files and folders on your hard drive can cause this problem. The easy fix is to use the Repair Disk Permissions tool in Apple’s Disk Utility program. Go to Applications: Utilities, and launch Disk Utility. In the left-hand column of the main application window, select your hard drive. Under the First Aid tab, click on Repair Disk Permissions. The process can take five to ten minutes, but when it’s done, your Office 2004 applications should launch.

Word 2004

I prefer to use the Reviewing pane when making comments. But how do I edit a comment as I’m writing it?

You can edit a comment in the Reviewing pane, which you access from the Reviewing toolbar (View: Toolbars: Reviewing), by clicking on the Show pop-up menu. But you can’t do some things, such as dragging and dropping text to rearrange it or pressing delete to remove a word. Strangely, the forward delete key (space; delete on some third-party keyboards) works. If you need that kind of editing flexibility, you’ll have to enable the Track Changes balloons, which display comments and changes to the side of the main text.

Open Word: Preferences, click on Track Changes in the left-hand pane, and select Use Balloons To Display Changes. You can see the balloons only in the Page Layout and Online Layout views (under View).

When viewing a document with comments, I sometimes see brackets around text, and selecting text first. If you make a selection, comment brackets surround that text. There’s no way to automatically hop to one of these “no text selected” comments in the Reviewing pane, unless you already know which one you’re looking for. Instead, enable the Track Changes balloons to see and edit these comments.

How do I disable Quartz text smoothing in Word 2004? On my slower machine, this made scrolling much faster.

Unfortunately, the ability to disable Quartz text smoothing has been removed from every Office 2004 application, with the exception of Excel. Smoothing is now handled by the system in the other applications.

How do I open a document that was created and encrypted in Office 2003 for Windows and requires a password?

Word 2004 doesn’t support Office 2003’s encryption features. To open the file, you’ll have to ask its creator to save it in a format that doesn’t use encryption. If the file’s security is important, the author could encrypt it with a cross-platform program such as PGP Personal Desktop, from PGP (www.pgp.com), after saving it.

How can I copy and paste text from Word into Apple’s iChat? When I try, the pasted text is sent as a black rectangle.

Due to an incompatibility between Office and iChat, you’ll have to make a detour through an intermediate application. Select and copy the text in Word or Excel and then paste it into another application, such as a new Apple Mail message or a blank TextEdit document. Select this newly pasted text and then copy and paste it into iChat, and it will work as expected.

Excel 2004

How do I enable an in-line spelling checker in Excel 2004?

Excel can’t check spelling as you type. Instead, use Tools: Spelling on the entire worksheet or on a range of cells after you’ve entered your text.

Why does the cursor move down a row after I press return? I’d rather have it stay in the same spot.

Go to Excel: Preferences, and click on Edit in the left-hand pane. Deselect the Move Selection After Return
entourage 2004

When I want to print my calendar, it fails to print, giving me an "Error -30876" message. What's wrong?
You probably have a corrupted printing form. Quit Entourage and go to Users: username: Documents: Microsoft User Data. Delete the entire Printing Forms folder therein—don't worry, it will be re-created the next time you launch Entourage.

When I'm in Month view and I want to see a particular day in detail, I double-click on it. But Entourage opens a new event on that date. I tried clicking on the Day view button, but that just takes me back to the current day.
At the lower left of the Entourage window is a miniature calendar. Double-click on any date in this calendar, and that day's detail view will open.

How can I archive e-mails by date? The Export tool lets me export only items in a project or category, or all of my e-mails. Start by creating a custom view for your in-box (File: New: Custom View). In the dialog box that appears, enter a name for the view and add two criteria—both using the Date Received criterion from the leftmost pop-up menu. One is for the minimum age of the messages to archive; the other is for the maximum age. Make sure Match is set to If All Criteria Are Met, and click on OK (see "Archive by Date"). Also, create a new folder in your folder list and give it a meaningful name (such as Jan-Jun 04). When the custom view has taken effect, select all the messages in your in-box and then drag them to the Jan-Jun 04 folder. Drag this folder to a location in the Finder, and wait while Entourage copies the messages. When it's done (use the Finder to verify that it worked), delete the Jan-Jun 04 folder and the messages in your in-box.

powerPoint 2004

Why do dragged objects seem to jump to a new, somewhat arbitrary location when I drop them?
Make sure you've disabled Snap To Grid on the Drawing toolbar. Open that toolbar (View: Toolbars: Drawing); then click on the toolbar's first object and make sure there's no check mark next to the Snap To Grid menu item. You might try disabling the rulers, too. If they're visible, select View: Ruler to disable them. Now you should be able to drop objects exactly where you want them, but this hasn't worked for all users.

How do I create a password-protected PowerPoint presentation that I can distribute for others to see but not change?
None of the Mac versions of PowerPoint support password-protected presentations (nor can you open protected presentations created in Windows). But there are a few workarounds. Using the built-in PDF capabilities of OS X, save your presentation as a PDF via Print: Preview. You'll lose the animations and transitions in it. You can also use the File: Make Movie option to create a stand-alone QuickTime movie of your slides. Unlike Keynote, PowerPoint can't create interactive movies, so your audience will have no control over the slides. You could use File: Save As to save your presentation as a series of Web pages—but you'll need a server on which to save the pages for others to see.

The embedded QuickTime movies in my presentation played perfectly with PowerPoint X. But in PowerPoint 2004, they have very slow frame rates and choppy sound. Is there a way to fix this?
Select the troublesome clip and then choose Format: Picture. Under the Size tab, click on the Best Scale For Slide Show option, set the Resolution pop-up menu to match your output device's resolution, and then click on OK. This will probably change the size of your QuickTime movies, but it should make them play much more smoothly.

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

low-cost acrobat alternative

Pricey Adobe Acrobat 6.0 (Professional, $449; Standard, $299; www.adobe.com) isn't your only choice if you want to do more than just look at PDF files. SmileOnMyMac's $30 PDFpen (www.smileonmymac.com) lets you add text, images, and simple line graphics to any PDF document with a few clicks—it's an ideal way to add a scanned signature to a form, for example (see "On the Line"). PDFpen used to be hampered by bugs and slow performance ($11 April 2004), but this release sports enough improvements to merit a second look.—FRANKLIN N. TESSLER

on the line PDFpen is handy for completing and signing business forms.
Fix GarageBand Glitches

GarageBand has been a breakthrough for aspiring Mac musicians. Thanks to its simplified interface and hard-to-beat price ($49 with Apple's iLife '04 suite), even novices can start recording digital masterpieces. But things can go wrong in GarageBand—missing loops, silent instruments, and so on. Here are some recipes for solving the most-common GarageBand problems.

