



20 HOTTEST NEW IPOD ADD-ONS

ACCESSORIZE, MOBILIZE, AND HARMONIZE:
MUST-HAVE STUFF FOR YOUR MUSIC PLAYER



Macworld

www.macworld.com | April 2005

The Mac Product Experts

MAC MINI

The Complete Guide

All You Need to Know about Apple's \$499 Mac

FEATURING

Full Lab Test
and Review

Mini Autopsy
Inside the Box

PC Smackdown!
Mac vs. Dell

Mac Mini FAQs
Your Questions Answered



iLIFE '05, iWORK '05

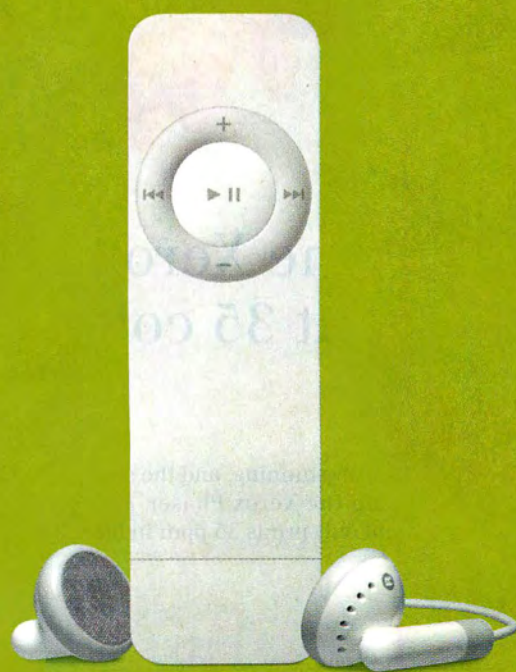


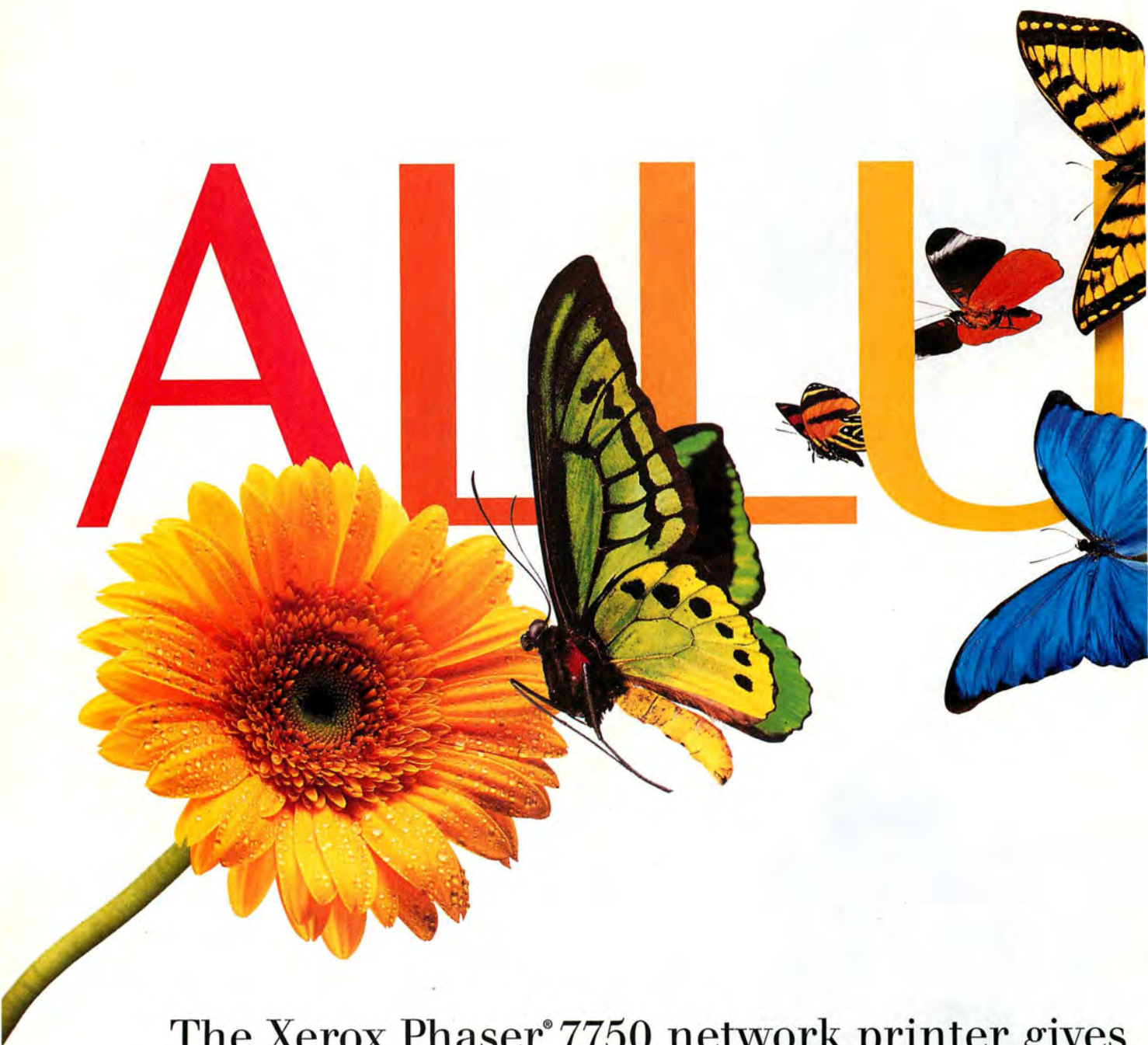
Meet iPod® shuffle. The unpredictable new member of the iPod family. 240 songs: A million

TM and ©2005 Apple Computer, Inc. *4 min./song 128Kbps AAC or MP3 encoding, 1GB model. *SRP 512MB model. For more information, call 1-800-MY-APPLE or visit www.apple.com/ipod.

Life is random.

different ways. From \$99* PC+Mac.  **iPod shuffle**





The Xerox Phaser® 7750 network printer gives
And at 35 color ppm, it's sure to make your heart

The color is truly stunning, and the speed simply breathtaking. That sums up the Xerox Phaser 7750 tabloid color laser printer. It not only prints 35 ppm in black and white, it prints

just as fast in color. And it can deliver up to an incredible 1200 dpi. Its single-pass laser technology prints up to 11x17 full bleed. Color is Pantone-approved, too, for accurate proofing.

xerox.com/office/1965 1-877-362-6567 ext. 1965

© 2005 XEROX CORPORATION. All rights reserved. XEROX®, Phaser®, PhaserMatch™ and Xerox Color. It makes business sense are trademarks of XEROX CORPORATION in the United States and/or other countries. Adobe PostScript 3 is either a registered trademark or trademark of Adobe Systems Incorporated in the United States and/or other countries.



you color so vivid, you're naturally drawn to it.
flutter. **Xerox Color.** It makes business sense.

What's more, PhaserMatch™ 3.0 color management software ensures the colors you want are the colors you get. For more about our full line of Xerox network



printers, digital copiers and multi-function systems, just call us or visit our website today. We'll be happy to provide you with the stunning details.



XEROX.

Technology

Document Management

Consulting Services

Macworld

OPINION

7 From the Editor's Desk

JASON SNELL

Tomorrow belongs to Apple.

12 Feedback

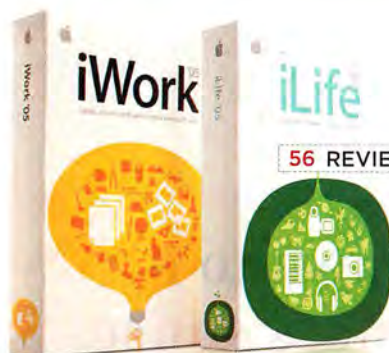
Readers respond.

MAC BEAT

- 14 The Mac mini versus a budget PC, faster PowerBooks, music-player vendors react to the iPod shuffle, Doctor Mac Direct, iPods in hotels, wireless security with Elektron, Gibson's digital guitar, and a San Francisco band's iBook "drums."



52 INSIDE THE MAC MINI



56 REVIEWED: iLIFE '05 AND iWORK '05



On the Cover
Photography by
Peter Belanger



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/2005/04/mill-home>

REVIEWS

24 Apple desktop systems

★★★★ Mac mini G4/1.25GHz

★★★★ Mac mini G4/1.42GHz

25 Apple music player

★★★★½ iPod shuffle

26 Photo-storage and -viewing devices

★★★★½ Epson P-2000

★★★★ Nikon Coolwalker MSV-01

★★★★½ SmartDisk FlashTrax

28 Dual-layer 16x DVD burners

★★★★ EZQuest Boa 16x DVD±RW Double Layer FireWire

★★★★ Iomega Super DVD Writer 16x

★★★★ Kanguru Quicksilver 16x QS-FW DVDRW FireWire

★★★★ LaCie d2 DVD±RW 16x FireWire with Double Layer

★★★★½ OWC Mercury FireWire/USB2 D108 DVD±RW

★★★★ Plextor PX-716UF

★★★★½ Sony DRX-710ULT

30 Customer-relationship-management software

★★★★½ DayLite 1.7

31 Video-compression utility

★★★★½ Sorenson Squeeze 4 Compression Suite

32 Monitor-calibration packages

★★★★½ ColorVision Spyder2Pro Studio

★★★★½ GretagMacbeth Eye-One Display 2

★★★★ X-Rite Monaco OptixXR Pro

35 Cataloging software

★★★★½ Delicious Library 1.0.6

37 Database program

★★★★½ Panorama V

38 Top Products

40 The Game Room

PETER COHEN

From healthy brain food to tasteless mayhem, there's something for everyone in this month's column: Chessmaster 9000, Postal 2: Share the Pain, Parasol Wallop, and Apeiron X. We also take a first look at Close Combat: First to Fight.

48 Mac Gems

DAN FRAKES

Detect wireless networks, keep your Mac awake, bring your ports front and center, simplify Terminal use, and easily change your short user name.

COVER STORY

52 Inside the Mac Mini

JASON SNELL

You've seen the cute little case, but what makes the Mac mini tick? How did Apple fit an entire computer into a box less than 7 inches square? We whip out our putty knife and go inside to find out.

FEATURES

56 Reviewed: iLife '05 and iWork '05

We put iLife '05 and iWork '05 through their paces to find out just how good Apple's latest suites are.

iLIFE '05

- ★★★★½ iPhoto 5
- ★★★★ iMovie HD
- ★★★★ iDVD 5
- ★★★★½ GarageBand 2

iWORK '05

- ★★★ Pages 1.0
- ★★★★½ Keynote 2.0

64 Macworld's \$5,000 Photo Challenge

BEN LONG AND DERRICK STORY

We asked two photographers what they would purchase in order to set up the ideal Mac-centric, all-digital photo studio if they were given \$5,000. Here's what they chose.

71 iPod Gear Guide

CHRISTOPHER BREEN AND DAN FRAKES

Take a look at some hot new accessories for your iPod—including cases, speakers, headphones, FM transmitters, and luggage. Plus, get some fresh iTunes and iPod tips.



64 MACWORLD'S \$5,000 PHOTO CHALLENGE

71 IPOD GEAR GUIDE

SECRETS

94 WORKING MAC

Stop E-mail Annoyances

JOHN RIZZO

Tired of getting e-mail attachments you can't read? Are important e-mail messages getting bounced back? Find answers to some common e-mail conundrums.

96 DIGITAL HUB

Share Your Photos on the Web

JIM HEID

Don't hoard those special memories. Turn your digital photos into stunning online slide shows without breaking a sweat—or your budget.

98 CREATE

Welcome to QuarkVista

ERIKA KENDRA

Edit images right from your QuarkXPress layout. We'll show you how to put the QuarkVista XTension to work.

100 MOBILE MAC

Stranger in a Strange LAN

GLENN FLEISHMAN

You try to hop on a wireless connection at a client's office, but the network isn't Apple-based. Here's how to find the right way in.

102 GEEK FACTOR

Instant Collaboration

GLENN FLEISHMAN WITH JEFF CARLSON

AND ADAM C. ENGST

Do you work well with others? SubEthaEdit lets several people—regardless of their locations—contribute to the same document at once.

104 HELP DESK

Mac OS X Hints

ROB GRIFFITHS

Expand Windows self-extracting zip files, set up a keyboard shortcut for .zip-archive creation, study animated GIFs frame by frame, enable page scrolling in Safari and Mail, use Terminal to view dates and times around the world, and use Google to quickly look up an Address Book contact.

106 Mac 911

CHRISTOPHER BREEN

Learn how to fix slow iTunes and iPhoto launches, make Finder views stick, force text copied from Word to appear as text in iChat, and more.

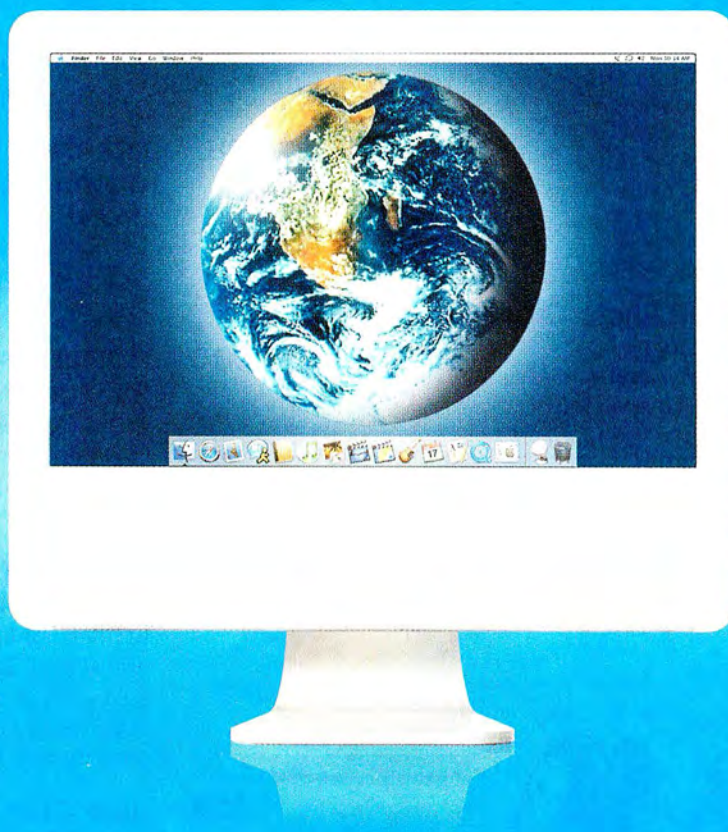
BACK PAGE

132 Hot Stuff

Check out our editors' favorite developments of the month.

Charity begins at home.

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



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



**Small Dog
Electronics**

www.smalldog.com

1673 Main St., Waitsfield, VT 05673

Next time you visit smalldog.com, we invite you to browse our huge selection of new and factory-refurbished Apple products and related gear.

Together, we can all make a difference.

 Apple Specialist

1-800-511-MACS



Apple's Advantage

For years, Apple's percentage of the worldwide computer market remained mired in the single digits. Conventional wisdom held that the high price of Macs was responsible for the small market share. But that argument has always been debatable, and with the introduction of the Mac mini, it has lost much of its remaining oomph.

However, the Mac mini's success won't depend on its low price alone. While the \$499 price tag is a great way to draw the attention of potential Mac buyers, converting those people into actual Mac users would be pretty hard if it weren't for a major change in the way we use our computers today.

Media Machines

Apple started using the phrase *digital hub* a few years ago, because Steve Jobs and company realized that digital media were going to be at the heart of why people used their computers, especially in the home.

Apple's incredible success with the iPod and the iTunes Music Store has borne out the wisdom of that strategy. But while digital music is a major part of Apple's future, it isn't the only big trend out there that's breaking in the Mac mini's favor.

Over the past few years, digital photography has gone from oddball to mainstream. Most computer fans have bought digital cameras, and now even the computer-shy are buying them in record numbers.

Throughout this transition, Apple has been right there, ready to help. iLife comes free with every new Mac, so even the \$499 Mac mini comes with a full suite of top-notch digital media software. iLife's apps are all easier to use than anything available for Windows, so when it comes to the digital stuff people really care about, Apple isn't playing catch-up with Windows. It's years ahead.

Priority Formats

As you may have guessed by our two successive cover stories on the subject, everyone here at *Macworld* thinks that the Mac mini could be huge for Apple (see "Inside the Mac Mini," page 52, to find out what makes it tick, and don't miss our review of the mini, page 24). It's not just the most important Apple product to be introduced since the iPod; it's the most important Mac to be introduced since the original iMac.

In the past, many people scorned the Mac because they thought that their home computer had to replicate the machine they had at work. If a Mac couldn't run the database they used at the office, connect to their company's Exchange mail system, or surmount

any of a zillion other compatibility hurdles, buying one for their homes didn't make sense.

But consider what people use their home computers for these days: Safari's got Web browsing covered, and if that doesn't suit your tastes, there's always Firefox or OmniWeb. Mail is a simple, fully functional mail program. And Microsoft Office for the Mac lets you work with any Word, Excel, or PowerPoint files.

But the most important file formats for today's home computer users aren't .doc or .xls: They're MP3 and JPEG. And which company is the leader when it comes to giving people easy access to and control over their music and pictures? The same company that'll now sell you a \$499 computer—or, rather, a \$499 digital media appliance. (For more on how the Mac mini compares to a similarly priced PC, see Dan Frakes's story on the Mac mini-Dell PC price war [*Mac Beat*, page 14].)

A Computerized Appliance

The Mac's special chance for success really hit me a few weeks ago, while I was visiting some friends—PC users at home and at work.

Soon after my arrival, they began asking me about the Mac mini. One of them had used a friend's Mac to build a book in iPhoto and had been very impressed. So they'd thought about the number of digital photos they'd taken since their young daughter's birth, and about how easy it had been to use the friend's Mac to manipulate and organize those photos, and to create books, slide shows, and more.

The Mac mini's price may have spurred their interest in a Mac, but what really made the Mac a contender for them was a change in how they viewed it: not as a PC, for working with word processors and databases, but as an *appliance* for managing all their digital photos and music.

I think this shift, more than anything else, will give Apple an advantage over its PC competition. Because while Microsoft is the big name in PCs, what company has the hottest product in the consumer electronics world? Thanks to the iPod, it's Apple. □

What do you think about the mini's chances for improving Apple's market share? Let me know at jason_snell@macworld.com, or share your thoughts at www.macworld.com/forums.

Suitcase Problems?




Time to Get FontAgent Pro!

Everything designers and managers need
to conquer font problems forever

- Automatic font optimization
- Rock-solid stability
- Multiple font libraries
- Intuitive ATM-like interface
- Font and set locking
- Unrivaled auto-activation
- More ways to preview fonts
- Detailed font diagnostics
- Nested font sets
- Serverless font sharing

"...superior repair and organization functionality"

Macworld 

"With its ease of use and powerful feature set, FontAgent Pro is the 'Designers' font manager. ... I rate it a perfect 5/5 for making font headaches go away for good."

Colin Smith, PhotoshopCAFE.com Perfect 5/5

Insider

www.insidersoftware.com

For more information,
contact us today
1-866-366-8778 (US)
+1-310-827-0011 (Intl)



© 2004 Insider Software, Inc. All rights reserved. FontAgent is a registered trademark of Insider.

Macworld

President Rick LePage
Editorial Director Jason Snell
Executive Editor Dan Miller
Managing Editor Charles Purdy
Senior How-to Editor Kelly Lunsford
Senior News Editor Jonathan Self
Senior Reviews Editor Jennifer Berger
Senior Editor Scholle Sawyer McFarland
Lab Director James Galbraith
Senior Associate Editor Jackie Dove
Assistant Managing Editor Sue Voelkel
Senior Writer Dan Frakes
Production Consultant Jennifer Werner

Contributing Editors Christopher Breen, Adam C. Engst, Bruce Fraser, Rob Griffiths, Jim Heid, Andy Ihnatko, Ted Landau, David Pogue, Terri Stone

Art Director Rob Schultz
Designer Amy Browne
Contributing Photographer Peter Belanger

Online Content Director Philip Michaels
Editor, Macworld.com and MacCentral.com Jim Dalrymple
Senior Editor, MacCentral.com Peter Cohen

International Editors Matthew J.C. Powell, Australia; Sebastian Hirsch, Germany; Enrico Lotti, Italy; Yoshio Moriya, Japan; Krzysztof Pietrasik, Poland; Daniel de Blas, Spain; Valter Bengtsson, Sweden; Engin Gedik, Turkey; Simon Jary, United Kingdom

Director of Finance Eos de Feminis
Accounting Coordinator Ronda Bittner
VP of Human Resources Kate Coldwell
Human Resources Manager Julie McKie
Human Resources Coordinator Jenny Steele
IT Director Sean Greathouse

Publisher Cynthia Ramsey (973/228-3074)
National Accounts Manager Paul Bonarrigo (508/533-4020)
West Coast Regional Sales Manager Stacey Stephenson (415/978-3341)
Account Executive Franck Zamora (514/273-6106)
Showcase Account Managers Carol Johnstone (415/243-3691)
Niki Stranz (415/243-3664)
Sales Associate Marc Fong (415/243-3628)
Associate Publisher, Online Doug Detlefsen (415/243-3598)
Online Sales Associate Sarah Rose (415/243-3575)
Online Sales Representatives Rachel Desjardins (415/267-4562)
Scott Williams (415/243-3509)
Marketing Manager Kasey Galang (415/243-3642)
Administrative/Marketing Asst. Amanda Cartier (415/978-3380)

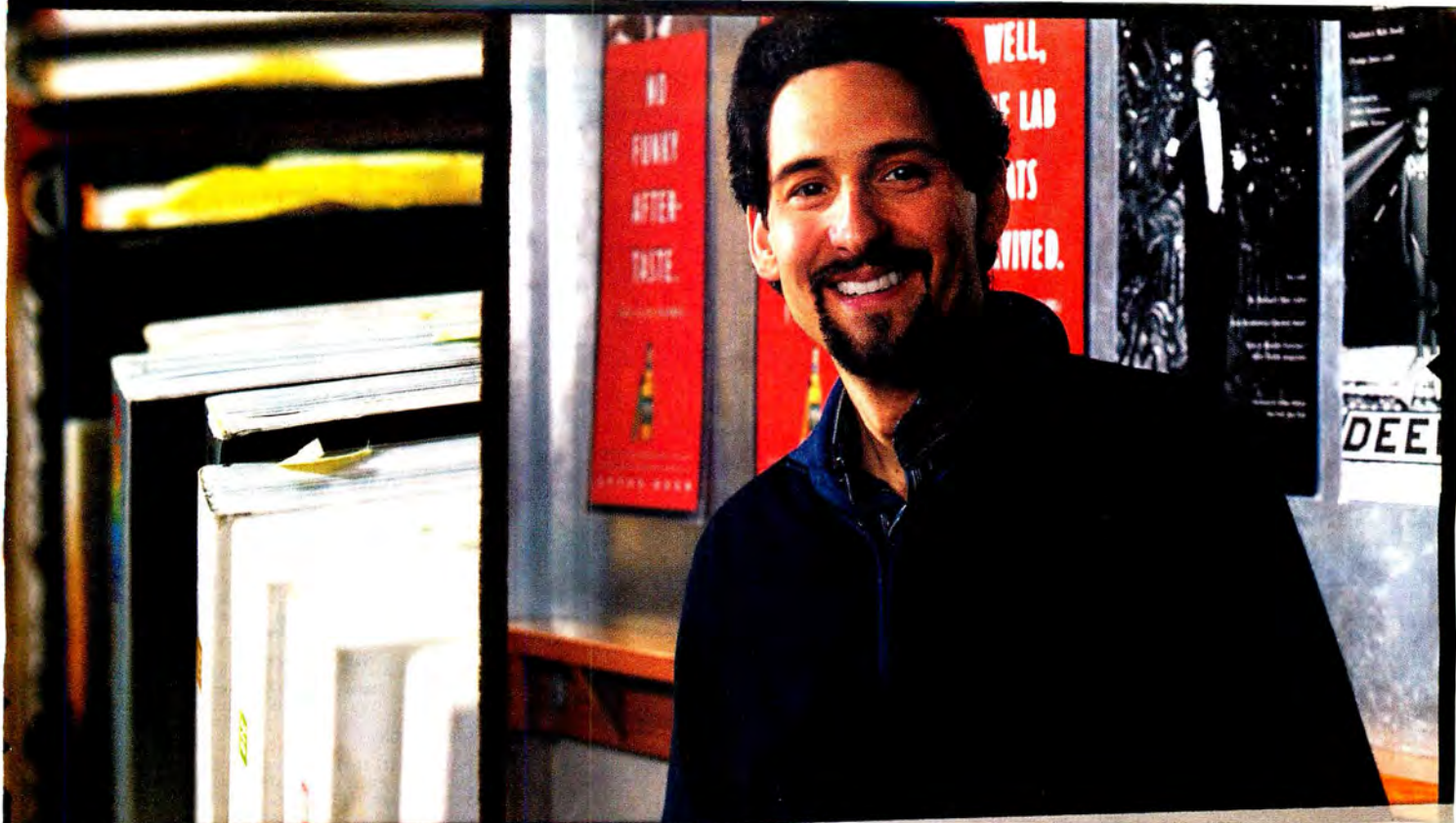
Production Director Steve Spingola
Prepress Manager Mark Frischman
Booking and Billing Manager Ricardo Sandoval

VP, Consumer Marketing Shawne Burke Pecar
Associate Circulation Director David Cobb
Director, Retention Marketing Lisa Radler
Retention Marketing Coordinator Shavon Burden
Senior Subscription Marketing Manager Linda Trinh
Subscription Marketing Manager Simon Thaler
Newsstand Consultant George Clark

April 2005, Volume 22, Issue 4

Macworld is a publication of Mac Publishing, L.L.C., and International Data Group, Inc. Macworld is an independent journal not affiliated with Apple Computer, Inc. Copyright © 2004, Mac Publishing, L.L.C. All rights reserved. Macworld, the Macworld logo, Macworld Lab, the mouse-ratings logo, MacCentral.com, PriceGrabber, and Mac Developer Journal are registered trademarks of International Data Group, Inc., and used under license by Mac Publishing, L.L.C. Apple, the Apple logo, Mac, and Macintosh are registered trademarks of Apple Computer, Inc. Printed in the United States of America.


INTERNATIONAL DATA GROUP



With a spreadsheet:

- I can list all our clients

With a FileMaker Pro database:

- I can list all our clients
- manage business leads
- sort contacts by golf averages
- organize logos, graphics, and footage
- present comps to client over the web
- share files with coworkers over the network
- link emails with job requests
- see how often client says, "I like it, but change it"
- track projects from pitch through reprints
- create detailed invoices
- note how dinner at Chez Paul was actually a work session
- stay on top of timesheets
- see who's going over budget
- check who hasn't entered time in weeks
- and view compromising photos from the company party

Easy to use. Totally customizable. With FileMaker® Pro you can manage all your important information in a way that works for you. Download the 30-day trial and see why it's the best selling easy-to-use database software available. Visit www.filemakertrial.com/mwld and get free Starter Solutions to track and organize client details, job status, digital assets, timesheets, and much more.

FREE Creative Pro Starter Kit
with 5 ready-to-use database solutions
www.filemakertrial.com/mwld



SPECIAL OFFER

Subscribe to Macworld and get 10 FREE INSTANT E-GIFTS AND BONUS CD-ROM!



10 FREE
E-GIFTS
WHEN YOU
ORDER ONLINE!

Don't miss out on this special offer! We'll rush you your first issue, and you'll receive 10 FREE downloadable Macworld Power Guides instantly. No need to pay now! We'll send you an invoice for only \$19.97, that's 79% off the cover price. Subscribe today and you'll get a Bonus CD-ROM with your paid order.

Only Macworld combines objective product testing with 20 years of market experience to give readers the perspective, advice, and inspiration to get the most out of their Mac. Each issue is loaded with authoritative product reviews, expert hints and tips, in-depth feature articles and more!



Simply order online and receive your 10 FREE E-GIFTS INSTANTLY!

www.macworld.com/subscribe

OR call 1-800-288-6848

Mention promotion code H54SMCW95

Subscriptions do not include monthly CD-ROMs.

Macworld

HOW TO CONTACT MACWORLD

Subscription Information and Services

Access your subscription account online—24 hours a day, 7 days a week—at www.macworld.com/customer_service or <http://service.macworld.com>. You can use online subscription services to view your account status, change your address, pay your bill, renew your subscription, report a missing or damaged issue, get the answers to frequently asked questions, and much more.

To start subscribing, visit <http://subscribe.macworld.com>.

U.S. Mail Macworld Subscriptions Department
P.O. Box 37781, Boone, IA 50037-0781
(If you are writing about an existing account, please include your name and address as they appear on your mailing label.)

E-mail subhelp@macworld.com
(Send your full name and the address at which you subscribe; do not send attachments.)

Fax 515/432-6994

Phone 800/288-6848 from the United States and Canada; 515/243-3273 from all other locations

SUBSCRIPTIONS

The one-year (12-issue) subscription rate is \$34.97; the two-year rate, \$59.97; and the three-year rate, \$79.97. Foreign orders must be pre-paid in U.S. funds; add \$10 per year for postage to Canada or \$25 per year for air freight to all other countries. Checks must be made payable in U.S. currency to Macworld. Please allow 3 to 6 weeks to receive your first issue or for changes to be made to an existing subscription.

BACK ISSUES OF MACWORLD

Starting with the March 2003 Macworld, back issues can be downloaded in digital format, from www.zinio.com (\$6.99; Mac OS X 10.1 or later required). Print-format back issues (subject to availability) cost \$8 per issue for U.S. delivery, \$12 for international delivery; prepayment in U.S. currency to Macworld is required. Send a check or money order to Macworld Back Issues, P.O. Box 37781, Boone, IA 50037-0781; or phone 800/288-6848 (U.S. and Canada) or 515/243-3273 (all other locations).

REPRINTS AND PERMISSIONS

You must have permission before reproducing any material from Macworld. Write to Macworld, Reprints and Permissions, 501 Second Street, 5th Floor, San Francisco, CA 94107; include a phone number. To order reprints of your company's editorial coverage, call Reprint Management Services at 717/399-1900; fax 717/399-8900; or e-mail macworld@reprintbuyer.com.

MAILING LISTS

We periodically make lists of our customers available to mailers of goods and services that may interest you. If you do not wish to receive such mailings, please write to us at Macworld, P.O. Box 37781, Boone, IA 50037-0781, or e-mail us at subhelp@macworld.com. Please include a copy of your mailing label or your full name and address.

MACWORLD EDITORIAL

The editors of Macworld welcome your tips, compliments, or complaints. Some stories and reviews from past issues can be located at www.macworld.com. We are unfortunately unable to look up stories from past issues; recommend products; or diagnose your Mac problems by phone, e-mail, or fax. You can contact Apple toll-free, at 800/538-9696, or visit the company's Web site, at www.apple.com.

Our offices are located at 501 Second Street, 5th Floor, San Francisco, CA 94107; phone, 415/243-0505; fax, 415/243-3545. Macworld staff can be reached by e-mail at firstname_lastname@macworld.com.

LETTERS TO THE EDITOR

Send comments about any aspect of Macworld to letters@macworld.com. Due to the high volume of mail we receive, we can't respond to each letter. We reserve the right to edit all submissions. Letters published in Macworld or Macworld.com become the property of Mac Publishing.

MAC 911

Send your questions or tips on using Mac computers, peripherals, or software to Macworld, Mac 911, 501 Second Street, 5th Floor, San Francisco, CA 94107; fax 415/243-3545; or e-mail mac911@macworld.com. Include your name, address, and phone number. To share tips and discuss Mac problems with other Mac users, visit the Macworld.com forums.

MACWORLD CONFERENCE & EXPO

As the flagship sponsor of Macworld Conference & Expo, Macworld encourages all subscribers to attend this exciting biannual industry event. For information, please visit www.macworldexpo.com.



© 2004 Microsoft Corporation. All rights reserved. Microsoft, Your potential. Our passion, Entourage, and PowerPoint are registered trademarks of Microsoft Corporation in the United States and/or other countries. Apple, Mac, and Macintosh are registered trademarks of Apple Computer, Inc.

Microsoft®

Your potential. Our passion.™



Cultivate your corporate self.

Focus on coming up with the idea while the other you runs it by your boss, the client, and legal. Microsoft® Office 2004 for Mac has ingenious tools that let you seamlessly share information with others, the way you and your alter ego share a desk. A smarter way to work. A smarter Office. Go to officeformac.com for a free trial.



PowerPoint Entourage Word Excel

Microsoft®
Office:mac
2004



FEEDBACK

Who Needs a Video iPod?

Last fall, rumors flew fast and furious that Steve Jobs had a big iPod announcement in the works. Lead runner in the rumor race was an iPod that would store and play videos. As it turned out, TV fans were disappointed when all Steve had to offer was the iPod photo and (oh, yeah) the biggest rock band in the universe. In his January editor's note, Jason Snell asked you what you thought: Should Apple do a video iPod? Is the photo version good enough? And you said:

iPod Photo: Your Turn

PHIL BROWN

Maybe it's anti-Apple to even think it, but I think the iPod photo is way overpriced for what it does. Maybe some folks can use all that storage. But for me, my year-old PalmOne Zire 71 does fine, and it was half the price of an iPod. It plays MP3s; has a nice, high-resolution screen for sharing photos; plays videos; and holds my calendar, contacts, Web pages, and games. Sure, the SD flash card can't hold as much as a 20GB (or bigger) drive—but how much do most of us really want to carry around? I work with professional photographers who store photos on regular iPods while on long shoots, so the photo version's screen might be helpful for them. But they carry PowerBooks for editing, anyway. For my money, a good PDA will give more bang for the buck than an iPod of any flavor.

GEORGE PETRELLA

When the first iPods came out, I was one of those people who thought, "All this hoopla for an MP3 player?" As we've since learned, the iPod was a stroke of genius. I've personally bought six iPods for myself or as gifts. That said, I don't feel any real excitement about an iPod photo. A hard-drive-based digital music player was a no-brainer: everyone from baby boomers to teens owned a portable CD player. I just don't see the same need for a device that stores and transports photos.

EDWARD HO

I see two problems with a video iPod: the content availability you mentioned, and the screen. You can't comfortably watch a feature-length movie on a 2-inch screen. Perhaps something half the size of the 12-inch PowerBook would

be welcome, provided it's also half the cost or less.

GAROLD POWELL

Apple should add more utility to the iPod photo before tackling the video market. Specifically, the company should optimize the iPod as a storage device for the new high-megapixel cameras. For someone in the field shooting at a high resolution, such an iPod would be a great (and relatively cheap) storage device—especially if you could then iSync the photos directly from the iPod to your Mac over an Internet or wireless connection. You'd shoot, store, iSync, delete, and start shooting again.

EDWIN CHAN

Should Apple do a portable video player? Yes! As a student filmmaker, I could use one to carry my movies wherever I go. I could just plug it into any screen and let people watch my short productions—it'd be an on-the-go reel.

Helpful Suggestions

WARD MUNDY

Two things I wish Mac developers would implement: I get really tired of trying to turn off my system, only to have it ask me whether I want to save the Clipboard's contents. I wish I could just select an option somewhere that would tell the Mac that I never want to save the Clipboard's contents before shutdown. (Or better yet, it could just save that stuff to disk by default. With today's multigigabyte drives, why not?) Second, how often do you send an e-mail message but forget to attach the attachment? Every e-mail client should be able to scan for the words *attachment* or *attached* in the body of an outgoing message; if it finds one of those terms in a message but

doesn't detect an attachment, it should then ask you if perhaps you've forgotten something.

Lose the JPEGs

BYRON C. KORT

Your article "Picture Your Perfect Camera" (January 2005) neglected to point out just how lossy JPEG files are. Depending upon compression, JPEGs throw away between 30 and 95 percent of the pixels that the camera captures. After reading your article, many buyers might think they could blow up JPEG images without losing image quality. But you can do that only with Raw or TIFF images.

OS 9 Debate Continues

MATTHEW THOMPSON

In the article "So Long, OS 9" (*Mac Beat*, January 2005), Glen Turpin of Quark claims that OS X offers "access to the lower levels of the system, which enables us to provide a quicker application." Ha! I work in catalog production, and most of my team still uses XPress 4.11. I can tell you from daily experience that XPress 4 running in Classic mode *easily* outpaces XPress 6 in every task, from opening and closing a document to printing and creating PDFs. Perhaps *Macworld* should run some benchmark tests to check Quark's claim.

More Web Tips

PHIL MAHLER

You didn't mention my favorite new tip for searching the Internet in your "Untangle the Web" article (December 2004): when you want to learn how to do something (for example, how to perform

red-eye reduction in Photoshop), add the word *tutorial* to your search. Following that example in Google, you'd enter "red-eye reduction" Photoshop tutorial for a tutorial on that subject.

Virtual Lockout

JAMES KERWIN

Robert Ellis's review of Microsoft Virtual PC 7 (●●●●; January 2005) left out one major drawback that the new version has: users with DSL connections that don't have static IP addresses can't access certain Web sites from virtual machines. In version 6, Connectix (the program's former developer) solved this problem by providing an AppleScript that allowed the user to switch between Shared Packet and Shared Socket networking. Microsoft omitted this script in version 7, making it impossible for a great many Virtual PC users to visit the company's own Web site, among others. (The version 6 script is not compatible with the new version.) To date, Microsoft has offered neither an explanation nor a promise of a fix.

Blatant Self-Promotion

JIM KANE

Even in this "everything's-on-the-Web-already-so-why-would-I-need-a-print-magazine?" era, print magazines such as *Macworld* are still useful. I've subscribed since 1985, and reading each issue cover-to-cover is still a high priority for me. Although I keep up with current Mac events on the Web, I invariably learn something new—several new things, in fact—from each issue of *Macworld*. I value good writing, good editing, and attractive presentation—always have—and I find those attributes in spades inside every issue of *Macworld*. They're much harder to come by online.

PETER N. LEWIS

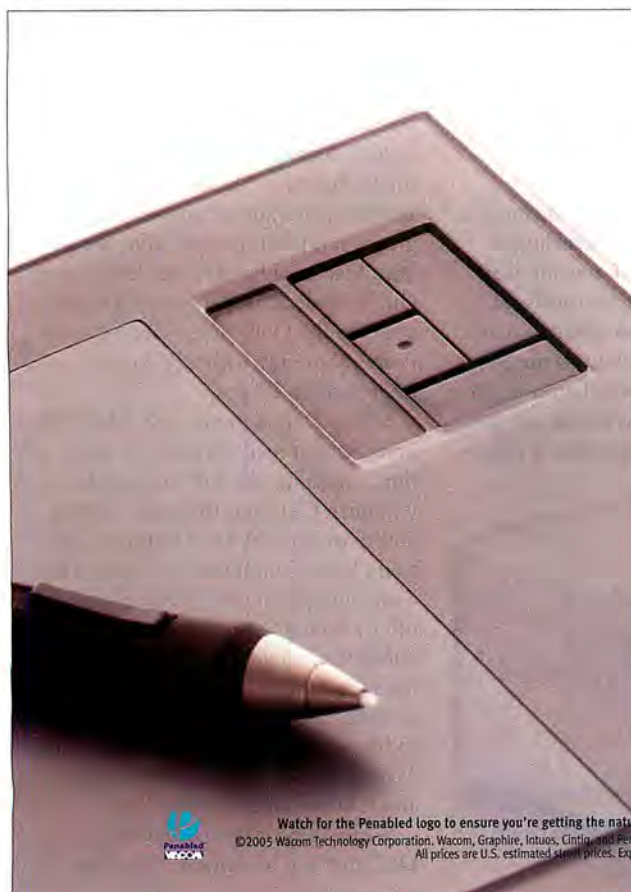
I got my first Mac and my first issue of *Macworld* in February 1984, less than a month after the now famous Super Bowl ad had aired. I still have both. I find something useful in every issue of your fine magazine, but the January 2005 issue has outdone them all. By the time I was finished tearing out the articles I

needed, articles I wanted to give to my clients, and articles I wanted to file, there was darn little left for landfill. Now that's conservation. Maybe you should just perforate the pages at the binding.