Your Loop Browser Is Empty
Adding loops to GarageBand isn't just a matter of stuffing them into a folder on your hard drive. You also have to make GarageBand aware of them. To do that, you must force GarageBand to index new loops, thereby building an internal card catalog of the loops and their locations.

If anything goes wrong with GarageBand's loop index, you may discover that all the buttons in the Loop browser are dimmed and no loops appear in its list. Some loops may exist in name only.

In these situations, the solution is to rebuild the GarageBand loop index.

**Step 1** Quit GarageBand. In the Finder, open your hard drive and go to Library: Application Support: GarageBand: Apple Loops. Inside, you'll see the text files that constitute your current index (see "Out with the Old"). Drag these files to the Trash.

**Step 2** Restart GarageBand and click on the Loop Browser button (which looks like an eye). GarageBand will display the No Apple Loops Found dialog box. Click on OK and return to the Finder.

**Step 3** Open your hard drive and go to Library: Application Support: GarageBand. Drag the Apple Loops folder from the GarageBand folder into any visible portion of GarageBand's Loop browser. GarageBand will dutifully re-create its loop index, based on the current location and contents of that Loops folder.

No Sound from a Mike or a Real Instrument
If GarageBand doesn't seem to be "hearing" anything from your microphone or line input, the Mac probably hasn't been taught to listen to the right audio source. Open OS X's Sound preference pane and click on the Input tab. Select the sound source you want to record, and then adjust the Input Volume slider for your singing or playing. (The loudest notes should briefly illuminate the rightmost bars.) Return to GarageBand and open its Audio/MIDI preferences. Click on the Audio Input pop-up menu and make sure that the correct input is selected.

If the problem persists, try these steps:

**Step 1** Make sure that you're working with a blue Real Instrument track. If a green Software Instrument track is selected, GarageBand ignores your microphone or instrument.

**Step 2** Make sure that you haven't muted this track or soloed another one. (The speaker icon in your track's header should be blue, but no other instrument's headphones icon should be lit up.) While you're at it, make sure the track's volume slider isn't set to zero.

**Step 3** GarageBand may be set up to listen to the wrong channel. Double-click on the track header and examine the Input pop-up menu and Format (Mono/Stereo) settings.

**Step 4** If you've installed the Jam Pack, drag its folder (also in Library: Application Support: GarageBand) into the Loop browser, too.

**Step 5** Check whether you're hearing any sound from the instrument. If it's electric, make sure that it's turned on, with the volume turned up. Also make sure all the connections are good—especially if you've incorporated plug adapters into the mix.

**Step 6** If you're using a Griffin iMic adapter, make sure that you've connected the mic to the instrument's input jack (the one with a microphone symbol). Also be sure to switch the iMic's selector toward the microphone symbol. Open GarageBand's Audio/MIDI preferences and choose...
No Sound from a MIDI Instrument

Having trouble getting GarageBand to hear an external MIDI instrument, such as a keyboard controller or a MIDI guitar? If so, your MIDI status light can help you identify the culprit (see "Lighting the Way").

Status Light Doesn’t Respond If the MIDI status light doesn’t flicker when you play, MIDI information may not be reaching GarageBand. Make sure that the instrument is turned on and connected to the Mac.

If a MIDI interface box is involved, double-check your connections. It’s very easy to get the MIDI In and MIDI Out cables confused.

Open GarageBand’s Audio/MIDI preferences. The MIDI Status line should read “1 MIDI Input(s) Detected” (or however many instruments you have connected). If it doesn’t, your MIDI interface may require its own driver software. Visit the manufacturer’s Web site to seek out an OS X–compatible driver.

Status Light Does Respond If the indicator does flicker on and off, then everything is correctly hooked up. In that case, make sure that you’ve selected a green Software Instrument track. Also check that you haven’t muted this track or soloed another one.

If you still encounter the problem, go to Window: Keyboard to open the on-screen keyboard. Click on a few keys to ensure that the selected track has a working instrument selected. You might also try double-clicking on the track header to open the Track Info dialog box. You should have an instrument and effects preset active in the top two lists. In the Details panel, try turning off your effects one by one until you find the problem. (It’s possible to fiddle with the effects so much that no sound emerges.)

Finally, check whether you, in fact, have any Software Instruments available. Double-click on a track header to see if anything is in the list. If you or somebody else has been doing some naughty playing in the Library: Application Support: GarageBand folder, the files may be so dismantled that you need to reinstall GarageBand to get it going again.

No Sound from External Speakers

Ordinarily, GarageBand plays back sounds through your Mac’s audio circuitry—either through your Mac’s built-in speakers or through speakers connected to its headphone jack. But what if you’ve bought fancy USB speakers? Or what if you’ve connected an audio interface box that’s hooked up to its own sound system? In those cases, you’ll need to adjust your audio options. Open GarageBand’s Audio/MIDI preferences. Click on the Audio Input Driver pop-up menu to select the name of your external speakers or interface box. If you don’t see it listed, you may need to install the appropriate driver—this usually comes with the speakers or audio box.

CHECK IT OUT

One-of-a-Kind Gifts

Looking for something unique to give this holiday season? Why not turn some of your favorite digital photos into personalized gifts? Many online photo services have branched out with stylish and unusual offerings, from fashion accessories to coasters to scrapbooks—and even personalized stamps (see Hot Stuff, page 124). Here’s a sampling:

Photo Handbag ImageStation.com offers some of the most fashionable photo bags we’ve seen (picted). Trimmed in leather with full-image panels on the front and the back, they’re sure to get noticed ($135; find.macworld.com/1010).

Snapbooks Most photo sites offer hardbound photo books. But for a more casual—and less expensive—option, check out Shutterfly’s Snapbooks. These small spiral-bound books feature one photo per page and an optional caption ($10 for a 20-page book of 4-by-6-inch prints).