CORRECTIONS

In "Inside the iPod Photo" (*Digital Hub*, February 2005), we stated that the iPod photo wouldn't fit in the Sonnet PodFreq. Sonnet has since announced a version that will hold the iPod photo.

Post comments on our forums (www.macworld.com); send them by mail to Letters, *Macworld*, 501 Second Street, 5th Floor, San Francisco, CA 94107; or send them by e-mail to letters@macworld.com. Include a return address and daytime phone number. Due to the high volume of mail we receive, we can't respond personally to each letter. We reserve the right to edit all letters and posts. All published letters and forum comments become the property of *Macworld*.



NEW! Wacom Intuos3




The professional pen tablet for serious photographers, designers, and artists

- Patented cordless, battery-free Grip Pen for pressure-sensitive control
- ExpressKeys™ for convenient keyboard shortcuts and modifier keys
- Touch Strips for quick scrolling, zooming, brush size control, and more
- Five-button mouse that is cordless, battery-free, ball-free, and optics-free
- Valuable software included

Visit: www.i3today.com Call: 1.800.922.2589

intuos₃

AVAILABLE AT:
CompUSA, CDW.com, and WacomDirect.com

		
Intuos3 4x5 \$219	Intuos3 6x8 \$329	Intuos3 9x12 \$449

Graphire®

Have fun with your photos!
Graphire starts at \$99

AVAILABLE AT:
Best Buy, CompUSA, and Circuit City

Cintiq®

Work directly on screen!
Cintiq 21UX - \$2499

AVAILABLE AT:
B&H, CoolGraphicStuff.com, and WacomDirect.com

Watch for the Penabled logo to ensure you're getting the natural feel and superior performance of Wacom's patented cordless and battery-free pen technology.

©2005 Wacom Technology Corporation. Wacom, Graphire, Intuos, Cintiq, and Penabled are trademarks of Wacom Company Ltd. All rights reserved. All other trademarks are property of their respective owners. All prices are U.S. estimated street prices. ExpressKey is a registered trademark of Ginsan Industries, Inc. and is used with permission.

www.macworld.com

April 2005 MACWORLD 13

HOW DOES THE MAC MINI STACK UP AGAINST BARGAIN PCS?

Apples and Oranges

For years, people have criticized Macs for being more expensive than Windows PCs. The problem with that logic, however, is that Macs and PCs aren't usually configured the same. In fact, when you compare similarly equipped Macs and brand-name Windows PCs, the difference in price is negligible (or nonexistent). So legitimate price comparison has been lost on many tech pundits and analysts—as has the fact that Macs generally come with an excellent software bundle unmatched on budget PCs.

One of the rebuttals to this argument has always been “Well, what if I don't want all the extra features that come with the Mac? What if I just want a cheap, limited computer?” And it was a valid point—until Apple announced the \$499 Mac mini (www.apple.com) and undercut that argument something fierce. But the mini didn't silence the skeptics.

Soon after the announcement of the Mac mini, popular investment site The Motley Fool (www.fool.com) had this to say: “Mac fans who've been sipping Steve's Kool-Aid have often claimed that price—in addition to various Microsoft conspiracies—is the only thing keeping the masses from switching to their favorite brand, but take heed. Even if that were true, a quick online check shows you can get a comparable, full Dell system for \$450.”

ExtremeTech (www.extremetech.com) put this position most succinctly: “Let's not get too carried away about the ‘cheap’ Macintosh. It's cheap relative to past Apple systems, but you can still get a complete Wintel system for considerably less.”

Can you? I decided to find out, using everyone's favorite budget-PC maker, Dell (www.dell.com), as a point of comparison (see “Mac and PC: Side by Side” for details).

Peeled Back

The \$399 Dell Dimension includes a monitor—worth \$45, according to Dell—and a keyboard-and-mouse bundle that I value (generously) at \$20. So let's take those away to make the Dell more equivalent to the Mac mini and give it an even better apparent price: \$334. Now check out those specs—do these comput-

ers really look comparable to you? What does \$334 actually get you from Dell, as compared with what Apple's \$499 Mac mini provides?

> Both computers include only 256MB of RAM, but the Dell memory is shared between the computer and the video card. (Dell says that between 32MB and 64MB of that RAM will be used for video, leaving you with between 192MB and 224MB for the operating system and all applications, even though the company recommends between 512MB and 1GB of RAM if you want to “run several programs at once or plan to edit photos.”) The Mac mini has a faster, AGP video chip with dedicated memory. You can upgrade the Dell's video card for more money, but only with a PCI card (there's no AGP slot).

> The Dell includes a DVD-ROM drive, which reads DVDs but can't burn anything. An \$18 upgrade lets you burn CDs, but then you lose the ability to play DVDs. Want to be able to do both? You'll have to pay \$53 for a second optical drive (Dell doesn't offer a combination drive). An experienced user could do an aftermarket upgrade for less, but the target audience for these computers isn't going to be swapping drives from Fry's. The Mac mini includes a DVD-reading and CD-burning Combo drive.

> FireWire is not included on the Dell, nor is it an option. The Mac



mini—like all other Macs—includes FireWire, which is useful for digital video editing (most DV camcorders don't have USB 2.0 ports), as well as for keeping your USB ports free for a keyboard, a printer, and so on.

> The Dell comes with a 90-day warranty, compared with Apple's one-year warranty.

> The Dell runs Windows XP Home Edition, not quite comparable to Mac OS X. (I'm not talking Windows versus Mac here, I'm talking Windows XP Home versus Windows XP Professional—Pro is a better OS than Home.) Granted, some home users won't take advantage of Pro-only features, but others will. And since we're trying to compare what you actually get for your money with these systems, it's only fair to point out that the Dell doesn't include XP Pro, whereas the Mac mini comes with the same OS found on Apple's high-end Power Mac G5.

> What about software? The Dell gives you a word processor (WordPerfect), trial or starter versions of two apps, and Dell Jukebox. The Mac mini bundle includes software such as Quicken 2005 and the newest version of the iLife suite, worth half as much as the Dell's hardware alone.



Peas in a Pod? Can a low-cost Dell compete with the Mac mini? That all depends on what you're comparing.

Out of the box, the Mac mini can do just about anything a home user might need it to do. Neither system comes with antivirus software, which isn't a big deal for the Mac but is for a Windows PC. These days, using a Windows machine without antivirus software is like driving a car without brakes—you just start it up and pray.

Pared Down

To recap, in order to be somewhat comparable to the Mac mini, the Dell computer needs a better video card, an optical-drive update, FireWire, Windows XP Pro, a longer warranty, and a much better software bundle.

Does the Dell have any hardware advantages? Its larger case does include three PCI slots for expansion. But let's be realistic here: how many people in the market for a sub-\$500 computer are ever going to add a PCI card (besides the ones who realize they need a FireWire port to connect a DV camcorder)? Some might point to the Dell's faster processor, but it's a Celeron (Intel's budget processor), which means that it's nowhere near as fast as its Pentium 4 siblings. I call it a wash—both these machines are underpowered for advanced users, but both will suffice for their target market. The Dell does have more USB ports, but they share the

same (or fewer—Dell hasn't confirmed with me) number of buses you'll find on the Mac mini, which means that the Dell simply has a \$10 hub built-in. The Dell's biggest hardware advantage is that it has a faster hard drive; whether the target market for this computer will realize any benefits from this advantage is debatable.

Now there are numbers in this comparison that an ardent Dell fan—or Mac fan, for that matter—will quibble with, and this comparison, intended for a typical home user, isn't going to be perfect for everyone. (There's also the fact that Dell's prices apparently vary by the minute, and you may get a different price depending on which of the four Dell online stores you go through.) But the overall point is clear: when you attempt to configure even the cheapest Dell *comparably*, it's no longer cheaper than the Mac mini.

And then there are the intangibles the Mac mini has in its favor: no viruses; no spyware; easier setup of peripherals; a much smaller, more attractive, and quieter enclosure (6.5 by 6.5 by 2 inches and 3 pounds for the Mac mini; 14.5 by 7.3 by 16.8 inches and 23 pounds for the Dell Dimension 2400); and lower power consumption (85w maximum for the Mac mini, 250w maximum for the Dell). These attributes are worthwhile to many buyers.

Let's be honest: some people will be better served by a Windows PC. But if the buying decision comes down to price, the only way to make a truly informed decision is to look further than the price tag, comparing what is included—and just as important, what isn't. You really do get what you pay for.—DAN FRANKS

MAC AND PC: SIDE BY SIDE

Model	Mac mini	Dell Dimension 2400
Price	\$499	\$399
Processor	1.25GHz PowerPC G4	2.4GHz Intel Celeron
RAM	256MB	256MB
Graphics	ATI Radeon 9200 (32MB of dedicated VRAM)	integrated Intel Extreme Graphics (uses system RAM)
Hard drive	40GB (4,200 rpm)	40GB (7,200 rpm)
Optical drive	slot-loading Combo drive (DVD-ROM/CD-RW)	DVD-ROM (read-only)
FireWire	one FireWire 400 port	none
USB	two USB 2.0 ports	six USB 2.0 ports
Ethernet	10/100BaseT	10/100BaseT
Modem	56 Kbps v.92	56 Kbps PCI data fax
Wireless	AirPort Extreme— and Bluetooth-ready	can be added via USB or PCI
Audio	audio out	integrated audio
OS	Mac OS X 10.3	Windows XP Home Edition
Software	stock OS X apps, iLife '05, AppleWorks, Quicken 2005, Nanosaur 2, Marble Blast Gold	Internet Explorer, WordPerfect, Paint Shop Pro Studio trial, Photo Album Starter Edition, Dell Jukebox, Acrobat Reader 6.0
Warranty	one year	90 days
Display	none	17-inch Dell E773c CRT
Keyboard and mouse	none	Dell keyboard and mouse

APPLE MAKES POWERBOOKS FASTER, ADDS FEATURES, LOWERS PRICES

Speedy 'Books

Road warriors take heart: Apple hasn't forgotten about you. No, there isn't a PowerBook G5 yet—but that doesn't mean the company has stopped working on its powerful laptops. In fact, Apple has refreshed the entire PowerBook G4 line to make them faster and more powerful, and in most cases, it has lowered prices.

Top processor speeds in the PowerBooks have increased from 1.33GHz to 1.5GHz on the 12-inch models, and from 1.5GHz to 1.67GHz on the 15-inch (with SuperDrive) and 17-inch models (for all specs, see "Laptops of Luxury"). Hard drives now come in 60GB, 80GB, and 100GB sizes (the max was 80GB previously), and every hard drive in the new PowerBooks has a rotation speed of 5,400 rpm, up from 4,200 rpm on some of the previous drives. But perhaps the biggest hard-drive improvement is Apple's new Sudden Motion Sensor technology, designed to protect the PowerBook's internal hard drive:

"Our system senses if the PowerBook has been dropped and parks the disk drive's heads and locks them before the PowerBook hits the floor," says David Russell, Apple's senior director of portables and wireless marketing.

Inside Changes

Addressing a major complaint of Apple customers—especially those with harder-to-upgrade laptops—all PowerBooks now come standard with 512MB of RAM (with the same DDR333 speeds as in previous models). In addition, the 512MB populates a single RAM slot on

the 15- and 17-inch models. Previously, people who ordered systems with 512MB preinstalled at the factory would find the PowerBook's two SO-DIMM slots occupied by two 256MB memory modules. Now one SO-DIMM slot remains open—simplifying the process of upgrading to more RAM. The 15- and 17-inch PowerBooks can be upgraded to 2GB of total RAM, whereas the 12-inch models keep their one SO-DIMM slot configuration with memory upgrades available to 1.25GB.

Standard on all new PowerBooks is 3-Mbps Bluetooth 2.0+EDR (Enhanced Data Rate), which provides three times the bandwidth of Bluetooth 1.2 (and is backward-compatible). Apple claims that it's the first notebook maker to integrate Bluetooth 2.0 on its computers.

In addition, all models ship with built-in 54-Mbps AirPort Extreme wireless cards, and DVD-burning models now have 8x SuperDrives (up from 4x in previous models).

And good news for people who like to connect their PowerBooks to external monitors: the new 17-inch model now features Dual Link support through its Digital Visual Interface (DVI) monitor connector, which makes it the first PowerBook that can drive Apple's 30-inch Cinema HD Display.

Outside Improvements

Externally, Apple has made a few notable changes to the PowerBook line. First, there's a new scrolling trackpad that lets users touch two fingers to the trackpad to scroll quickly through long documents or pan within the window.

Second, all 15- and 17-inch PowerBooks now feature backlit keyboards, and they're up to 10 times brighter than those of previous models. "We're using a new technology to illuminate the bottom side of the keyboard," says Russell. The new PowerBooks are available now. The 12- and 17-inch models are \$100 cheaper, the high-end 15-inch model is \$200 less, and the other 15-inch model retains the same price as before. —PETER COHEN



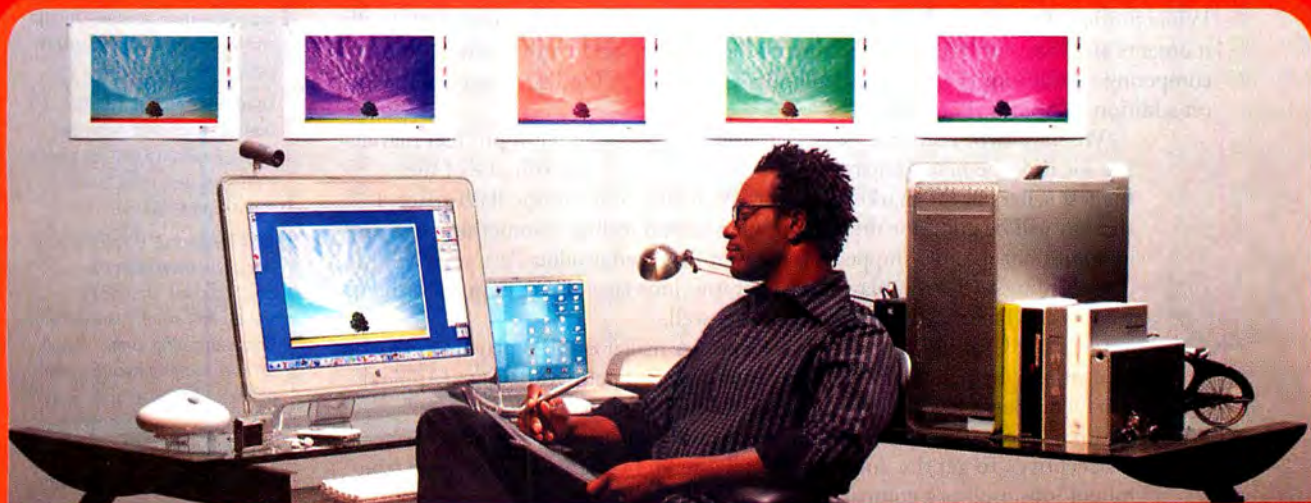
LAPTOPS OF LUXURY

MODEL	PRICE	PROCESSOR	INSTALLED RAM/ MAXIMUM RAM	HARD-DRIVE CAPACITY	OPTICAL DRIVE	GRAPHICS PROCESSOR/RAM
12-inch PowerBook G4	\$1,499	1.5GHz	512MB/1.25GB	60GB	Combo drive	Nvidia GeForce FX G0 5200/64MB
12-inch PowerBook G4	\$1,699	1.5GHz	512MB/1.25GB	80GB	8x SuperDrive	Nvidia GeForce FX G0 5200/64MB
15-inch PowerBook G4	\$1,999	1.5GHz	512MB/2GB	80GB	Combo drive	ATI Mobility Radeon 9700/64MB
15-inch PowerBook G4	\$2,299	1.67GHz	512MB/2GB	80GB	8x SuperDrive	ATI Mobility Radeon 9700/64MB [*]
17-inch PowerBook G4	\$2,699	1.67GHz	512MB/2GB	100GB	8x SuperDrive	ATI Mobility Radeon 9700/128MB and dual-link DVI

^{*} 128MB SDRAM and dual-link DVI available as build-to-order options.

Your concepts. Your vision.

(Make sure your technology can keep up.)



Monitor sold separately

Apple® PowerMac® G5

- 1.8GHz PowerPC G5 processor
- Memory: 256MB
- 80GB hard drive
- DVD-R/CD-RW SuperDrive™



\$1495 DESKTOP
CDW 707968

-30 TRADE-IN*

\$1465

Recommended Service:
AppleCare™ 3-year onsite protection plan
\$249 (CDW 442761)



Adobe® Acrobat® 7.0 Professional

- Advanced method to create, control and deliver more secure, high-quality Adobe® Portable Document Format (PDF) files
- Assemble electronic or paper files—even Web sites, engineering drawings and e-mail into reliable PDF documents that are easy to share with others using FREE Adobe® Reader™
- Manage document reviews, synthesizing feedback from multiple reviewers while preserving document format and integrity



UPGRADE
\$149
CDW 713820

FULL VERSION
\$419
CDW 713804



Nikon D70

- Maximum image resolution: 3008 x 2000 pixels
- 3.8X optical Zoom-Nikkor lens with ED glass
- Catch all the action with 3 frames per second (fps) and a dynamic buffer that lets you capture up to 144 pictures
- More speed—featuring 1/8000 second shutter speed and a synch speed of a 1/500 second for flash

Nikon

\$1299

CAMERA
CDW 594466

-100

MAIL-IN REBATE
AVAILABLE*

The Mac Solutions You Need When You Need Them.

When you're bringing ideas to life, your technology should work with you, not against you. CDW has all the top-name technology you need to improve workflow. Our account managers provide fast answers to your product questions. And with access to the industry's largest in-stock inventories, you'll get what you need when you need it. So why wait? Get new systems today and start creating tomorrow.

CDW | **mac warehouse**

The Right Technology. Right Away.™

macwarehouse.com • 800.ALL.MACS
In Canada, call 800.268.7805 • CDW.ca

Processors eligible for trade-in include PowerPC G3, G4, G5, Intel Pentium II, III 4 or Intel Celeron; AMD processors do not qualify; trade-in values are estimates only; actual trade-in values may vary from \$25 to \$100; all products must be in good working condition and have a fair market value; call your CDW account manager for details. *Call your CDW account manager about \$100 mail-in rebate; offer ends 3/31/05. Offer subject to CDW's standard terms and conditions of sale, available at CDW.com. © 2005 CDW Corporation

DIGITAL AUDIO VENDORS AREN'T AFRAID OF THE IPOD SHUFFLE

Quaking in Their Boots?

While hordes of people rushed over to the Apple Store to pick up the new iPod shuffle moments after Steve Jobs announced the product at Macworld Expo, the only thing competing digital audio vendors rushed to do was downplay the significance of the latest addition to Apple's iPod line.

"We have two reactions," says Dan Torres, vice president of product marketing for Rio, the first company to ship an MP3 player and still one of the biggest sellers in the market. "First, we welcome Apple to the flash space. I think it will be good for the market. Our second feeling is something of a disappointment—Apple shipped a somewhat neutered product."

According to Torres, players without user interfaces aren't popular with customers and historically haven't done very well.

Gary Byrd, spokesperson for iriver, another maker of MP3 players, isn't worried either. "In general, it's not seen as directly competitive, because [Apple's] product is entry-level. It doesn't have an interface or many other things."

Rio's Torres also says one of the iPod shuffle's main selling points—price—is deceptive. To get the same accessories offered by the Rio Forge Sport (the model Jobs used as a comparison), users will have to spend more money.

Even if Apple does go on to dominate the flash market (as it has with hard-drive players), that doesn't necessarily mean there isn't room in the pool for everyone.

"[The shuffle] will draw increased attention to the versatility and convenience of flash-enabled MP3 products," says Russ Ernst, senior product manager for GoVideo, sellers of the Rave-MP MP3 players.

But Apple has proved that its products do stand out from—and have a tendency to crowd out—the rest. So that added attention may not be such a good thing for other companies after all.—MATHEW HONAN

DOCTOR MAC DIRECT MAKES HOUSE CALLS—VIA THE NET

The Doctor Is In

Perhaps the most frustrating part of technical support—other than waiting on hold—is getting someone to explain clearly how to solve your problem. A new service hopes to improve that experience with a different approach.

Doctor Mac Direct (877/376-2248, www.doctormacdirect.com), the brainchild of author and *Houston Chronicle* columnist Bob "Dr. Mac" LeVitus, is Mac-only support for Apple and third-party software—with a twist. In addition to normal phone support, Doctor Mac Direct also employs a Safari plug-in for broadband users that allows a technician to control your Mac remotely to fix a problem.

LeVitus got the idea for Doctor Mac Direct, which launched at the end of January, from the technical support he used to offer for his father. "Trying to instruct him by phone was an exercise in frustration," says LeVitus, "so I set up his iMac with a copy of Netopia's Timbuktu Pro remote-

control software. Then I'd just take control of his keyboard and mouse and see what was going on for myself in real time."

Whether you have a question about Microsoft Word or need OS X migration support, you place a call or fill out an e-mail form. Within an hour (during normal business hours), Doctor Mac Direct matches you up with an expert with at least five years of experience (and hired by Czar of Technical Stuff and *Macworld* Contributing Editor Ted Landau), who'll call you with an estimate for fixing your problem. Whatever the estimate (rates start at \$30 for 15 minutes), the company promises that if it takes longer than estimated, you won't be charged extra—and if Doctor Mac can't fix the problem, it won't charge you.

The Safari plug-in requires no configuration and can even work behind a firewall. And rest easy—the company requires your go-ahead each step of the way.—JONATHAN SEFF

PRODUCTIVITY
BEAT

4D Meetings 1.0, from 4D (www.4d.com): Meeting and task-management system provides contact-management, group-creation, archive-storage, and report-generation capabilities (free).

LeadingReporter 1.0, from CS Odessa (www.leadingproject.com): Reporting tool for project managers generates business-event reports (\$149).

OD4Contact 2, from Objective Decision (www.objective-decision.com): Updated personal information manager adds Communication Center module for sorting and filtering e-mails, phone calls, postal mail, and faxes by person, date, or type (\$55; upgrade, free).

TopXNotes, from Tropical Software (www.tropic4.com): Note-editing and -organizing utility features the ability to add embedded links and create a unique setting for each user. It provides ten templates (\$20).

xTime Project 3, from App4-Mac (www.app4mac.com): Project-management software features new engine and user interface and adds support for managing multiple projects (\$129; upgrade, free).

IMAGING
BEAT

Dimage Z5, from Konica Minolta (www.konicaminolta.com): Five-megapixel camera offers 12× optical and 4× digital zoom, along with Konica's Anti-Shake system (contact Konica for pricing).

Dimage Z20, from Konica Minolta (www.konicaminolta.com): Five-megapixel camera features 8× optical and 4× digital zoom (contact Konica for pricing).

IconLab, from Zonic (www.zonic.co.uk): Photoshop plug-in allows users to export and import icon graphics (\$25).

PowerShot A510, from Canon (www.canon.com): 3.2-megapixel camera features 3× optical zoom and a slot for SD storage cards (\$200).

Wanted: Control Freaks!



DiskStudio™ allows you to create and remove disk partitions on the fly! Want to create a new partition for games or photos? No problem. Want to get rid of that old OS 9 partition without backing up and reformatting your drive? It's easy.

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



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



Micromat Inc. 800-829-6227 707-566-3831 info@micromat.com www.micromat.com

©2005 Micromat, Inc. All rights reserved. DiskStudio, PodLock and TechTool are trademarks of Micromat, Inc.

Choose 37 at www.macworld.com/getinfo

HOTELS BEGIN OFFERING IPODS TO GUESTS

Enjoy Your Stay

Guests at upscale hotels have become accustomed to 600-thread-count Egyptian-cotton sheets, pool concierges, and travel butlers. But the latest offering for travelers in search of the ultimate experience is even cooler: iPods.

Instead of the compact-disc players—and never enough CDs to satisfy every musical taste—once offered at luxury hotels, W Hotels Worldwide now has iPods at all of its locations.

"iPods are the epitome of cool technology right now," says Jane Glastein, public relations director for W Hotels, "and we see ourselves being at the forefront of that."

Suite guests at all W hotels can request an iPod, which is loaded with more than 50 songs from the W's handpicked Fantasy, Intrigue, Relaxation, Romance, and Sensual-

ity iMixes from a variety of musical genres. (The San Francisco W has iPods in all of its suites, and the Los Angeles W has iPods available for use by the pool.)

Michelle Payer, a spokesperson for Ritz-Carlton hotels, says that the company's Key Biscayne, Florida, location will begin offering iPods this summer—a way to appeal to the sophisticated traveler.

"We will have ten of them and offer them at no charge," Payer says. "The music selection will be varied and guests can [purchase and] download extra tunes [from the iTunes Music Store] with our assistance."

Other hotels offering iPods include Rosewood Hotels & Resort (currently at Las Ventanas al Paraíso in Los Cabos, Mexico, and soon at Jumbay Bay in Antigua), La Samanna Baie Lounge in Saint Martin, the Crescent Hotel in Beverly Hills, the One & Only Ocean Club in Los Cabos, and the Hard Rock Hotel in Chicago. —ADELIA CELLINI

ELEKTRON SECURES SMALL WI-FI NETWORKS

AirPort Protector

AirPort has changed the way many of us look at networking. One problem, however, is that wireless networks are relatively insecure. Their radio waves penetrate walls and spill out into the streets, and a ne'er-do-well with free software can sniff out your every move (even if you use encryption).

If you use Wi-Fi at home, you might not care. But for businesses, information is money. A Wi-Fi network is also a portal to less-protected computers that might not expect attacks from outside the network, or to file servers that are wide open.

Businesses now have an affordable way to turn on the highest level of Wi-Fi security, with Corriente Networks' \$300 Elektron server software package (www.corriente.net). Normally, each computer on a network shares the same encryption key for connecting to the network. If that key is disclosed—on a sticky note, for example—or cracked, the network is wide open. Elektron offers individual Wi-Fi accounts with unique, long (read: hard-to-crack) encryption keys of the strongest variety now available, for an unlimited number of users.

Elektron takes advantage of WPA (Wi-Fi Protected Access) Enterprise, a method of allowing a central repository of user logins across many Wi-Fi base stations, whether on a local network or at remote offices. It's built on the 802.1X protocol—server software of this kind typically costs thousands of dollars.

When configured with any of Apple's base stations or most other Wi-Fi gateways, Elektron accepts connection requests, validates information, and assigns each person a key. Users cannot access the network until the Elektron server gives permission via the Wi-Fi gateway.

With Elektron, IT administrators can delete user accounts if information is revealed or when employees leave, instead of modifying every computer on the network. Preventing that hassle alone may be worth the money. —GLENN FLEISHMAN

MULTIMEDIA
BEAT

Combustion 4, from Discreet (www.discreet.com): Desktop compositing software adds Diamond Keyer, custom capsules, a merge operator, and enhanced paint functions (\$995; upgrade, \$249).

GuitarPlug, from MacMice (www.dvforge.com): USB audio device features a quarter-inch guitar plug and converts an analog signal to a 16-bit 48kHz USB audio signal compatible with Apple's GarageBand or Logic (\$50).

iStabilize 2.0, from Pixlock (www.istabilize.de): Video-stabilization software adds a redesigned motion tracker that's faster and more accurate than its predecessor (\$59; upgrade, \$24).

Kontakt 2, from Native Instruments (www.ni-kontakt.com): Updated sampler software features new sampling engine with unlimited polyphony and 64-part multitimbrality (\$579; upgrade, \$169).

MX4 2.0, from Mark of the Unicorn (www.motu.com): Hybrid synthesis engine adds phaser, flanger, and reverb effects, as well as hundreds of new presets (\$295; upgrade, free).

ThemePak and **ButtonPak**, from DVDThemePak.com (www.dvdthemepak.com): Collections have been updated for Apple's iDVD 5.0 (\$29–\$49).

INTERNET
BEAT

Captain FTP 4.0, from XNet Communications (<http://captainftp.xdsnet.de>): Updated FTP client adds the ability to open new FTP connections in tabs within a single window, as well as built-in viewers for video, audio, image, and PDF files (\$25; upgrade, free with upgrade protection or \$19).

Net Tool Box 3.0, from Charlie Boisseau (www.nettoolbox.net): New version of networking utilities suite adds network statistics tracking, an SMTP tool for sending e-mail, and the ability to better filter network traffic (£20 [about \$38 at press time]).



Creatives

Put yourself in the driver's seat. And set your creativity free.

Test drive the HP Designjet 130 series printer for 30 days—free! Shift your creativity into maximum overdrive with the versatile new HP Designjet 130 series printer! With prices starting at just \$1,295[†], the HP Designjet 130 series printer is an affordable, six-color, multi-format printer that lets you transform your vision into a colorful blaze of creative genius. Easily create professional, photo-quality proofs and prints that resist fading for 82 years*—from postcard-sized to poster-sized output—with HP Premium Plus Photo papers. Offering superior image quality and strong, vibrant color, the HP Designjet 130 series printer is ideal for comping, proofing and final output—whatever your needs may be.

And now you can experience the quality and performance of the HP Designjet 130 series printer for yourself by taking it out for a test drive! With the HP Total Test Drive program, qualifying photographers and graphics professionals will have the opportunity to try the printer free, for up to 30 days. The HP Total Test Drive program only lasts February 1, 2005 through April 30, 2005, so shift into high gear and visit www.hp.com/go/drive4 today!



HP DESIGNJET 130 SERIES PRINTER

\$1,295[†] Starting at

- Supports oversized output up to 24 in x 50+ ft
- Features 2400 dpi and 4 picoliter ink drop size

Printers for creatives. What you print is your business. How you print is ours.

CLICK

www.hp.com/go/drive4

CALL

1-800-888-5858



*Preliminary results from tests conducted by Wilhelm Imaging Research, Inc. indicate that prints made with HP 85 ink cartridges and HP Premium Plus Photo and HP Proofing Gloss Paper may be displayed indoors under glass for approximately 82 years before noticeable fading and staining will occur (visit: www.wilhelm-research.com for full details).

HP Total Test Drive program: LIMITED TIME ONLY: FEBRUARY 1, 2005–APRIL 30, 2005 OR WHILE SUPPLIES LAST. Open only to companies operating in the field of graphic design or professional photography; participant representative must be a purchasing manager or have purchasing discretion and authority, 18+ or older, U.S. companies/resident only. Participant must meet qualifications required in the Try HP and HP Total Test Drive programs. Subject to additional terms and conditions; credit approval required. See www.hp.com/go/drive4 for program details. This promotion is valid only in the U.S. Some images simulated. The information contained herein is subject to change without notice.

[†] Estimated U.S. retail price, actual price may vary.

© 2005 Hewlett-Packard Development Company, L.P.



GUITAR MAKER GIBSON UNVEILS ETHERNET AXE

Les Paul Goes Digital

In a quiet meeting room at January's NAMM (National Association of Music Merchants) music trade show in Anaheim, California, Henry Juskiewicz opens a guitar case to reveal the future of Gibson instruments—the digital guitar (www.gibsondigital.com).

"Guitar players have a love affair with their guitars," says Juskiewicz, Gibson's CEO. "To date, technologies have missed the mark—a great technology enhances your life, and our design philosophy was to make it invisible to the player."

Carrying the familiar Les Paul name and style, the new instrument, which has been 11 years in the making, is both a traditional guitar with a 1/4-inch analog plug and a digital guitar with an Ethernet port. Looking at the guitar from the front, you would never guess that Gibson had been able to fit 1,100 extra components behind the jack plate.

The Hex Pickup in the digital guitar captures a separate signal for each string and sends it to the onboard digital converter, which uses Gibson's MaGIC digital transport technology to send the signal out of the guitar via the Cat-5 Ethernet cable. The cable is capable of carrying the signal 100 meters with no latency issues or loss of quality, according to Juskiewicz. Plug the cable into the included Breakout Box, which converts the digital information back to analog, and you can then monitor, record, place, or customize the sound of each string individually—something you can't do with a traditional guitar.

Gibson has made plans for future technology updates: Juskiewicz says the entire board that controls the digital part of the guitar can be replaced, effectively updating the instrument with the newest technology from Gibson.

"It will definitely be for the bleeding-edge player," says Juskiewicz. "It is indeed the future of Gibson and the industry."—JIM DALRYMPLE

SAN FRANCISCO BAND REPLACES DRUMS WITH A PAIR OF iBOOKS

Sans Skins

Including computers in a band setup is nothing new, but San Francisco's LunaGroove (www.lunagroove.com) has gone one step further—completely replacing a traditional drum kit with two iBooks.

Alex Theory, who runs the Macs on stage, uses two 1GHz iBooks to power the band's drums and the overall feel of the music. Using Ableton's Live, Propellerhead Software's Reason, and DigiDesign's Pro Tools, Theory mixes and assigns beats to his iBooks' keyboards, changing beats on-the-fly depending on the mood of the crowd.

"We are completely interactive and fluid with the audience," says Theory. "We have taken what a DJ does and incorporated it into a band."

The band's guitarist, Jimmy Leslie (who doubles as a music journalist), says that with Theory set-



ting the beat, the band can quickly transition what it's doing based on the vibe it gets from the people—without having to stop. Leslie still rips out solos, as any good jam-band guitarist should, but the overall feel is different.

"People still love guitar solos, but they

are just tired of hearing it done the same old way," says Leslie.

According to Leslie, LunaGroove differs from others who have tried to use computers onstage because the band's sound isn't too electronic, and it's not trying to make traditional instruments sound electronic. LunaGroove's approach is to incorporate the effects seamlessly into the music.

"The way the band works is like a futuristic jazz trio," says Leslie.—JIM DALRYMPLE

CREATIVE BEAT



Maya 6.5, from Alias (www.alias.com): Update to 3-D-modeling, -animation, and -rendering program has been optimized for improved performance and includes scene-segmentation and Step translator features (Maya Complete, \$1,999; upgrade, \$899; Maya Unlimited, \$6,999; upgrade, \$1,249).

Vue 5 Infinite, from E-on Software (www.e-onsoftware.com): Software for creating natural 3-D environments offers all the features of Vue 4 Professional along with EcoSystem technology for populating scenery with animated plants, rocks, and objects (\$599; upgrade, \$199).

Vue 5 Pro Studio, from E-on Software (www.e-onsoftware.com): Software combines E-on's Vue 5 Esprit 3-D-imaging and -animation program with the Botanica, LightTune, DeepAccess, and Mover 5 add-on modules (\$399; separate pricing available for Vue 5 Esprit and modules).

STORAGE BEAT



Drive Genius, from ProSoft Engineering (www.prosofteng.com): Suite of utilities optimizes, rebuilds, tests, benchmarks, initializes, partitions, and duplicates hard drives (\$99).

Mahana II FW800, from TikiMac (<http://kahuna.tikimac.com>): External hard drive featuring a pair of FireWire 800 ports and FireWire 400 and 800 cables comes in 500GB–1.2TB capacities (\$439–\$1,289, depending on capacity).

Mercury On-the-Go, from Other World Computing (www.macsales.com): Portable 2.5-inch external hard drive with a 5,400-rpm mechanism now comes with a 100GB capacity (\$320).

Thunder Pro AV, from EZQuest (www.ezq.com): Line of external hard drives features three FireWire 400 ports and comes in 160GB–400GB capacities (\$249–\$699, depending on capacity).

© 2004 Microsoft Corporation. All rights reserved. Microsoft, Windows, and "Your potential. Our passion." are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. Apple, Mac, and Macintosh are registered trademarks of Apple Computer, Inc.

Microsoft

Your potential. Our passion.™








Let the PC world come to you.

Copy and paste. Drag and drop. Switch between Mac and Windows® applications as easily as clicking between documents. Microsoft® Virtual PC for Mac Version 7 lets you run PC programs on your Mac like a pro — sans the suit and tie. See it work at www.microsoft.com/mac



Microsoft
Virtual PC for Mac
VERSION 7

REVIEWS

OUTSTANDING: 
 VERY GOOD: 
 GOOD: 
 FLAWED: 
 UNACCEPTABLE: 

Reviews you can trust: Macworld rates only final shipping products, not prototypes. What we review is what you can actually buy.

Mac Mini

Perfect Bookshelf Box for Mac Minimalists

BY JENNIFER BERGER

When Steve Jobs unveiled the Mac mini at Macworld Expo in January, the reaction was a mix of amazement at its tiny size and uncertainty about whether a high-quality Mac could be housed in such a small box. After all, Mac veterans haven't forgotten the ill-fated Power Mac G4 Cube, Apple's other diminutive desktop Mac.

But the Mac mini is different. It's a stand-alone box designed for regular folks who want to do basic tasks, and it costs as little as \$499. It may just be the perfect upgrade for many Mac users, as well as Windows-to-Mac switchers who already have monitors, keyboards, and mice.

We've given the Mac mini a thorough going-over (see "Inside the Mac Mini," page 52, for more details)—and we can now report that although it has flaws, such as an unacceptably tiny amount of RAM, many people will find it to be the perfect Mac.

The Setup

Taking the Mac mini out of its box is a one-handed operation, since the computer weighs about 3 pounds, has a mere 6.5-inch-square footprint, and is 2 inches high. An elegant brushed-aluminum box with curved corners, it can stand flat or on its side. The rubberized bottom guards against slipping and raises the Mac mini up off your desk so air moves out of the unit. Like the iPod, it has an easily scratched white Lucite top.

Connecting a display is quick work: the



DVI outlet can work with a VGA monitor, and you can also use Apple's \$19 DVI-to-video adapter to watch slide shows and movies on a TV.

The back of the mini offers a row of air vents, the power button (which can be a little hard to find when you reach behind the mini), a headphone and audio-out port, an Ethernet jack, a modem jack, a power-adaptor slot, and a security slot. The Mac mini has only two USB 2.0 ports, and you'll have to connect (daisy-chain) multiple FireWire devices to one another if you want them to access the mini's sole FireWire 400 port at the same time. The only port some people will miss is an audio-in.

Mini Choices

The Mac mini comes in two configurations: the \$499 model has a 1.25GHz G4 processor, 256MB of RAM, a 40GB hard drive, and a Combo drive (CD-R, CD-ROM, DVD-ROM). The \$599 model has the same specs as the \$499 model, except it has a 1.42GHz processor and an 80GB hard drive. The price will climb quickly if you opt for extras such as 512MB of RAM for \$75, a 4x SuperDrive for \$100, Bluetooth for \$50, and an AirPort






Extreme card for \$79 (or both wireless options for \$99). The standard hardware may sound sparse, but the mini's software bundle is well rounded. It includes iLife '05 and other Apple apps, such as Mail, Address Book, and iCal. These really add value to the package.

Apple also includes 90 days of free phone support and a one-year limited warranty, extendable to three years if you purchase the \$149 AppleCare Protection Plan.

Decent Performer

Although the Mac mini is a desktop machine, many of its components—the hard drive, optical drives, processor, and graphics card—match those in the iBook G4. So don't expect the same kind of performance from this machine that you get from an eMac or iMac (see the benchmark). In fact, our test results showed that the 1.25GHz Mac mini was slower overall than a 1.25GHz eMac G4.

We used the mini with 512MB of RAM for hours and were very happy with its speed and responsiveness, but with only the stock 256MB DIMM, performance seemed very sluggish. You can upgrade the mini's RAM, but there's only one DIMM slot, so you'll

	Speedmark 3.3	Adobe Photoshop 8.0	Cinema 4D XL 8.5	Compressor	Finder	iMovie HD	iTunes 4.7	Unreal Tournament	
	OVERALL SCORE	SUITE	RENDER	MPEG-2 ENCODE	DUPLICATE FILE	RENDER	MP3 ENCODE	FRAME RATE	
Mac mini G4/1.25GHz		117	2:31	5:26	15:03	0:41	1:27	2:50	17.2
Mac mini G4/1.42GHz		123	2:12	4:52	13:56	0:51	0:59	2:32	17.5
eMac G4/1.25GHz		129	2:14	5:28	14:04	0:26	1:05	2:53	16.4
iMac G5/1.6GHz		153	2:06	3:25	11:10	0:33	0:45	2:04	34.7
	>Better	<Better	<Better	<Better	<Better	<Better	<Better	>Better	
BEST RESULTS IN BOLD . REFERENCE SYSTEMS IN <i>ITALICS</i> .									
<p>Speedmark 3.3 scores are relative to those of a 1GHz eMac G4, which is assigned a score of 100. Adobe Photoshop, Cinema 4D XL, Compressor, Finder, iMovie, and iTunes scores are in minutes:seconds. All systems were running Mac OS X 10.3.7 and had 512MB of RAM. 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 Compressor's Fast Encode preset. We duplicated a 500MB file in the Finder. We tested MP3 encoding with an audio-CD track that was 45 minutes long, converting it from the hard drive using iTunes' High Quality setting. We used iMovie to export a movie that was 1 minute and 40 seconds long to QuickTime: Email. We used Unreal Tournament's Antalus Botmatch average-frames-per-second score; we tested at a resolution of 1,024 by 768 pixels. For more information on Speedmark 3.3, visit www.macworld.com/speedmark. —MACWORLD LAB TESTING BY JAMES GALBRAITH</p>									

24 Apple desktops

Mac mini G4/1.25GHz
Mac mini G4/1.42GHz

25 Apple music player

iPod shuffle

26 Photo-storage and -viewing devices

Epson P-2000
Nikon Coolwalker MSV-01
SmartDisk FlashTrax

28 Dual-layer 16x DVD burners

EZQuest Boa 16x DVD±RW Double Layer FireWire
Iomega Super DVD Writer 16x Kanguru Quicksilver 16x QS-FW DVDRW FireWire
LaCie d2 DVD±RW 16x FireWire with Double Layer
OWC Mercury FireWire/USB2 D108 DVD±RW

Plexor PX-716UF

Sony DRX-710UL/T

30 Customer-relationship-management software

DayLite 1.7

31 Video-compression utility

Sorenson Squeeze 4 Compression Suite

32 Monitor-calibration packages

ColorVision Spyder2Pro Studio
GretagMacbeth Eye-One Display 2
X-Rite Monaco OptixXR Pro

35 Cataloging software

Delicious Library 1.0.6

37 Database program

Panorama V

38 Top Products**40 The Game Room**

Chessmaster 9000, Postal 2: Share the Pain, Parasol Wallop, Apelron X, and a first look at Close Combat: First to Fight

48 Mac Gems

Digital Hotspotter, Jiggler, RePorter, and CLIX

need to buy a 512MB DIMM to replace the 256MB one.

We encountered one surprise when we tested the hard-drive-access speed. The 1.25GHz Mac mini beat the 1.42GHz model by 10 seconds because the 1.25GHz model's 40GB drive runs at 5,400 rpm, not the 4,200-rpm speed indicated in Apple's specs. The 1.42GHz model's slower 80GB drive did run at 4,200 rpm. (Note that Apple could ship minis that are true to spec at any time.)

Other components worked as expected. AirPort reception is good, and the mini is relatively quiet. Not surprisingly, the mini's built-in speaker is weak, so you'll want to connect external speakers or headphones. In our many hours of testing, the Mac mini did not generate much heat, probably due to its well-designed venting system and external power brick.

Macworld's Buying Advice

The Mac mini is a stellar bargain if you want a tiny machine that lets you do basic tasks. It's especially attractive if you already have the necessary peripherals. For a power user, it can be a monitorless e-mail, Web, or file server with remote-control applications. Only you can decide whether the 1.42GHz model's faster processor and 40GB of additional storage are worth another \$100. If you don't have all the external pieces, we recommend that you look at the excellent 17-inch iMac G5/1.6GHz (★★★★; December 2004, find macworld.com/0172), priced at \$1,299. □

MAC MINI G4/1.25GHZ

RATING: ★★★★★

PROS: Small and light; good video-out options; excellent design; fast enough for basic tasks.

CONS: Doesn't come with enough memory; hard-to-find power button on back of unit; performance not as good as similar, larger Macs; no audio-in port.

PRICE: \$499

COMPANY: Apple Computer, www.apple.com

MAC MINI G4/1.42GHZ

RATING: ★★★★★

PROS: Small and light; good video-out options; excellent design; fast enough for basic tasks; large hard drive.

CONS: Doesn't come with enough memory; hard-to-find power button on back of unit; no audio-in port.

PRICE: \$599

COMPANY: Apple Computer, www.apple.com

iPod Shuffle

Smallest, Most Affordable iPod Is a Very Big Deal

BY CHRISTOPHER GREEN

Not content to dominate just the middle and the high end of the portable-music-player market, Apple is now after the low end, too—with the iPod shuffle, the smallest and most affordable iPod yet. Available in 512MB (some 120 songs) and 1GB (240 songs) versions, for \$99 and \$149, respectively, the shuffle is the only iPod that lacks a display.

Play

The iPod shuffle sounds as good as any iPod, but it's about the size and weight of a pack of gum. The controls are responsive and reasonably intuitive. There's no hard drive, so skipping isn't a concern.

Apple's tiniest iPod communicates via three LEDs: On the front, a status light blinks green when you plug the shuffle into a USB port or click on the play/pause button. Another blinks orange when you disable the buttons. On the back of the device, the battery-status button's LED gives you a general idea of the remaining battery charge. I wish there were an indication of when you'd reached the midpoint of your charge. Apple promises at least 12 hours of play time, but my 512MB shuffle played for more than 17 hours on a single charge—impressive.

Control

An iPod just isn't an iPod without some kind of Click Wheel controller, and the iPod shuffle is no exception. The device has a play/pause button in the middle of a four-way clickable ring that offers volume-up, volume-down, fast-forward/next, and rewind/back controls.

On its back, the iPod shuffle has a simple, three-position toggle switch that turns the iPod off, plays its playlist in order, or flips it into Shuffle mode to play songs randomly. A green stripe helps you see the switch's position, but it's too easy to slip into Shuffle mode. And the only way to tell whether the iPod shuffle is playing is to plug headphones in.

When you pull the far-too-easy-to-lose cap from the tip of the iPod shuffle, you'll see a USB connector for linking it to a computer or an optional power adapter (\$29). USB is convenient because you don't have to carry a cable; however, without the optional power adapter, you must charge the shuffle with a computer. Also, the USB connector won't fit on some Macs. Apple accessories can help, but they're expensive, compared with the shuffle.

iTunes Additions

Unlike other iPods, the iPod shuffle can't play uncompressed AIFF or Apple Lossless files, which consume a lot of storage space (though it can play uncompressed Windows WAV files). By default, iTunes converts AIFF and Apple Lossless files to 128-Kbps AAC files.

iTunes 4.7.1 has a new Autofill feature that picks songs from your iTunes music library or from a designated playlist. The shuffle doesn't support iTunes EQ settings but does support start- and stop-time settings. The shuffle will play audiobooks, but iTunes' Autofill function won't automatically add them to the shuffle.

Macworld's Buying Advice

The iPod shuffle is designed for people who want the convenience of throwing a subset of their music collection onto a \$99 or \$149 device that doesn't skip, sounds good, and plays their favorite tunes at the press of a button. □



RATING: ★★★★★

PROS: Inexpensive; good sound; good battery life; easy iTunes controls.

CONS: No display; LEDs can be cryptic; connecting to some computers requires add-on accessories.

PRICE: 512MB model, \$99; 1GB model, \$149

COMPANY: Apple Computer, www.apple.com

Photo-Storage and -Viewing Devices

New Class of Photography Hardware Makes a Big Splash

BY JACKIE DOVE

Until recently, the best way to make sure you didn't lose your freshly shot digital photos was to keep a PowerBook strapped to your side so you could wipe your memory card, view your images, and organize your work. Other options included buying additional memory cards and using an iPod as a storage device. None were optimal solutions.

Handheld storage-and-playback devices—a new product genre—are designed for professional photographers and go a long way toward solving this problem. Part massive hard drive and part high-quality photo viewer, these devices feature gigabytes of storage space, high-quality LCD screens, and video-out connections for viewing images on a TV without the need of a computer. Some even let you crop and print without using your Mac, and some can play music and video files.

I tested three of these new products: Epson's P-2000, Nikon's Coolwalker MSV-01, and SmartDisk's FlashTrax. All these players can display JPEG and some Raw image formats, and all support USB 2.0 for speedy uploading and downloading of image files to your computer. Each sports a large, bright LCD screen with various zoom levels, and each supports most types of camera-storage media, either natively or via third-party adapters. All can send images to your TV through their video-out ports, and the Coolwalker and the FlashTrax ship with remote controls.

Nikon Coolwalker MSV-01

Nikon's Coolwalker is an extremely compact and stylish piece of equipment that holds 30GB of data. Straight out of the box, the Coolwalker is handy and easy to use. It's small, it has an unambiguous interface with iPod-style click-wheel buttons, and it has an easy-to-understand hierarchical folder-navigation system. And Nikon's inclusion of a convenient histogram was thoughtful.

But the Coolwalker's utility is diminished by what Nikon likely perceived as a strength: it's specifically designed to be used with Nikon digital SLR cameras and certain Coolpix point-and-shoot models. If you're shooting with another brand of camera, the device won't display Raw images (though it does display TIFFs and JPEGs from other cameras), and its audio functions, such as playback of voice notations with photos and MOV or WAV video files, work only with files generated by Nikon cameras.

The unit's LCD, at 2.5 inches, is not large enough, despite the screen's excellent quality. Images are bright and easy to see, and the viewing angle is wide, without color

or image distortion as you view the display from either side. However, the colors seem a bit flat.

File transfers are relatively fast: in our tests, it took about 2 minutes and 42 seconds to transfer 256MB of images from a CompactFlash card to the device, and it took 1 minute and 43 seconds to transfer 1GB of images to my computer via the device's USB 2.0 connection. Playback time is a bit sluggish, though; the unit took a few seconds to switch from one full-screen image to another, and to move or remove images. The Coolwalker's battery life is between 1.5 and 2 hours—nothing to write home about.

Menus containing shooting data such as aperture, shutter speed, ISO, white balance, and other EXIF information are easily accessible, but they're superimposed on the image, which makes them difficult to read. To see all the EXIF data, you must cycle through five separate screens.

The Coolwalker has some frustrating quirks. For example, you must use the remote control to rotate a shot, because the unit has no rotate button. Editing is a one-shot-at-a-time operation; there's no way to select a group of images to move or delete, though you can designate multiple images on a single print order.

The device has too many limitations for me to recommend it as an all-around viewer,

Nikon Coolwalker MSV-01 This compact viewer and hard drive is designed to work with Nikon cameras.



Epson P-2000

This device's large, brilliant screen does your pictures justice.

unless you use a Nikon camera, and even Nikon users might benefit more from one of the other photo viewers I looked at.

Epson P-2000

For these photographic viewers, display size makes a big difference—and the Epson P-2000's brilliant, 3.8-inch LCD comes closest to replicating your original photographic vision. The P-2000 has a comparatively huge LCD screen, and the device also works as a video and MP3 player. Its screen's colors are bright and have excellent contrast, and you can use its friendly, icon-based navigation system to see full-screen images. The P-2000 is a tad heavier and bulkier than the Coolwalker, but its diverse functions make it more flexible and convenient.

You can rotate, move, or choose multiple images for printing at the same time, and you can choose between a number of professional and slick slide-show transitions. The P-2000 directly supports Raw images from camera manufacturers such as Canon and Nikon, and of course Epson, and it plays movie formats such as AVI and MOV generated from any camera.

The P-2000's battery lasts 2.5 to 3 hours. It took about 1 minute and 42 seconds to transfer images from a full 256MB CompactFlash card to the unit, and 1 minute and 11 seconds to transfer 1GB of images from the unit to a computer.

The device's display maintains a high level of image quality at disparate viewing angles. You can toggle EXIF data on and off; the information appears on a gray background that covers half the selected image—it isn't superimposed directly over the image, as with the Coolwalker. All shooting information is shown on one screen, but there is no histogram.

This unit can play popular audio and video formats, and it does a fine job with both. You can even set music to play with your slide shows.

But the P-2000 has its downsides. You can't include Raw photos in slide shows or enlarge or rotate them, though Epson is

planning firmware upgrades to improve support in the future. The unit will not display TIFFs, and you can use only certain Epson printers to print your images. When we printed, sometimes the printer cut off part of the image and did not print as the P-2000's or the printer's preview indicated.

SmartDisk FlashTrax

SmartDisk bills the FlashTrax as a multimedia player, but it's primarily targeted at photographers. It comes in three hard-drive sizes—20GB, 40GB, and 80GB. This device has many useful and convenient features: the body is compact, functional, and quite stylish, and you can shut the unit to protect the screen.

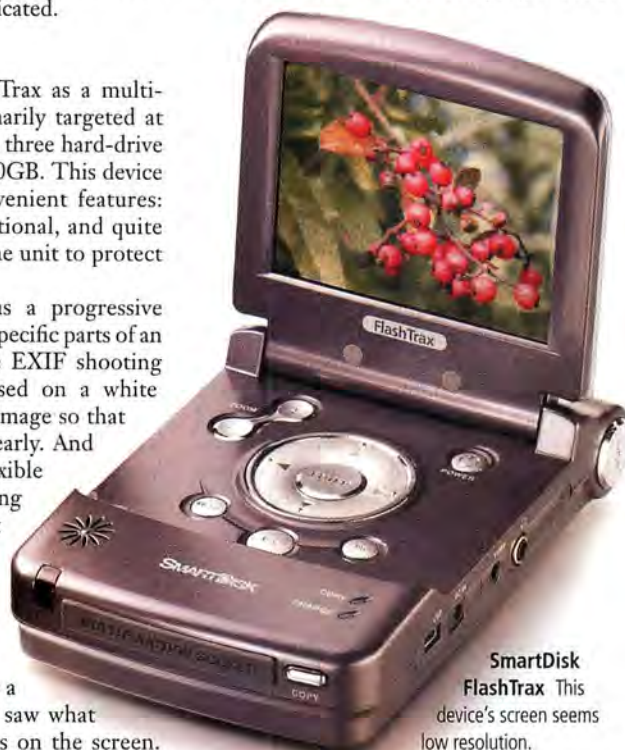
The FlashTrax also has a progressive zoom that lets you enlarge specific parts of an image—a nice touch. The EXIF shooting information is superimposed on a white background on top of the image so that you can see and read it clearly. And the FlashTrax is more flexible than the others in its handling of Raw files: it lets you not only view them but also manipulate them.

Unfortunately, the FlashTrax's display is inferior to the displays on the other devices. Its LCD has a low-resolution look, and I saw what seemed to be halftone dots on the screen. Despite a generous 3.5-inch screen size, images are harder to see on this viewer than on the others. The FlashTrax's narrow viewing angle adds to the LCD's problems.

The FlashTrax's performance is slow. It takes between three and four seconds for

each image to appear on screen. Whenever it switches thumbnails, the screen goes white while it waits for the next image or screen of thumbnails to load.

The FlashTrax's navigation system has a Windows look to it. You can program it to



play slide shows, without music and fancy transitions. I easily hooked it up to a TV to view images. The unit's speaker sound was simply awful, but audio was much better when I used headphones.

The FlashTrax's battery life is a little less than 2 hours. Moving images from a full 256MB CompactFlash card to the unit took about 2 minutes and 11 seconds. And transferring 1GB of data from the FlashTrax to my Mac took an average of 1 minute and 7 seconds.

How to Choose

If you're a photographer looking for the best way to view your images, the unit with the best and brightest screen is the Epson P-2000. While its case doesn't close like the FlashTrax's, and the unit isn't as compact as the Coolwalker, the P-2000's image quality is far superior to that of the other two.

Battery life is not spectacular for any of these units, but the Epson outperforms the others. It was nice to be able to use USB 2.0 to transfer files from the unit to the computer, but FireWire would be even more accessible to Mac users and would likely be faster.

The FlashTrax is the only device that gives you a choice of hard-drive size (and, consequently, price), which some photographers may appreciate. And if you use a Nikon camera, you might prefer the Nikon Coolwalker for its interoperability with your camera.

Macworld's Buying Advice

The Epson P-2000 is the best choice in this new product category. Its high-quality screen and sound, as well as its friendly navigation scheme, give you the best value for your money. The P-2000 has convenient amenities that the other two devices lack, resulting in an altogether more pleasing and productive experience. □

PHOTO-STORAGE AND -VIEWING DEVICES COMPARED

COMPANY	PRODUCT	RATING	PRICE	CONTACT	DIMENSIONS, WEIGHT ^A	HARD DRIVE	COMPATIBLE IMAGE FORMATS	PROS	CONS
Epson	P-2000 ★	★★★★	\$500	www.epson.com	5.8 × 3.3 × 1.2, 16.0	40GB capacity	JPEG, Raw format from some Epson, Canon, and Nikon cameras	Big, brilliant screen; supports several Raw formats; supports and plays back several video formats; friendly, icon-based interface; wide viewing angle; EXIF data clearly visible on gray background; good battery life.	Will not enlarge or rotate Raw photos; doesn't include Raw photos in slide shows; no histogram; can print only to certain Epson printers.
Nikon	Coolwalker MSV-01	★★★	\$550	www.nikon.com	3.2 × 5.1 × 1.4, 10.6	30GB capacity	TIFF, JPEG, NEF (Nikon's Raw format), with embedded JPEG preview	Compact, ultrastylish body; easy-to-use interface; good-quality screen; handy histogram; speedy file transfer.	Supports WAV, MOV, and Raw images from Nikon cameras only; EXIF data lettering is hard to read; EXIF data spread over five screens; small LCD; short battery life.
SmartDisk	FlashTrax	★★★	20GB, \$350; 40GB, \$470; 80GB, \$550	www.smartdisk.com	3.6 × 5.6 × 1.3, 12.5	20GB, 40GB, or 80GB capacity	JPEG, GIF, BMP, Raw, TIFF, with embedded JPEG preview	Superior industrial design; case latches shut; high-quality audio through headphones; displays many Raw formats; lets you manipulate Raw images; lets you enlarge specific parts of an image; comes in three hard-drive capacities.	Inferior screen quality; slow performance; arcane navigation system and interface; can't print from device.

★ = Editors' Choice. ^ADimensions in inches, width × height × depth. Weight in ounces, including battery.

Dual-Layer 16x DVD Burners

Faster External Drives Increase Disc Capacity, at Surprisingly Low Prices

BY JAMES GALBRAITH

Keeping up with the ever-changing DVD-burner market could be a job in itself. Every few months, faster drives are announced, new features get introduced, and competing (and confusing) disc formats continue to play leapfrog in the quest for market dominance. The most recent technological development in DVD writers is dual-layer burning. This nifty technology allows you to double the capacity of a DVD, from 4.7GB to 8.5GB, by writing to two different layers on the same side of the disc. You've been renting double-layer DVDs for a while, but now home users can burn their own.

Recently, Macworld Lab put seven of the latest drives to the test. There were more differences between the drives than we had

anticipated, and in the end, the LaCie d2 DVD±RW 16x FireWire with Double Layer drive took the crown.

Dual-ing Devices

In the world of DVD burners, there are two competing standards groups that create two types of blank DVDs: DVD+R and DVD-R. They do the same thing, and both are compatible with most home-entertainment DVD players and with the DVD drives in many computers. One group will come out with media and promise faster DVD-write speeds, and the other will soon follow or jump ahead. Though it may be confusing, the upside to this heated rivalry is that it keeps the price of media down and speeds up development of new features. All the drives we looked at can



The Winner The LaCie d2 DVD±RW 16x FireWire with Double Layer drive has good performance and a great software bundle.

write to both DVD+R and DVD-R media, as well as dual-layer media (also called either DVD+RW DL or DVD+R9).

Faster DVD, Burn, Burn

The speed at which a drive will burn a DVD depends on three factors: the drive mechanism's speed, the speed of its connection to your Mac, and the disc's rated speed. Each of the drives we tested claims to burn a single-layer DVD at up to 16x, and all the drives have FireWire ports, except the Iomega, which has only a USB 2.0 port. Because all



DUAL-LAYER 16x DVD BURNERS COMPARED

COMPANY	PRODUCT	RATING	PRICE	CONTACT	CONNECTORS	WRITE SPEEDS	BUNDLED SOFTWARE	DRIVE MECHANISM
EZQuest	Boa 16x DVD±RW Double Layer FireWire	★★★★	\$160	www.ezq.com	FireWire 400 (2)	DVD-R, 16x; DVD+R, 16x; DVD+R dual-layer, 4x; CD-R, 32x	EMC/Dantz Retrospect Express, Roxio Toast 6 Lite	Pioneer DVR-108
Iomega	Super DVD Writer 16x	★★★	\$190	www.iomega.com	USB 2.0 (1)	DVD-R, 8x; DVD+R, 16x; DVD+R dual-layer, 2.4x; CD-R, 48x	Charismac Discribe 5	Lite-On Show-1633S
Kanguru	Quicksilver 16x QS-FW DVDRW FireWire	★★★★	\$160	www.kanguru.com	FireWire 400 (2)	DVD-R, 16x; DVD+R, 16x; DVD+R dual-layer, 4x; CD-R, 48x	NewTech Infosystems Dragon Burn 4	NEC ND-3500AG
LaCie	d2 DVD±RW 16x FireWire with Double Layer ★	★★★★	\$189	www.lacie.com	FireWire 400 (2)	DVD-R, 16x; DVD+R, 16x; DVD+R dual-layer, 4x; CD-R, 32x	LaCie Disc Recording, Roxio Toast 6 Titanium	NEC ND-3500AG
OWC	Mercury FireWire/USB2 D108 DVD±RW	★★★★	\$160	www.macsale.com	FireWire 400 (2), USB 2.0 (1)	DVD-R, 16x; DVD+R, 16x; DVD+R dual-layer, 4x; CD-R, 32x	EMC/Dantz Retrospect Express, New Tech Infosystems Dragon Burn 4	Pioneer DVR-108
Plextor	PX-716UF	★★★★	\$239	www.plextor.com	FireWire 400 (1), USB 2.0 (1)	DVD-R, 16x; DVD+R, 16x; DVD+R dual-layer, 4x; CD-R, 48x	Roxio Toast 6 Lite	Plextor PX-716UF
Sony	DRX-710UL/T	★★★★	\$230	www.sony.com	FireWire 400 (1), USB 2.0 (1)	DVD-R, 8x; DVD+R, 16x; DVD+R dual-layer, 2.4x; CD-R, 32x	Roxio Toast 6 Lite	Lite-On Show-1633S

★ = Editors' Choice.

We connected each drive to a dual-2.5GHz Power Mac G5 running Mac OS X 10.3.7 and with 512MB of RAM. We recorded the time it took each drive to burn 8GB of data onto dual-layer DVD+R Verbatim media of a 655MB file from a burned dual-layer DVD to the Mac's internal hard drive. The Iomega drive was connected via USB 2.0. The rest were connected via FireWire 400.—MACWORLD LAB TESTING BY JEFFY K. MILSTEAD

current Macs include FireWire, which is as fast as or faster than USB 2.0, we tested all the drives except the Iomega using FireWire. We tested the Iomega using USB 2.0.

The Sony drive was the fastest when burning 4.7GB of data to a 16x-rated DVD+R disc, at just 5 minutes and 56 seconds. The Plextor, Kanguru, and LaCie drives were a tad slower, but three drives—the EZQuest, the OWC, and the Iomega (due to its slower, USB 2.0 connection)—took considerably longer to write the disc.

We also spot-tested USB 2.0 write speeds using the Sony and Plextor drives, which offer both USB 2.0 and FireWire. The Sony took about three and a half minutes longer to burn 4.7GB to the same media using USB 2.0. The Plextor took nearly two minutes longer.

The fastest dual-layer media available at press time are rated at only 2.4x, but the drives rated at 4x for dual-layer burning can actually burn these 2.4x discs at 4x speeds, taking about 27 minutes to burn an 8.5GB disc. The Sony and Iomega drives

are the exceptions: they are rated at 2.4x for dual-layer burning and took almost 44 minutes to burn a disc. So if you plan to use the dual-layer feature often, you'll definitely want to buy a burner rated at 4x for dual-layer burning.

We also tried copying data from the external drive to our Mac to test the drives' read speeds. When we copied 655MB of data that had been burned to a dual-layer disc, the Plextor was quite a bit faster than the rest, finishing the task in just 1 minute and 15 seconds, probably owing to its 8MB of cache memory (all the other drives have 2MB).

You're Nowhere without Software

At present, OS X doesn't recognize any of the drives included in this review, but each drive comes with software that lets you use it with OS X. You just can't use Apple's Disk Burner software, iTunes, or iPhoto to burn discs. iDVD is another story altogether; you can burn a DVD directly from iDVD only if you have an internal

Apple SuperDrive. The recently released iDVD 5 (page 60), included in the iLife '05 suite, will let you create a disc image that you can then burn to an external Apple-supported DVD drive, or you can use a disc-burning utility, such as Roxio's Toast. Apple's DVD Studio Pro won't burn directly to any of these drives until Apple supports them.

It sounds like a mess, right? Don't despair—there are two other ways around this lack of support. First, LaCie includes with its drive a utility called Disc Recording, which lets you use Disc Burner, iMovie, iTunes, and DVD Studio Pro to burn to the drive. The utility is available only when you purchase a LaCie drive. Second, owners of other drive brands can download a free utility called PatchBurn (www.patchburn.de), which does the same thing as LaCie's utility. We tried PatchBurn on all the drives and had success using Apple's Disc Burner software and iTunes. PatchBurn also offers a hack that lets you burn to a drive using iDVD 4, but use it at your own risk. (We encountered a few crashes while trying to use it.)

All the burners include third-party applications for burning audio, video, and other files onto CDs and DVDs. Roxio's Toast is *Macworld's* disc-burning software of choice, and we performed all our tests using Roxio's Toast 6 Titanium (page 100; December 2003). Three of the drives—the EZQuest, the Plextor, and the Sony—ship with a Lite version of Toast, which has fewer features than the full version. The LaCie drive ships with the full version of Toast, which makes this drive even better in our eyes. The other drives ship with either NewTech Infosystems' Dragon Burn 4 or Charismac's Discribe 5. In our tests, Dragon Burn worked fine and had an intuitive user interface, but we found Discribe difficult to use. The EZQuest and OWC drives also include EMC/Dantz's Retrospect Express, which allows you to automate backups of your data.

Macworld's Buying Advice

These fast new burners can be real time-savers, and the new dual-layer features can help you get much more data onto one disc, so you're not spanning projects across, or backing up to, two different discs.

We judged the LaCie d2 DVD±RW 16x FireWire with Double Layer drive to be the best value, because it offers the full version of Roxio's Toast and software that makes it compatible with OS X. The Plextor drive, with its 8MB of cache memory, was the best all-around performer, and it has great connection options, but it's also the most expensive. If you already own Toast Titanium, you might consider the Kanguru Quicksilver drive, which is based on the same mechanism as the LaCie but costs about \$30 less. □



Runners-up EZQuest's Boa 16x DVD±RW Double Layer FireWire, Iomega's Super DVD Writer 16x, Kanguru's Quicksilver 16x QSF-W DVD±RW FireWire, OWC's Mercury FireWire/USB2 D108 DVD±RW, Plextor's PX-716UF, and Sony's DRX-710ULT (from left to right).

Macworld TEST				
4.7GB DVD+R BURN	8GB DUAL-LAYER DVD BURN	COPY 655MB TO HARD DRIVE	PROS	CONS
9:14	27:02	2:03	Inexpensive; burns 2.4x-rated dual-layer media at 4x.	Noisy fan; burns 16x media at 8x.
10:05	43:45	2:40	Flexible cross-platform compatibility due to USB 2.0.	Slow 16x and dual-layer burn speeds.
7:54	26:52	3:20	Inexpensive; burns 2.4x-rated dual-layer media at 4x.	Slow read speeds.
6:44	26:51	3:20	Includes full version of Toast; burns 2.4x-rated dual-layer media at 4x; Disc Recording software lets the drive work with Apple's i-apps (except iDVD).	Slow read speeds.
9:16	27:04	2:02	Inexpensive; flexible connectivity options; includes 25 CD-R discs and five 8x DVD-R discs; burns 2.4x-rated dual-layer media at 4x.	Burns 16x media at 8x speeds.
6:17	27:08	1:15	Flexible connectivity options; burns 2.4x-rated dual-layer media at 4x; fast 16x burn speeds; fastest read speeds.	Expensive.
5:56	43:55	2:41	Flexible connectivity options; fastest 16x burn speed.	Expensive; slowest dual-layer burn speed.
<Better	<Better	<Better		
BEST RESULTS IN BOLD. Scores are in minutes:seconds.				
using Toast Titanium 6.0.7, and also the time it took to burn 4.4GB of data onto 16x DVD+R Verbatim media. We then timed the copy				

DayLite 1.7

Sales-Management Software Covers All the Bases

BY JEFFERY BATTERSBY

When it comes to contact management, most people can muddle through with OS X's Address Book or Microsoft Entourage. But salespeople typically need something stronger—something that allows them to gather detailed information on prospective and existing customers, track projects, create reports on the status of sales in progress, and forecast future sales. Marketcircle's DayLite 1.7 provides these features and more, giving you complete control over all your sales information. It even lets you merge data with applications such as Microsoft Word and Excel and The Omni Group's OmniGraffle. This powerful CRM (customer-relationship-management) program can be somewhat difficult to learn; however, it's so valuable that you won't regret spending the time to do so.

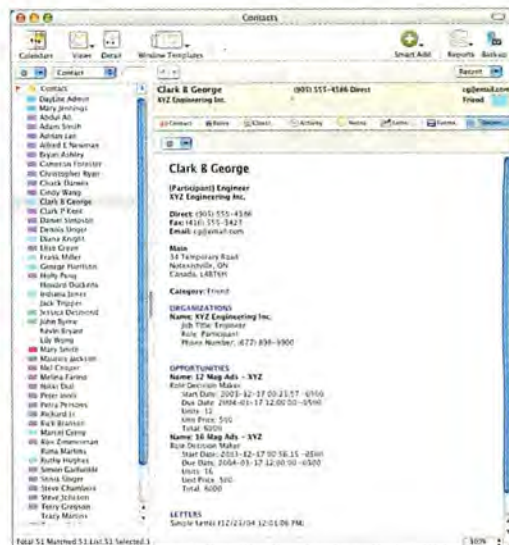
Get a Grip on Your Customer Base

Moving data from your current contact database to DayLite is easy. The program imports information from a variety of address-book programs and personal information managers, including Windows-

based applications such as Best Software's ACT and FrontRange Solutions' GoldMine. The program is also intelligent enough to group your contacts logically. So if you have several contacts from the same company in your address book, DayLite will link them by company without any effort on your part.

Like any standard calendar application, DayLite lets you schedule appointments, tasks, and reminders. But the program gives you far greater flexibility than simple scheduling. For example, if you have a sales lead in your database, you can send him or her a letter or an e-mail directly from DayLite. As the lead becomes a customer, you can create projects, schedule events and tasks, and create notes, which DayLite links directly to your customer and his or her company. As you perform each of these tasks, DayLite maintains a detailed history of your correspondence (including the actual letters), project statuses, and potential closing dates, so salespeople and their managers can get a detailed view of the progress or history of any sales event (see "DayLite Delights").

Unfortunately, DayLite doesn't notify you of pending events if the application is closed. You can remedy this by exporting calendar



DayLite Delights Marketcircle's DayLite provides powerful contact-management features and maintains detailed histories of your interactions with customers.

events to iCal, but this workaround is unwieldy for a program that is otherwise quite comprehensive.

Although DayLite is great for individual salespeople, the program is also designed for use in multiuser environments: one database can be shared by an entire sales and support staff. You can also sync your contact and scheduling data with any Palm OS-based device, or even your iPod, using iSync.

DayLite's only major weakness is complexity. It's easy enough to get your contact information into the program and begin setting up appointments. But to make the most of DayLite, you need to thoroughly understand the program's reporting and project-management features. Fortunately, Marketcircle's Web site contains dozens of video tutorials that guide you—from the basics of creating new contacts and scheduling tasks all the way through administering the program in multiuser environments. Free technical support is limited to 30 days after purchase or to three incidents, after which you'll need to buy a support contract from Marketcircle.

Macworld's Buying Advice

We highly recommend DayLite 1.7 for Mac-based salespeople. It's an excellent application for managing leads, scheduling appointments and projects, keeping track of current customers, and gaining insight into future sales. ☐

RATING:

PROS: Extensive tools; excellent reporting features; detailed customer-history information; free online training videos.

CONS: Advanced features are difficult to learn; no notification of pending events if application is closed.

PRICE: single-user license, \$149; bulk discounts available

COMPANY: Marketcircle, www.marketcircle.com



www.INSIDEMACRADIO.COM

Sorenson Squeeze 4 Compression Suite

Video Utility Improves Workflow and Output Quality

BY JIM HEID

For many video producers, the last step in a production project is using a compression utility, which takes full-resolution video and prepares it for Web, CD-ROM, or DVD delivery. Sorenson Squeeze 4 Compression Suite can grind video into nearly every popular rich-media format, including QuickTime, RealMedia, Macromedia Flash, MPEG-2, and MPEG-4.

Missing from that laundry list is Microsoft's hugely popular Windows Media format. Sorenson Media plans to support Windows Media encoding by the time you read this. Alas, the plug-in for this support will cost an additional \$179.

Squeezing Made Simple

The big changes in Squeeze 4 are its revamped interface and enhanced optimizing features. Indeed, Squeeze 4 can hold its own alongside Discreet's Cleaner (★★★★; June 2003), long the king of compression.

Advanced users will delight in numerous new image filters and settings, and beginners can get great results from Squeeze's built-in presets (see "Crunch Time"). More than 100 presets cover delivery methods ranging from dial-up modems to broadband connections to CDs and DVDs.

On the downside, the presets have arcane names, such as Med_Prog, that only hint at a setting's parameters and make it harder for inexperienced users to choose one setting over another. I'd like to see Squeeze display a brief summary of a selected setting in the Details area of its window.

Squeeze 4's interface has other rough edges—its dialog boxes look like those of Windows programs, and some of its keyboard shortcuts behave inconsistently—but I can't gripe about the new preview area, which makes experimenting easy and efficient. A new split-screen feature lets you see before-and-after previews that show how a frame will look after compression. To assess how a specific section of footage will compress, you can mark its starting and ending points and then compress only that section. This is a huge time-saver that streamlines the trial-and-error phase of compression.

Looking Forward

Squeeze 4 adds the ability to create MPEG-1 or MPEG-2 files for use on Video CDs or DVDs. But don't buy it for this reason alone: in my tests, Squeeze's MPEG quality was

inferior to that of Apple's Compressor, which is included with both Final Cut Pro HD and DVD Studio Pro 3.0 (★★★★; September 2004).

Squeeze 4 can also compress to the H.264 format, a brand-new variant of MPEG-4. Also called AVC, H.264 is so new that you can't play it back—QuickTime doesn't yet support the format; however, Apple has announced that OS X 10.4 (Tiger) and QuickTime 7 will.

Squeeze's RealMedia support is a welcome addition, but an annoying bug requires that



Crunch Time Drag a full-resolution movie into Squeeze 4, choose one or more of the program's compression presets, and click on the Squeeze It button.

you save compressed movies on your internal hard drive. There are several glitches like this in Squeeze 4, and Sorenson Media plans to address them with a free version 4.1 update, which should be available by the time you read this.

Macworld's Buying Advice

Sorenson Squeeze 4 Compression Suite excels at compressing video to common Web and CD-ROM formats. If your needs revolve around the Flash or MPEG-4 formats, consider Squeeze 4 for Macromedia Flash MX (\$119) or Squeeze 4 for MPEG-4 (\$199). Both share the Compression Suite's interface and optimizing features. □

RATING: ★★★★★

PROS: Excellent compression quality; professional-level workflow and automation features; straightforward interface.

CONS: No Windows Media support; some bugs and interface flaws.

PRICE: \$499

COMPANY: Sorenson Media, www.sorenson.com

PhoneValet™
Message Center

Your Personal
Telephone Assistant



50+ FEATURES!

- Multi-Line Multi-Mailbox Voice Mail
- Searchable Call History
- Call Recording
- Talking Caller ID
- Remote Control

HARDWARE & SOFTWARE INCLUDED



Macworld
BEST OF SHOW
2004
BOSTON

Macworld
★★★★★ 1/2

PARLIANT
www.parliant.com

Monitor Color Calibrators

Hardware-Software Combos Give You Consistent Color

BY JEFF DORGAY

Calibrating your monitor is the first step in achieving accurate color on your Mac, so the colors you see on your screen are as close as possible to those captured by your scanner or digital camera. A monitor-calibration system—composed of a hardware colorimeter and its accompanying software—takes you beyond the accuracy readings of the built-in Apple ColorSync Utility, which provides strictly eyeball measurements. While there are some software-only calibration packages, this review includes only hardware-software combinations.

Such a calibration package precisely measures the way a monitor's color behaves, optimizes that behavior by tweaking the lookup tables (LUTs) in the video card to produce smooth gradations and neutral grays, and then writes a profile that describes the optimized behavior. Color-management systems then use that profile to display color accurately on your screen.

Using several different computers, I tested three popular color-calibration systems: ColorVision's \$299 Spyder2Pro Studio hardware-software package; Gretag-

Macbeth's \$249 Eye-One Display 2 with Eye-One Match software; and X-Rite's \$379 Monaco OptixXR Pro hardware-software package.