Metal Trivet Know someone who likes to cook? PhotoAccess.com and Snapfish.com both offer to put your favorite photo hooked on a cast-iron trivet—which can serve as a hot pad or a wall decoration.—KELLY LUNSFORD

Panned Tracks Still Play in Both Speakers

In GarageBand, you can use the Pan knob to place a certain track’s instrument all the way to the left or right side of the stereo field. If you do this but still hear the darned thing coming out of both speakers, there are two possible explanations.

The likeliest culprit is an Echo or Reverb effect that you’ve applied to that track. When you select these options for an individual track, you’re not really applying a different echo or reverb to the track. Instead, you’re telling GarageBand how much of the master track’s echo and reverb to apply. As a result, you’ll hear your fully panned track reverberating through both speakers, courtesy of the master echo or reverb. The solution, then, is to turn off the panned track’s Echo and/or Reverb effect. Double-click on its track header, and deselect the corresponding options.

This problem can also occur if you’ve used the Compressor effect. Turning on Compressor for the master track forces all tracks to play in both the left and the right channels. To solve the problem, turn off the master track’s Compressor effect. (Turning off Compressor for an individual track won’t make a difference.)

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Survive the Switch to InDesign

Moving to a new place can be hard. Comfortable habits must be left behind. You haven't learned the quickest route to work, you don't know which newspaper has your favorite comic strip, and the local coffee shop even uses different terminology. Moving to a new page-layout program can be like that, too. If you've recently switched from QuarkXPress to Adobe InDesign CS, the following tips will smooth your transition.

Make New Friends

When you're just starting to explore InDesign, you need to know the basics. If you're a little more experienced, you can skip to the next section, "Get to Know the Neighborhood."

Measurements Palette In QuarkXPress ($945; www.quark.com), the Measurements palette is almost indispensable. The InDesign CS ($699; www.adobe.com) equivalent is the Control palette (Window: Control), which offers options that change depending on what's selected in the file. The Control palette also takes the place of XPress's Modify dialog box.

Item, Content, and Type Tools InDesign's tool palette contains two selection cursors. The black arrow cursor, called the Selection tool, grabs whole objects and grouped objects, as does XPress's Item tool. The white arrow cursor, called the Direct Selection tool, selects items inside a frame; it's similar to XPress's Content tool. The Direct Selection tool also selects an object's individual line segments and control points. Although the Direct Selection (white arrow) tool's flexibility can be helpful, former XPress users may unintentionally drag on a side or a corner of a text frame with this tool, pulling the frame's edges out of alignment.

And unlike XPress, InDesign gives you a separate tool for working with text: the Type tool.

Get Text and Get Picture XPress's Get Text and Get Picture commands are absent from InDesign, which provides a Place command (File: Place). This command invokes a loaded cursor for text or images. Using the loaded cursor, you can click on a page to directly place text or an image. To create a new frame of a specific size while placing text or an image, use the loaded cursor to draw an area on the page.

Runaround and Text Options Instead of XPress's Runaround dialog box, InDesign has a palette called Text Wrap (Window: Type & Tables: Text Wrap), which has the same function. Settings for text inset, columns, the first baseline, vertical text justification, and ignoring text wrap can all be found in the Text Frame Options dialog box (Object: Text Frame Options).

Link Tool XPress has Linking and Unlinking tools that connect text across two or more text boxes. In InDesign, text frames have in and out ports (small white squares on the sides of text frames) that you click on with either selection tool to link text from frame to frame. This process is called threading. You break an existing text thread by clicking on a text frame's out port and then clicking on that text frame again.

Collect for Output Are you ready to send your first InDesign file to the print shop? Instead of the Collect For Output command, use InDesign's Package command (File: Package). It also includes a Preflight tool (File: Preflight), which checks for potential printing problems, such as missing fonts, images in RGB mode, and low-resolution images.

Get to Know the Neighborhood

Seasoned designers rely on key commands to quickly perform common page-layout tasks. If you're a QuarkXPress power user, some of the keyboard commands in InDesign CS may frustrate you at first.
Unpack the Boxes

You may have left XPress behind, but that doesn’t mean you must abandon your XPress documents. InDesign CS can open an XPress file and automatically convert it if it’s from XPress version 3.3 to 4.11. XPress 5 lets you save documents as XPress 4 files. But XPress 6 users have to save files to version 5, open them in XPress 5, and save them again as version 4 files. If you don’t have XPress 5, try Markzware’s $199 MarkzTools 5.5 (www.markzware.com), an XTensor for QuarkXPress 4 and 5 that opens XPress 6 files and saves them to XPress 4 in one step.

Damaged in Transit

No matter how you do it, the conversion process may not be perfect. Clipping paths, style sheets, and dashed lines are all common problem areas in converted files.

A clipping path may not align correctly with its associated image. Open the Clipping Path dialog box (Object: Clipping Path), turn off the clipping path, and close the dialog box. Open the Clipping Path dialog box again and turn the path back on.

Paragraph and character style sheets may not appear in alphabetical order in their respective palettes. To correctly sort the style names in the Paragraph Styles and Character Styles palettes, create a new style in each palette and then delete those new styles. Your style palettes will now be correctly sorted—it’s as easy (and as illogical) as that.

Dashed lines won’t match the original dash and gap settings. Select the objects with dashed lines and choose the dashed-line setting, in InDesign’s Stroke palette, that’s close to your original settings.

Pinpoint Problems

Plenty of other glitches can occur during conversion. One quick way to compare old and new documents is to open the original file in XPress, save it as a PDF, and then place the PDF in a separate, semitransparent layer in the converted InDesign file. (When the PDF is longer than one page, go to File: Place and put a check mark in the Show Import Options box to select individual pages.)

Align the PDF to the edges of the InDesign page and click on the PDF layer’s lock icon. Make changes to the layout items until the layers match. Then delete the PDF reference layer and the imported PDF.

Settle into Your New Home

The process of moving—to a new home or a new application—comes with plenty of challenges. But once you get used to the differences, you’ll find that many changes were for the better. Soon, you’ll even remember the proper lingo for ordering your cappuccino just the way you like it.

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Make Yourself Presentable

You've spent weeks polishing your presentation. You've honed your timing to Olympic perfection. But when it's finally time to deliver your magnum opus, your first slide is barely legible, and then, a few minutes later, the screen goes completely dark. It's every presenter's nightmare, and it may even make you wish you'd left your Mac at home and brought that dependable old slide carousel instead.

It doesn't have to be this way. With some ahead-of-time preparation and a few tweaks to your Mac, your software, and the on-site hardware, your next computer-based presentation can run like a dream.