These measuring devices plug into your Mac's USB port and either rest on your LCD screen or attach to your CRT with little suction cups. Do not press the calibrator tightly against an LCD panel, because this will change its color and may damage the monitor.



Advanced Calibration The Eye-One Display 2 system's left column walks you through the calibration operation, while a box on the upper right shows how you are manipulating the monitor's gamma curves.

The test machines included a 667MHz PowerBook G4, a 1.8GHz 20-inch iMac G5, and a 1.6GHz Power Mac G5 with an 18-inch Sony XDM-82 LCD and a 19-inch LaCie Electron Blue CRT; all were running OS X 10.3.7. I even tried them on the no-name LCD panel connected to my Windows workstation for a worst-case scenario. A few adjustments made even *that* monitor palatable.

I created a reference print with an Epson Stylus 4000 printer on matte paper. I used the monitor calibrators with their respective software in both basic and advanced modes to see which one produced the closest on-screen match to the reference print.

Basic and Advanced

The basic mode requires no technical knowledge, and you don't need to adjust your monitor—just click on the Calibrate button, and you get a profile in five minutes. The basic method doesn't take into account room lighting or other monitor adjustments. I ran all the calibrators in basic mode first, and while all the results were somewhat off, the GretagMacbeth Eye-One Display 2 unit came closest to the reference print. I tested again in advanced mode and got very different results.

When you run the calibration software in basic mode, the profile you achieve won't offer the ultimate in color accuracy, but it will

Don't just join the revolution - control it!

RemoteRemote, the wireless remote for your iPod. Now available, the RemoteRemote for the iPod U2 Special Edition.

REMOTER

REMOTEREMOTE

ENGINEEREDaudio

WWW.ENGINEEREDAUDIO.COM

Aurius.

For Mac and PC - your very own radio station - be your own DJ with the versatile accessory from Engineered Audio.

Coming Soon!

In April 2005, be sure to check out our brand new addition to your audio arsenal - RRmini. Your iPod mini will be giddy with anticipation.

Fresh and Spring Clean.

Our new site looks great and is now easier than ever to use. Check us out at www.engineeredaudio.com



Resellers and Distributor Inquiries Welcome

IMAGES AND TRADEMARKS ARE PROPERTY OF THEIR RESPECTIVE OWNERS.



be what the industry refers to as *pleasing* color. Typically, this color will be on the warm side, with a bit more contrast and saturation than you'll see in a perfectly color-corrected image. This is fine for most advanced hobbyists.

The advanced mode lets you choose the gamma (contrast ratio), white point, and brightness settings you want your monitor to display, so you can adjust your monitor for flesh tones and gray-scale images. If you have the manual settings on your monitor, for example, the software tells you how to set them so that you have an accurate white point from which to start. It also lets you adjust the fine details in shadows and highlights to be as neutral as possible, but this requires advanced color-adjustment skills. I performed my tests at a 6,500-Kelvin white point. I looked for

neutral flesh tones (neither overly red and warm nor blue and cold), clean highlights, shadows free of color tint, and gray-scale images that were neutral gray, without colors.

How much you can fine-tune your monitor's color will determine the ultimate accuracy of your ICC profiles, but even if you have a PowerBook with only a brightness adjustment, proper use of a calibrator will give you more-accurate screen colors than you have now. From start to finish, it will take anywhere from 5 to 30 minutes to calibrate your monitor with any of the tools I tested. If you have more than one Mac,

using the calibrator will help you keep color consistent across machines.

Spyder2Pro Studio

I was able to get the closest match to my test print using the Spyder2Pro in advanced mode. Setup is very easy; a wizard interface walks you through all the choices. The Spyder2Pro is also the slowest of the three, taking almost 20 minutes to create a profile.

As a bonus (in addition to its reasonable price), the Spyder2Pro comes with a copy of nik multimedia's Color Efex Pro LE, ColorVision's DoctorPro, and Pantone's continues

COLOR CALIBRATORS COMPARED

COMPANY	PRODUCT	RATING	PRICE	CONTACT	PROS	CONS
ColorVision	Spyder2Pro Studio ★	★★★★	\$299	www.colorvision.com	Easy to use; best out-of-the-box profiles in advanced mode; reasonably priced; great extra software bundled.	Slow.
Gretag-Macbeth	Eye-One Display 2	★★★★	\$249	www.i1color.com	Easy to use; best basic profiles; reasonably priced; pro upgrade with trade-in; great tutorials.	Not as accurate as the others in advanced mode.
X-Rite	Monaco OptixXR Pro	★★★★	\$379	www.xritephoto.com	Fairly good color accuracy out of the box; easy to profile multiple monitors.	Needs expert tweaking to get best profiles; expensive.

★ = Editors' Choice.

Get the most from your Mac mini!

Win an iPod Shuffle!*



6-Port USB 2.0 Hub/12-in-4 Card Reader

Add a card reader and up to six USB 2.0 peripherals such as hard drives, printers and more.
GUH284R



Add.

Store.

Connect.



ION™ Tri-Select Hard Drive

Get all the room you need for your music, photos, videos, games and documents, as well as the convenience of programmable backup for all your precious files.

GHD335C

MiniView Micro 2-Port KVM Switch

The simplest and most economical way to hook your Mac mini up to your current PC or Mac and share their monitor, keyboard and mouse.

GCS632U

* Buy and register online any of the above products and be entered in a drawing to WIN one of three iPod Shuffles. For more details, go to www.iogear.com/mw

949 453 8782

www.iogear.com/mw

info@iogear.com

IOGEAR®

© 2004 IOGEAR, Inc. All rights reserved. Reproduction in whole or part without permission is prohibited. All other trademarks are the property of their respective owners.

REVIEWS

Colorist. DoctorPro helps you profile your printer to match your newly profiled monitor, and Colorist adds all the Pantone color checkers to Photoshop's checker.

The Spyder2Pro is the easiest to use and the best choice for advanced hobbyists.

Monaco OptixXR Pro

X-Rite's Monaco OptixXR Pro system was a close second for out-of-the-box color accuracy, and it offered a wide range of adjustments to the finished profiles. Spending a bit of time with the adjustment curves yielded some great profiles, but the test image was a bit warm on screen compared with the reference print.

My favorite feature of the Monaco OptixXR Pro is its ability to match profiles from different monitors. After you import color profiles from your other systems, you click on the Match Profiles button and resave the new profiles to their respective monitors. The results

were very good, and this saved me a lot of time across four systems.

Eye-One Display 2

The \$249 Eye-One Display 2 had the most user-friendly software and setup. With the help of great PDF and wizard tutorials, it produced the most accurate profile of the four in basic mode, but in advanced mode its profile was somewhat cold and washed out.

The Eye-One site offers a free utility, Eye-One Share, that lets you share profiles among multiple monitors and download the Pantone charts to your Mac.

If you get bitten by the color-management bug, GretagMacbeth will give you a \$200 trade-in allowance on its \$1,395 Eye-One Photo spectrophotometer, which will help you profile your scanner, printer, and projector (with the optional \$995 Eye-One Beamer attachment). I use this system in my studio with excellent results.

Which Is Best?

My favorite device was ColorVision's Spyder2Pro; of the three systems I tested, it allowed me to achieve the most accurate, neutral color. The Monaco OptixXR Pro was also quite accurate and offered the ability to tweak profiles, but that requires a high degree of color-management skill. The Eye-One Display 2 had the least-accurate profiles in advanced mode, but it was a snap to use and

produced great profiles in basic mode.

If you're just getting started in color management, you should be aware that calibrating your monitor, while essential, is just one part of your color-management system. You may find that you also need to profile other devices, such as printers and scanners. Most pros use separate dedicated packages for monitor and output profiling, rather than relying on one system that tries to do it all. And all of these companies sell add-on software and hardware, or bundled suites of both, that take into account your printers and scanners.

Macworld's Buying Advice

While the Eye-One Display 2 package is a great beginning calibrator, I recommend the ColorVision Spyder2Pro Studio for its excellent out-of-the-box color. Color pros can wrestle more performance out of X-Rite's Monaco OptixXR Pro, but the Spyder2Pro offers the best performance and value. □

PHOTOGRAPHY BY PETER BELANGER

THE CONQUEST

DiskWarrior is Now OS X Native

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

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

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

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

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

THE UTILITY COMPANY
ALSOFT

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

©2003 Alsoft, Inc. DiskWarrior is a registered trademark of Alsoft, Inc. Other product names are trademarks of their respective companies.

Delicious Library 1.0

Easy and Fun Library Software Catalogs Your Media

BY MATHEW HONAN

Like many people who have large libraries of books, videotapes, and music, I have trouble keeping track of everything, because it's tedious and time-consuming to enter several hundred items into a spreadsheet. But now, thanks to Delicious Monster's Delicious Library 1.0.6, I have an easy way to catalog all my books, music, movies, and video games.

Delicious Library uses a product's UPC symbol (or bar code) to query Amazon.com's database, and then it records the product information. Unlike boring spreadsheets, Delicious Library reproduces a product's cover art to display details about your media in rows of virtual bookshelves. And its integration with Apple's iCal and Address Book helps you keep track of what you have, to whom you've lent it, and when you expect it back.

Although Delicious Library is compatible with a standard bar-code scanner, its most ingenious feature is innovative real-time bar-code-recognition software that turns an ordinary iSight camera into a bar-code-devouring fiend. Once I got the hang of scanning—which took less than five minutes—I began scanning just about everything in my home

that even vaguely resembled a UPC symbol (see "Media Tracking").

I had no trouble scanning any of my DVDs or games, but I did have to enter several older books and hardback books with missing jackets by hand. Creating manual entries by entering title and author information is a snap, and Delicious Library was able to find all but my most esoteric titles in Amazon.com's database. From my music collection, I successfully scanned in 267 CDs and had to manually enter the remaining 44—nearly all of which were released by independent labels.

My only complaints are Delicious Library's lack of iTunes integration and its inability to query databases other than Amazon.com's (so that it could recognize more unusual types of media, such as international books and albums). Delicious Monster says its next version will likely support the Internet Movie Database (www.imdb.com) and the allmusic database (www.allmusic.com).

Macworld's Buying Advice

Delicious Library 1.0.6 is an excellent Mac application. In addition to being useful and



Media Tracking Delicious Library lets you use your iSight camera to scan bar codes.

easy to use, it's just plain fun. I highly recommend it for anyone with a large media collection. If only it had iTunes integration and could query databases that recognized international imports, it would be perfect. □

RATING: ★★★★★

PROS: Excellent cataloging capabilities; visual representation of media; bar-code recognition via the iSight; iCal and Address Book integration.

CONS: No iTunes integration; queries only Amazon.com's database.

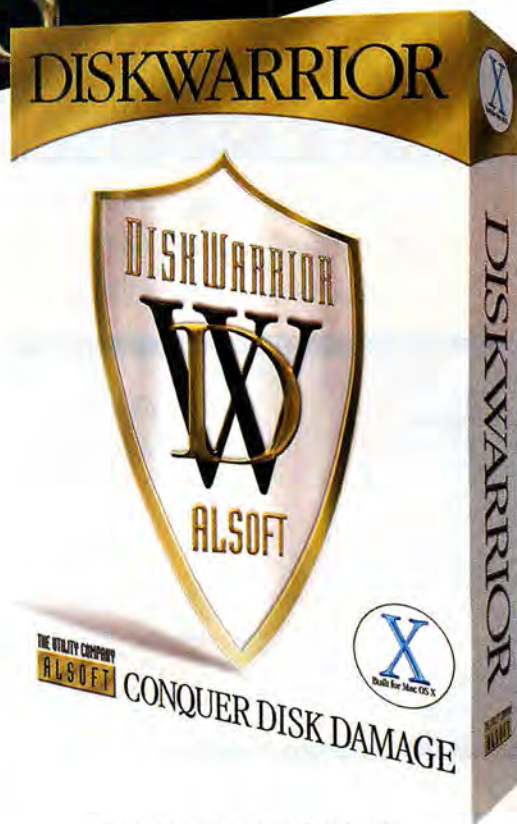
PRICE: \$40

COMPANY: Delicious Monster,
www.delicious-monster.com

CONTINUES

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

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



Choose 141 at www.macworld.com/getinfo

core

Enterprise Storage Software for Mac OS X Environments



Introducing the World's First Intelligent, Enterprise-Class Storage Solution built on the Rock Solid Mac OS X Foundation

- CORE|SX is a comprehensive, Mac-centric iSCSI/NAS Unified Storage Server that provides Storage Consolidation through an intuitive JAVA interface.
- Utilizing an iSCSI SAN (block) and NAS (file) architecture, CORE|SX allows you to use your existing ethernet infrastructure.
- CORE|SX's storage services include Storage Pooling, Mirroring and Striping for increased data protection, performance and scalability to multiple TBs.
- CORE|SX features built in Backup through disk and/or tape for Mac OS X, Linux, Netware, Windows and Solaris Clients – No third party backup software needed.
- At left is Storage Element's ultimate companion RAID, the Ciprico MediaVault U320-RX, boasts 326MB/sec sustained writes – 400MB/sec burst rate.



wenzel data
888.292.3396

authorized Storage Elements distributor

learn more by visiting
www.storageelements.com

MacMania IV

February 18 – 25, 2006

<http://www.GeekCruises.com/MacMania4/>

Internationally-renowned authors & speakers: Chris Breen, Jack Davis, Bruce Fraser, Janet Hill, Don Henderson, Andy Ihnatko, Leo Laporte, Bob Levitus, Deke McClelland, Bert Monroy, and Jason Snell



CO-PRODUCED BY:

Macworld
THE MAC PRODUCT EXPERTS



Panorama V

Respected Database Program Comes to OS X

BY WILLIAM PORTER

There's good news for devotees of ProVue's Panorama: Panorama V (or version 5) runs in OS X. And this version adds a boatload of enhancements—including live clairvoyance (similar to the easy search feature in OS X's Finder), more ways to get information from the Internet, extensions to Panorama's programming language, custom functions, and a great new way to create custom menus—to the great features Panorama has had for years, such as cross-tab reports, charts, and quick subtotaling of groups.

Is Panorama V Right for You?

If you're developing even moderately complex databases, or if you need to share your databases with many users over a network, Panorama can't compete with FileMaker Pro 7 (★★★★; October 2004), 4D 2004, Servoy, or other excellent client-server relational database systems. Panorama V is currently only for single users. (ProVue says that it's working on a server version, but no release date has been announced.) Panorama does have tools for linking files using lookups, but defining these links is not as easy as defining relationships in FileMaker Pro or 4D, and Panorama provides no way to keep track of relationships after they've been defined. Panorama's programming language is not as powerful as 4D's (you can't compile a Panorama database), not as well documented as Servoy's (which uses standard JavaScript), and not as easy to learn as FileMaker Pro's.

If your needs are simple, Panorama may not be as good a choice as FileMaker Pro or even Excel (★★★★; August 2004). After all, Excel can also do cross-tab reports, charts, and quick summaries. Panorama V's documentation is extensive (three full volumes!), but at times it seems to be a labyrinth of cross-references.

However, Panorama can take you way beyond Excel's database features. You can link files, build attractive forms and reports, and exchange data with Web sites such as FedEx's online tracking system. I especially liked Panorama's new elastic-forms feature, which lets you create fields that get wider or narrower as a user resizes the window. With Panorama's programming language,

you can manipulate your data in almost any way you can imagine. And ProVue provides free online tech support.

Quirky Interface

Panorama V can't directly import an Excel spreadsheet, and most of its import and export options are hidden in a wizard rather than readily accessible in the File menu. And its user interface is peculiar. For example, there are three different commands in three different places for deleting records. To delete one record, you use a button in the toolbar; to delete all the records in a database, you use a command in the Edit menu; and to delete the records currently displayed, you first use the Select Reverse command, which *bides* the records you want to delete and displays the ones you want to keep, and then use the Remove Unselected command to delete the records that are not displayed.

A	B	C	D
Las Vegas	Allen	200	
Las Vegas	Johnson	1900	
Phoenix	Johnson	2100	
San Diego	Johnson	2700	
Denver	Morris	750	
Las Vegas	Morris	2800	
Phoenix	Morris	1300	
Albuquerque	Ramsey	4850	
Denver	Ramsey	6530	
Phoenix	Ramsey	680	
Albuquerque	Rodriguez	1470	
Phoenix	Rodriguez	900	
		2370	
		23530	

Unintuitive Interface This datasheet was organized with the Group command, which is in the Sort menu, and the Total command, which is in the Math menu. But why is the Style & Color command in the Math menu?

Macworld's Buying Advice

If you've used and liked previous versions of Panorama, you'll want to upgrade to this version. Otherwise, Panorama V is best suited to people who work mainly with flat-file or only moderately complicated relational databases, who want ready-made data analysis tools, and who occasionally need a powerful programming language. □

RATING: ★★★

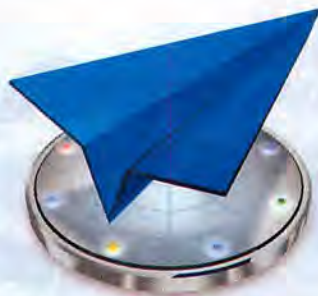
PROS: Excellent data-analysis tools including charts, cross-tab reports, and summaries; helpful wizards; powerful programming language; free online tech support.

CONS: No multiuser support; weak support for relational database structures; limited import and export options; idiosyncratic user interface.

PRICE: \$299; upgrade, \$140

COMPANY: ProVue, www.provue.com

We make email better.



QuickMail®

New Version Available!



SPAMCASTER™

Outspring has solutions for all of your email needs. Our easy-to-use QuickMail Client is available for Mac OS 9, OS X and Windows.

Our powerful QuickMail Server allows you to easily administer accounts, mailing lists and more.

To fight the ongoing war against spam, we've created the new Spamcaster line of products. Spamcaster gives you a hassle-free way to stop spam and other unwanted email without training or configuration nightmares.

Outspring Incorporated
707-523-7711
info@outspring.com
www.outspring.com

©2005 Outspring, Inc. All rights reserved.
QuickMail is a registered trademark of Outspring, Inc.
Spamcaster is a trademark of Outspring, Inc.

Top Products

YOUR GUIDE TO THE BEST HARDWARE WE'VE TESTED

SEE MORE
HARDWARE
REVIEWS!

Go to www.macworld.com/reviews

MINIDV CAMCORDERS



★★★★ Optura 40 (\$999), from Canon (www.canon.com):

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

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

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

DIGITAL CAMERAS



4-MEGAPIXEL DIGITAL CAMERA

★★★★ PhotoPC L-410 (\$200), from Epson (www.epson.com):

This bargain 4-megapixel camera produces sharp, clear photos with very good color. It also has a continuous shooting mode. However, it's bulky, has a small LCD, and has nonrechargeable batteries (find.macworld.com/0249).

ALSO RECOMMENDED:

Company	Product	Mouse Rating	Price	Contact	Mega-pixels	Go to find .macworld.com/	Originally Reviewed
Epson	L-500V	★★★★	\$350	www.epson.com	5.0	0282	online only
Canon	PowerShot G6	★★★★	\$699	www.canon.com	7.1	0206	January 2005
Sony	Cyber-shot DSC-P150	★★★★	\$499	www.sonymstyle.com	7.2	0206	January 2005
Olympus	C-8080 Wide Zoom	★★★★	\$999	www.olympus.com	8.0	0091	September 2004

MACS

DESKTOP

Product	Processor	Display	Rating	Go to find.macworld.com/	Best Price ^A	Speedmark Score ^B
	G5/1.6GHz	17 inches	★★★★	0172	\$1,215	150
	G5/1.8GHz	17 inches	★★★★	0173	\$1,403	162
	G5/1.8GHz	20 inches	★★★★	0174	\$1,776	163
	G4/1.25GHz (Combo drive)	17 inches	★★★★	0167	\$764	129
	G4/1.25GHz (SuperDrive)	17 inches	★★★★	0168	\$934	129
	G4/1.25GHz	not included	★★★★	0316	\$494	117
	G4/1.42GHz	not included	★★★★	0321	\$594	123
	G5/1.8GHz	not included	★★★★	0177	\$1,321	165
	G5/dual-1.8GHz	not included	★★★★	0158	\$1,762	194
	G5/dual-2GHz	not included	★★★★	0157	\$2,203	212
	G5/dual-2.5GHz	not included	★★★★	0156	\$2,644	237

PORTABLE

	G4/1.2GHz	12 inches	★★★★	0178	\$934	106
	G4/1.33GHz (Combo drive)	14 inches	not rated	0179	\$1,215	116
	G4/1.33GHz (SuperDrive)	14 inches	★★★★	0180	\$1,403	116
	G4/1.33GHz	12 inches	★★★★	0162	\$1,280	123
	G4/1.33GHz	15 inches	★★★★	0161	\$1,643	121
	G4/1.5GHz	15 inches	★★★★	0160	\$2,010	136
	G4/1.5GHz	17 inches	★★★★	0159	\$2,177	134

^AFrom a PriceGrabber survey of retailers as of 2/15/05. ^BSpeedmark 3.3 is Macworld Lab's standard test tool for benchmarking systems running Mac OS X 10.3 (Panther). For information on Speedmark testing, go to www.macworld.com/speedmark.

COLOR INK-JET PRINTERS



★★★★ Stylus Photo R800 (\$399), from Epson (www.epson.com):

This fast, quiet printer produces beautiful pages and prints on recordable CDs and DVDs (January 2005; find.macworld.com/0246).

ALSO RECOMMENDED

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

COLOR LASER PRINTERS



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

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

FIREWIRE HARD DRIVES

Company	Product	Mouse Rating	Price	Contact	Capacity	Comments
PORTABLE HARD DRIVE						
LaCie	Mobile Hard Drive by F.A. Porsche	★★★★	\$319	www.lacie.com	100GB	It's not the speediest portable drive, but this drive has a low cost per gigabyte.

DESKTOP HARD DRIVE

OWC	Mercury Elite 800 Pro	★★★★	\$450	www.macsales.com	400GB	This high-performance drive is for people more concerned with speed and performance than with design details.
-----	-----------------------	------	-------	--	-------	---

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

DISPLAYS



23-INCH DISPLAY

★★★★ L2335 (\$1,599), from Hewlett-Packard (www.hp.com); March 2005; find.macworld.com/0278

19-INCH DISPLAY

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

17-INCH DISPLAY

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

FLATBED SCANNERS

MIDRANGE SCANNER

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

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



LOW-END SCANNER

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

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



NEW: DUAL-LAYER DVD BURNER

★★★★ d2 DVD±RW 16× FireWire, with Double Layer (\$199), from LaCie (www.lacie.com)

Of the drives we tested, this DVD burner offers very good performance (albeit with a slow read speed), the best OS X and iLife compatibility, and a full version of Roxio's Toast Titanium (page 28).



IN THE MACWORLD LAB

Hardware Products We Tested This Month

COLOR INK-JET PRINTER

★★★★ Deskjet 6840 (\$200), from Hewlett-Packard (www.hp.com);

The Deskjet 6840 is a super general-purpose ink-jet printer. It prints great-looking text and photos and has lots of high-end printing and connection options (find.macworld.com/0279).



COLOR INK-JET PRINTER

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

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



COLOR INK-JET PRINTER

★★★★ Stylus Photo R320 (\$199), from Epson (www.epson.com);

The Epson R320 is a great six-ink photo printer with some nice features, such as CD printing, a preview display, and computer-less printing options. However, its text prints were a little less sharp and slower to print than some other recently reviewed photo ink-jets (find.macworld.com/0318).



FLATBED SCANNER

★★★★ CanoScan LiDE 500F (\$130), from Canon (www.canon.com);

This superthin scanner has lots of great features, such as a flexible lid and a transparency adapter. However, the larger, but only slightly more expensive, CanoScan 8400F (see listing at left) is easier to recommend than this scanner (find.macworld.com/0281).



DIGITAL CAMERA

★★★★ PowerShot SD300 (\$400), from Canon (www.canon.com);

This is a solid pocket camera, but it's pricey, and its images suffer from noise and fringing. If you don't mind a bulkier, more automatic camera, the 4-megapixel Epson PhotoPC L-410 (see page 38) is a bargain at half the price (find.macworld.com/0283).



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

> Chessmaster 9000
> Postal 2: Share the Pain
> Close Combat: First to Fight
> Parasol Wallop
> Apeiron X

The Game Room

With the free Chess game already included as part of OS X, you may wonder why you'd need another way to play chess on the Mac—or why you'd lay down hard-earned cash to get it. But Feral Interactive's Chessmaster 9000 isn't just a chess game. It's the ultimate chess resource.

Chessmaster 9000 lets you choose from more than 60 different 3-D boards. New players are assigned a basic skill rating, and as you play games, the software adjusts your rating to reflect your skill level. Chessmaster 9000 then uses this rating to select the computer-controlled opponents that are most appropriate for you—opponents range from newbies to grand masters. If you run into trouble during a game, you can get on-the-fly advice from the Chessmaster.

lion real-world chess games—some collected as recently as 2002. Here you can analyze openings, add new game content, and much more.

Chessmaster 9000 includes all the trappings of its Windows counterpart, but thanks to a complete interface overhaul by Feral, it feels like a Mac game. It even connects to iTunes so you can listen to your playlists as you compete. You can also set your iChat status to let others know when you're playing chess. The game offers online play, but you're limited to competing against other Mac gamers.

Feral lists the minimum hardware requirement as a 700MHz G4. But even with my 1.5GHz G4, I ran into some occasional pokiness when loading different parts of the game. However, the slowdowns didn't detract from the otherwise excellent and trouble-free experience.

The Bottom Line Feral Interactive's Chessmaster 9000 is the best chess game you can buy for the Mac. It's an absolute must-have for chess fans who want serious competition and training.

Sick and Twisted

If you're easily offended or simply prefer to see the best in people, do us both a favor and skip to the next review. Postal 2: Share the Pain, by Running With Scissors, is not the game for you. In fact, it is, without question, one of the most unabashedly violent and politically incorrect games I have ever played. (It has actually been banned in some countries.) Consider yourself warned.

That said, I have to shamefully admit that I liked this game. I couldn't help but laugh out loud—not only at the sick, and often stupid, jokes and vile behavior, but also at the pure outlandishness of it all.

Postal 2 is more or less a standard first-person shooter (FPS). You must complete a series of mun-

continues



Historic Moves

Chessmaster 9000 lets you relive a classic game played by 19th century masters.

Unless you play chess regularly, you'll probably want to brush up on your strategy. And to that end, Chessmaster 9000 includes the Classroom. Here you can run tutorials, by real-life chess pros such as Josh Waitzkin, Bruce Pandolfini, and Larry Evans, on everything from moving the pieces to setting up elaborate attacks and defenses. The game lets you specify your level of instruction: beginners can run basic tutorials and drills, intermediate players can practice openings or take the Larry Evans Endgame Quiz, and experts can solve challenging chess puzzles or try advanced drills.

The game provides a Kids' Room, which offers a simplified interface and basic drills to help youngsters hone their chess skills. There's also a Database Room for true chess fanatics. A data miner's paradise, this room contains information on more than half a mil-

CHESSMASTER 9000

RATING: ★★★★★

PROS: Deep data-mining tools; wide variety of boards and computer-controlled opponents; good OS X integration; supports all skill levels.

CONS: Occasional slowdowns.

PRICE: \$40

COMPANY: Feral Interactive, www.feralinteractive.com

This is the Tip of America's Military Spear. You're on Point.



You are the First to Fight – a US Marine on the front lines of urban combat in Beirut. Lead a 4-man fire team that executes authentic Marine tactics. Move aggressively, knowing your team gives you 360-degree security, and devastate your enemies with precise air and mortar attacks. Experience a first-person shooter so realistic, the Marines use it as a training tool.



Single-player, co-operative 4-man multiplayer, and team vs. team.



**Available
Simultaneously
for Mac, PC and Xbox**

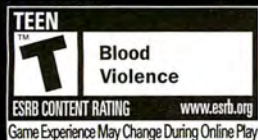
CLOSECOMBAT

FIRST TO FIGHT

THE REAL-LIFE COMBAT EXPERIENCES OF THE PROUD FEW.

**BASED ON A TRAINING TOOL DEVELOPED
FOR THE UNITED STATES MARINES**

COMING SOON! Visit www.macsoftgames.com

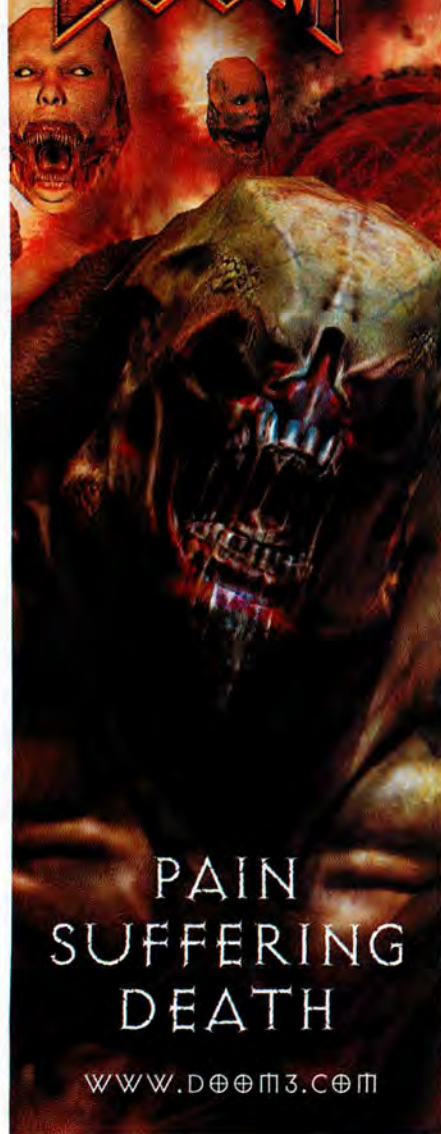


THE STORY PORTRAYED HEREIN IS FICTIONAL. NEITHER THE UNITED STATES MARINE CORPS NOR ANY OTHER COMPONENT OF THE DEPARTMENT OF DEFENSE HAS APPROVED, ENDORSED, OR AUTHORIZED THIS PRODUCT.
Copyright 2005 Destineer Studios, Inc. First To Fight, Ready-Team-Fire-Resist, and The Real-Life Combat Experiences of the Proud Few are trademarks of Destineer Publishing Corp. MacSoft and Destineer are registered trademarks of Destineer, Inc. Close Combat is a registered trademark of Atomic Games, Inc. and is used under license. Macintosh version published by Destineer, Inc. The ratings icon is a trademark of the Entertainment Software Association. Game experience may change during online play. Mac and Macintosh are registered trademarks of Apple Computer, Inc. GameSpy and the "Powered by GameSpy" design are trademarks of GameSpy Industries, Inc. All rights reserved.

PRE-ORDER NOW

WWW.ASPYR.COM

DOOM 3™



MATURE 17+

Blood and Gore
Intense Violence

ESRB CONTENT RATING

www.esrb.org

Developed By



www.idsoftware.com

Mac Version Distributed By



www.aspyr.com

©2004 Id Software, Inc. All rights reserved. Distributed by Aspyr Media, Inc. under license. DOOM and ID are registered trademarks of Id Software, Inc. in the U.S. Patent and Trademark Office and/or some other countries. The ratings icon is a registered trademark of the Entertainment Software Association. The Aspyr logo is a registered trademark of Aspyr Media, Inc. Mac and the Mac logo are trademarks of Apple Computer, Inc., registered in the U.S. and other countries. All other trademarks and trade names are the properties of their respective owners.

Choose 91 at www.macworld.com/getinfo

Having a Bad Day Postal 2: Share the Pain lets you unleash your darker side on anyone who crosses your path.

dane missions—such as going to the bank, getting milk, and having your venereal disease treated. Entertaining cinematic sequences introduce you to each new mission and the storyline's twists.

Although you can accomplish most of these tasks without ever resorting to violence, the game strongly encourages you to let loose your dark side. That's where the guns come into play. And the hand grenades. There's also a shovel you can use to decapitate your foes, and an anthrax-ridden cow's head that makes anyone within its explosive radius vomit blood uncontrollably. Oh, and did I mention that you can pour gasoline on people and light them on fire?

Postal 2 is, at least on some levels, a ham-handed satire that pokes fun at everything from the gaming industry to modern politics—and few groups escape the barbs. Former child star and California gubernatorial candidate Gary Coleman even takes the heat at one point.

Unfortunately, the twisted fun can't mask some basic flaws that mar the game's execution. The game is set in a sprawling town. But each area is zoned and must load separately—which often leaves you tapping your fingers on the table for a few

moments. And the interior level design is also a bit plain and unfinished in places.

The game's physics engine supports "rag doll" body motion, which offers some entertainment value as corpses get blown hither and yon. And the occasional pyrotechnic effect will send cars and trucks careening into the sky, Hollywood-style. However, the computer-controlled characters are often dumb as bricks—running continuously into walls and doing other incredibly stupid stuff.

In addition to the original, single-player version of Postal 2, the Mac release includes the Share the Pain multiplayer add-on, which

was released separately for the PC. This is good because you'll get barely a dozen hours of play out of the single-player mode. The Share the Pain add-on includes 14 multiplayer maps, a server browser, and a variety of dedicated multiplayer game modes such as Grab (where you grab bags that make you stronger), Deathmatch, and Team Deathmatch.

The Bottom Line Rude, crude, and socially unacceptable, Postal 2: Share the Pain doesn't merely cross the line of good taste—it obliterates that line in a blaze of gasoline-fueled glory. Still, it's sick and twisted fun for gamers looking for a different take on the FPS experience. Just expect to feel dirty and a bit ashamed afterwards.

Parasol with a Punch

Parasol Wallop is an interesting twist on the classic brickbashing theme, which has been around since the earliest days of arcade gaming. It's also family-friendly—although the fast pace is likely to frustrate gamers with underdeveloped hand-eye coordination.

In Parasol Wallop, you are little Audrey, a pink-haired young lass who must fend off monsters attacking from the sky. Armed only with your magic umbrella, you'll bounce a ball against layers of bricks overhead, in order to knock monsters to the ground and then cage them. If you begin to lose control of the ball, a quick twirl of the magnetic parasol will attract it. But learning to use that special twirl properly takes some time—the magnetic continues

POSTAL 2: SHARE THE PAIN

RATING: ●●●●

PROS: Multiplayer mode extends limited single-player game play; twisted fun.

CONS: Slow-loading levels.

PRICE: \$30

COMPANY: Running With Scissors,

www.gopostal.com

GOO BALL



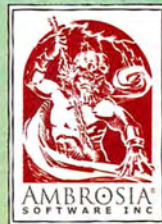
Roll, jump, and slime your Gooball through dozens of fanciful worlds of wonder as you control the cutest little alien around, the Goober.

Being trapped in a gooey ball of protoplasm has never been this fun!

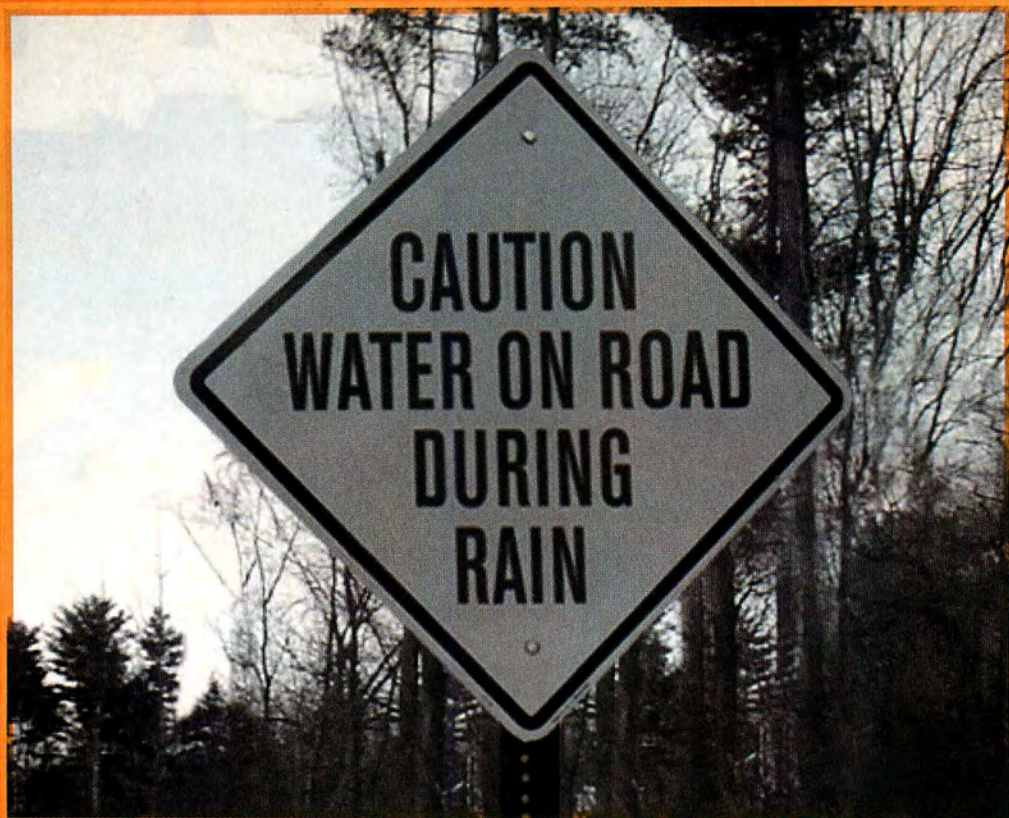
Get gooey. Get Gooball!

Download a free trial version of Gooball today at:

<http://www.AmbrosiaSW.com/>



Gooball requires MacOS X 10.2 or later
Gooball, Ambrosia Software, Inc., and the Ambrosia Software logo are registered trademarks of Ambrosia Software, Inc.



People do stupid things. Which explains why some haven't switched to Vonage yet. If you have broadband, you can start saving money. Talk about a no-brainer. 800.939.4VON, ext. MAC

\$24⁹⁹*

a month, unlimited calls
in the U.S. and Canada.

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

VONAGE
THE BROADBAND PHONE COMPANY®

WWW.VONAGE.COM

Available at these fine retailers:



COMPUSA



RadioShack®

STAPLES®
The Office Superstore

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



FIRST LOOK

Close Combat:
First to Fight

Squad-based, first-person shooters tend to be a bit unwieldy. There's too much information to keep track of: you have to maintain situational awareness of not only yourself but also your team—all while working with a cumbersome, complicated interface. And frankly, I just don't feel that connected to the action. So while I've played plenty of these games over the years, they're not usually the ones I return to again and again. But Destineer is changing this with *Close Combat: First to Fight*, a new FPS that lets players focus on smart, realistic combat action rather than complex menus. Better yet, it's coming out simultaneously for Mac, Windows, and Xbox consoles.

First to Fight shows you what it's like to be a United States marine fighting a close-quarters urban war in the Middle East. Set in Beirut, Lebanon, in the near future, you and your team must protect yourselves as you complete missions to help quell an insurgency. The game is bound to hit close to home for those who are sensitive to what's been happening in Iraq and Afghanistan.