Before You Go

A little planning before you hit the road can make a big difference when you're giving your presentation.

Find Out What Kind of Projector You're Going to Be Using
Even if you run your presentation off your own laptop, you'll probably be using someone else's video projector. Like desktop computer monitors, projectors support different resolutions and different types of connections. The more you know about the projector you'll be using, the better off you'll be, so ask about its resolution and physical connections in advance.

Match Your Slides to the Projector
Presentations look best when the slide size is the same as the projector's native resolution, so images and text don't have to be scaled up or down for display. Apple's Keynote lets you choose a resolution of 800 by 600 or 1,024 by 768 when you select a theme for your presentation. You can change the resolution later (File: Slide Size), but you'll have to resize all your text and graphics to fit. Microsoft PowerPoint defaults to a resolution of 720 by 540. To change it to 1,024 by 768, go to File: Page Setup and enter 14.22 and 10.66 inches for the width and height of on-screen slides. (For 800 by 600, enter 11.11 and 8.33 inches for the width and height.) Ignore the warning about exceeding your printer's margins. If you can't determine for certain what kind of projector you'll be using, you'll probably be OK using 1,024 by 768, which most projectors support.

Burn Copies to CD
You never know what might go wrong on your way to the presentation. Just in case the worst happens and your laptop can't run your slides, make Mac- and Windows-friendly copies of your presentation and burn them to a CD you can then play on any handy computer. If you use Keynote, save the presentation as a QuickTime movie so it'll run on any QuickTime-enabled system.

Match the Right Connections
Most video-projector cables have analog VGA connectors, so you can hook them up to any iBook or PowerBook that has VGA ports, using the adapter that came with the computer. The mini-DVI ports on current 12-inch PowerBooks and the DVI ports on recent 15- and 17-inch PowerBooks can also make VGA connections using the adapters that accompany them. Some newer video projectors sport digital DVI inputs; you can connect them directly to the DVI ports on 15- and 17-inch PowerBooks, or to the mini-DVI ports on current 12-inch PowerBooks, with the supplied adapter. (The first 12-inch models came with VGA ports like the iBook's.) When in doubt about what kind of connector you'll need, bring along both VGA and DVI adapters.

Juice It Up
Even if you plan on plugging your laptop into an AC power source, make sure that your battery is fully charged. You'll be able to keep going if someone accidentally yanks the power cord.

At the Venue
Don't wait until the last minute to connect your laptop to the projector—show up at least 30 minutes early and do a dry run to make sure your setup is working properly.
Hook It Up  Newer iBooks and PowerBooks work fine if you hook them up to a projector when they're already running, but it's wiser to make the video connection before you power up the computer. Even if you don't normally tighten thumbscrews, do it now, just to ensure that everything holds together. If your presentation includes audio, or if you're presenting to a big room, figure out how to connect your laptop's audio-out jack to the room's PA system.

Test It Out  Power up the projector, wait a minute or two for it to warm up, and then boot your laptop. If you don't see your desktop on the projection screen by the time it appears on your computer's LCD, check your connections and use the projector's push buttons or handheld remote control to verify that you've chosen the correct video input.

Keep Your Mac Awake  One of the most annoying things that can happen in the middle of a presentation is for your screen saver to start up when you pause the slide show for a bit. To prevent that from happening, disable your screen saver—in System Preferences: Desktop & Screen Saver, select the Screen Saver tab and move the slider all the way to Never. While you're in System Preferences, go to the Energy Saver pane and move the sliders for computer and display sleep all the way to the right, so your Mac won't nap while you're talking to the audience. Note that some video projectors also have power-saving features; if that's the case, disable them, too.

Adjust the Mac's Display Settings  The Displays preference pane's Display tab is where you specify the settings for the projector (see "By the Numbers"). The box on the left lists the available resolution and refresh-rate combinations—simply choose the proper resolution (1,024 by 768 or 800 by 600) from the list. For most video projectors, the refresh rate should be 60Hz, but you can try a higher rate if the image looks distorted.

Disable Video Mirroring  Most PowerBooks give you the option of running in nonmirrored video mode, which means that the internal and external screens are independent. If you turn mirroring off when you're using PowerPoint 2004 or Keynote, you can display notes and upcoming slides on your laptop while your slide show stays up on the big screen. To disable video mirroring, open the Displays preference pane and deselect the Mirror Displays option under the Arrangement tab. iBooks support only mirrored video, where the LCD shows exactly what the audience sees. Because of that, iBooks in mirror mode may not be able to keep up with presentations that include lots of complex movies and transitions. In that case, leave them out of your presentation.

Tweak the Projector  Most modern projectors optimize the image automatically every time a new video source is selected. This sometimes takes a few seconds, so don't panic if you don't see an image right away. If you're the only one using the projector, you may get even better results by manually adjusting the color, contrast, brightness, and other settings using the projector's built-in controls.

Presentation Insurance  Nothing is more embarrassing for a speaker than to have a dazzling computer presentation ruined by technical glitches. Our tips won't keep your audience from falling asleep—but as long as they're awake, they'll see exactly what you planned.

By the Numbers  A VGA projector shows up as a generic VGA display in the Displays preference pane.

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Cool Geek Tricks

Geeks are the magicians of the Mac community. Like Houdini, we use our knowledge to get out of bad situations. And like David Copperfield, we use sleight of hand to dazzle the uninformed. With these three tricks, you can conjure up some magic of your own in the New Year.

Resurrect Lost Print Jobs
You printed something weeks ago—perhaps an airline-ticket receipt. Now you want to print it again, but you didn't save a copy of the Web page and can't find the information on the airline's site. What to do? Reprint it from your automatically saved backup of every document you've ever printed, of course.

The first thing you need to know is that a piece of Unix software called CUPS (Common Unix Printing System) controls printing in OS X. CUPS includes an option that lets you save and reprint previously printed documents (print jobs). Here's how:

1. **Edit the CUPS File** To enable the option, you have to access and edit a file named cupsd.conf (save a copy of the original). Select the Go To Folder command from the Finder's File menu and type /etc/cups. Locate the cupsd.conf file.
   - If you have Bare Bones Software's $49 TextWrangler or $179 BBEdit (www.barebones.com), you can open the file by dragging it to the application icon.
   - If you're using TextEdit, get Brian R. Hill's $15 utility Pseudo (find.macworld.com/0093) and drag the TextEdit icon to its icon. This opens TextEdit with root access, which you need in order to save the edited file. (BBEdit and TextWrangler have this ability built in.)
2. Next, locate the following text in the document: `#PreserveJobFiles No.`
   - Change No to Yes and delete the pound symbol (#) at the start of this line. This tells the CUPS software to save print jobs and to treat the line as an active instruction rather than as a comment to be ignored.
   - Change the line so it reads `MaxJobs 50.` (Again, you are deleting the pound symbol.) You don't have to reduce the number, but your hard drive will thank you. Finally, save these changes. If you opened TextEdit using Pseudo, the document should save directly. If you're using BBEdit or TextWrangler, OS X will ask for your password.

Find a Saved Job
Your next step is to figure out how to locate and reprint a specific saved job. To access the Web-based interface for the CUPS printing software, launch Safari (or your preferred browser) and type the following URL in the address field: `http://localhost:631`.

Select Do Administration Tasks. If you're using OS X 10.3.4 or later, a sheet will drop down asking you to fill in your name and password. Do so and click on the Log In button. You now have administrative access to the CUPS software.

Click on the Manage Jobs button. In the screen that appears, click on the Show Completed Jobs button. To see your most-recent print jobs, scroll to the bottom of the window that appears. To reprint a job, click on the Restart Job button next to its name (see "Print ... Again").

Password Hassles
If after you click on the Restart Job button, CUPS rejects your correct password, you may be mired in a Panther problem. Panther uses a new form of password encryption that CUPS can't decrypt. That's a problem if you created a brand-new user account in Panther and you're running OS X 10.3.4 or later.

Apple intends to fix this; in the meantime, you can delete the section of the cupsd.conf file that requires the password. Your Mac will be less secure, but you'll be able to use the feature. Locate the following lines near the end of the cupsd file:

```plaintext
<Limit GET>
AuthType Basic
AuthClass System
</Limit>
```

Delete these four lines, or add a pound symbol before each one to make them inactive.—TED LANDAU

Prevent Server-Log Wipeout
Every week, your Web server kicks out a log file that you want to download with the $39 Interarchy file-transfer software (November 2004) and process with your log-analysis program. This sounds
simple enough—but there's a glitch. By default, Inter­
archy uses file-name extensions to decide how to
download files. Your logs use the .log extension; there­
fore, Interarchy doesn't recognize them as text files.

What's a Webmaster to do?

From an Interarchy file listing, select one of your
log files and choose Listing: Get Info. In the Get
Info window, choose BBEdit or your favorite text
editor from the Application pop-up menus for
Open, View, and Edit (in case you want to view or
edit the file). Then choose Text from the Encoding
pop-up menu, choose your log-analysis program
from the Post Process Application pop-up menu,
and close the Get Info window. Now Interarchy will
download all your log files as BBEdit text files and
process them automatically in your log-analysis pro­
gram.—ADAM C. ENGST

Put iChat on Autopilot

A friend of mine who recently began working from
home told me he was terrified to step away from the
computer in case the boss sent a message via iChat. I
said bathroom breaks were acceptable. “Well,” he
began with some hesitation, “what if I need to take
the dog to the beach?”

Obviously, he needed an iChat autoresponder that
could identify a chat initiated by the boss and type a
series of responses. Here’s how to whip one up using
Pygmy Software’s free iCAR utility (find.macworld.
com/0094), an iChat plug-in for creating autores­
sponses, and Script Software’s $20 iKey (www.
scriptsoftware.com), a very cool macro utility.

It works this way: in iChat you must click on a
chat window to make it active. iCAR performs this
service for you, but it also does something once it
activates that window—it sends a message or trig­
gers an AppleScript. If it sends a message, it reveals
to your correspondent that it’s autoresponding.
Instead, you can set it to trigger an AppleScript—
but you leave the AppleScript field empty. This
generates an inconsequential error message that
doesn’t appear. Then iKey steps in and types your
phony response.

The Setup To access iCAR’s settings, install it and
then open iChat. Choose iChat: Preferences, and
choose the Auto-Reply tab. Set it to autoreply when
your status is Available, Away, and Idle. Under Tim­
ing, choose Reply To Every Message. To keep iCAR
from revealing that you’re autoresponding, switch off
the Message Prefix option at the bottom of the win­
dow, which by default types Auto-reply:. Under
Source, select AppleScript and leave the selection
field blank.

Next turn to iKey to create the sequence of
responses. First select Shortcut: New Set: Select An
Application and navigate to iChat. When you find it,
click on Select. Choose Shortcuts: New Sequence. In
the Shortcut: Sequence window, enable the Pro­
grammed option and choose After Activate from its
pop-up menu. In the same window, select Defined
from the Repeat pop-up menu and enter 10 in the
Number Of Times field.

Now click on the Sequence tab and select Short­
cuts: Utility: Wait Front Window With Title. In the
window that appears, click on the Utility tab, choose
Wait Window Title Contains from the Action pop­
up menu, and enter your boss’s iChat handle (what­
ever appears in the title bar when you two chat) in
the Title/String In Title field. This tells iKey to wait
until your boss initiates a chat.

In the same window, choose Shortcuts: Utility:
Make A Pause, click on the Utility tab in the result­
ing window, and enter 8.0 in the Delay field. This
tells iKey to pause in a nat­
ural manner before issuing its
first response.

Next, choose Shortcuts: Keyboard: Type/Press/
Release Keys. Click on the Keyboard tab in the
resulting window and type
Hang on a sec, I'm on
the phone... (a busy
but casual response). Choose
Shortcuts: Keyboard: Type/
Press/Release Keys. Click on
the Keyboard tab, click on the
Key field, and press the
Mac's return key. This sends
the response to the boss.

I’ve set up a number of responses in this way, with
longer pauses between each one (see “Fool the Boss”). A quick way to do this is to
simply copy, paste, and customize the steps you com­
posed earlier. Finally, tell iKey to type Bye! to end it.
Create a 4-second pause. And for some final insur­
ance, use the Type/Press/Release Keys shortcut to
type \-W and end the chat before your boss can ask
questions. When you’re done with the sequence,
click on OK.