The developers of *First to Fight* worked with the military and veterans returning from Gulf War combat to bring a sense of realism to the game's action. When searching out enemies, for example, you and your team will use Ready Team Fire Assist (RTFA)—a tactic that the Marines use in close-quarters environments to give their teams 360-degree coverage and target any enemy that comes into range. If you get into real trouble, you can call for the appropriate backup—close air support from Cobra gunships, mortar strikes, tank shelling, specialized sniper teams, and more.

But the game's realism isn't limited to military action. *First to Fight* actually uses psychological modeling for both your team members and your enemies. If your rifleman feels fatigue and fear, he may lose his focus and let his efficiency suffer. (By the way, it's a very good idea not to shoot a teammate by accident, as that will definitely have a negative effect on his mental state.)

First to Fight's level design is very linear, which only

makes sense under the circumstances: this is street-to-street (sometimes room-to-room) urban fighting. You typically have a start point and an end point, and it doesn't make much sense to double back on yourself. Despite that, the game's level design is very creative and often very challenging.

First to Fight forgoes the traditional jumble of keyboard commands that makes other game interfaces so unwieldy. Instead, you simply press your second mouse button to access an easy-to-use radial menu. (I presume you replaced your Apple mouse a while ago if Mac gaming means anything to you at all.) This radial menu is contextual, so it changes depending on the circumstances—you can use it for everything from healing wounded team members to preparing your team for an enemy takedown. It's a very cleverly implemented and intuitive system that takes little or no time to learn, so game play is fluid and fast-paced.

Thanks to an entirely original gaming engine, *First to Fight* looks great regardless of the platform you're playing on. This means you won't suffer the usual performance penalties that result when games have been converted from other platforms. MacSoft expects to ship the game in March.

The Bottom Line *Close Combat: First to Fight* is an evolutionary jump in squad-based first-person shooters. It hits all the right notes. Even if this genre hasn't appealed to you before, *First to Fight* is worth a look.



Hoo-ah! In *Close Combat: First to Fight*, you'll need to be prepared for any combat situation—even in the laundry room.

BETA TESTED

CLOSE COMBAT: FIRST TO FIGHT

PROS: Simultaneous release on the Mac, PC, and Xbox; psychological modeling; easy-to-use menu system.

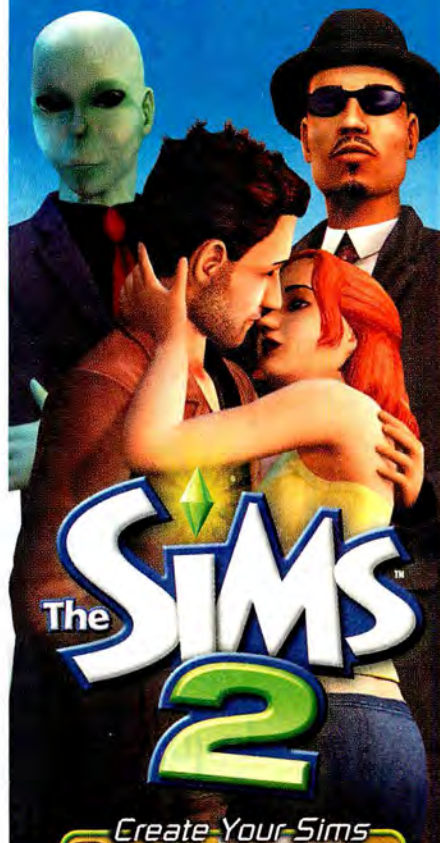
CONS: None significant.

PRICE: \$40

COMPANY: MacSoft, www.macsoftgames.com

PRE-ORDER NOW

WWW.ASPYR.COM



Create Your Sims



Control Their World



TEEN



ESRB CONTENT RATING

Crude Humor
Sexual Themes
Violence

www.esrb.org



ASPYR
Authorized Electronic
Arts™ Distributor

© 2003 Electronic Arts Inc. Electronic Arts, The Sims, EA, Challenge Everything, EA GAMES, the EA GAMES logo, Macs and the Macs logo are trademarks or registered trademarks of Electronic Arts Inc. in the U.S. and/or other countries. All rights reserved. All other trademarks are the property of their respective owners. EA GAMES™ and Macs™ are Electronic Arts™ brands. The rating icon is a registered trademark of the Entertainment Software Association. The Aspyr logo is a registered trademark of Aspyr Media, Inc. Mac and the Mac logo are trademarks of Apple Computer, Inc., registered in the U.S. and other countries.



Challenge Everything

Choose 91 at www.macworld.com/getinfo

HOW COULD YOU SAVE OVER \$200 ON CAR INSURANCE?

The answer is @ your fingertips.

In just minutes you can get an accurate rate quote when you visit geico.com/myquote. It's quick, simple, and secure. Join more than 9 million smart drivers who've made the switch to GEICO.

Government Employees Insurance Co. • GEICO General Insurance Co. • GEICO Indemnity Co. • GEICO Casualty Co. These companies are subsidiaries of Berkshire Hathaway Inc. GEICO auto insurance is not available in Mass. GEICO: Washington, DC 20076. © 2005



GEICO[®]
geico.com/myquote



Monster in Your Parasol Brickbashing gets a new twist in Parasol Wallop.

PARASOL WALLOP

RATING: ★★★★★

PROS: Family-friendly gaming; runs in windowed mode.

CONS: May be challenging for young players.

PRICE: \$15

COMPANY: F.C. Covett,

<http://parasolwallop.playmacgames.com>

attraction can also pull the ball to the ground and kill you.

The game contains about 80 levels and is spread over four differently themed worlds, including a beach and an industrialized wasteland. An upbeat soundtrack and whimsical sound effects complete the package. The game runs in windowed mode—a feature I particularly appreciate because it means I can leave other applications running in the background and pause Parasol Wallop if, say, an important e-mail comes in.

With 32-bit graphics and OpenGL effects, Parasol Wallop isn't the lightweight confection it might seem from the screenshot. There's

a lot of game here—especially for fans of the brickbashing genre. However, the system requirements are relatively modest. They call for a 450MHz G3 or faster.

The Bottom Line A refreshing change from the endless stream of shooters and strategy games on the market, Parasol Wallop harks back to a time when games were a lot of fun without being overly complicated.

Apeiron's Return

Ambrosia Software has finally reworked Apeiron, one of its most beloved Mac arcade games, for OS X. And this version, which adds 16-bit graphics, is as much fun now as the first release was a decade ago.

Apeiron X is a tribute to the Atari arcade classic Centipede. According to the game, your energy has been embedded in a crystal shard broken from a magical looking glass that peers into another world—a psychedelic twist to Lewis Carroll's *Alice in Wonderland*. You suddenly find yourself in a field of mushrooms inhabited by unworldly beasts such as Cheech the Pentipede, Larry the Scobster, and Gordon the Gecko—all of whom dedicate themselves to making your life miserable. You use bursts of plasma to disintegrate these pests. Each time you eradicate a complete segment of the pentipede, the level ends. Along the way, you can pick up extra points in the form of "yummies." You'll also get bonus points for killing the pentipede in a timely manner. Pick up multipliers, and you'll extend your bonus points at the end of each round. It's maddening, exhilarating fun.

Apeiron costs just \$15. So if you haven't already gone crazy with this game, now's your opportunity. Best of all, if you registered Apeiron back in the day, the OS X upgrade will cost you only \$5.



Classic Reborn Mac arcade classic Apeiron gets new life in OS X.

The Bottom Line Apeiron X is as satisfying today as it was ten years ago. If you enjoy arcade action, you should certainly check it out. □

APEIRON X

RATING: ★★★★★

PROS: Yummies and power-ups help accentuate classic arcade play.

CONS: There's no ending.

PRICE: \$15

COMPANY: Ambrosia Software,

www.ambrosiasw.com

MacCentral.com Senior Editor PETER COHEN fell violently ill shortly after playing Postal 2. He suspects it was a case of divine retribution.

ASPYR®
Authorized Electronic Arts™ Distributor

GREAT VALUES FROM ASPYR
IN STORES NOW!



The Sims™ Party Pack
Includes: *The Sims™*, *The Sims™ Hot Date*, *The Sims™ Livin' Large*, & *The Sims™ House Party*



Medal of Honor Allied Assault™ Warchest
Includes: *Medal of Honor Allied Assault™*, *Medal of Honor Allied Assault™ Spearhead*, & *Medal of Honor Allied Assault™ Breakthrough*

You can purchase these great titles at the following retailers:



WWW.ASPYR.COM

Copyright ©2005 Electronic Arts, Inc. Electronic Arts, EA, Medal of Honor Allied Assault, EA GAMES, the EA GAMES logo, Mass, the Mass logo and The Sims are trademarks or registered trademarks of Electronic Arts, Inc. in the U.S. and/or other countries. Medal of Honor is a trademark or registered trademark of Electronic Arts Inc. in the U.S. and/or other countries for computer and video game products. All rights reserved. All other trademarks are the property of their respective owners. EA GAMES™ and Mass™ are Electronic Arts™ brands. The ratings icon is a registered trademark of the Entertainment Software Association. The Aspyr logo is a trademark of Aspyr Media, Inc. Mac and the Mac logo are trademarks of Apple Computer, Inc., registered in the U.S. and other countries.

Choose 91 at www.macworld.com/getinfo

Mac Gems

On-the-go laptop users frequently find themselves looking for wireless networks to connect to for a quick e-mail check or surfing session. In the December 2004 issue, I reviewed Marware's \$30 WiFi Spy (★★★★; www.marware.com), my favorite way to check for wireless networks.

My one major criticism was that it didn't differentiate between open and closed networks—you still had to open your laptop and try to connect. Now that Canary Wireless has released its \$50 **Digital Hotspotter** (★★★★; www.canarywireless.com), my laptop bag has a new Wi-Fi finder. Like the WiFi Spy, the Hotspotter can detect the presence and strength of wireless networks (but, in my tests, with a slightly better range). However, rather than using multiple LED lights to indicate the strength of nearby networks, the Hotspotter includes an LCD that displays textual information about each network, including its SSID (displayed as "cloaked" for private networks); wireless channel number; signal strength; and, perhaps most important, security (that is, whether it requires a password). Road warriors will welcome this final bit of information with open arms, as it lets you keep your PowerBook or iBook in your bag until you've found an open network.

On the other hand, if you have access to a secure network but you've got a case of encryption paranoia, the Hotspotter will tell you whether that network is using WEP or WPA encryption. Even better, the Hotspotter can differentiate between multiple networks: after you press the scan button, the Hotspotter provides detailed information on the strongest network it finds in your vicinity. Pressing the button again displays information on the next-strongest network, and so on.

The Hotspotter does, however, have a few minor flaws. The most obvious is its size: the Hotspotter requires two AA batteries and is a bulky 2.5 by 2.2 by 1.0 inches—more suitable for a laptop bag than for a key chain. I also wish the LCD had a backlight for easier viewing in dimly lit meeting rooms. Finally, the company says that the default settings on a small number of access points prevent the Hotspotter from detecting them even when units such as the WiFi Spy can find them.

That said, in my tests using known access points from various manufacturers, the Hotspotter never failed to detect a network. For now, this Wi-Fi finder is in a league of its own. If you don't mind its bulky size, it will make a great addition to your travel bag.



Extreme Wi-Finder
Sniff out Wi-Fi hotspots with the Digital Hotspotter.

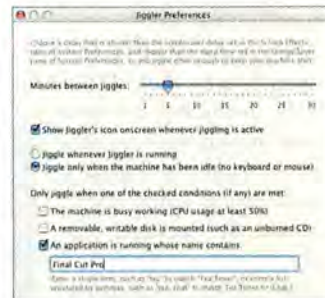
Watch It Wiggle

Although some *Mac Gems* picks are full-featured applications, others are simple tools that do simple things that only some people really need to be able to do. Take Stick Software's free **Jiggler 1.2** (★★★★; www.sticksoftware.com)—all it does is jiggle your mouse cursor periodically to keep your Mac awake. Why would you want to do this? Perhaps you're running SETI@home. Or maybe you've discovered the bug in Final Cut Pro 4 that can result in an application freeze during rendering if you don't move the mouse periodically. Or perhaps you're engaging in the big no-no of

installing an OS X software update on your PowerBook while running off the battery. In each of these cases, Jiggler can keep your Mac from sleeping.

Granted, you could set your Mac to never sleep, in the Energy Saver preference pane, but that isn't necessarily good for your Mac or for energy conservation. And changing your settings just for specific tasks can turn into a hassle.

Simple as it is, Jiggler does provide a few handy options: you can choose how frequently it jiggles your mouse; set the app to jiggle only when you haven't actually been using the mouse; and set particular conditions under which Jiggler should, well, jiggle (when the CPU is busy, when a writable CD or DVD is mounted, or when a particular application is running). Most people won't need Jiggler, but those who do will find it exceptionally useful.



Mouse Shaker Jiggler keeps your Mac from falling asleep at the wrong times.

Port Access

Over the years, one of the most common criticisms of Apple's Power Mac computers has been the lack of front-panel ports and jacks—you have to reach behind (or, if your Power Mac is on the floor, crawl behind) the computer to plug in or unplug accessories.

THE BOOMBOX IS BACK!

iBoom

BOOMBOX WITH FM RADIO FOR IPOD

Introducing the world's first Boombox for your iPod - the DLO iBoom. Designed exclusively for iPod and iPod mini, iBoom is a 20-watt, four-speaker, battery-powered party in a box. Take iPod's tunes with you to the beach, pool, friend's house, picnic - anywhere music makes a gathering better. Simply drop your iPod or iPod mini into the iBoom and enjoy your tunes anytime, anywhere. Get the DLO iBoom and you'll always be the life of the party.

GET YOUR iBOOM TODAY AT
WWW.DLODIRECT.COM
\$149.99



ALSO AVAILABLE AT
COMPUSA

← PERFECT COMPANION FOR YOUR NEW iBOOM

The DLO BoomBag for iBoom lets you take your new iPod boombox with you wherever you go. The BoomBag features a shoulder strap and a handle as well as multiple pockets for storing iPods, earbuds and other stuff. The cool, form-fitting design is made from top-quality neoprene and nylon. The protective front padding unzips and allows you to enjoy iBoom and iPod at a party, on the beach or wherever you want to share your music. Don't miss out on the perfect accessory for the only boombox created specifically for iPod and iPod mini, the DLO iBoom.

ONLY \$44.99



Extension Ports The RePorter puts your ports within easy reach.

sories such as keyboards, printers, scanners, and speakers. And temporary peripherals—those you connect only when you're actually using them, such as digital cameras, portable hard drives, headphones, and microphones—are even more of a hassle. Apple finally included single FireWire 400, USB, and headphone ports on the front of the Power Mac G5, but the truth is that Windows PCs have had such convenience features for years.

I've finally found an elegant solution to this problem in Marathon Computer's \$59 **RePorter** (★★★★; www.marathoncomputer.com)—put simply, it's an extension cord for your ports. Connect the cables at one end of the RePorter to the ports on the back of your Power Mac, iMac, or eMac. At the other end of the RePorter's 5-foot-long cable is a 3-inch globe with a flat face that provides six ports: FireWire 400, FireWire 800, headphone (audio out), audio in, and two USB 2.0 ports.

You obviously lose these ports on the back of your Mac, but if you don't need easy access to a particular port, or you prefer to use the one in back, you can simply choose not to connect the RePorter to that port. One nice touch is the unit's internal light: when the RePorter is connected to a USB port on your computer, this light casts a subtle blue glow around the ports on the device's body, making them easier to identify in the dark.

My only significant complaint about the RePorter is that its round body gives it a tendency to roll around a bit when sitting on a desk or on top of a computer. But I've been waiting for something like the RePorter for a long time. It's one of those "Why didn't anyone else do this sooner?" products that provide an important feature: convenience.

Point and CLIX

You may love Mac OS X, but using Terminal can be a bit intimidating. If you've used a few Terminal commands that you've seen on the Web but you don't really understand the ins and outs of the command line, you're a prime candidate for Rixstep's free **CLIX** 1.5 (Command Line Interface for OS X; ★★★★★; <http://rixstep.com/4/0/clix/>),

a utility for storing and running Unix commands.

CLIX includes a default database containing more than 450 Terminal commands that perform useful actions in OS X—many of them usually inaccessible—categorized by the aspect of the interface they affect (Dock, Finder, Security, and System, for example).

Double-click on any command, and CLIX pre-



Unix Notepad CLIX stores—and runs—your favorite Terminal commands.

Changing Names

Products featured in *Mac Gems* usually get a mouse rating—but since I was involved in creating the following utility, this is an exception.

One of the most frequent questions I get is how to change short user names in OS X. Apple makes it easy to change your long user name. But if you try to change your short user name—your official account name in OS X, most easily identifiable as the name of your user folder—you'll find that this field is grayed out and inaccessible.

When working on my book *Mac OS X Power Tools* I decided to include a thorough procedure for changing your short user name. With nearly 20 steps, though, it wasn't exactly user-friendly. So I enlisted the help of James Bucanek—the book's technical editor and a Unix scripting expert—to turn my manual procedure into an easy-to-use utility.

A lot of hard work on his part resulted in the free (donations accepted) **ChangeShortName 1.1** (www.macospowertools.com), a Unix shell script and accompanying GUI helper application that lets anyone change a short OS X user name with a minimum of fuss. If you're a Unix geek, you can run the ChangeShortName shell script from within Terminal; if not, you'll want to use the included ChangeShortName Helper utility.

Before you rush off to download ChangeShortName and start changing all your user names, a warning is in order: Changing the short user name is a procedure that involves the modification of some serious system files. Be sure to check out the Read Me file that comes with the utility.

sents a dialog box that shows a title, a category, and a description, as well as the command itself. To execute the command, click on the Run button (you can use the Copy button to copy this output to the Clipboard for pasting into another application). You can also edit or customize commands in the Command Line field.

Because you're working with valid, proven commands, CLIX is a useful tool for learning Unix. But what really won me over was CLIX's ability to store personalized commands—either in the default database or in a new database. This feature is so useful on its own that CLIX may become a reference guide for your collected Unix tidbits even if you never touch its default database.

Some of the commands in CLIX's default database do pretty serious things, so read a command's description before running it; if you don't understand the command, then don't run it. This is especially true for commands that require administrative access. □



GO TO WEBLOG:

The Mac Gems Weblog (www.macworld.com/weblogs/macgems/) contains longer versions of these reviews, as well as some Web exclusives.

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

Think of them as a reprieve from the world around you.

Whether it's the engine roar inside an airplane cabin, the bustle of the city or the distractions in the office, Bose QuietComfort® 2 headphones help them fade softly into the background. And they do it with the flick of a switch. You can savor the delicate musical nuances without disturbing others. And when you're not listening to music, you can slip into a tranquil haven – where you can relax and enjoy peace and solitude. Clearly, these are no ordinary headphones. It's no exaggeration to say they're one of those things you have to experience to believe.

Reduce noise with Bose technology.

Our headphones were designed primarily for airplane travelers. But owners soon started telling us how much they enjoy using them in other places to reduce distractions around them. QuietComfort® 2 headphones incorporate patented technology that electronically identifies and dramatically reduces noise, while faithfully preserving the music, movie dialogue or tranquility you desire. *Technologyreview.com* reports, "It's as if someone behind your back reached out, found the volume control of the world, and turned it way, way, down." Perfect for listening to music, whether you're on the go, at home or in the office.

Enjoy your music with our best headphone sound quality ever.

CNET says "All sorts of music – classical, rock, and jazz – sounded refined and natural." In fact, our QuietComfort® 2 headphones deliver audio that's so crisp and clear, you may find yourself discovering new subtleties in your music. *Travel & Leisure Golf* simply says, "Forget 'concertlike' comparisons; you'll think you're onstage with the band."



"The QuietComfort 2 lives up to its name, enveloping you in blissful sound... It's easy to forget they're on your head." That's what columnist

Rich Warren says. To enjoy peace and tranquility, simply turn them on. To add Bose quality sound, attach the included audio cord and connect them to a home stereo, laptop computer, portable CD/DVD/MP3 player or in-flight audio system. When you're done, their convenient fold-flat design allows for easy storage in the slim carrying case.



Try the QuietComfort® 2 headphones for yourself risk free.

We don't expect you to take our word for how dramatically these headphones reduce noise, how clean and full the music sounds or how comfortably they fit. You really must experience them to believe it. Call toll free to try them for 30 days on your next trip, in your home or at the office – satisfaction guaranteed. If you aren't delighted, simply return them for a full refund.

Call 1-800-430-2673, ext. Q3857 today. These headphones are available directly

from Bose – the most respected name

FREE EXPRESS SHIPPING when you order by May 31, 2005.

in sound. So call and discover a very different kind of headphone – Bose QuietComfort® 2 Acoustic Noise Cancelling headphones.

To order or for a free information kit call:

1-800-430-2673, ext. Q3857

Discover all our innovative products at
www.bose.com/q3857

Name _____
Address _____
City _____ State _____ Zip _____
Day Phone _____ Eve. Phone _____
E-mail (Optional) _____

Mail to: Bose Corporation, Dept. DMG-Q3857,
The Mountain, Framingham, MA 01701-9168

BOSE®
Better sound through research®

Inside the Mac mini

You've Seen the Tiny Case. Now We Take Out the Putty Knife to Show You What's Inside.

At first glance, the most notable thing about the Mac mini is its price: \$499. But on closer inspection, it's also something of an engineering marvel: a powerful PC that fits inside a tiny, 2.9-pound, 84.5-cubic-inch box. Since the day the Mac mini was announced, we've been bombarded with questions about it, from the general ("How does it work?") to the extremely particular ("Can I install an AirPort Extreme card myself?").

To satisfy that curiosity, we decided to crack open a Mac mini, take an in-depth look at what's inside, and find some answers to the most commonly asked questions about this tiny new addition to the Mac family.

BY JASON SNELL

PHOTOGRAPHY BY PETER BELANGER



Memory Slot

The Mac mini has a single RAM slot, meaning that it comes with a RAM module already installed. If you want to upgrade it later, you'll need to do a wholesale replacement. The RAM slot is easily accessible once you pop the mini's top (see "Cracking Open the Mini"), so this is the easiest do-it-yourself upgrade. That's good news, especially since we can't recommend that anyone actually use Apple's base configuration of 256MB of RAM, and the company's prices for installing larger RAM modules are exorbitant compared to buying memory from another vendor and installing it yourself.

Mac Mini FAQs

Bluetooth and AirPort Antennas

These shiny silver things are the Mac mini's two wireless antennas. (If you haven't bought either of the mini's wireless options, you won't see these.) The larger one (back right, clipped to a plastic post) is the AirPort Extreme antenna; the smaller one (front left, clipped to the side of the optical drive) is for Bluetooth. To improve reception, Apple cut small rectangular holes in the metallic lining beneath the computer's white plastic lid.

Speaker

Every Mac comes with a speaker, and the Mac mini is no exception. But like the rest of the system, the mini's speaker is really, really tiny. If you want a decent multimedia experience, you'll need to invest in some external speakers.

Do I really need more than 256MB of RAM?

We think so. With 256MB of RAM, the mini's main memory will fill up quickly, forcing the system to off-load excess data to the relatively poky hard drive. 512MB is really the minimum amount of RAM we recommend for any Mac today; 1GB is preferable.

Should I buy RAM from Apple, or can I install it myself?

At press time, Apple was charging \$75 for 512MB of RAM in the mini, and \$325 for 1GB. (Since the mini has only a single RAM slot, Apple is essentially charging these prices *and* recouping the cost of the 256MB module it doesn't have to install in your system.) At the same time, we were able to find 512MB modules from other vendors for as little as \$66, and 1GB modules for as little as \$164. So if you want to save money, you should seriously consider ordering your mini with the base 256MB and then swapping out Apple's module for a larger one you purchase yourself, especially if you want 1GB of RAM.

I want to save money but I'm not too technical. Should I just buy Apple's RAM?

Maybe. Installing RAM in the Mac mini is the easiest upgrade you can perform on the machine. If you've got a putty knife handy, are comfortable pulling RAM, and can look at the exposed guts of a computer without feeling faint, you can do it. But if you haven't installed RAM in a system before, the mini is probably not the best place to start.

If I don't order my system with Bluetooth, AirPort, or both installed, can I add them later?

Not by yourself. But you can get an Apple specialist or someone at an Apple Store to add them for you. If you're planning on using Bluetooth or AirPort on the Mac mini at any point during its life, just order it now and save yourself the trouble.

Can I replace the hard drive?

Yes, but only if you're a serious hardware hacker. For starters, you'll need to remove the optical drive, lift the entire internal plastic frame from the logic board, and then remove the fan. Only then will you have access to the four screws you need to remove before unhooking the drive. Instead, might we suggest an elegant external FireWire hard drive?

Does the Mac mini have an audio-in jack? How about digital audio-out?

No and no. For both, consider an external USB or FireWire device that supports audio input (such as the Griffin Technology iMic; find.macworld.com/0305) or digital audio output (such as M-Audio's Transit; find.macworld.com/0306).

I've got a VGA monitor. Will the Mac mini work with it?

Yes. The Mac mini comes with a DVI-to-VGA adapter—just a small plastic block you push onto the DVI connector. To attach it tightly, simply turn the two plastic wheels on either side of the adapter.

I've got a USB keyboard and mouse from a PC. Will they work with the Mac mini?

Yes indeed. OS X natively supports the mouse's second button (and scroll wheel, if it's got one). You might want to use DoubleCommand (find.macworld.com/0307) to swap the Windows and Alt keys; otherwise, you may keep pressing the option key when you mean to press the ⌘ key.

Optical Drive

The Mac mini's optical drive—either a CD-burning and DVD-playing Combo drive or a CD- and DVD-burning SuperDrive—is the same small, slot-loading drive used in Apple's PowerBooks. So if you wanted to upgrade the drive sometime in the future, you could theoretically swap in a different slot-loading laptop drive.

Wireless Card

You won't find the Mac mini's wireless card on systems that don't have either Bluetooth or AirPort Extreme installed. It accommodates a standard AirPort Extreme card and a special Bluetooth module. Unlike previous Macs, the mini can be upgraded with internal Bluetooth connectivity later if you didn't order it that way.

Heat Sink

Beneath this heat-dissipating module is the Mac mini's G4 processor, running at either 1.25GHz or 1.42GHz.

Modem

This small card is the Mac mini's built-in 56-Kbps modem; wires connect it to the telephone port on the computer's back.

Interconnect Slot

The interconnect board on the Mac mini's plastic internal frame connects to this slot.

RAM Module

According to Apple's specs, the Mac mini uses PC2700 RAM, which runs at 333MHz. However, all the Mac minis we looked at came with PC3200 RAM (which can run at speeds as high as 400MHz). Even so, in the Mac mini, the PC3200 RAM will run at PC2700 speed. Apple says that the Mac mini supports as much as 1GB of RAM. Although modules with more than that are starting to appear, it's unclear whether the mini will support them.

Interconnect Board

Attached to the plastic internal frame, this card connects the Mac mini's hard drive and optical drive to its logic board; it also supplies power to the mini's fan and audio to its speaker.

Hard Drive

The Mac mini's hard drive is the same size and speed as the drives used in laptops. Although Apple says that the drive spins at 4,200 rpm, that's not entirely accurate: The 40GB drive we examined was a 5,400-rpm model. The 80GB model ran at 4,200 rpm and was noticeably slower than the 40GB drive in some of our tests (see our review of the Mac mini, page 24, for complete speed-test results).



Cracking Open the Mini

Opening the Mac mini is relatively easy, but it isn't a job for the faint of heart. To crack the case, turn the mini upside down (on a very soft surface, or else you may scratch the top). Carefully insert a thin putty knife on one side of the mini's undercarriage, between the white plastic and the silver aluminum. Then gently tilt the knife until that side of the case lifts up and you hear a subtle popping sound. Repeat this procedure on the other side. (It's a bit more difficult to insert the putty knife on the second side—if you've got two knives, you can try inserting one on each side and then popping the sides simultaneously.) When both sides have popped, you should be able to lift the computer out of its housing without too much trouble.

Once you're done doing whatever you want to do inside, just pop the cover back on, taking the utmost care to line up the back of the case correctly; it must slide in perfectly, just above the Mac mini's ports.

Note that although opening up the mini won't void your warranty, Apple would clearly prefer that you leave the surgery to the experts at your local Apple Store.

Fan

To minimize noise, the Mac mini's cooling system bases the fan speed on how hard the computer is working.

Power-Sleep Light

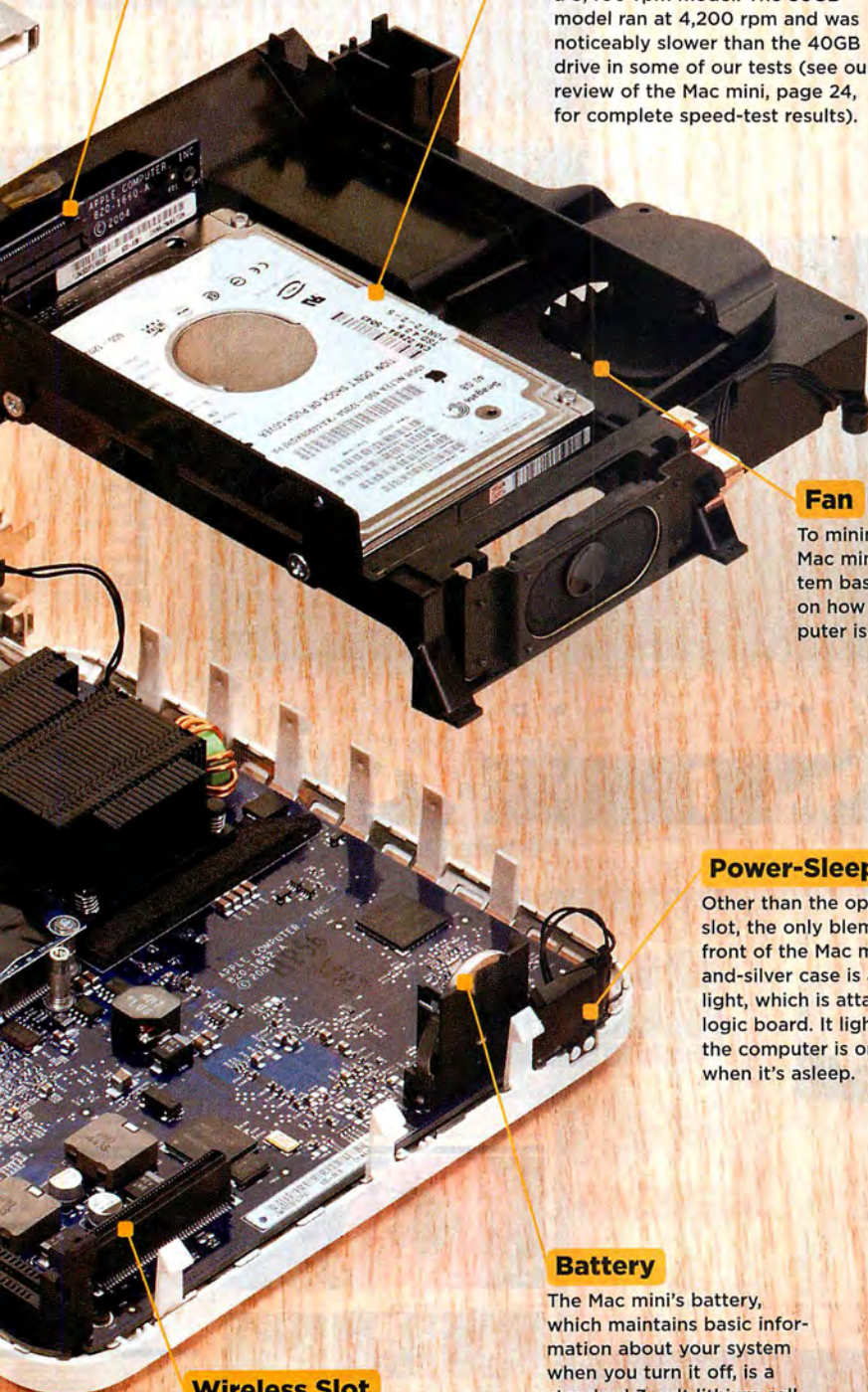
Other than the optical-drive slot, the only blemish on the front of the Mac mini's white-and-silver case is a small white light, which is attached to the logic board. It lights up when the computer is on and pulses when it's asleep.

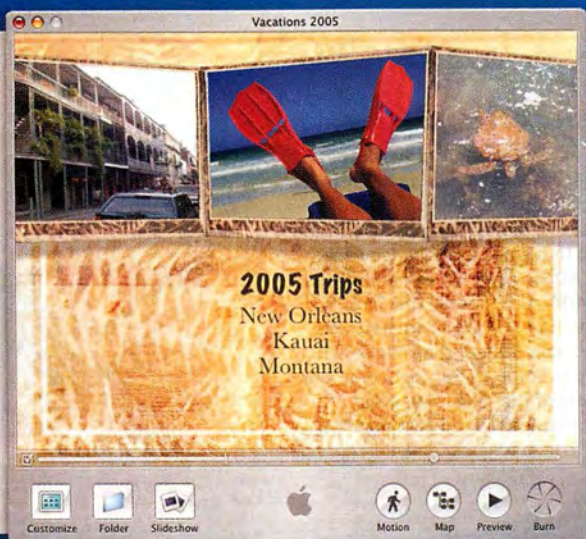
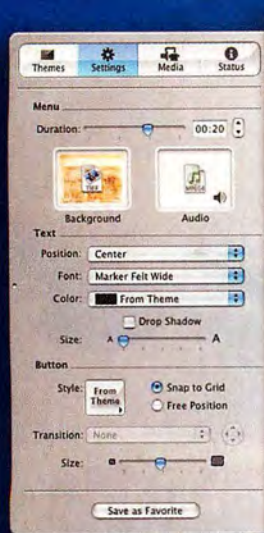
Battery

The Mac mini's battery, which maintains basic information about your system when you turn it off, is a standard 3-volt lithium cell, the kind found in watches. If yours dies, you can replace it almost as easily as you can replace RAM.

Wireless Slot

The wireless card, featuring a Bluetooth module and/or an AirPort Extreme card, attaches here.





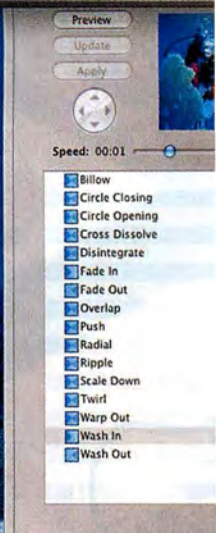
iDVD 5, PAGE 60

PAGE 61

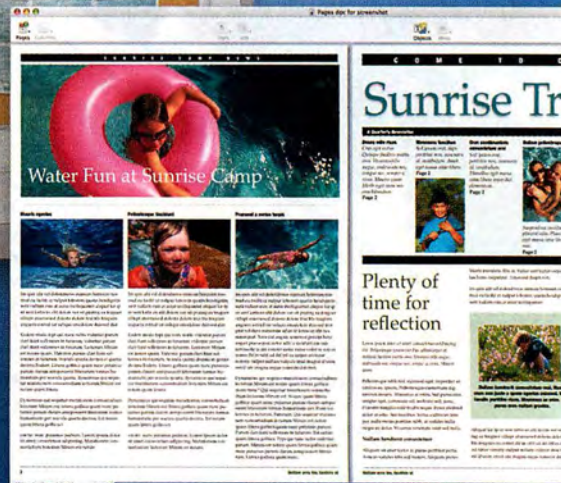
GARAGEBAND 2



iMOVIE HD, PAGE 59



iPHOTO 5, PAGE 58



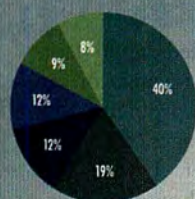
WILL APPLE'S LATEST
SUITES HIT THE SPOT?

Reviewed:

iLife '05 iWork '05

KEYNOTE 2, PAGE 63

Toy Car Market Share



With Apple's iLife applications—iPhoto, iMovie, iDVD, iTunes, and GarageBand—you can do almost anything you want with your video clips, photos, and music. In the new version of this suite, iLife '05, you'll find fantastic new themes; a new Media Browser that lets you tie your audio, photos, and video together; and tons of improvements that make these fun-to-play-with apps even easier to use. But they provide more than enjoyment: this is Apple's most ambitious iLife release, with some nearly pro-level features. So the suite provides lots of growing room for people just starting out with their digital media collections. Best of all, the suite costs only \$79. But as you'll see in these reviews, the updated iLife apps aren't without their oddities. (For our review of iTunes 4 [****], go to find.macworld.com/O291 or see our July 2003 issue.)

And now Apple is doing for Mac-based businesspeople what it did for home users: with the new iWork '05—which includes Keynote 2 and the brand-new Pages—anyone can make professional-looking presentations, newsletters, brochures, and more. Unlike AppleWorks, which is free with all new Macs and includes word processing, spreadsheet, drawing, and painting tools, iWork '05 costs \$79 and includes only a word processor and a presentation program. We took a good, hard look at iWork '05 to find out whether it's ready for the boardroom.

PAGES, PAGE 62



iPhoto 5

Sweeping Update Improves Photo Management, Slide Shows, and Book Publishing **BY JIM HEID**

» iPhoto 5 is the most wide-ranging iPhoto upgrade yet, bringing interface improvements; new ways to store, browse, and edit images; and greatly enhanced slide-show and book-publishing features. It's a must-have upgrade for all iPhoto users.

Or at least it will be: iPhoto 5's debut was marred by several major bugs. Version 5.0.1 addressed the most-serious ones, but some problems remain.

A Cleaner Face

When you launch iPhoto 5 for the first time, it updates your iPhoto library for use with iPhoto 5. I updated several libraries containing thousands of photos apiece, and I had no problems.

In iPhoto 5, you'll see that Apple has removed many of the buttons that used to line the bottom of iPhoto's window. Buttons for tasks that most people perform infrequently, such as burning photos to a disc, have been replaced by commands in the new Share menu. You can also use the Share menu to choose which buttons appear at the bottom of the iPhoto window.

Like earlier versions, iPhoto 5 switches into import mode automatically when you connect a camera. But iPhoto 5 lets you assign a name and a description to your "roll" of photos before importing them.

This simple but welcome improvement pairs nicely with iPhoto's new Search box, which lets you base searches for photos on text in their roll names, file names, keywords, or comments.

Another way to locate photos is with the new Calendar pane, which lets you browse your library chronologically. This is a fun way to explore your library—a huge improvement on the halfhearted chronological-browsing features in iPhoto 4. Like iTunes 4 with its smart playlists, iPhoto 5 has smart albums, which let you compile albums based on criteria such as keywords, file names, or dates.

Great Books iPhoto 5 gives you more control over the layout of your photo books. And this version supports double-sided printing to a wider variety of sizes and layouts.

Making Changes With iPhoto's new Adjust panel, you can fix problems in your photos and even straighten crooked photos.

From Movies to Raw

iPhoto 5 adds the ability to transfer and store movie clips created by digital cameras. And advanced photographers will appreciate iPhoto 5's ability to transfer and store photos in Raw format—the unprocessed "digital negatives" that a growing number of cameras can shoot.

Unfortunately, iPhoto's support for raw data is a mixed bag. iPhoto supports fewer Raw formats than Adobe's Photoshop Elements 3 (February 2005) does. What's more, some aspects of iPhoto's raw-image workflow can be confusing. One example surfaces if you've set up iPhoto to open photos in another image editor, such as Photoshop Elements, when you double-click on them. If you double-click on a Raw file to open it in Elements, iPhoto first converts it into a JPEG and then hands off the JPEG to Elements—thus negating the advantages of the Raw format.

In this case, the workaround is simple: drag the Raw photo onto the Elements icon in your Dock. Still, there's room for improvement in the way iPhoto handles Raw photos.

Enhanced Editing

iPhoto 5 sports a remodeled digital darkroom. With the new Adjust panel, you can fix color and exposure problems and sharpen and straighten images (see "Making Changes"). However, I wish that iPhoto let you, as Photoshop does, identify white points or black points you've inadvertently removed.

The Exposure slider lets you improve a photo's brightness with more precision than the Brightness and Contrast controls. It works well, but I found that Photoshop Elements 3 did a better job of recovering details from bright highlights and dark shadows.



PHOTOGRAPH BY PETER BELANGER

I can't find fault with the Adjust panel's Straighten slider, though. Drag it, and iPhoto simultaneously straightens and crops a photo, superimposing a grid that helps you straighten crooked shots.

Most Adjust-panel features work only on Macs with G4 and G5 processors. On G3 systems, only the Brightness and Contrast sliders are available.

Show Off

Some of the best changes to iPhoto deal with creating slide shows and books. For starters, they are now independent entities of the albums on which they're based: when you create a slide show or a book, a new item appears in the iPhoto window's Source pane, so it's easy to create multiple versions of a project. Better still, making a change to an album no longer changes (and possibly ruins) the books or slide shows based on that album.

Slide shows themselves are showier: you now have far more control over the appearance of slide shows, and you can even apply panning and zooming—the Ken Burns Effect—to photos. However, the Fit To Music option, which is supposed to adjust the length of a slide show so it ends when a song ends, simply doesn't work.

iPhoto 5's book-publishing mode offers a far larger assortment of page designs than that of earlier iPhoto versions, and the mode's layout features are much easier to use. For example, deleting a photo from a page no longer causes photos on subsequent pages to shift.

Macworld's Buying Advice

iPhoto 5 brings welcome improvements in almost every area. The program's new slide-show and book-publishing features are spectacular, and its editing features—while still a far cry from what Photoshop Elements provides—make it easier for imaging newcomers to improve their shots.

Version 5.0.1 fixes iPhoto's most serious problems, so you can upgrade without fear of losing work. But some annoying glitches remain, and iPhoto won't reach its true potential until Apple addresses them.

RATING: ★★★★★

PROS: Support for more types of media; greatly enhanced browsing, image editing, and slide-show and book-creation features.

CONS: Limited Raw support; some irritating bugs.

PRICE: \$79 as part of iLife '05

COMPANY: Apple Computer, www.apple.com

iMovie HD

Addition of HD Editing Steals Limelight from Other Useful Improvements **BY JEFF CARLSON**

Now that Apple has thrown down the technology gauntlet and proclaimed that 2005 is the "Year of HD [high-definition] Video," I assume that you've already purchased your \$3,700 HD digital camcorder and are now ready to stand at the forefront of the new digital cinema.

Wait, I'm sorry—what's that you say? That camera is too pricey for your budget? And there aren't any movies available on HD-DVD because a standard hasn't yet emerged? Well, yes, that's all true—but HD is so cool!

HD Trojan Horse

Adding HD support to the latest version of Apple's entry-level video editor seems to be an odd choice, since most iMovie HD users—at least initially—won't be shooting in the HDV format (see "An HD Primer"). In time, though, prices of HD gear will no doubt come down, and more people will then start buying big, beautiful HD televisions that take advantage of HD's higher resolution.

But in addition to HD bragging rights (take *that*, Windows Movie Maker), iMovie has made impressive gains. The HD version can import 16:9 (wide-screen) DV video without hassle, and it imports MPEG-4 (produced by some new tapeless camcorders) and iSight footage without transcoding it into iMovie's traditional DV Stream format. More impressive, iMovie HD allows each format to coexist, without much fuss, in the same iMovie project.

I imported some HD footage, and working with these files revealed a surprise: once the video is in iMovie HD, you edit and manipulate it just as you would DV footage. It's still digital video, despite the increased resolution.

But working with the higher resolution demands at least a 1GHz G4 processor. Editing and playback were a breeze on a dual-2.5GHz Power Mac G5



Presto Change-o The new Magic iMovie feature does most of the work for you. You give your movie a title, choose a type of transition, and pick some music, and iMovie HD rewinds the tape in your camcorder, imports the footage, applies transitions, and includes a soundtrack.

and only occasionally stuttered on a 1.25GHz PowerBook G4 (working with HD was difficult but not impossible on my old 400MHz Titanium PowerBook G4). HD also requires much more disk space; depending on your footage, you should budget at least four times the amount of storage you'd need for a DV project. (The good news here is that iMovie HD doesn't limit incoming clips to 2GB in size.)

An HD Primer

iMovie HD actually supports a comparatively low-end

variety of high-definition video called HDV, which is high-definition footage with MPEG-2 compression applied to it. HDV comes in two varieties, both of which iMovie HD supports: 1080i provides 1,920-by-1,080-pixel interlaced resolution, while 720p offers 1,280-by-720-pixel progressive-scan resolution. (The Sony Handycam HDR-FX1 camcorder [shown] is a 1080i model.) Although it's highly compressed, HDV currently offers more than enough image detail and sharpness for most non-professional editors.



Improvements and Lingering Problems

For the rest of us DV-editing mortals, iMovie HD represents a significant leap toward, well, stability. iMovie 4 (4.0; May 2004), seemed to have more pep and felt smoother on my 1.25GHz PowerBook G4 than iMovie 3—but “more pep” really meant that it didn’t stutter or crash nearly as much as before. With iMovie HD, Apple’s engineers have ironed out many of the performance problems that plagued the previous two releases.

Aside from HD capability, iMovie HD’s feature set is mostly the same as version 4’s, with a few exceptions. Chief among them is the ability to rearrange clips by dragging them around in the Timeline Viewer, not just the Clip Viewer. iMovie HD also boasts unlimited undos; and a Magic iMovie feature automatically imports footage from your camcorder, adds transitions and music, and optionally sends the movie off to iDVD for burning.

iMovie HD isn’t perfect, of course. The Ken Burns Effect, while not as flaky as before, is still rudimentary and could benefit from more control (such as timing the movements at the start and end of a clip). I also encountered a few random buzzing and popping noises around a few transitions, an issue I’ve seen reported online by other users. (This doesn’t seem to have been fixed with the release of iMovie 5.0.1.)

Macworld’s Buying Advice

Unless you’re running an older Mac, iMovie HD’s performance improvements alone make iLife '05 worth its price. If you’re on the cutting edge of HD and have the gear, the program provides a good first step into that world. Although a few outstanding audio and compatibility issues remain, and although I’d like to see Ken Burns (the effect, not the filmmaker) get a makeover, this is the version that loyal iMovie users have been waiting for.

RATING: 4.0

PROS: Improved performance and stability; support for HD, wide-screen DV, MPEG-4, and iSight video; Magic iMovie feature; better drag-and-drop capabilities.

CONS: Audio glitches; Ken Burns Effect needs more controls; sketchy performance on older Macs, even those that meet its system requirements.

PRICE: \$79 as part of iLife '05

COMPANY: Apple Computer, www.apple.com

iDVD 5

DVD-Creation Program Sees Refinement BY JEFF CARLSON

Is iDVD 5 the prestidigitator of the iLife '05 suite? Like a world-class magician, iDVD’s 15 new themes hold your attention—by spinning and sliding your photos and movies around the screen. But behind the scenes, the DVD-creation program employs a few new tricks that give it more power than I expected to see.

More Kindling for the Fire

The most notable improvement in the previous version, iDVD 4, was the ability to burn as much as two hours of movies and photos to a disc, depending on the encoding preset (Best Quality or Best Performance). Version 5 has the same encoding options, but you’re not limited to burning to DVD-R media. iDVD 5 can burn directly to DVD+R, as well as the rewriteable DVD-RW and DVD+RW formats, if you have a late-model SuperDrive (for a list of compatible models, see find.macworld.com/0319).

But the best news is that, finally, iDVD no longer requires a built-in SuperDrive to burn discs (but for direct burning from iDVD, this remains Apple’s only officially supported method). Now iDVD provides a sensible workaround for people who use external disc burners: Save As Disc Image. This feature takes your project through the normal disc-burning process but wraps it up as a disc image that can be burned successfully from the Finder or Roxio’s Toast 6 Titanium (I used the latter in my tests).

Like iMovie HD, iDVD 5 supports HDV and 16:9 (wide-screen) DV—sort of. Until the standards bodies finish duking it out over an HD-DVD specification, iDVD won’t be able to burn HD-quality video. However, iDVD converts any HD footage you bring in from iMovie HD (or Final Cut Pro HD) to 16:9 DV so that it will play correctly on wide-screen TVs. iDVD also imports AVI video, which many digital still cameras’ movie modes produce.

Instant DVD

Another signature new feature in iDVD 5 is the program’s ability to do all the



DVD in One Step Similar to iMovie HD’s Magic iMovie feature, iDVD 5’s OneStep DVD feature grabs video from your camcorder, encodes it, and burns it to a DVD.

work for you. If you just need to dump video from a DV tape onto a DVD (for example, to assemble the film dailies a director needs to review before the next shooting day), then OneStep DVD can rewind the tape in a connected camcorder, import the footage, and burn it to a disc. The resulting disc doesn’t include a menu or any navigation—when you insert it into a DVD player, the movie immediately begins to play.

Magician’s Assistant

In general, iDVD 5 feels a bit sprightlier, and it’s more graceful and helpful during the DVD-creation process. You can look at the Map view horizontally or vertically, zoom in or out, and use the small disclosure triangles to hide or show branches of a project. You can’t reorganize a project in the map—a feature I’d like to see—but you can apply themes to menus and add new menus and slide shows without leaving the map.

Other niceties abound. For example, the Burn Progress window is much more informative, presenting all the steps and indicating where you are in the process. And as iDVD renders your menus and movie footage, it displays a small preview.

Animated Themes

The new themes make for some snazzy visuals, such as the expanding, flying

flowers of Anime Pop. With animated drop zones, you can drag and drop a movie or photo directly onto a theme. But if you're not keen on trying to drop media onto moving targets, you can stop the animation by clicking on the Motion button. Then you can use the new Motion playhead to advance the animation and make each zone visible in turn. Or for a simpler approach, double-click on a drop zone to open the Drop Zone Editor, where you can add media into orderly columns.

Macworld's Buying Advice

You probably wouldn't buy the iLife '05 suite for iDVD 5 alone, but as a complement to iMovie HD, the program is a solid—if incremental—improvement on the last version. If you burn multiple versions of your projects, just the ability to burn onto rewriteable DVD media will probably earn back your investment within a short period of time. And Apple has certainly set the stage for the near future, when HD-

DVD media will allow us to watch HD movies on our enormous HD televisions.

RATING: ★★★★★

PROS: Lets you burn to multiple DVD media formats or create a disc image; improved Map view; limited HDV support; OneStep DVD feature makes the importing and burning process painless; sensible interface improvements.

CONS: Can't reorder menus in Map view.

PRICE: \$79 as part of iLife '05

COMPANY: Apple Computer, www.apple.com

GarageBand 2

Fantastic Upgrade Makes Creative Program Even More Musical
BY CHRISTOPHER BREEN

» In early 2004, Steve Jobs enthusiastically unveiled GarageBand, a program that gave even musical novices the power to fashion dynamic soundtracks. But as marvelous as GarageBand was, some users were frustrated by the program's limitations.

Apple has addressed many of the problems with the original release and added some new features that make GarageBand even more musical. Although some features are implemented better than others, GarageBand 2 is a commendable upgrade.

New, Improved, and Needing Improvement

GarageBand 2 takes some of the burden off your processor by allowing you to lock tracks. When you lock a track, it's rendered to your hard drive, freeing the processor to

devote its attention to other things—like playing and recording more tracks.

GarageBand 2 can simultaneously record as many as eight digital-audio tracks and one Software Instrument track. In my tests with Mark of the Unicorn's 828mkII audio interface running on a 1.25GHz PowerBook G4, it did just that with nary a hiccup. Musicians who want to record multiple instruments and voices at the same time will find this feature a real boon.

Inputting music for Software Instrument tracks is now easier, thanks to the new Musical Typing feature—a window that lets you “play” your Mac's keyboard by pressing keys that correspond to musical pitches (see “The Other Keyboard”). Unlike other on-screen keyboards I've used, this one is responsive and even lets you play chords without an annoying delay.

You can now drag multitrack Standard MIDI Files into the program, where they're split into separate tracks (bass tracks continue to import an octave too low, however). Regrettably, you still can't export MIDI files from GarageBand, though Apple's Logic Express and Logic Audio can open GarageBand files. As with the original GarageBand, you can export your mixed songs as AIFF files.

Other promising features that could use just a touch more refinement are GarageBand's new track-notation view and pitch-shifting functions. The notation view errs on the side of producing legible scores at the expense of rhythmic accuracy—it missed a few triplets and dotted rhythms in my tests. And you can neither change meters and key signatures in these scores nor print the scores. Amateur musicians will appreciate the resulting scores' clarity, but pros needing more notation capabilities should look to Logic Express, Mark of the Unicorn's Digital Performer, or Steinberg's Cubase.

GarageBand's ability to shift the pitch of digital audio tracks is welcome, but once you move a track more than a major second up or down the scale, lowered tracks sound wobbly, and raised tracks sound increasingly chipmunk-like as you move farther away from the original pitch.

On the other hand, Enhance Tuning—a feature that pulls slightly out-of-tune audio tracks back into tune—is a marvel. Applying a medium amount of the effect noticeably improved my less-than-spot-on vocal tracks.

Macworld's Buying Advice

Apple has released an admirable update to an already remarkable music application. Although a very few rough edges remain, musicians of all skill levels will find GarageBand 2 worth the price of admission.

RATING: ★★★★★

PROS: Simultaneous multitrack recording; track locking for better performance; excellent on-screen keyboard; supports import of Standard MIDI Files; Enhance Tuning feature improves vocals.

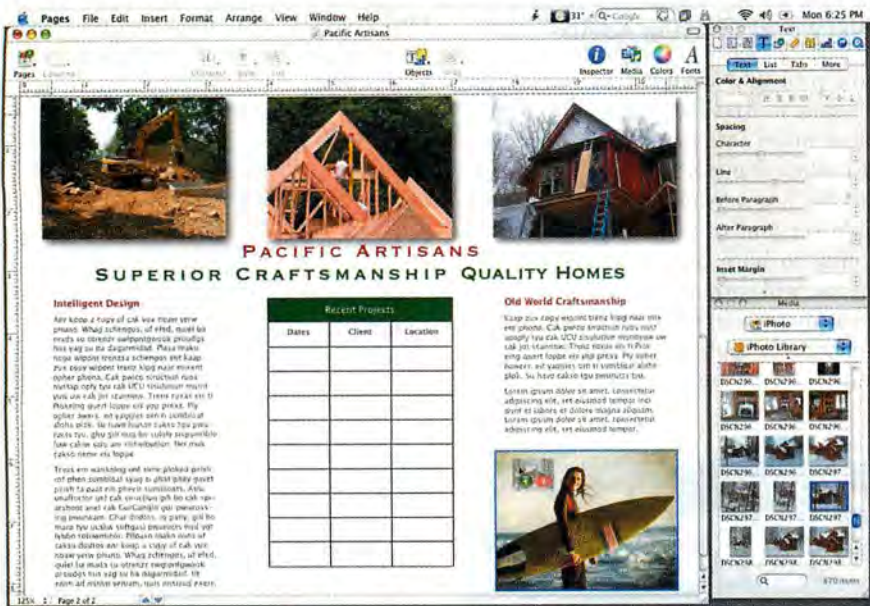
CONS: No export of MIDI to programs other than Logic Express and Logic Audio; limited notation view; limited usefulness of pitch shifting.

PRICE: \$79 as part of iLife '05

COMPANY: Apple Computer, www.apple.com



The Other Keyboard With GarageBand 2's new Musical Typing feature, you can use your Mac's keyboard to play notes—and chords.



Pretty Pictures You can design a Pages document with photos from your iPhoto library.

rather odd to be adding movies and audio to documents that are almost certainly destined for print. (You can export to HTML, but the resulting Web pages look terrible.) Also, there's no way to configure the browser to find other images you may have elsewhere, and it lacks access to AppleWorks' stellar online clip-art library.

An Early-Release Program

Pages' weaknesses—and there are many—are mostly due to its immaturity. Even though the program appears to be designed for page layout, there is no way to delete, rearrange, or manage pages within a document. The only way to remove an individual page is to delete all the text and images that appear on it.

Documents printed as PDF files look beautiful in Apple's Preview application, but graphics lose their drop shadows when viewed in Adobe Reader (a bug that's also in Keynote), so you can forget about taking your PDF files to the print shop for final output. The program also lacks mail-merge capabilities, so you'll still need to rely on AppleWorks, FileMaker, or Word for mail merges.

Other quirks include the inability to drag images from one Pages document to another, a lack of support for EPS files (even though the manual claims that EPS is supported), and the inability to easily import Word styles.

Macworld's Buying Advice

While Pages still has some growing to do, it's clearly a stellar app in the making. If you want to create standard text documents and beautiful, one-off newsletters, resumes, and brochures, you won't be disappointed. But if you're expecting to inexpensively satisfy all your page-layout needs, I suggest that you wait for the next version to ship.

RATING: ★★★

PROS: Excellent word processing features; supports Word styles; exports formatted Word documents perfectly; top-notch graphics-handling capabilities.

CONS: Some features lack polish; documents output to PDF lose drop shadows when viewed in Adobe Reader; uses OS X's awkward Font panel; can select only iLife media from within the Media Browser; lacks access to AppleWorks online clip-art library; poor HTML export.

PRICE: \$79 as part of iWork '05

COMPANY: Apple Computer, www.apple.com

Pages

New Page-Layout App Shows Promise, but It's Not Quite Ready for Prime Time **BY JEFFERY BATTERSBY**

When Apple announced Pages at Macworld Expo in January, several questions may have passed through your mind: Is it a Word killer? An AppleWorks replacement? MacWrite reincarnated? A PageMaker wannabe? The answer to all these questions is yes *and* no. Pages is an application that behaves like a word processor—but one with powerful graphics and media-handling capabilities. People who do a lot of word processing will likely come away from Pages feeling as if they'd struck gold, but layout-design mavens will find that the program leaves something to be desired.

Word Processing Prowess

As a word processor, Pages 1.0 is nimble and a complete pleasure to use, and it has much better word processing capabilities than AppleWorks. Just open a new blank document and start typing: Pages behaves like any other word processor, but it has text-handling features usually found in much more expensive programs.

Like Keynote, Pages provides a handy Inspector palette from which you can manipulate your text, format paragraphs, adjust kerning, create columns, and manage page setup. Unfortunately, instead of providing tools on the Inspector palette

for changing the font, font color, and style, Apple uses OS X's clunky Font panel.

Pages handles Microsoft Word documents seamlessly, retaining styles and formatting. Once you've made changes in Pages, you can export to Word just as smoothly. The only time we experienced any problems exporting Word documents was when graphics were included—an area in which Word has never been very agile.

Page Layout for the People

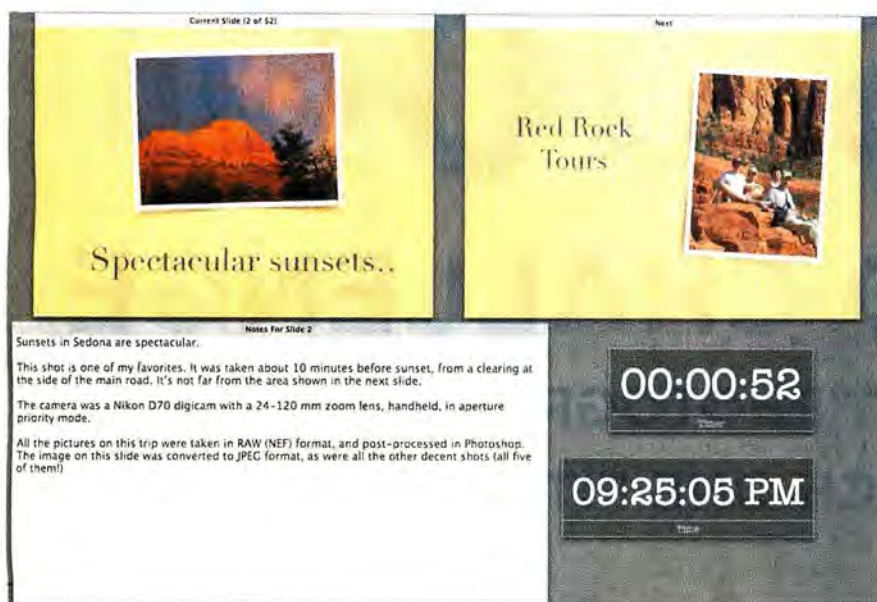
When it comes to creating beautiful documents, Pages has no equal for a comparable price. Drag a graphics file from the Finder onto the page, and you can manipulate it in amazing ways: add drop shadows, give the graphic borders, wrap text perfectly around the image, or rotate the image on the page.

For people unwilling to brave the world of page layout on their own, Pages provides a large set of beautifully designed templates. It uses text and image placeholders, which are, essentially, fields on the page where you can drop graphics or type text. For the creatively challenged, these templates make beautiful documents as easy as drag-and-drop or copy-and-paste.

Pages has a Media Browser that lets you navigate to your iPhoto or iTunes library, or to your Movies folder. It does seem

Keynote 2

Overdue Upgrade to Presentation Program Brings Many Welcome Features **BY FRANKLIN N. TESSLER**



Up Next With Keynote 2's Presenter Display, you see what's coming before your audience does.

Since its surprise debut in January 2003, Keynote (★★★; April 2003) has attracted a cadre of loyal fans who've worked around the program's limitations to craft stunning presentations. Microsoft upped the ante last year with PowerPoint 2004 (★★★★; August 2004). And just when it seemed that Keynote might die on the vine, Apple unveiled Keynote 2. This new release fills in many of the previous version's gaps—and adds a few new wrinkles.

Animation Options

Animation builds determine how text and graphics enter and exit the screen, and Keynote 2.0's new Build Inspector options give presenters much more control over them. To help you manage complex build sequences, a sliding panel lists all the animations that you've programmed for a slide. Keynote also now supports simultaneous builds, during which two objects can appear or disappear at the same time.

Other new options are geared toward automated or interactive presentations. Keynote's new Document Inspector tab lets you program a slide show to start automatically when it opens, or loop

when it's over. If you want a presentation to run unattended, you can specify times for automatic slide transitions and builds that would normally require a mouse click to play. Keynote also lets you select a soundtrack that spans one or more slides (that plays until the music is over), an often requested feature.

Live Links

Like PowerPoint, Keynote lets you insert links to other slides in the same show, links that open another Keynote presentation, or links that open your Web browser to display a Web page. Web View, another new feature, inserts a snapshot of any Web page directly onto a slide. When you run the slide show, Keynote automatically updates the page if your computer is connected to the Internet. Unfortunately, Web View refused to work at all on two of my three Macs until I created a new user account. (Apple is aware of this problem.)

Drawing and Media

Keynote's expanded Shapes palette sports six new shapes, and you can now enter text into an object simply by click-

ing on it and typing. Alas, Keynote still lacks a Bézier curve tool, and you can't resize grouped objects.

The new Media Browser provides instant access to your iTunes and iPhoto libraries and your Movies folder. The Mask tool, another much needed addition, lets you draw a rectangular window over an imported image; you can then reposition the image inside the window, so you don't have to crop the image first.

Help for Presenters

Taking a cue from PowerPoint, Keynote has a Presenter Display feature that lets you monitor your presentation and stay a step ahead of your audience (see "Up Next"). But Keynote leapfrogs PowerPoint by letting you decide which elements (current slide, next slide, or speaker's notes) to show. You can't use Presenter Display to practice your presentation unless you connect a projector or a second monitor.

Export Controls

In addition to QuickTime, PowerPoint, and PDF export options, Keynote now lets you export presentations as a series of images or as a Macromedia Flash movie. Flash export isn't perfect—soft drop shadows aren't rendered faithfully and text alignment sometimes suffers—but it's sufficient for quick-and-dirty jobs. There's still no HTML export. And Keynote has a bug that also plagues Pages—exported PDF files are missing their drop shadows when viewed in Adobe Reader.

Macworld's Buying Advice

While it's not perfect, Keynote 2 is a greatly improved application. I'm hoping that Keynote's inclusion in iWork '05 will mean more-frequent updates—Apple shouldn't take another two years to add a slide sorter that shows more than a single column of tiny thumbnails, for example. In the meantime, though, Keynote 2 is worth every penny of iWork '05's price. □

RATING: ★★★½

PROS: Extensive build controls; helpful, customizable Presenter Display; integrated with iLife '05 apps.

CONS: Anemic slide sorter; drawing tools are rudimentary; buggy Web View.

PRICE: \$79 as part of iWork '05

COMPANY: Apple Computer, www.apple.com

MACWORLD'S \$5,000 PHOTO CHALLENGE

**TWO EXPERT PHOTOGRAPHERS, TWO
SETUPS: WHICH ONE FITS YOUR STYLE?**

What beer is to Homer Simpson, gear is to digital photographers. It's too bad that new lenses, PowerBooks, and image editors aren't as cheap as a six-pack of Schlitz. Nope, photography gear is expensive, so you can't have it all. But you *can* choose wisely.

We asked two digital photographers, Derrick Story and Ben Long, to show us how they would outfit themselves if given \$5,000. But we added a twist: We told Derrick to shop as a professional photographer, while we asked Ben to make his purchases as if he were an enthusiastic (and deep-pocketed) amateur.

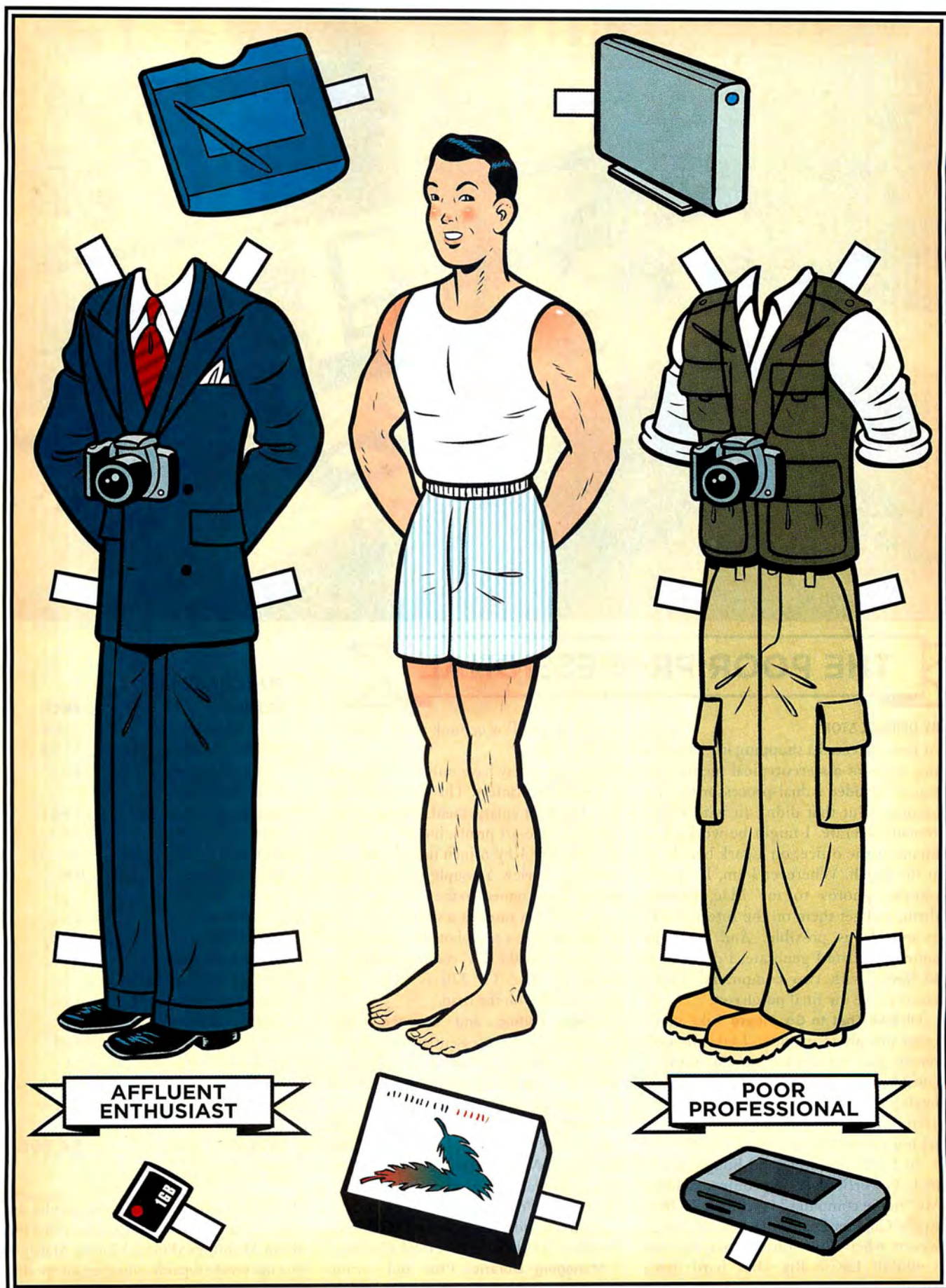
THE BUDGET

Derrick and Ben each began with a \$5,000 budget and a 17-inch iMac with a 1.6GHz G5 processor, a Combo drive, 256MB of RAM, an 80GB hard drive, and the iMac's bundled software. We gave them the option of selling the iMac for \$1,299—the going price for that system on EveryMac.com—and adding the profits to the budget. Because buying just one pro-level camera could blow the entire \$5,000, we assumed that our photographers already owned their cameras.



EMPTY POCKETS?

Even if your photo budget is nowhere near \$5,000, there's still a lot to learn from these experts' choices. Although a portable media viewer or a second printer may not be in your immediate future, smart, smaller purchases can keep you snapping happily for years to come.



**AFFLUENT
ENTHUSIAST**

**POOR
PROFESSIONAL**



THE POOR PROFESSIONAL

BY DERRICK STORY

At first, I created a shopping list based on the needs of a stereotypical media person: it included a dual-processor G5, for example. But that didn't fit with how I actually operate. I might be working at home, at the office, on a park bench, or at the beach. Wherever I am, I want to transfer photos to my Mac, process them, and get them on the Internet—all as quickly as possible. And with the amount of data I generate, I don't want to hassle with two computers. Those needs drove my final purchases.

I'll Take That to Go, Please Like many other pro photographers, I take pictures on-the-go, so I need a portable setup. I considered keeping the 17-inch iMac and buying an iBook for location work, but even at home, the iMac isn't ideal because it's not expandable enough.

So I sold the iMac and bought a 17-inch PowerBook as my only machine. My "home computer" is really a 23-inch Apple Cinema Display (I love the large screen when I'm editing images) and a 400GB LaCie Big Disk hard drive for those all-important backups. Both

attach to the PowerBook when I'm not on the road.

Printing I may have only one Mac, but I've got two printers. The Canon i9900 is my choice for enlargements (up to tabloid size) and fine-art prints, but it's too cumbersome for 4-by-6-inch output. When I need to preview a couple of pictures as prints, I just connect to the Canon CP-220 and print; because it's a dye-sub printer, the prints have a real photographic quality to them, and the UV coating is nice for handling. The CP-220 is even small enough to go on the road.

Image Editing and Creation Adobe Photoshop CS is essential for photographic editing. To save a bit of money, you can buy a used copy from a reputable Web site (I went to Amazon.com). For creating motion graphics and dynamic slide shows from stills, I like Boinx Software's FotoMagico. And I got QuickTime Pro to convert file formats, apply different types of compression, apply correction filters, add titles, edit, and stitch clips together. It's also wonderful for playback.

Managing Libraries Pros and serious amateurs shoot lots of pictures. On its own,

PURCHASE LIST

PRODUCT	PRICE
17-inch PowerBook G4	\$2,699
23-inch Apple Cinema Display	\$1,799
512MB RAM upgrade	\$125
Adobe Photoshop CS	
(purchased used)	\$440
Belkin 15-in-1 Media	
Reader/Writer	\$35
Boinx FotoMagico	\$79
Brian Webster's iPhoto	
Library Manager	\$0
Canon i9900 printer	\$439
Canon CP-220 printer	\$140
Drooling Cat Software's Better-	
HTMLExport for iPhoto 4	\$20
LaCie Big Disk Extreme	
400GB hard drive	\$399
Pixtudio's QuickImageCM	\$0
QuickTime Pro	\$30
Sale of 17-inch iMac	(\$1,299)

TOTAL **\$4,906**

iPhoto isn't flexible enough to handle the quantity and variety of images we generate. Brian Webster's iPhoto Library Manager lets me create separate libraries for specific
continues on page 68



THE AFFLUENT ENTHUSIAST

BY BEN LONG

I based my buying decisions on an analysis of what most hobbyist photographers need—not on what they may *want*. For example, an amateur doesn't need a dual-G5 Mac to keep up with a fast-paced workflow, and portability isn't a necessity, either. And the enthusiastic amateur probably doesn't need extremely high-performing camera hardware or imaging software. Because I didn't have to spend as much money chasing those extremes, I was able to spend it creatively, in other places.

System Overhaul I sold my 17-inch iMac and upgraded to the 20-inch iMac for its larger screen (great for photo editing), bigger hard drive, slightly better performance, and built-in SuperDrive. The SuperDrive and the included iDVD software make it easy to burn DVDs that hold my archived images. DVDs are also good for sending slide shows and still images to relatives.

Improve Your Memory Photoshop CS—my image editor of choice—needs a lot of RAM to perform well. (I recommend memory that's at least four times as large as the size of the image you're working

on.) That's why I increased my iMac's RAM to 1GB.

Lenses Enthusiast photographers can't go wrong with the Canon EOS Digital Rebel camera. I mention the camera because the make and model determine which lenses you need and can use. (Unlike pro photographers, who have accumulated lenses in the process of becoming professional, hobbyist photographers may be purchasing lenses for the first time.) The Rebel comes with a 17mm–85mm f4–5.6 IS or 18mm–55mm AF lens; I added two Canon lenses for a total focal range of 10mm–300mm. The EF 75mm–300mm f4–5.6 IS USM and EF-S 10mm–22mm f3.5–4.5 USM lenses have a 1.6× focal multiplier, so the effective focal range of these lenses is actually 16mm–480mm.

Storage For the best quality, I shoot in Raw mode, which produces much larger files than the JPEG mode. So I pack at least two 1GB CompactFlash cards when I'm planning a couple of days of heavy shooting.

Photos on the Road You can store a lot of images on 2GB. But when you're away

continues on page 68

PURCHASE LIST

PRODUCT	PRICE
1GB RAM upgrade	\$171
20-inch iMac G5	\$1,899
Adobe Photoshop CS	\$589
Batteries (two)	\$60
Belkin 15-in-1 Media Reader/Writer	\$35
Benbo Trekker Mk 2 tripod	\$180
Canon EF 75mm–300mm f4–5.6 IS USM lens	\$417
Canon EF-S 10mm–22mm f3.5–4.5 USM lens	\$799
Canon i9900 printer	\$405
Canon Speedlite 580EX	\$450
Epson P-2000	\$499
iView MediaPro 2.6	\$119
Lexar 1GB 80x CompactFlash cards (two)	\$180
.Mac subscription	\$99
PictureCode's Noise Ninja Pro	\$80
Tamrac Velocity 7 Compact Sling Camera Pack	\$50
Tiffen 58mm Photo Essentials Kit	\$60
Wacom Graphire3 4x5 Tablet	\$79
Sale of 17-inch iMac	(\$1,299)

TOTAL**\$4,872**

DERRICK STORY

My Strategy: My radical departure was choosing a PowerBook as my sole computer. The computer side of my digital photography work had to be as nimble and powerful as the picture-taking side.

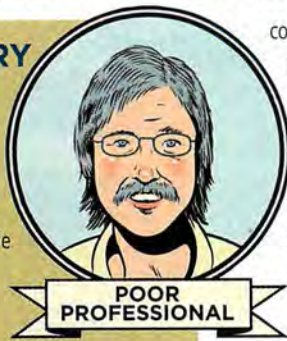
Most Essential Purchases:

Aside from the camera, the PowerBook is my most important tool. Next are Photoshop, iPhoto, and the LaCie FireWire drives.

Most Expendable Purchase: I would reluctantly give up one of the auxiliary imaging apps.

If I Had More Money, I'd: Upgrade the dye-sub printer to the Canon CP-330, buy a second 400GB hard drive for backups in a separate location, upgrade to 1.5GB of RAM, and add two .Mac accounts (one with a password and one without) for client previews of shoots. And I'd love a quality film scanner for digitizing my slide collection.

Ben's Reaction: All users should consider Derrick's portable approach (though the PowerBook and Cinema Display are a pricey combo). His combination of hardware and software is ideal for the workflow that a professional photographer needs.



continued from page 66

projects, and it makes switching between the libraries easy. Performance is always excellent, and backup is a snap.

Delivering the Goods I prefer to deliver my digital jobs on CD or DVD, depending on the number of pictures. Some clients have Macs, but more have Windows PCs, so my discs must be cross-platform.

I create each disc's navigation system in HTML. Clients can use any computer with any browser to find and download images off the disc. Since I use iPhoto to catalog my images, creating the HTML directly out of this application is handy. iPhoto lets you export HTML, but its control is limited. Drooling Cat Software's BetterHTML-Export is more sophisticated and gives me the options I need. iPhoto also lets me send a job to iDVD, where I can add even more production value and burn a disc that clients can play on their set-top DVD players.

I can also post this code on my Web site—a good site is critical for photographers. Clients can find me via my Inter-

net storefront; look at my previous work; review my pricing; and, after their shoot, look at the images.

Faster than Photoshop Even with a fast computer, Photoshop is slow. I don't want to launch it just to view a file. With Picture Studio's QuickImageCM, I can simply control-click on the file and instantly view the picture. It's a huge time-saver.

Cameras and Lenses Although I assumed that a serious photographer would already have a camera and lenses, I'll recommend a few for people who may be in purchasing mode: the Nikon D70 and the Canon EOS 20D. Out of the box, they aren't designed to produce great wide-angle shots, so it's important to get a quality wide-angle lens. I like the Canon EF 17mm-40mm f4 L USM ultrawide zoom lens. When I don't need that lens's breadth, my lens of choice is the Canon EF 28mm-135mm f3.5-5.6 IS USM zoom lens. Its image stabilizer makes handheld shots in dim lighting possible.