The Caveats Before you leave your Mac, make
iChat the active application. iKey may not see the
chat window if it’s running in the background. If
your boss logs out of the chat before the sequence is
complete, he or she is going to be suspicious when
you continue to send updates about how your call is
going. And if your boss tries to contact you later in
the day and is greeted with the same scheme, you’re
so busted.—CHRISTOPHER BREEN

Fool the Boss The boss won’t wise up to
those 45-minute coffee breaks you’re taking if
you have a customized iChat autoresponder
in place. Of course, you
could use this technol­
genre for good instead of
evil. Send a message to
geekfactor@macworld.
com if you come up with
any brilliant ideas.
Mac OS X Hints

Open the Sound and Displays preference panes with your keyboard, make Terminal listings flow numerically, move files between volumes, use speech recognition without wasting screen space, take advantage of the Inspector window, and dig into OS X for hidden images and icons.

Quickly Access the Sound and Displays Preference Panes
If you're a laptop user who opens the Sound and Displays preference panes a lot—to change sound input or adjust a secondary monitor's position, for example—you may be interested in undocumented shortcuts that take you directly to them from any application.

On your iBook or PowerBook, you can open either preference pane by holding down the option key and then pressing one of the volume- or brightness-controlling function keys (for Sound and Displays, respectively). So option-F1 or -F2 will open the Displays pane, and option-F3, -F4, or -F5 will open the Sound pane. If you have a desktop Mac and an Apple keyboard with volume controls, you can hold down option and press any of the volume keys at the top of the keyboard to open the Sound pane. Unfortunately, there's no shortcut to the Displays pane for desktop Mac users.

Numerically Order Terminal File Listings
Working with numbered files in Terminal is somewhat frustrating because the app doesn't properly sort the files in directory listings. Consider a simple directory containing 20 versions of a graphic—Logo-version 1, Logo-version 2, and so on. If you use the ls -l command (which lists one file per row of output) on this directory, you'll see something like this:

```
Logo-version 1
Logo-version 10
Logo-version 2
Logo-version 20
Logo-version 3
```

If you're tracking revisions, or otherwise looking for a file in a large group of files, this manner of sorting can be problematic. However, using Unix's ability to combine simple commands via the pipe (|) symbol, you can display files in numerical order, with 2 following 1, and so on.

The key to this trickery is the sort command, which does what its name suggests—it sorts what's given as input. Adding the -n option will sort data numerically. sort also needs to know which portion of the data you'd like it to sort by. You direct it by specifying a starting point within the string of text to be sorted, stated in terms of a field number and then a character position within that field. Fields are groups of characters separated by spaces; in this example, there are two fields in the file name. The first field (numbering starts 0, not 1) is the Logo-version portion of the file name (or field 0). The second field (or field 1) is the version number. You don't need to specify a location number within a field unless you want the sort command to start somewhere other than the beginning of the field.

Putting it all together, to sort the example output in numerical order, you'd type:

```
ls -l | sort -n +1
```

When you run the command, you'll get a nicely organized list of your files that begins like this:

```
Logo-version 1
Logo-version 2
Logo-version 3
```

You can also use the optional character position for sorting numbered files that are lacking spaces in their names. For instance, for a series of files named ClientStuff1.txt, ClientStuff2.txt, and so on, you'd use the command:

```
ls -l | sort -n +0.11
```

Since there are no spaces in the file names, there's only one field (field 0), and the numeric portion of the file names starts at the 12th character (position 11, since numbering starts at 0).

CHECK IT OUT

"Wreck a Nice Beach" in Less Space
If the title of this tip makes no sense to you, it may help to know that part of it was in the code name for the Apple project that added speech recognition to Mac OS—just say the part in quotation marks quickly, and you'll see why.

In any event, if you use speech recognition, you're quite familiar with the floating bubble that lets you manage the process. Unfortunately, if you're working on a small screen, the bubble often winds up exactly where you don't want it to be. But it doesn't have to be that way. You can minimize the speech bubble. Just double-click on the gray-lined area just below the middle, and the bubble will glide into the Dock.

Don't worry—speech recognition will work just as it did before. In fact, the docked icon updates when you press the speech-activation key and speak.
You probably know about OS X's Get Info window (⌘-I or File: Get Info, with any item selected in the Finder), whose Preview area will allow you to play audio and video files. However, opening a Get Info window for each file you want to preview is time-consuming and wastes screen real estate.

Get Info has a more powerful cousin called the Inspector, which you activate by pressing ⌘-option-I with an item selected in the Finder. The Inspector looks just like the Get Info window, but it's dynamic. As you select new files in the Finder, the contents of the Inspector window change to reflect the current selection, so you can easily access previews of all your files while still benefiting from icon- and list-view windows. Just open the Inspector in an unused portion of your screen, and leave it there while you browse (see “A Window with a View”). That way, when you want to preview a video or listen to an audio clip, it's just a mouse click away.

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

**Show Me the Icons** A few Unix commands can help you quickly find hidden treasures in OS X, such as this list of folder icon files in the System folder.

```
locate ~* | more
```

This will find all TIFF images related to Apple's iSync application. Just type `locate ~* | grep "iSync" | more` and press return. This complex search command is actually relatively simple. First, locate is used to find all .tif files on your machine. That long list, which you won't see, is then sent (via the Unix pipe symbol) to grep, which looks for the word iSync. Finally, those results are sent to the program more, which does nothing more than pause the output after each screenful. Presto, you've got an instant list of every TIFF file related to iSync. To open any of the images in Preview, copy and paste an entire row from the list in Terminal with the command open "filename". Press return, and the image opens in Preview.

There's additional syntax for the locate program that's very useful. If you run `locate ~* | grep -i "folder"` you'll see the entire contents of the locate file. This will help you overcome a key limitation of locate—the fact that it's case sensitive. So a search for .TIF will find different files than a search for .tif. To work around this case sensitivity, you can use the grep command, which lets you ignore case. Say you're looking for folder icons in the System folder. You're not sure exactly how these icon files are named, but you're guessing that they have folder somewhere in their names. Try this command to see them all:

```
locate ~* | grep -i "folder" | grep -i "icns" | grep -i "System" | more
```

This is the same as the first example, except it takes a few more trips through grep. First, you're searching the entire file for folder, with the -i flag, which tells grep to ignore case when searching. This list is then searched for .icns again, in a case-insensitive manner. Finally, the command finds any remaining lines that contain System, this time paying attention to case, since you want to search the System folder (see “Show Me the Icons”).

**Unix Tip of the Month**

Images Are Everything

OS X is a treasure trove of hidden icons and images that you can use for everything from presentations to folder icons to desktop pictures. Hunting for these hidden images, however, can be frustrating. Most are stored within an application's bundle, or in hidden Unix directories—neither of which is easily searchable from the Finder. And that's where Terminal comes in handy.

Your first step is to make sure that Unix knows where on your system all the files are. A Unix program called locate creates a list of files on your machine and allows you to search that list, and it runs automatically at regular intervals—if you leave your Mac on all the time. To update the file list by hand, open Terminal and type `sudo /usr/libexec/locate.updatedb`, press return, enter your admin password, and go grab a snack—the update will take several minutes to run.

The key to treasure hunting with locate is to combine it with grep, a Unix program that matches patterns in text strings, such as file names and directory paths. Say you want to find all the TIFF images related to Apple's iSync application. Just type `locate ~* | grep "iSync"` and then delete the original.

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The key to treasure hunting with locate is to combine it with grep, a Unix program that matches patterns in text strings, such as file names and directory paths. Say you want to find all the TIFF images related to Apple's iSync application. Just type `locate ~* | grep "iSync"`. That way, when you want to preview a video or listen to an audio clip, it's just a mouse click away.

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Mac 911

You’re here for the inside dope, yes? You’ve come to the right place. This month’s Mac 911 is all about insights on the inside—including changing icons hidden inside Mac OS, using Terminal to get inside the NetInfo directory, removing artwork that is inside music files, and an insider’s view on the downside of an upside-down iSight.

Iconology
Is there one folder that holds OS X’s icons? I’d like to change the icons that appear in the Finder, but copying a new icon into a Get Info window doesn’t seem to work.

Adam R. Totten

The procedure is more complicated than you might think. You can find many of the icons in OS X by going to System: Library: CoreServices and then control-clicking on SystemIcons.bundle. In OS X 10.3, you can then select Show Package Contents to rummage through the Resources folder within the Contents folder. However, the root owns these icons, so you can’t edit them in place. Rather, you must make copies (after making a full backup of the Resources folder so you can restore things if necessary), edit the copies, and replace the originals with the edited versions. But there’s even more to it than that, and because there is, I’ll refer you to InterfaceLift (find.macworld.com/0106), which spells out the procedure in all its command-line glory.

Or you can take the easy route: Purchase Panic’s $13 CandyBar utility (www.panic.com). Its drag-and-drop interface lets you replace an icon by dragging a new icon into a well where the old icon resides (see “I Want Candy!”). It’s as simple as that. CandyBar also supports iContainers—prepackaged collections of icons—that you can load with a double-click. For tips on working with icons and images in Terminal, see this month’s Mac OS X Hints, page 96.

Setup Assistant Redux
Is there a way to force OS X’s initial Setup Assistant to run again?

Rick Roder

Yes, but unless you have a very good reason for running the Setup Assistant—your Mac won’t start up because your user account appears to be hosed, for instance—don’t do it. And if you must, back up your data first. Then keep these two points in mind: First, in order to retain access to the files associated with the current user—including music, e-mail messages, contacts, and calendars—the user you create in Setup Assistant must have exactly the same name as the current user. Otherwise, the transfer of permissions between your new and old identities will end up a mess, and, until you change file permissions with a tool such as BatChmod (http://macchampion.com/arbysoft), you won’t be able to open some files.

Second, if you’ve created additional users on your Mac—an account for troubleshooting or one for your spouse, for example—you won’t be able to access those users from the login screen.

Now that you’ve been warned, here’s how to run the Setup Assistant again: Restart your Mac while holding down ⌘-S to boot into Single User mode. When the prompt appears, type the following, pressing the return key after each line (note the spaces):

```
mount -uw /

cd /private/var/db/netinfo

mv local.nidb local.old

rm .../.AppleSetupDone

exit
```

Translation: You’ve navigated to the hidden NetInfo directory and renamed the NetInfo database—which contains the Mac’s user settings—in such a way that the Mac will create a new database when Setup Assistant runs. You’ve then removed the
AppleSetupDone file. When the Mac doesn’t see this file, it runs the Setup Assistant that allows you to create a new user.

If you’d like to put things back the way they were before you undertook this procedure, boot into Single User mode again and type the following:

```
mount -uw /cd/private/var/db/netinfo
mv local.nidb local.lold
mv local.old local.nidb
```

This gives the new Netlnfo database the name local.lold and restores the original Netlnfo database.

Away with Artwork
I’ve heard that iTunes’ artwork is embedded into music files. How do you back up artwork and remove it?

Dylan Drazen

Artwork is indeed embedded in music files (and rightly so, as you’d want the artwork to transfer when you move audio files to another computer). But iTunes is more than happy to let you archive and remove it. To back up the artwork, launch iTunes, select a track whose art you want to archive, press ⌘-I to produce the track-information window, click on the Artwork tab, and drag the artwork to the desktop, where it turns into a picture clipping. To delete the artwork, click on it and then click on the delete button.

Old OS, Old iPod
Can you use an iPod with OS 9?

Ivan Manson

Third- and fourth-generation iPods and the iPod mini require OS X, or Microsoft Windows 2000, XP Home, or Professional, but you can download the first two generations of iPods—which have navigation buttons arrayed around the scroll wheel—with OS 9. Because Apple no longer sells these models, you’ll have to find a used one.

To make the device work with OS 9, you need compatible versions of iTunes and the iPod software. You can download the last OS 9-compatible version of iTunes—that would be 2—from find.macworld.com/0107. And you’ll find the iPod Software 1.3 Updater for Mac OS 9 at find.macworld.com/0108.

Mouseless Menus
With my Windows PC at work, I use the keyboard to activate a menu. When I type a letter, the first menu entry that begins with that letter is highlighted. Then I can just press the enter key to select that menu option. I would like to do this on my Mac at home, but I don’t know how.

Jason Kuebelbeck

Recent versions of OS X let you do the same thing. Just hold down the control key and press F2. The Apple menu will drop down. To move to the next menu to the right, press the keyboard’s right-arrow or tab key (press the left-arrow key or shift-tab to move to the left). In OS X 10.3, typing a letter will take you to the first item that begins with that letter. You can use the up- and down-arrow keys to move up and down in the menu. If a menu contains multiple items that begin with the same letter, type the first couple of letters of a particular command name to highlight it. If an item has a submenu, use the right-arrow key to open it.