GO TO WEB:

See Derrick's and Ben's complete shopping lists—including where they found bargains—at find.macworld.com/0320.

BEN LONG

My Strategy: The goal was to get the best gear for the money. The trick was to intelligently define best. For this market, it's a combination of good image quality, intermediate performance, and broad feature set.

Most Essential Purchases:

Photoshop CS; the RAM upgrade; the extra storage device; a 75mm-300mm or 10mm-22mm lens, depending on the type of shooting you like to do; and the Canon i9900 printer.

Most Expendable Purchases: The Epson P-2000, the Belkin media reader, the circular polarizer, the .Mac subscription, and Noise Ninja Pro.

If I Had More Money, I'd: Upgrade to a Canon EOS 20D camera, for its improved shooting rate and lower noise levels; add a PowerBook for field viewing and editing (but never playing Halo—nope, never); and buy more lenses—always more lenses.

Derrick's Reaction: The Epson P-2000 multi-media-storage and -viewing device is a great choice. I've played with one and really liked it. Maybe Ben will lend me his!



continued from page 67

from your Mac for a long time, you need even more storage. The Epson P-2000 gives you 40GB of space that you can dump your flash cards onto, and the P-2000's LCD screen is handy for reviewing your images. I transfer images from card to iMac with the Belkin 15-in-1 Media Reader/Writer.

More Accessories

The Digital Rebel's onboard flash isn't suited to serious flash photography, so I added the Canon Speedlite 580EX flash. I like the Tiffen 58mm Photo Essentials Kit for controlling light. I also bought the Benbo Trekker Mk 2, a lightweight ball-head tripod. To lug all these accessories, I bought the Tamrac Velocity 7 Compact Sling Camera Pouch.

Image Editing Although Photoshop Elements is less expensive than Photoshop CS, I need CS's Curves tool, Lab mode, support for 16-bit graphics, and other advanced features. I also consider Wacom's Graphire3 4x5 Tablet a must-have for photo retouching.

Canon's SLR cameras are renowned for producing images with very little noise. But at high ISOs, you might find that your

images get a little grungy. PictureCode's Noise Ninja Pro is an easy-to-use noise-reduction application that quickly cleans the speckles off your images.

Image Management One of the great advantages of shooting digital is that it's inexpensive: no film or processing costs. The downside is that you can drown in a sea of images. iView MediaPro is an excellent cataloging tool that will quickly become a part of your everyday photo workflow.

Share Photos Online and in Print I subscribed to a year of .Mac because it's the easiest way to produce Web galleries you can share with friends, family, and other photo enthusiasts. But for when I want prints, I selected Canon's i9900 printer. Though the i9900 doesn't offer as broad a media selection as the competing Epson Stylus Photo 2200 does, it costs about \$100 less, produces slightly better images, includes a built-in FireWire port, and lets you print directly from the camera. □

DERRICK STORY is a professional photographer (www.storyphoto.com) and author (www.oreilly.com). BEN LONG writes about digital photography for *Macworld* and other publications and is the author of *Complete Digital Photography* (Charles River Books, 2004).

Clicks well with others

\$39⁹⁹



AirClick

Remote Control for iPod

- Control your iPod, iPod mini, or computer from up to 60 feet away
- Uses RF signals that travel through walls for remote control use anywhere in the house
- Tiny remote attaches to backpack, bike, steering wheel - anywhere for on-the-go control



\$39⁹⁹



iTalk

iPod Voice Recorder

- Internal microphone and laptop quality speaker
- Connect external microphone or headphones
- Passthrough jack for headphones or additional speaker
- Automatic level control for perfect recordings

\$14⁹⁹



LapelMic

Multi-use Stereo Microphone

- Self-powered microphone with stereo-quality sound
- Swivel clip for easy attachment
- Connects directly to iTalk, iMic, or PowerWave

\$35



iTrip

FM Transmitter for iPod

- The only FM Transmitter designed exclusively for the iPod & iPod mini
- Powered from the iPod - no batteries necessary
- Choose any empty station from 87.7 to 107.9, and change your iTrip stations directly from the iPod

\$19⁹⁹



TuneJuice

Battery Backup for iPod and iPod mini

- Provides up to 8 hours of additional power to iPod
- Uses any disposable or rechargeable 9-volt battery
- Carry emergency iPod power wherever you go
- Works with any dockable iPod or iPod mini



- Made for iPod mini
- Made for iPod Photo
- Made for 4th Generation iPod with Click Wheel
- Made for 3rd Generation iPod with touch wheel and buttons

Buy now at www.griffintechnology.com

Another great idea from

GRIFFIN



Podfrēq™

"...the first iPod transmitter that really gets it right."

— Macworld's 20th Annual Editors' Choice Awards
(Best iPod Accessory)



Lose the wires, not the sound quality.

Share your iPod® tunes wirelessly using any nearby FM radio with Podfrēq. You choose the tunes and hear them wherever you go! Podfrēq is all about sound quality—from its hi-fidelity stereo components to its telescoping antenna for increased broadcast range. Buy a Podfrēq and expand your listening experience.

www.podfreq.com



SONNET™



playlist

iPOD

ROCKIN' NEW
GADGETS FOR
YOUR FAVORITE
MUSIC PLAYER

GEAR

GUIDE



THE SUCCESS OF THE IPOD has created an entire industry: companies both large and small are producing an amazing array of add-ons for the portable music player. In fact, so many products have been released in the past few months that we can fill several pages with cool new iPod gear. So we asked Playlistmag.com's reviews editor, Dan Frakes, to showcase the latest iPod accessories. Plus, we brought in Playlistmag.com's editor in chief, Christopher Breen, for some tips on using the iPod shuffle and iTunes.

So turn the page—and then turn up the volume with these cutting-edge products. (And be sure to check out <http://playlistmag.com> for news, reviews, tips, and much more on the iPod and digital music.)

BY CHRISTOPHER BREEN AND DAN FRAKES

ENHANCE

Look Ma, no wires!

Free your iPod



naviPlay™

Bluetooth adapter for iPod

+TEN Technology

Distributed by:

Dr. Bott

drbott.com 800.541.1167



IN-EAR HEADPHONES

I've long been a fan of Shure's in-ear headphones, which include the \$99 E2c, the \$179 E3c, and the \$499 E5c. Until recently, the best value in the line has been the E3c—but the **E4c** could change that. Thanks to its high-definition drivers and Tuned-Port technology, the E4c provides better treble detail and bass than the E3c, and it does so with only one driver per ear (so it costs less than the two-driver E5c). Clad in white, gray, and brushed metal, with white cables, the E4c was designed with iPod users in mind (\$299; www.shure.com).

FM TRANSMITTER

XtremeMac—one of the first companies to provide accessories for the iPod—has released another winner: the **AirPlay**, a tiny FM transmitter that plugs directly into the headphone and remote jacks of third- and fourth-generation iPods, the iPod mini, and iPod photos. The AirPlay lets you transmit your iPod's music to any FM radio frequency, particularly useful for listening to music in your car. Like Griffin Technology's comparable iTrip, the AirPlay runs off the iPod's battery. But unlike the iTrip, the AirPlay lets you choose from FM broadcast frequencies—88.1 to 107.9—with up and down buttons and an illuminated LCD built into the device. It's also the smallest FM transmitter I've seen (\$40; www.xtrememac.com).





Sometimes, it just needs to

rock



All hail iFi™, the audiophile-quality iPod® speaker system from Klipsch.

iFi:



&



&



&



10,000 songs, 200 watts at a time.

Meet the one and only iFi – power, detail and emotion unapproached by any other iPod speaker system, not to mention most standard stereo speakers. Whether you use it in your bedroom, as your primary home audio system, or for pre/post-production monitoring, you'll experience your digital music in stunning, audiophile-quality Klipsch sound. Controlled by a long-range RF remote, the iFi docking station fits all dockable iPods, charges your iPod while docked and even allows computer sync. Satellites are self-standing or wall-mountable. Get yours at an Apple store, apple.com or select Klipsch retailers. Or check out klipsch.com.



PORTABLE SPEAKERS

Like the rest of the popular inMotion family, Altec Lansing's **inMotion iM4** is a folding portable speaker system. The iM4 uses the same speaker drivers and has the same battery life and overall shape as the iM3, but its design doesn't limit its use to dockable iPods—you can use the iM4 with any portable music player.

Clad in dark gray and white, the iM4 features a foldout, nonskid base and can accommodate hard-drive-, flash-, and CD-based music players via a standard 1/8-inch mini-jack cable (\$130; www.alteclansing.com).



SOLAR-POWERED CHARGER

Thanks to Better Energy Systems, your iPod will keep on trucking as long as the sun shines. The company's **Solio** powers the iPod (and other electronic devices) with solar energy, and its foldout design turns its small size into a large reception area. You can either charge electronic devices directly—using available adapters for dockable iPods, PDAs, and mobile phones—or charge the Solio's internal battery for later use. (In case you need a charge at midnight, the Solio also includes an AC wall adapter.) The Solio will charge your iPod's battery at the same rate as Apple's AC adapter, or provide as much as 9 hours of additional iPod battery life with its 1,600mAh rechargeable lithium-ion battery (\$120; www.solio.com).



HEAR



For when you don't
bring your roadies.



On Tour - Portable
Powered Speakers



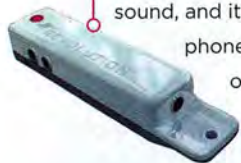
Distributed by:

Dr. Bott

drbott.com 800.541.1167

HEADPHONE **AMPLIFIER**

If you're a fan of the surround-sound button on your home stereo, Upbeat Audio's **Boostaroo Revolution** may be for you. It turns traditional two-channel audio into three-channel surround sound, and it has enough power to drive two sets of headphones—including high-impedance models that don't otherwise work with the iPod and other portable audio sources (\$80; www.upbeataudio.com).



TIP: MONITOR THE IPOD SHUFFLE'S CHARGING PROGRESS

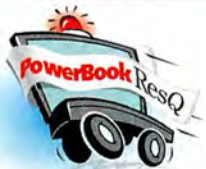
If you want to know when your iPod shuffle is fully charged, turn off the Enable Disk Use option in iTunes' iPod preference pane. When Enable Disk Use is activated, the shuffle's LED flashes amber—a warning that you shouldn't unplug it—instead of showing you the battery's status. Turning Enable Disk Use off overrides the warning.

CASE

Casauri's new **Citra Collection** iPod cases come in a number of colors and designs—Balmy Orange, Sky Blue, Sun Stripes, and more—that match Casauri's Citra Collection laptop cases and handbags. These cases have a clear, thin front that lets you see your iPod's full face and use your iPod without removing it (\$20; www.casauri.com).



Get ResQ'd by MacResQ!



**24-Hour Repair Turnaround
Nationwide Pickup/Delivery**

only **\$99⁰⁰**

Includes our custom PowerBox,
3-way round-trip overnight
U.S. shipping & a detailed diagnostic exam.

72-Hour Turnaround: only \$49

24-Hour Specialty Services

G4 "SuperDrive" Upgrade: \$379
G4 Replace Hinges: \$349
Hard Drive Upgrades: 80GB: \$399
60GB: \$299

24-Hour Nationwide Repairs!



We repair LCD screens, ports, drives, logic boards & more!

Includes our custom iBox, overnight pickup/delivery
& 24-hour iPod repair turnaround.



only **\$29⁰⁰**

**20-Hour iPod Battery
Replacement Service**
only **\$79⁰⁰**



1-877-Pod-Repair

**20-Hour iPod
Self-Service Battery**
only **\$34⁹⁹**



StuffIt Deluxe 9.0
for Mac Flat Pack
only **\$49.99**



**GameOn Family
or Action Pack**
only **\$29.99**



**Griffin iPod
Accessories**
iTrip \$29 iTalk \$31



Mac OS 8-10.3
from **\$49**



Power Supplies
for G3/G4 & iMac
from **\$129**



**PowerBook
DVD-R/W
Upgrades**
from **\$179.99**

www.macresq.com



Power Up

your Apple laptop or iPod with a High-Capacity Lithium-Ion Replacement Battery!

newertech

iPod High-Capacity Replacement Batteries

Get Up To Over 20 Hours of Playing Time!



1st/2nd Generation
1800mAh... **\$29.95**

1st/2nd Generation
2100mAh... **\$39.95**

3rd Gen. "Dock Connector"
850mAh... **\$25.99**

iPod 4th Generation "Click-Wheel"
& iPod Mini batteries also available.

Replace your short running iPod Battery with one that's far better, the longest running internal iPod batteries available! Visit www.macsales.com/ipod for all of our great Apple iPod products!



playlist

100% NEWS



HIGHLY RECOMMENDED
ipodlounge.com



Easy Install Opening tools included
(For 1st, 2nd and 3rd Gen. iPods only)

RoadTrip!

FM Transmitter \$14.99

For any iPod or music player - Listen to your music through your car's FM radio. Choose either 87.9 MHz or 107.7 MHz version! Visit www.macsales.com/roadtrip for more! (not a power adapter or iPod charger)



newertech

A part of New Concepts Development Corp.
1004 Courtaulds Drive Woodstock, IL 60098
<http://www.newertech.com>

Dealer & distribution
inquires welcome! Also
available from other Quality
Apple Product Retailers

newertech

**RUN LONGER with
MORE CAPACITY
than with other
PowerBook Batteries!**

visit www.macsales.com/powerbook



PowerBook G4 15" 'Titanium' all 400 MHz - 1GHz Models

NuPower 4400mAh 65 watt-hours, up to 30% more Capacity... **\$139.99**

NuPower 4800mAh 71 watt-hours, up to 42% more Capacity... **\$149.99**

PowerBook 12" 'Aluminum' all Models

NuPower 4800mAh 53.3 watt-hours, up to 11% more Capacity... **\$129.99**

PowerBook G4 15" 'Aluminum' all Models

NuPower 4800mAh 53.3 watt-hours, up to 11% more Capacity... **\$129.99**

PowerBook G4 17" 'Aluminum' all Models

NuPower 5400mAh 60 watt-hours, up to 9% more Capacity... **\$139.99**

NuPower 6000mAh 66.5 watt-hours, up to 21% more Capacity... **\$159.99**



PowerBook G3 FireWire (aka 'Pismo') G3 'Lombard'

NuPower 6600mAh Up to 37.5% more Capacity... **\$149.95**

NuPower 7200mAh Up to 50% more Capacity... **\$159.95**

Apple iBook G3 & G4

'Clamshell' iBook

300/366/466MHz Models

NuPower 400mAh Up to 37.5% more Capacity... **\$129.99**

NuPower 4800mAh Up to 50% more Capacity... **\$139.99**

iBook G3 & G4 12"

All Models 500MHz to 1.2 GHz

4800mAh Up to 45% more Capacity... **\$139.99**

iBook G3 & G4 14" All Models 600MHz to 1.33 GHz

4800mAh Up to 44% more Capacity... **\$149.99**

visit: www.macsales.com/powerbook for more information





New iPod Accessories

iPod Stereo Speaker / Charger



iPod Car Charger



Noise Reduction Headset



iPod FM Transmitter



iPod Stereo Speaker



Call us for dealers near you **1.800.644.1132** or visit us at: **www.macally.com**



TrailVue color options



Metrovue 3 Pack



WWW.MARWARE.COM
MARWARE
innovative products for the Apple market



Sportsuit Convertible

Sportsuit Convertible
for all iPod models
armband included



TrailVue **MetroVue**
for the mini iPod 3 pack for the mini iPod

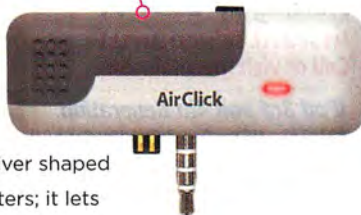
CAR ADAPTER



Like all cassette adapters, Griffin Technology's **SmartDeck** lets you play your iPod through your car's cassette deck. What makes the SmartDeck supercool is that it lets you use the cassette deck's controls to operate your iPod. The SmartDeck actually plugs into the remote and headphone jacks on third-generation and later iPods; you can then use your car stereo's controls to play, pause, and skip forward and back (\$25; www.griffintechology.com).

REMOTE CONTROL

Griffin Technology's **AirClick** remote-control systems include a simple five-button remote that provides play, pause, forward, back, and volume controls. The iPod and iPod mini versions include a receiver shaped much like the company's iTrip FM transmitters; it lets you control your iPod's playback—through your stereo or iPod speakers—from across the room. The computer version, the AirClickUSB, includes a USB transmitter that's about the size of a flash drive and can control iTunes even when the app is in the background. Griffin also plans to offer a combined system that includes a remote along with one USB and one iPod receiver (\$40; combined system, \$50; www.griffintechology.com).



continues on page 80

PROTECT

Mean streets or
mountain passes

we've got you
covered.



MetroVue for iPod mini



TrailVue for iPod mini

MARWARE
innovative products for the Apple market

Distributed by:

Dr. Bott OFF

drbott.com 800.541.1167

MacMall[®]

Your #1 Source for Mac Products!

NEW iPod

Call MacMall for the complete iPod



iPod mini!

- ▶ Holds up to 1,000 songs (4GB)
- ▶ Up to 8 hours of playback per charge
- ▶ Compact size—3.6" tall and 0.5" thick
- ▶ Weighs just 3.6 ounces!
- ▶ Available in five great colors—Blue, Silver, Gold, Pink and Green

only **\$244!** each
Instant Discounts!
Call or visit macmall.com

iPod mini Series

#351009	iPod mini 4GB (Blue)	CALL! \$244
#351008	iPod mini 4GB (Gold)	CALL! \$244
#351011	iPod mini 4GB (Green)	CALL! \$244
#351010	iPod mini 4GB (Pink)	CALL! \$244
#351002	iPod mini 4GB (Silver)	CALL! \$244

iPod[®] with Click Wheel!

- ▶ 20GB model holds up to 5,000 songs; 40GB model holds up to 10,000 songs
- ▶ Up to 12 hrs. of playback per charge
- ▶ Save multiple On-The-Go Playlists
- ▶ Adjust the speed of audio books
- ▶ Includes FireWire[®] and USB 2.0 cables

starting at **\$294!**

Instant Discounts!
Call or visit macmall.com

iPod 3rd and 4th Generation

#279747	40GB w/Dock & Case (3rd Gen.)	CALL! \$394
#470577	20GB with Click Wheel	CALL! \$294
#470578	40GB w/Click Wheel & Dock	CALL! \$394

Also Available—Apple iPod from hp

#471704	20GB with Click Wheel	CALL! \$289
#471738	40GB with Click Wheel	CALL! \$379

iPod U2 Special Edition!

- ▶ Black casing with red Click Wheel
- ▶ Etched autographs of each U2 member
- ▶ Holds up to 5,000 songs (20GB)
- ▶ Up to 12 hrs. of playback per charge
- ▶ FireWire[®] and USB 2.0 connectivity
- ▶ iTunes[®] for Mac[®] and Windows
- ▶ Includes \$50 iTunes Music Store[®] coupon good towards the purchase of "The Complete U2" digital box set

only **\$344!**
Instant Discounts!
Call or visit macmall.com

iPod U2 Special Edition

#530795	iPod U2 Special Edition (20GB)	CALL! \$344
---------	--------------------------------	-------------

AppleCare

#336763	2-Year AppleCare [®] for Apple [®] iPod	CALL! \$59
---------	---	------------

Instant Discounts! Call now or visit macmall.com

iM3 iPod Speakers

Crank your tunes anywhere you go with these battery-powered stereo speakers!

#190268

only **\$179!**

New!



ALTEC LANSING

iPod Remote and Earphones

#158570

only **\$39!**



On Stage iPod Speakers

#653811

only **\$118⁹⁹!**



Podfreq FM Transmitter

#417706

only **\$79⁹⁹!**



iSpeaker Portable

#347352

only **\$54⁹⁹!**

MONSTER CABLE



iTrip FM Transmitter

#241722

only **\$29⁹⁹!**

GRIFIN

1-800-321-7532 / macmall.com / Source code: MACWORLD

shuffle!

family & their accessories!



*Smaller
than a pack
of gum!*

NEW! iPod shuffle!

- ▶ 1GB model holds up to 240 songs
- ▶ 512MB model holds up to 120 songs
- ▶ Plays audio books
- ▶ Skip-free playback
- ▶ Up to 12 hours of playback per charge
- ▶ Lightweight at less than 1oz.!
- ▶ USB 2.0 transfers
- ▶ Includes iTunes® for Mac and Windows

The amazing iPod shuffle is smaller than a pack of gum! There's nowhere your skip-free iPod shuffle can't go—and with up to 12 hours of continuous playback, it keeps going as long as you do!

\$94!

NEW iPod shuffle starting at

iPod photo!

- ▶ 40GB and 60GB models
- ▶ 2" backlit color LCD
- ▶ Holds up to 5,000 songs or as many as 25,000 color photos
- ▶ Enjoy slide shows with music
- ▶ AV cable to connect to a projector TV

starting at **\$494!**

Instant Discounts!
Call or visit macmall.com

iPod photo

#530792 iPod photo 40GB	CALL! \$494
#530794 iPod photo 60GB	CALL! \$594

 Authorized Reseller

FREE!

Shipping! (all orders over \$99!)

Headphones! (\$19.99 value!)

PodSuit Case! (\$13.99 value!)

Earbuds! (\$9.99 value!)

Engraving! (\$39.99 value!)

Speakers! (\$9.99 value!)

*FREE SHIPPING OFFER—Offer applies to all orders over \$99! After MacMall mail-in rebate. Certain restrictions apply. Not valid with any other discounts. Hurry! Offer ends soon! **FREE HEADPHONES OFFER**—After \$19.99 MacMall mail-in rebate with purchase of iPod or iPod mini. Price before rebate is \$19.99. **FREE EARBUDS OFFER**—After \$9.99 MacMall mail-in rebate with purchase of iPod or iPod mini. Price before rebate is \$9.99. **FREE SPEAKERS OFFER**—After \$9.99 MacMall mail-in rebate when purchased with any iPod or iPod mini. Price before rebate is \$9.99. **FREE PODSUIT OFFER**—After \$13.99 MacMall mail-in rebate with purchase of any iPod or iPod mini. Not available for iPod shuffle. Price before rebate is \$13.99. **FREE ENGRAVING OFFER**—Get your iPod or iPod mini engraved for FREE when you purchase it through MacMall. Not available for iPod shuffle. Place your order now, then visit www.macmall.com/myiPod for details. All offers end 4/15/05 or while supplies last.

Hot NEW add-ons for your iPod shuffle!

iPod shuffle Arm Band

Secure your iPod shuffle during your most vigorous workouts! #188271

only **\$29!** 



iPod shuffle Splash-Proof Case

Shelters your new iPod shuffle from the elements while keeping its controls accessible! #188272

only **\$29!** 



iPod Socks

Dress your iPod up in any one of these six vibrant color socks—green, purple, grey, blue, orange and pink! This set of knit socks provides a stylish, fun and practical way to protect your iPod! #648230

only **\$29!** 



iPod shuffle External Battery

Extend your new iPod shuffle's playing time with this external battery pack! It lets you enjoy your songs for up to 20 hours from just two AAA batteries! #188270

only **\$28.99!** 



PROTECT



Boldly go where no iPod has gone before!

Lilipod
The Perfect iPod® Environment



Lili mini
The Perfect iPod® mini Environment.
Waterproof iPod Case

Distributed by:

Dr. Bott OFF

drbott.com 800.541.1167

PROTECTIVE COVERS

Power Support is one of Japan's largest vendors of iPod accessories, but it has only recently begun selling its products in the United States. The iPod-accessory market is much the better for it—Power Support makes some very cool products. The **Crystal Film** is among the most protec-



tive iPod screen covers I've seen, and it doesn't seem to be as susceptible to air bubbles as other screen protectors. And the **3D Wheel Film** is a unique Click Wheel protector; it has a raised bubble that covers the center button (Crystal Film two-pack, \$11; 3D Wheel Film two-pack, \$12; www.powersupportusa.com).

TIP: MAKE YOUR IPOD MOUNT

You've plugged in your iPod, but it's not showing up in iTunes—these tips can help:

- 1 Make sure that the iPod is plugged into a high-power USB 2.0 port or a FireWire port.** The iPod won't be recognized if it's connected to a low-power USB port.
- 2 Make sure that the iPod is not on a chain of FireWire devices.** The iPod requires just about all the power a FireWire port can deliver, and if it's on a chain of devices, it may not get the power it needs.
- 3 Your iPod may be locked up.** Reset it by holding down the play button and the center button (for fourth-generation iPods, the iPod mini, and iPod photos) or the play button and the Menu button (for the first three generations of iPods) for about six seconds, or by switching it off, waiting five seconds, and turning it back on (for the iPod shuffle).
- 4 Restore your iPod using the latest iPod Software Updater.** Note that this will erase all the data on it—music, contacts, calendars, and any other files.



IMAGINE

TAKING YOUR INSPIRATION WITH YOU

WHERE YOU GO, YOUR MUSIC GOES—WITH MONSTER ACCESSORIES FOR IPOD

MONSTER®

iCarplay Wireless Plus: Play Your iPod Through Your Car Stereo

- Listen to iPod through any FM radio frequency

ONLY \$79⁹⁵ #5528453



iCruze: Put the Fun Back in Driving

- Directly connects your iPod to your car stereo

ONLY \$249



iCase Travel Pack for iPod

- Complete storage and protection for your iPod

ONLY \$69⁹⁵ #472798



iSplitter Mini Y-Adapter

- Plug in two sets of headphones

ONLY \$9⁹⁵ #443392



www.macconnection.com/monster

iPod Mini with FREE \$10 iTunes Gift Certificate or Safari Case*

- 4GB (holds 1000 songs*) ■ 3.6 oz
- 8 hours on one battery charge ■ PC and Mac

ONLY \$249



#5222850 (Silver)
#5222892 (Gold)
#5222930 (Pink)
#5222913 (Blue)
#5222981 (Green)

*Actual formatted capacity for MP3 players may vary. †With iPod Mini purchase through 4/30/05 or while supplies last.

iPod Photo with FREE \$20 iTunes Gift Certificate†

- PC and Mac
- New color screen
- Only 5.6 oz

40GB \$494 #5508567

60GB \$594 #5508575

†With iPod Photo purchase through 4/30/05 or while supplies last.



20GB iPod with FREE \$10 iTunes Gift Certificate†

- PC and Mac
- Only 5.6 oz

20GB \$294 #5258271

†With 20GB iPod purchase through 4/30/05 or while supplies last.



New! iPod Shuffle

- Autofill with up to 240 songs from iTunes
- 512MB and 1GB models available

512MB \$99 #5591583

1GB \$149 #5591604



Authorized Reseller

www.macconnection.com/mw

800.800.3333

MacConnection®

A PC CONNECTION, INC. COMPANY

the right tools for the right brain™

© 2005 PC Connection. All rights reserved. MacConnection is a trademark of PC Connection, Inc. or its subsidiaries. All other trademarks remain the property of their respective companies.



www.**Think
Different
Store.com**

For all your iPod Gear.



**JBL Onstage
iPod Speakers**
\$159.95



**SportsWrap
iPod Armband**
\$29.95



Podskinz
\$30.00

Take **\$5.00 off** your order
now through June 5, 2005.
Use coupon code
#A4CAAD when ordering.

iPOD GEAR GUIDE

SPEAKERS

Like its popular Creature II, JBL's **Encounter 2.1** is a left, right, and subwoofer speaker system that has an unusual design and works with digital music players, CD players, and computers. But its two alien-looking 13-watt satellite speakers and 34-watt subwoofer are larger and more powerful (\$200; www.jbl.com).

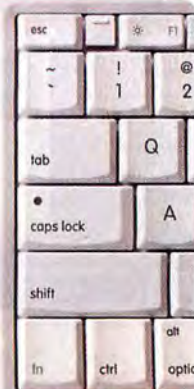


CONTROLLER

Previously known for its gaming peripherals, Nyko has recently introduced an entire line of iPod accessories. Perhaps the coolest is the **iTop Button Relocator**, which does something that no one seems to have considered before. Plugging the iTop into the remote and headphone jacks of a third-generation or later iPod (excluding the iPod shuffle) gives you volume and track controls (as well as a headphone jack and a hold switch) along the top of the iPod, so you can control it when it's in a case, a pocket, or a bag—without Apple's messy corded remote (\$30; www.nyko.com).

TIP: CHARGE FROM ANY MAC

Unlike other iPods, the iPod shuffle is always associated with a particular computer—even if you don't use Autofill, that behavior can't be turned off. So be aware that if you configure and load the shuffle from your desktop Mac at home, iTunes will erase its contents when you plug it into your laptop at the office and agree to iTunes' request to mount it. You can, however, charge it from another computer by clicking on the No button when asked if you want to link with the current computer's library.



iPOD SHUFFLE PHOTOGRAPH BY PETER BELANGER



vajacases.com

Sorry, leather aroma not included in this ad.



We have a vast selection of leather colors to match your style. Already got yours?

ice▶Link: Plus

The ultimate car integration kit for your iPod.



Features...

iceLink: Plus is a hard-wired iPod automotive integration kit. Each vehicle specific kit provides CD-quality audio, playlist and track control from both the radio and steering wheel entertainment controls while charging the iPod when desired.

Full music information is always visible on the display of the iPod and track numbers are synchronized between the radio's display and the iPod.

Browse between all of your playlists or simply press disk 1-5 for direct access to the first 5 playlists. Switch to iPod UI, if desired and use the touch wheel to control your music.

Available for...

- ▶ BMW
- ▶ Audi
- ▶ Mercedes Benz
- ▶ Aftermarket
- ▶ Volkswagen
- ▶ Acura
- ▶ Honda
- ...and more

**With text display
for selected vehicles !**

DENSION

Dension USA, Inc.

tel: 866.822.3673

www.densionusa.com

iPOD GEAR GUIDE



PROTECTIVE CASE

As its name implies, Standard Technical Merchandise's **iPod mini cocoon** provides a semirigid envelope of protection around your iPod mini. (Fortunately, your iPod won't metamorphose inside and then fly away when it emerges.) Like the standard

iPod cocoon, the mini version is a hard, belt-clip-equipped case that holds an iPod mini and earbuds and has room left over for some

cash and a driver's license. The mini version also includes a silicone skin, with a lanyard, that's nice enough to use alone. The mini cocoon is available in gray and lilac (\$40; www.standardtm.com.au).

PROTECTIVE CASE



Speck Products' new **ToughSkin** protects your iPod from scratches—just like the company's standard iPod skins. But the ToughSkin's thicker skin and rubberized bumpers provide extra protection. The case also includes a clear plastic cover for the screen and the Click Wheel, and a detachable belt clip. The ToughSkin is available in blue, red, black, orange, and clear, and it works with all fourth-generation iPods and iPod photos, with the help of an included adjustable plastic spacer (\$35; www.speckproducts.com).

What's hot for iPod now?



IPOD GEAR • CASES • FM TRANSMITTERS • CAR MOUNTS
CAR CHARGERS • ADAPTERS • SPEAKERS • AND MORE



Hottest Gear. Fastest Shipping.
Get what's hot... Now.

the iStore™
www.theiStore.com
(800) 390-4121



iPod™ Accessories

10 Hour iPod™ Battery



FM Radio Combo



Auto/Air Adapter



40 Hour Rechargeable iPod™ Battery



For more product info, visit our website at www.batterytech.com or email us at ipod@batterytech.com.

Battery Technology, Inc. 18500 Gale Ave. City of Industry, CA 91745 Phone: 626.336.6878



iPod cases to suit
your lifestyle



www.stmbags.com

Cut Loose Longer.

Only myPower™ for iPod gives you the power to extend your freedom.

- 32 hour battery
- Portable dock
- Line out
- Extra charging port

Cut loose, stay loose—
only from Tekkeon.

Tekkeon
www.tekkeon.com

COMPUSA BatteriesPlus +
Available at stores nationwide.



©2005 Tekkeon, Inc. All rights reserved

6isolator™ earphones

- *In-the-ear secure fit for optimal performance*
- *Highly accurate music reproduction with enhanced bass*
- *Exceptional noise isolation*



*The clarity
will reveal
layers of
your favorite
songs you've
never heard
before.*

ETYMOTIC RESEARCH, INC.
61 Martin Lane • Elk Grove Village, IL 60007
www.etymotic.com

iPOD GEAR GUIDE

CASES

Italian bag maker Tucano brings European style to the iPod with a number of stylish and sporty cases. The **Tuta** models, for fourth-generation iPods, iPod photos, and the iPod mini, provide a custom-fit neoprene sleeve and a clear plastic screen protector (the Click Wheel remains exposed). The **Muta** models are also made of padded neoprene, but they enclose the entire front of the iPod in clear plastic, offering more protection than the Tutas while allowing you to see your iPod's face. The Muta models come with a belt clip, and Tucano sells



cases bundled with an armband, or with an armband, a waistband, and a storage pouch for earbuds. All Tucano cases are available in several colors and prints—in the United States, you can find them at Mac Zone (www.maczone.com), Tower Records, and many other locations (\$20-\$60; www.tucano.it).

TIP: REBUILD YOUR iTUNES LIBRARY

If you launch iTunes and suddenly find that there's no music in your library, the music isn't necessarily gone—you may just need to rebuild your library. Quit iTunes, and then locate the iTunes 4 Music Library file in *your user folder/Music/iTunes*. Change its name to **iTunes 4 Music Library (old)** or, if that file already exists, **(old1)**. Relaunch iTunes, and the app will create a new database file with your music.

If that doesn't work, you may need to remind iTunes where your music is stored (especially if it's anywhere other than the default location, the aforementioned folder). Go to iTunes' Advanced



preference pane and then click either on the Reset button (if you're using the default location) or on the Change button (to navigate to where you store your music).



MAGNESIUM cases by
**Inno
Pocket**

**Inno
Pocket**[®]
www.innopocket.com

Play Safe! Play with Magnesium!

**The world's only
Magnesium protective case line
for mobile electronics.**



Magnesium Cases are available for:
HP iPAQ hx4700 series
HP iPAQ h6300 series
'02 xda IIs
Treo 650
iPod & iPod Photo
iPod mini

available at www.innopocket.com

\$5 Coupon

Use coupon code **MacWorld** at checkout
for \$5 off any Magnesium case!

*Coupon expires June 30th, 2005

©2005 Innopocket. All rights reserved.
All trademarks are the property of their respective owners

Why Magnesium?

Rugged

Poly-carbonate front protects the screen
and allows you to see the iPod while the
Magnesium back offers stylish rugged
protection

Light

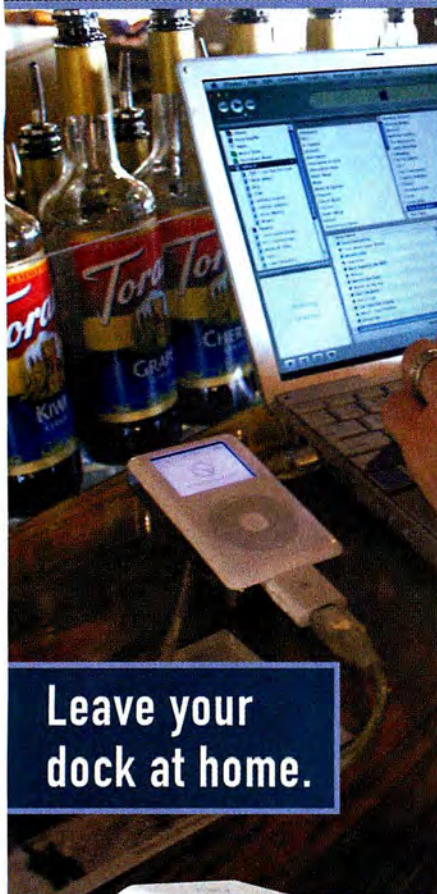
Magnesium is 37% lighter than Aluminum

Subtle

Injection molded Magnesium cases are
designed to compliment the iPod's
Award Winning Design



CONNECT



Leave your
dock at home.



PocketDock,
PocketDock Line Out,
& PocketDock Combo



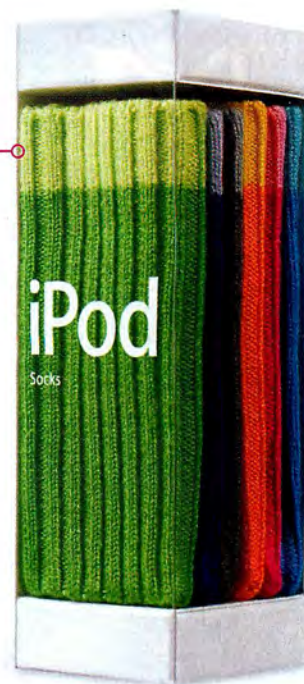
Distributed by:

Dr. Bott

drbott.com 800.541.1167

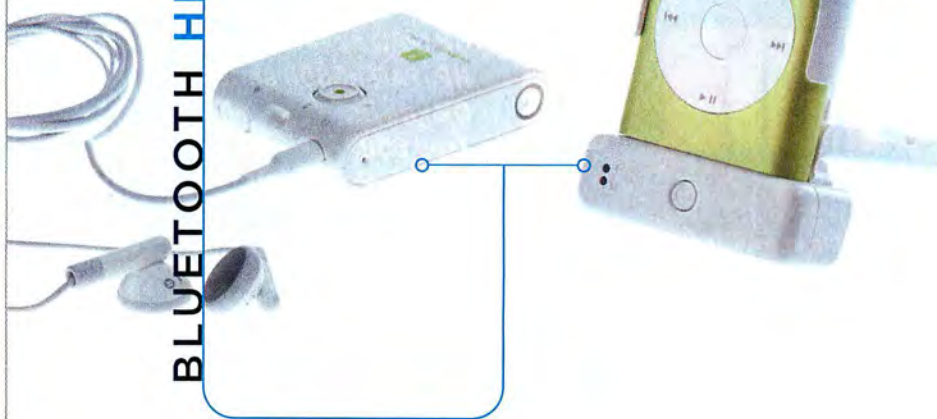
CLOTH COVERS

When Steve Jobs announced Apple's **iPod Socks**, most of us thought he was joking. As it turns out, we should have known better. Sold in a pack of six—one each of green, purple, gray, blue, orange, and pink—the iPod Socks are just what they sound like: knit socks that stretch to fit any size iPod (excluding the iPod shuffle). They don't do much other than protect your iPod from scratches, but that's all some people want. Just be careful not to lose one in the dryer (\$29 for pack of six; www.apple.com).



BLUETOOTH HEADPHONE SYSTEM

Ten Technology's **naviPlay** is a Bluetooth headphone system for the iPod. The naviPlay's small transmitter fits any dockable iPod and sends your tunes to a lightweight receiver and remote control; plug your favorite headphones into the receiver, and you can roam as far as 30 feet—while your iPod stays put. (The naviPlay also works well with an iPod that's buried deep in a backpack.) There's also a version bundled with HP's Bluetooth Stereo Headphones; it includes playback controls right on the headphones for a completely cord-free experience (\$200; with HP headphones, \$239; www.tenttechnology.com).





WireTap Pro allows you to record any audio, saving it to a file for later listening or processing. Streaming Internet audio, sound snippets of a DVD movie, voice notations/narration, audio from a game, digitized audio from a line-in, or even record directly to your iPod! WireTap Pro does it all.