Upside-down iSight
I’d like to find a more aesthetically pleasing way to incorporate my iSight into my work environment. I thought I had found the perfect solution—mounting it under a bookshelf—but the image is flipped, and iChat doesn’t have any control for rotating it 180 degrees. Is there a fix for this?

Blair Feldman

It’s possible to flip the video image with software—for example, Ben Software’s $50 SecuritySpy (www.bensoftware.com/ss) can do it. But as you’ve discovered, flipped images isn’t among iChat’s talents, and because Mac OS allows only one application at a time to use video input, you can’t flip the image in one program and then use that flipped image in iChat.

I’m afraid you must turn to mechanics to solve your problem. You could do it with mirrors—point your iSight at a concave mirror (which flips your image, much as a shiny spoon would), and angle a second mirror so that the camera can see you. As deliciously scientific as this setup may be, it adds more clutter to your room.

Instead, look at MacMice’s $30 SightFlex (www.macmice.com). It features a FireWire cable built into a flexible, 20-inch arm that’s attached to a solid base. Connect the iSight to the top of this arm, place the base in a convenient spot, and twist the camera into a position that shows your best side.

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### DIGITAL CAMERAS

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### VIDEO PROJECTORS

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<td>RICOH PJ3200</td>
<td>9000 lumens, Multi-Media Laser</td>
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<td>SHARP LC-37HV6U</td>
<td>37&quot; HD, 3D-CCD Imaging, Super VHS</td>
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<td>PIONEER PT-AE1000</td>
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### PRINTERS

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The New iPod™

The best just got better.
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Shuffle Songs at your fingertips,
and up to 12 hour battery life.

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The perfect companion to iPod,
Itunes lets you easily
build and manage
digital music collection.

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The iMac G5 brings the same innovative system architecture
in Apple professional desktops to the home.
Apple designers removed the extraneous, miniaturized
the necessary, souped up the performance and
concealed the result in immaculate perfection.
Terms and Conditions apply. See offer for details.

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- PowerBooks G4 (Titanium)
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- PowerMac G4 (SuperDrive/Spindles)
- PowerMac G4 (Black & White)
- PowerMac G4 (Shiny & White)
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Mercury On-The-Go
MacAddict "DroolWorthy"

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OWC Neptune FireWire 400 Solutions
Features the same Oxford911 bridge as our highly acclaimed Neptune Elite Pro for all performance and a value that can't be beat!

Neptune FW 400

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Connect to thousands of new USB and Firewire Products!
Add Firewire and/or USB from $9.99

OWC Hard Drive Controller Cards
Use Serial ATA hard drives or a new PCI hard drive controller

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OWC Mercury Elite Pro storage solutions
OWC Mercury On-The-Go high-speed drives "fits in a pocket" size

OWC Mercury Elite Pro

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<td>250GB</td>
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<td>$219.99</td>
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<td>G4/933MHz</td>
<td>933MHz</td>
<td>$249.99</td>
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**OWC**

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<tr>
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Gone are the days when you had to be a president, an endangered waterfowl, or Elvis to get your face on a stamp. Thanks to PhotoStamps (a service of Stamps.com), you can personalize your postage with pictures of your kids, your dog, or even yourself. The privilege doesn't come cheap—one sheet of 20 37-cent PhotoStamps, for example, costs $16.99 (nearly 48 cents per stamp). But just imagine the look on your friends' faces when they see your mug on their mail (http://photo.stamps.com).

Sonos Digital Music System ▲
Sure, the AirPort Express lets you stream music to a stereo in your home—but you can control it only from your Mac, and listen to the music in only one room at a time. For Bang & Olufsen-esque design—and price—combine one or more $499 Sonos ZonePlayers (wired or wireless networked audio players that distribute, play, and amplify digital music through your speakers) and $399 Sonos Controllers (wireless handheld devices with color screens and scroll wheels for controlling the ZonePlayers). The result is a shared-music system that you'll be proud to have in plain sight (www.sonos.com).

iSync's Bluetooth Support
When it comes to convenience, there's nothing like setting your cell phone or PDA on your desk, launching an app on your Mac, and having the two wirelessly exchange contact, calendar, and to-do information. The hassle of adding numbers to your phone no longer needs to be a barrier to upgrading to the newest hardware. The latest version of Apple's free iSync supports even more Bluetooth-enabled phones from Nokia, Sony Ericsson, and Siemens, as well as several handhelds. And if you get bored with using Bluetooth just to synchronize data, you can also easily transfer photos taken with your cell phone to your Mac, or even use your cell phone as a wireless modem (albeit a slow one) when you have to get online on the road (www.apple.com/isync).

Logitech MX1000 ▲
Laser Cordless Mouse
Optical mice offer more-precise tracking than moving-parts models—until it's time to mouse over high-gloss surfaces such as lacquered tabletops and photo paper. Logitech's $80 cordless MX1000 with Fast RF for wireless connectivity swaps optical technology for laser, to boldly go where few mice have gone before. Logitech claims that the laser mouse has 20 times more sensitivity to surface detail than LED optical mice—ensuring that your mouse won't falter even on the trickiest of surfaces (www.logitech.com).

Painter IX's New Oil Brushes
Thanks to a new feature in Corel's Painter IX, digital art truly does imitate life. The next version of the $299 natural-media painting software includes jaw-droppingly realistic Artists' Oil brushes that closely mimic the look and behavior of traditional oil paints. The brushes hold a finite amount of paint, so your strokes become lighter as the oil runs out. It's just like working on a real canvas—without the unpleasant fumes (www.corel.com).

WHAT'S HOT A Quick Look at the World of Macs
1. A Business Week survey of 500 business executives names Apple the most innovative company of the last 75 years. "In your face, General Electric," exults a triumphant Steve Jobs.
2. Sony reluctantly adds MP3 support to some of its music players. Says Sony Chairman Nobuyuki Idei: "We think this exciting new technology provides a new way to enjoy the disco music craze that is sweeping the globe."
3. Apple releases a security fix for iChat AV. Among the fixes: a patch that automatically blocks video chats with anyone not wearing pants.
4. Apple may be near a settlement in its legal dispute with The Beatles' Apple Corps. The terms of the deal rename Apple's headquarters at One Infinite Loop in Cupertino "Sir Paul McCartney's Summer Home."
The four D's of 4D

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