Try it free now at: <http://www.AmbrosiaSW.com/>



WireTap Pro
AMBROSIA®
SOFTWARE INC



WireTap Pro, Ambrosia Software, Inc., and the Ambrosia Software logo are registered trademarks of Ambrosia Software, Inc.

Clicks well with others

\$39⁹⁹



AirClick

Remote Control for iPod

- Control your iPod, iPod mini, or computer from up to 60 feet away
- Uses RF signals that travel through walls for remote control use anywhere in the house
- Tiny remote attaches to backpack, bike, steering wheel - anywhere for on-the-go control



\$39⁹⁹



iTalk

iPod Voice Recorder

- Internal microphone and laptop quality speaker
- Connect external microphone or headphones
- Passthrough jack for headphones or additional speaker
- Automatic level control for perfect recordings

\$14⁹⁹



LapelMic

Multi-use Stereo Microphone

- Self-powered microphone with stereo-quality sound
- Swivel clip for easy attachment
- Connects directly to iTalk, iMic, or PowerWave

\$35



iTrip

FM Transmitter for iPod

- The only FM Transmitter designed exclusively for the iPod & iPod mini
- Powered from the iPod - no batteries necessary
- Choose any empty station from 87.7 to 107.9, and change your iTrip stations directly from the iPod

\$19⁹⁹



TuneJuice

Battery Backup for iPod and iPod mini

- Provides up to 8 hours of additional power to iPod
- Uses any disposable or rechargeable 9-volt battery
- Carry emergency iPod power wherever you go
- Works with any dockable iPod or iPod mini



- Made for iPod mini
- Made for iPod Photo
- Made for 4th Generation iPod with Click Wheel
- Made for 3rd Generation iPod with touch wheel and buttons

Buy now at www.griffintechnology.com

Another great idea from

GRIFFIN

LUGGAGE

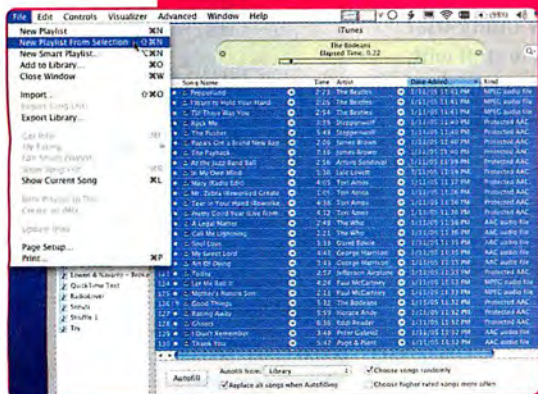
In an interesting (and perhaps the only) convergence of luggage and audio, Boom Bags has introduced a new line of audio-equipped suitcases. The company has taken standard rolling carry-on bags and equipped them with stereo speakers, a subwoofer, and a 10-watt amplifier—the audio components fit in the space between the rails of the suitcase's collapsible handle. Once you reach your destination, plug in your digital music player or computer, unzip the protective panel that hides the speaker controls, and crank up the volume. The **Office on Wheels** model includes a removable laptop shoulder bag, and the larger **Rolling Suiter** includes a removable trifold garment bag (\$330 each; www.boombags.com).



TIP: TRICK AUTOFILL

If you enable iTunes' Keep This iPod In The Source List option, you can select the iPod shuffle's icon when no shuffle is connected. Then you're able to click on the Autofill button to create a new playlist—and repeat the process until you find one you like. Since there's no iPod mounted, iTunes won't try to copy the files. Then high-

light all those songs and choose New Playlist From Selection from iTunes' File menu. The next time you connect your shuffle, you've got a ready-made playlist to copy over to it.



Your iPod store's favorite source for accessories.

Dr. Bott OFF

We bring the best iPod gear to market.
drbott.com 800.541.1167

CAR INTERFACE

Following in the tracks of Alpine Electronics and its KCA-420i (see the review at find.macworld.com/0308), Clarion hits the road with its in-dash iPod package—the VRX755VD car-stereo head unit. The 212-watt player



features a 7-inch pop-up LCD with touch-screen functionality. When it's connected to an iPod, its screen provides an iPod-like interface that lets you browse artists, songs, and playlists. If you can swallow its high price, you'll

enjoy how easy it makes finding and playing your music (\$1,600 plus \$50 for cable; www.clarion.com).



CLOTH CASES

You know that you really *should* protect your iPod with a heavy-duty case. But if you want to live dangerously (and look cool doing it), check out foof's **foofpods**. Like Apple's iPod Socks, these cases offer little in the way of features and functionality, but they're so fun (and funky) that they're worth a look. Available in 16 patterns (from spotted fur to paisley to cor-

duroy), foofpods are handmade fabric sleeves that offer a bit more padding and a sturdier build than iPod Socks. And the unique designs are sure to make you stand out from the crowd (\$12; www.foofpod.com). □

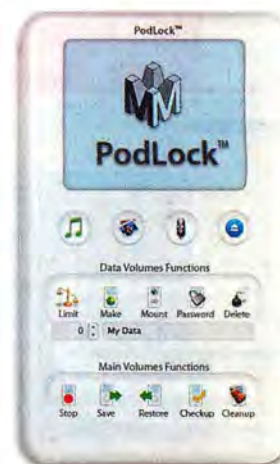


PodLock™



800-829-6227
707-566-3831
info@micromat.com
www.micromat.com

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



©2005 Micromat, Inc. All rights reserved. PodLock is a trademark of Micromat, Inc.



Authorized
Reseller

FREE DELIVERY
On Orders Over \$25!

Via Ups Ground Shipping or get FedEx Overnight
Shipping for only \$9.99 on Select Items!

The **iPod** Starting At **\$294**
The **iPod photo** Starting At **\$494**
The **U2 iPod** Only **\$344**



iPod® mini 4GB Only **\$244**
One Thousand Songs
Choice of 5 Colors!

Mini iPods - 1,000 Songs (without Dock)

Silver	Gold	Pink	Blue	Green
#2293721	#2293746	#2293748	#2293747	#2293749



iPod shuffle
Starting At **\$94**



iPod Accessories-3G-4G iPod, iPod Photo, & U2 iPod

inMotion iM3 - iPod Portable Audio System

Only **\$179**
#2767100



iPod Dock

Only **\$39**
#1930589



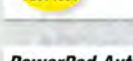
PocketDock FireWire Adapter for 3G iPod

Only **\$14.99**
#2178061



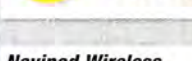
Premium iPod Car Charger

Only **\$18.99**
#2071651



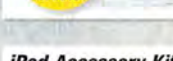
iTrip FM Transmitter

Only **\$29.99**
#2022797



JBL On Stage iPod Speakers

Only **\$118.99**
#2722161



PowerPod Auto Adapter

Only **\$23.99**
#1411328



Navipod Wireless Remote Control

Only **\$39.99**
#2006723



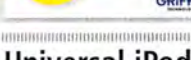
iPod Accessory Kit for U2 Fans

Only **\$174.99**
#2732377



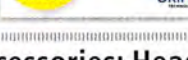
iTalk Voice Recorder

Only **\$29.99**
#2439465



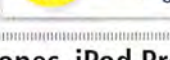
Trip Black FM Transmitter for U2 Special Edition iPod

Only **\$29.99**
#2686920



TuneJuice-Battery Backup for iPod

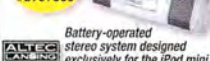
Only **\$19.99**
#2774172



iPod mini Accessories

inMotion iMmini - iPod mini Portable Audio System

Only **\$129**
#2767099



iPod mini Dock

Only **\$39**
#2293753



iTrip Mini FM Transmitter

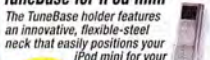
A "Trip" off the old block. The iTrip mini works just like its big brother, the original iTrip. It never runs out of batteries - because it doesn't use them!

Only **\$28.99**
#2513552

iPod mini USB Power Adapter

Easily connect to any power outlet and recharge your iPod, iPod photo, iPod mini, and iPod shuffle.

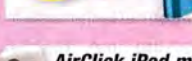
Only **\$26**
#2758442



iPod mini Arm Band

Perfect for keeping iPod mini secure while running or working out.

Only **\$29**
#2293751



iPod shuffle Accessories

iPod shuffle Sport Case

Use this rugged sport case to shelter your iPod shuffle from the elements.

Only **\$26**
#2758445



iPod shuffle External Battery Pack

Get up to 20 hours of battery life (varies by use) with this External Battery Pack.

Only **\$26**
#2758443



iPod shuffle Dock

Choose the unique iPod shuffle Dock to base your iPod shuffle for easy synchronizing and charging with your computer.

Only **\$26**
#2758447



iPod shuffle Arm Band

Enjoy a mix while you're working out or running around town.

Only **\$26**
#2758444



Universal iPod Accessories: Headphones, iPod Protection, & Speaker Systems

E3C Sound Isolating Earbuds

Only **\$179**
#2417703



Apple Care-2 Year Protection for iPods

Extends telephone support from 90 days to 2 years. Adds one year of hardware repair coverage to the one year warranty, and access to web-based support resources.

Only **\$59**
#2245051



Ear Jams

Snap on Griffin EarJams enhance the Sound & Comfort Of Your iPod Earbuds

Only **\$9.99**
#2614015



MDR-EX71SL Premium Stereo Earphones

SONY
In-ear design offers deeper bass and reduces exterior noise. Save! Best bang for the buck!

Only **\$32.95**
#1945128



3-Piece In Concert Speaker System

Only **\$229.95**
#2322561



In Ear Headphones for iPod shuffle

Only **\$39**
#2295484



FREE Delivery
over **\$25**
Ask Sales Rep for details

FedEx Only **\$9.99**
Overnight Ask Sales Rep for details

eCOSTMac.com™

You can place orders online 24 hours a day, 7 days a week! Or call to order!
Monday-Friday, 5:00a.m.-8:00p.m. PST • Saturday, 6:00a.m.-6:00p.m. PST
Sunday, 8:00a.m.-3:00p.m. PST • 1-866-MACCOST (1-866-622-2678)

Call 1-866-622-2678 or visit www.eCOSTMAC.com



We Accept Visa, MasterCard, American Express, Discover and eCOST.com eZpay Financing!

Stop E-mail Annoyances

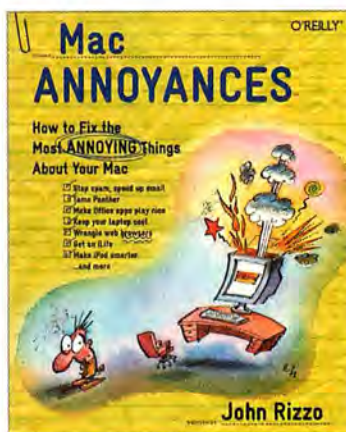
I can't think of any technological innovation that has more potential for annoyance than e-mail: unreadable attachments, bucketloads of spam, and messages that blather on and on before getting to the point—all this and more, several times a day, every day.

But with a little know-how, you can work around the most annoying e-mail problems. Here, I look at fixes for the general problems with e-mail—ones that crop up regardless of which e-mail program you use. (See “Copy Spam Training” for an Apple Mail-specific hint.)

Open the Unopenable

Sometimes I can't read attachments that come with e-mail messages. I'm talking about attachments from colleagues who assure me that they've forwarded important Word files, spreadsheets, or images. Instead, the attachments either look like monkey-at-a-typewriter gibberish or won't open at all.

The gibberish file you see is encoded in a format your e-mail software doesn't understand. E-mail software encodes attachments into text to help the files survive the journey over the Internet. When you can't open an attachment, it's usually because your e-mail program doesn't support the encoding standard used by the sender's software. Encoding standards include BinHex (used almost exclusively by Macs), MIME/Base64 (a



By the Book This article is an excerpt from *Mac Annoyances*, by John Rizzo (2004; reprinted by permission of O'Reilly Media).

Windows favorite), UUencode (from the Unix world), and others.

Another possibility is that your e-mail software supports the encoding standard used but doesn't recognize it. This can happen if the header or other parts of the message get mixed up with the encoded attachment. You have several options:

> Your first line of attack is StuffIt Expander (Applications/Utilities). Try dragging the attachment to the StuffIt Expander icon. This often doesn't work, but it's worth a try. If you own Allume Systems' \$50 StuffIt Standard Edition or \$80 StuffIt Deluxe (www.stuffit.com), try opening the utility first and then dragging in the attachment.

> If no member of the StuffIt family can decode or recognize the file, try DataViz's file-translation utility, MacLinkPlus Deluxe (\$70; www.dataviz.com). It generally does an excellent job of recognizing encoded files, filtering out any worthless text the encoding may have added, and then decoding the attachments.

> You can sometimes clean up an encoded attachment yourself in order to get StuffIt Expander to recognize it. Open the file in TextEdit or another word processor, and then delete everything above the line that begins with Content-Type: (see “Translate the Gibberish”). Save the file as text-only, and drag it on top of StuffIt Expander. This eliminates the e-mail message, headers, or other extraneous text that encoding may have added to the attachment and that may be confusing StuffIt Expander.

Open Winmail.dat Files

Sometimes I receive attachments with the name Winmail.dat that drive me crazy. I can never open them, not even with decoding software. When I ask the senders what Winmail.dat is, they tell me that they never sent such a file. Am I imagining things?

No, you're just the victim of a Microsoft e-mail system that is making some wacky assumptions. These

Copy Spam Training

I just spent several weeks training Apple Mail to filter junk mail like an obedient puppy. Now it works beautifully, and I no longer need to tell it what is junk and what isn't. But my wife just got a new Mac, and we'd like to have spam filtering on it as well. Do we have to go through the whole training period again?

Fortunately, once you train one Mac to recognize junk mail, you can transfer its learning to any Mac you want; just copy one file from your Mac to the same location on the other Mac. In the Finder, select Go: Go To Folder and type ~/Library/Mail/, then locate the file LSMmap. (It may also be called LSMmap2). Drop the LSMmap file into the new Mac's Mail folder, and you've instantly trained Mail in the art of catching spam.



files come from users of Microsoft Outlook sending through a Microsoft Exchange server. Don't blame Windows, though—Exchange server can cause this problem with people sending e-mail from Windows or Mac OS.

If certain configurations in Outlook are incorrect, the Exchange server assumes that all outgoing mail is headed for other Outlook users and encodes attachments in a scheme that only Outlook with Exchange understands. This file can be called Winmail.dat or can have a type called application/ms-tnef, which you can see in the file's Get Info dialog box (press **⌘-I**).

The cause is complex, but the fix is easy—just use TNEF's Enough, a fabulous and free piece of software from Josh Jacob (find.macworld.com/0274). Just drag and drop the file on top of TNEF's Enough, and the utility extracts the attachment.

If TNEF's Enough can't open the Winmail.dat file, it may also be encoded in another format, such as UUencode. If that's the case, you must start over, running another decoding utility first before running TNEF's Enough.

Send Windows-Friendly Attachments

When I send an attachment to colleagues who use Windows, they report back saying that they can't open the files or that when they do, the files are full of gibberish. Of course, they blame it on the Mac and recommend that I join the rest of the world and buy a PC.

You've just touched on one of the most annoying things about most e-mail programs: they're set by default to compress even the smallest attachments, as if we still lived in a world where everyone has a 28.8-Kbps modem. Windows users usually can't decompress .sit (StuffIt) archives, and most Mac e-mail software defaults to .sit for compression.

To solve the problem, start by turning off that default compression. Most of your attachments don't need it. Save it for when you really need it (for file sizes over a couple of megabytes). Apple Mail doesn't use compression, but some other mail programs do. For example, in Entourage 2004, go to Entourage: Preferences and click on Compose. In the Attachments section, set Compression to None. (Menu items will have slightly different names if you're using Entourage X.)

Hold on, though—you're not done yet. The second reason Windows users can't open your attachment is *encoding*—that is, your Mac is encoding the file in a format the Windows e-mail software doesn't understand. When sending files to Windows users, I find it best to use MIME/Base64 format. If your e-mail software doesn't have MIME/Base64 as an option, try AppleDouble encoding.

Entourage, Bare Bones Software's Mailsmith, and Qualcomm's Eudora all let you select an encoding format directly from your message window, usually with a pop-up menu or a check box. The default format is

often the Mac-centric BinHex. You can change the default encoding in the Preferences dialog box of these programs.

Mail lags behind other e-mail applications in this respect. Before Mac OS X 10.3, Mail was brain-dead in terms of encoding—there was no way to change the default encoding scheme. Your choices were Apple-Double or Apple-Double. But starting with Panther, Mail has the option of sending “Windows-friendly” attachments, making sure that you don’t have to select Edit: Attachments > Windows Friendly Attachments. Windows users can open attachments, but the weaknesses of Mail.

Keep Your ISP Mailbox Empty

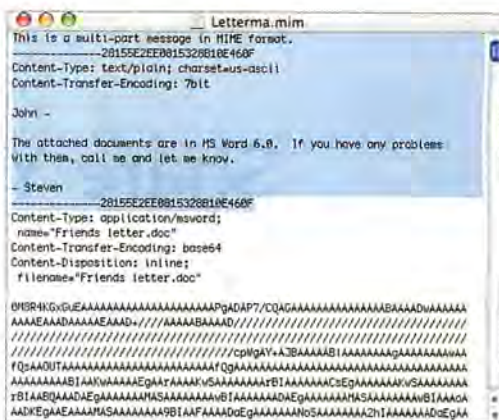
E-mail messages don't seem to like me. People keep telling me that their messages get bounced back. One friend told me that a message said my POP3 mailbox was full.

Whoever told you your box was full is a friend indeed for giving you the answer to your problem. Your mailbox probably *is* full, because you're forgetting to delete mail from the POP3 e-mail server that holds your messages. Your ISP typically gives you 10MB on its server—when that fills up, further e-mail gets bounced back to the senders. If you have messages containing large attachments, your space on the server fills up even more quickly.

Most e-mail software lets you delete your messages on the server immediately or after a short period. To shorten the period of time that e-mail is stored on your POP3 server, do the following:

> In Mail, select Mail: Preferences. Select the account from the left column and then click on Advanced. Select Remove Copy From Server After Retrieving Message. Choose a new duration from the After One Week pop-up menu. Right Away or After One Day are good choices.

> In Entourage, go to the Tools menu and select Accounts. In the Mail tab, select the account. Go to the Options tab, find Server Options, and choose how long to keep messages on the server. ☐



Translate the Gibberish Do you get e-mail attachments that look like this? Delete everything above the line that begins with `Content-Type:`, and StuffIt Expander has a better chance of recognizing that the encoding used is MIME/Base64.

Share Your Photos on the Web

Remember that promise you made to send out copies of your photos from last year's family reunion? But there they are, months later, still sitting on your hard drive—along with photos from your cousin's wedding, the company holiday party, and your best friend's birthday blowout. Isn't it about time to start sharing some of these digital keepsakes?

Finding a good way to get your digital files—some of which can be as large as several megabytes—to family and friends can be challenging. Sure, you could e-mail them. But e-mail attachments can be large and inconvenient to download—especially when you want to

share a large collection of shots.

A much better solution is to publish them on a Web site. With the right software, it takes only a couple of minutes to set up an online slide show. Then you simply send a URL to friends and family, who can view your shots at their convenience. You can also enhance your Web album with captions,

high-resolution images, and other embellishments.

Simple Sharing with .Mac

The easiest way to create Web albums is with Apple's .Mac service (\$99 per year), which includes an e-mail account, online storage, and other useful features.

If you use Apple's iPhoto to manage your image library, uploading iPhoto slide shows to your .Mac HomePage account is a cinch. Place the photos you want to share into a new album, and arrange them in the order you want them to appear.

To have a short caption appear beneath a photo, select the photo and type the text in the Title box near the lower left corner of the iPhoto window. (Your published home page will display only the first 60 to 75 characters. So keep it short.) If you don't want to change the photo's title in iPhoto—for example, maybe you've already assigned titles that you're using in a smart album—then skip this part for now.

Once you've prepared your album, click on the HomePage button at the bottom of the iPhoto window. In the Publish HomePage dialog box, choose a design for your album from the Theme drawer and then select a Layout option. You can also now replace each photo's title with a short caption if you didn't do so in iPhoto.

When you click on Publish, iPhoto uploads a small thumbnail version of each photo, as well as a larger version. When iPhoto is finished, it displays a message containing the album's Web address. To send this address to friends and family, simply copy it and paste it into a new e-mail message.

When You Want More Control

HomePage albums are easy to create, but you don't have much control over their appearance. Maybe you'd like longer captions—a paragraph or two describing each vacation photo. Or maybe you'd like more options for colors, fonts, and other design elements. If so, there are several inexpensive utilities that will give you the flexibility you crave.

Although using one of these programs to get your photos online requires slightly more effort, they offer many more personalization opportunities. And if you're not a .Mac subscriber, these third-party utilities will help you create HTML photo albums that you can upload to a Web site hosted by someone else. Here are two of my favorites:

BetterHTMLExport Drooling Cat Software's BetterHTMLExport (\$20; www.droolingcat.com) is an iPhoto plug-in that lets you create Web albums with far more control than iPhoto's built-in tools provide. You can specify exact dimensions for your thumbnail and full-size images, and you can add a variety of handy navigation links. And if you've assigned titles and comments to your photos, you can opt to have them appear in your album's page. Download the companion Template Manager utility (it's free) to choose from more than two dozen album designs.

Image Rodeo Clyde McQueen's Image Rodeo (\$30; www.imagerodeo.com) is a stand-alone utility; you must drag and drop photos from iPhoto (or elsewhere) into the Image Rodeo window to create your



Album Alternatives

The online photo service SmugMug offers attractive photo albums and the ability to download full-resolution images.

Tip

If your photo album's viewers will be using slow, dial-up connections, choose HomePage's three-column layout instead of the two-column format. It creates smaller thumbnail images that load faster. To create the fastest-loading album possible, choose the Frameless album theme—it lacks thumbnail frames and other visual gewgaws.

Web galleries. However, the program's design templates look great, and many of them even provide buttons that let your album's viewers order prints from Shutterfly (www.shutterfly.com), a major online photo service (see "Get Wordy").

Publishing Your Album

When producing a Web gallery, most third-party utilities create a folder on your hard drive that contains your site's HTML pages, as well as folders for your thumbnail and full-size images.

When you save your album, don't use spaces or punctuation symbols in the album's folder name. These confuse Web servers and prevent your site from loading. So instead of *paris trip*, name the folder *paris_trip*.



Get Wordy Unlike many other Web-album programs, Image Rodeo allows for lengthy text captions.

To .Mac So how do you get that album folder from your hard drive to the Internet? If you're a .Mac subscriber, it's easy: open your iDisk (in the Finder, press ⌘ -shift-I) and drag the entire album folder from your hard drive to iDisk's Sites folder. Your album's final Web address will be your .Mac account address plus the folder's name—for example, http://homepage.mac.com/jimheid/paris_trip.

Serve Yourself If you aren't a .Mac subscriber, you'll need to transfer your finished album to an Internet provider's Web server. Many Internet providers offer free Web space as a part of their service packages.

Use a Photo-Sharing Service

If you aren't a .Mac subscriber and you don't want to fuss with Web servers, there are other options for sharing photos over the Web. Most online photo services, for example, provide free Web-album features. But since the primary focus of these sites is selling prints and photo gifts, albums tend to be surrounded by ads and e-commerce clutter.

A better choice is a site designed specifically for online photo sharing. I'm fond of two:



CHECK IT OUT

Splashy New Camera

Heading out on an aquatic adventure? Forget bulky underwater camera housings or low-quality disposables. Pentax Imaging (www.pentaximaging.com) has recently announced a new digital camera that it says can take pictures under as much as three feet of water. The 5-megapixel **OptioWP** offers a 3 \times optical zoom, a 2-inch LCD screen, and 20 shooting modes. It's expected to sell for \$400 and should appear on store shelves in March. —KELLY LUNSFORD

Smugmug For clean, ad-free album layouts and print-ordering options, check out Smugmug (www.smugmug.com). Unlike most services, Smugmug lets you store full-resolution images that other people can download—with your permission, of course. You can upload photos either by using the service's free OS X utility or by e-mailing them as attachments. If you organize your photos in iPhoto or a similar program, you can use HoloCore's \$8 PictureSync utility (www.holocore.com) to upload images directly from that program. You can even upload movie clips—a feature other services don't provide. Pricing begins at \$29 per year for unlimited photo storage and a monthly 2GB bandwidth limit, which translates to roughly 30,000 photo views (see "Album Alternatives").

Flickr Packed with slick features you won't find anywhere else, Flickr (www.flickr.com) has quickly become one of my favorite photo sites. Flickr offers an uploading tool that lets you transfer photos directly from iPhoto's Export dialog box. It also displays albums in iPhoto-like slide shows—complete with cross-dissolve transitions (see find.macworld.com/0252 for an example). If you assign descriptive tags to your photos, other Flickr users can search for images based on those tags.

Best of all is Flickr's support for RSS news feeds. Subscribe to another user's photo stream, and small thumbnails will appear in your news reader whenever that user uploads new photos. Have a new baby in the family? Instead of e-mailing photo attachments to everyone you know, upload images to Flickr and tell the world to subscribe to your photo feed.

Flickr can automatically publish your recent photos to your blog, creating a happy marriage between photography and the latest geek technologies. A Flickr account is free. But if you upload a lot of photos, you'll quickly reach the 10MB-per-month bandwidth limit. A Pro account costs \$59 per year and boosts the upload limit to 1GB per month. □

Contributing Editor JIM HEID is the author of *The Macintosh iLife '05* (Peachpit Press/Avondale Media, 2005) and www.maclife.com.



Welcome to QuarkVista

QuarkVista isn't the scenic view from Quark's penthouse suite in Denver; it's the most significant addition to version 6.5 of QuarkXPress. QuarkVista lets you edit images—including correcting colors and applying effects filters—directly in a QuarkXPress layout.

When to Use QuarkVista

Here's a pre-6.5 scenario: Your first proof is hot off the printer, but the client wants more emphasis on the main image's highlights. You open the image in Photoshop, adjust its levels, save the file, update the image in the QuarkXPress layout, and print another proof. The client's partner thinks the image is too harsh: "Can you blur it a little bit, make it look out of focus?" So you make the change in Photoshop, save the file, update the layout again, and print a new proof.

And then the client's partner decides she doesn't like the blurred image. "Can you make it look more like a painting?" she asks.

This can go on for a zillion rounds, and each round brings its own problems. Did you save each change as a different version of the file? Do you remember exactly what changes you made and in what order? QuarkVista can make this very real scenario easier to manage (see "Edit Images in Place").

The adjustments available with QuarkVista are among the most commonly used features of Photoshop; QuarkVista filters such as Curves, Levels, Color Balance, Gaussian Blur, Unsharp Mask, Emboss, and Noise are the only Photoshop filters some people ever employ.

Get Started

To begin using QuarkVista, open an existing XPress document that includes images. Select any picture box containing a TIFF, JPEG, PNG, SCT, GIF, PICT, or BMP image. (QuarkVista doesn't work on

EPS and PDF files.) Open the Picture Effects palette (Window: Picture Effects). Click on the Adjustments button (far left) or Filters button (second from left) in the palette, and choose the effect you want to apply. All but four of the effects open dialog boxes where you define the specifics of the adjustment. XPress automatically executes the Invert, Desaturate, Despeckle, and Find Edges effects.

The Picture Effects palette lists adjustments in the order in which you make them (unless you manually change that order); you can step back through your changes by deactivating the effects in reverse order, and you can preview the image with any combination of the adjustments you've applied.

Click on an adjustment in the palette to select it. To review its settings, click on the arrow on the left. To remove a specific adjustment temporarily, click on the check box on the left side of the palette. You can toggle specific changes on and off and still maintain the settings you applied for that change.

You have a couple of options if you want to experiment with different settings for the same type of adjustment. Say you've adjusted the levels in an image. You can adjust the levels a second time, and two separate Levels items will appear in the Picture Effects palette; turn each one on independently to see which you like better. If you don't want two versions of the same adjustment, you can also edit the specific settings of the applied effects. Double-clicking on an item in the palette (or clicking on the Pencil icon) opens the appropriate dialog box, where you can change the settings for the selected effect.

QuarkVista doesn't affect the physical file data, so you can test various combinations of changes without altering (or accidentally destroying) the original file. You don't need to create different layer sets for each variation, or save multiple versions of the same file. Not sure if you like something? Just turn it off and try something else; you can always turn it back on later.

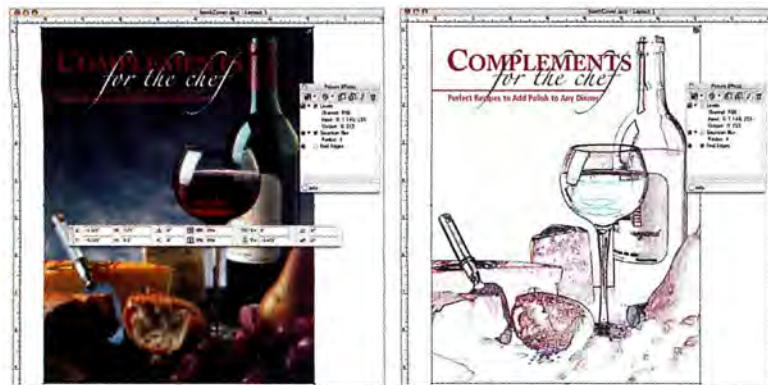
When you output the layout, XPress will apply the adjustments you've selected in the palette to the image.

Automate Your Workflow

You can save QuarkVista settings as presets and reload them for other images. For example, you can

Edit Images in Place

Before the debut of XPress 6.5 and the QuarkVista XTension, you had to resort to Edit Original when clients wanted to blur a photo (left) or find its edges (right) once you'd placed the image in a layout.



apply a specific combination of Gaussian Blur and Unsharp Mask to an image and save those settings as a preset. You can then load the saved preset for other images and apply the same combination of effects to the other images—without having to open the dialog boxes and remember exactly what settings you used for each effect or adjustment. QuarkVista presets offer the same time-saving benefits as print styles—make your choices once, and then call upon them whenever you need them.

Save Modified Images

The changes you make using QuarkVista filters are nondestructive. In other words, your changes affect the placed preview in the layout and apply to the actual image data when you output the file. This frees you to experiment with effects until you find the combination that best suits your needs. You can also use the same picture in more than one place and modify only specific instances while still using only one file.

You also have the option of saving a manipulated image to a new file, which comes in handy if you want to use the manipulated image in another application, or if you're sending the file to a service provider who doesn't have Quark 6.5. Previous versions of QuarkXPress (including 6.1) can't recognize QuarkVista adjustments, so you have to apply the changes to the image file itself if you need to work with the layout in an older version of XPress.

In the Picture Export Options dialog box (File: Save Picture), you'll see that XPress lists all applied adjustments and transformations—including scaling and cropping—in the top window and selects them by default. (You can also access Picture Export Options when you use the Collect For Output utility to create a job package.)

As with the Picture Effects palette, you can use the check boxes in this window to choose which transformations XPress will include; it will include selected items in the resulting file.

You can use Color Mode to export the final files as CMYK, RGB, or gray scale. But you can't convert to specific color profiles as you can in Photoshop, and using this option can result in washed-out images and unpredictable color. If you want high-quality, managed-color results, convert images to the appropriate color model in Photoshop before placing them in an XPress layout.

You can save adjusted images in any of eight graphics formats (TIFF, JPEG, BMP, EPS, GIF, PICT, PNG, or Scitex CT). Once you've saved an edited file from a Quark layout, you can use it just as you would any other image file.

By default, the Save Picture command creates new files in the location you define when you click on OK. This keeps your original files intact so you can use them again in another context. If you



CHECK IT OUT

Clothes with Characters

Veer (www.veer.com), a company that sells stock photography, illustration, and fonts, has introduced a line of casual clothes sure to appeal to designers and typographers. The \$22 Lorem Ipsum T-shirt pays homage to the dummy text you no doubt used in the early stages of countless layouts. Or don the punny \$22 Serif T-shirt and show the editorial department who's in charge.—TERRI STONE



select Overwrite Original Picture, the saved pictures overwrite your original image files—an action you can't undo.

If you choose Link Layout To New Picture, QuarkVista redirects the links in your layout to the new files you've created, and you can't modify your transformations because QuarkVista applies them permanently to the exported files. You can still replace the original files and reapply the transformations, but you can't access the modifications in the exported files.

A Good Alternative

QuarkVista is a powerful tool, but it's not without limitations. You can't use it to manipulate individual layers or channels in a placed image. (The new PSD Import XTension does have this capability, but it has its own restrictions.) You can't create raster images from scratch, and you can't retouch the individual pixels of an image placed into XPress. You also can't select and modify specific areas of a picture; the changes you make with QuarkVista apply to the entire placed image.

Is QuarkVista a replacement for Photoshop? Of course not. But is QuarkVista a viable tool for correcting color and adding visual appeal with effects and filters? Absolutely. □

ERIKA KENDRA is the author of *QuarkXPress 6: Creating Digital Documents* (Against the Clock, 2003; www.againsttheclock.com) and *QuarkXPress 6.5: Upgrading from Version 4* (Against the Clock, 2004).

Stranger in a Strange LAN

You're in a client's office or a friend's house, and you have to get online. No problem: you just fire up your Mac, wait a couple of seconds while AirPort automatically finds any 802.11 networks within hailing distance, and, boom, you're online, right? Not necessarily.

If your host is using an AirPort Base Station, it often is that simple: your Mac will alert you to the presence of the network and then ask you for the password. But if it's a non-Apple network, getting on can be anything but simple.

Finding a Network

No matter what kind of wireless network you're trying to log on to, the general process is the same: find the network and then supply a key to log on.

If the network is open, and if you're using OS X 10.2 or later, that first step is simple: Your Mac may automatically alert you to the network and ask whether you want to join. If it doesn't, click on the AirPort icon on your menu bar and select the network you want to join. If there's an open network available, it should be on the list. (Or you can launch Internet Connect and click on the AirPort tab to select the network.)

Closed networks, however, won't make the list—you'll have to tell your Mac which network you want to join. To do so, get the network name from your host, click on the AirPort icon, and select Other from the drop-down menu. That'll call up the Closed Network dialog box, where you can fill in the name of the network.

Logging On to WEP

Once you've selected a network to log on to, OS X will find out whether it requires a password. If it doesn't, you can skip the rest of this article—but you might want to tell your host about the hazards of unsecured wireless networks, and you should definitely be careful about the kinds of data you transmit through the unprotected air.

If security is turned on, the AirPort dialog box will, by default, ask you for a WEP Password. But if you

Keys to the Corporation

Businesses often use more-sophisticated security protocols to protect their wireless (and even wired) networks. They come in a bewildering variety of acronyms—LEAP, EAP-TLS, MD5, and more. But most of these systems are compatible with one common standard known as IEEE 802.1X.

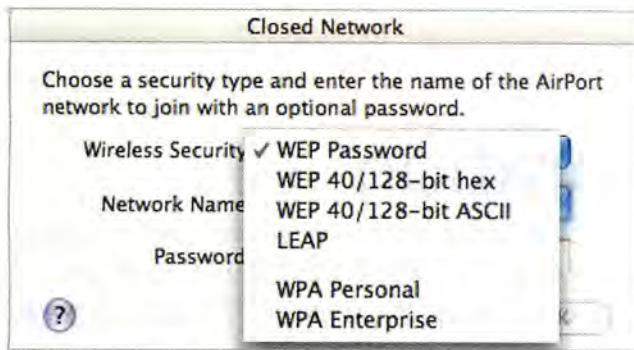


Maximum Security 802.1X—which OS X 10.3 supports—adds a new layer of security to wireless networks. It relies on authentication servers, which check your user name and password before letting you use the wireless network.

Unlike WEP and WPA, under which all users use the same keys to get onto a wireless network, 802.1X-based security systems provide individual keys for each user. Here's how it works: You log in to a wireless access point, using a user name and password. Before the access point will allow you to do anything, it checks with a server. If the server agrees that your user name and password are kosher, it'll issue an "accept" message to the access point, which will then let you in.

Apple added support for 802.1X in OS X 10.3. To use it, your host will have to give you a user name and a password. With those in hand, you launch Internet Connect and then select File: New 802.1X Connection. (If that option is grayed out, click on the 802.1X tab in the Internet Connect application.) Select Edit Configurations from the Configuration pop-up menu, and then click on the plus sign (+) in the lower left corner of the configuration window. Enter a description of the configuration in the Description field, choose AirPort from the Network Port pop-up menu, enter the user name and password in their respective fields, and then choose from the Wireless Network drop-down menu.

In the Authentication area, deselect all but the protocol your network host tells you is in use. If the network uses EAP-TLS, the network administrator will also have to give you a digital certificate, which can be installed via Keychain. Click on OK, and then click on Connect to start the connection. (For more on 802.1X, see "AirPort Protector," *Mac Beat*, page 20.)



click on the Wireless Security drop-down box, you'll see at least three more options: WEP 40/128-bit hex, WEP 40/128-bit ASCII, and LEAP (see "Your Key, Please"). Figuring out which one to use is a process of trial and error.

Start by leaving the WEP Password option as is and entering the password you were given. If that doesn't work, take a look at the password.

If it's ten or 26 digits long—for example, *6F3A7201B8*—try selecting WEP 40/128-bit hex and giving the password another try. If the password is a five- or 13-character chunk of text—such as *frisk* or *b3ckzow3nzerd*—try WEP 40/128-bit ASCII instead.

Occasionally in OS X 10.2 (and always in older versions of OS X, as well as all versions of OS 8 and OS 9 that support AirPort), the only WEP option you'll be offered is WEP Password. In those cases, if you have any trouble logging in, try putting a dollar sign (\$) in front of hexadecimal keys or surrounding ASCII keys with straight quotation marks—"frisk".

Joining the WPA

Some Wi-Fi networks may offer two other security options: WPA Personal and WPA Enterprise. (For the lowdown on WEP versus WPA, see find macworld.com/0288.) Unfortunately, only OS X 10.3 supports WPA; if you're using an earlier OS, you won't be able to log on.

OS X 10.3 is good about detecting when it needs a WPA password; but if it doesn't, if you've already tried the various WEP options with no luck, and if your host can't tell you what kind of security is in use, then try specifying WPA Personal from the Wireless Security drop-down menu. A WPA Personal key consists either of a combination of letters, numbers, spaces, and (some) punctuation marks, or an absurdly long (64-digit) sequence of hexadecimal code. (Jaguar and Panther can tell without prompting when it's the latter.)

As its name implies, WPA Enterprise is most common in large companies. It relies on a server that doles out a different key to each user. If your host hands you a login name and a password, select WPA Enterprise from the Wireless Security drop-down menu. If that doesn't work, try the LEAP option (see "Keys to the Corporation").

Troubleshooting

Whatever kind of key you're entering, type carefully: the characters are stealthed as you type, so it's easy to enter the key incorrectly.

In the Enter Password dialog box, you have the option of storing the password in the Keychain. Be careful—if you opt to store the key but then enter the wrong password, you'll have to go to Applications: Utilities: Keychain, find the network's entry, and delete it before trying again.

Easier Road Ahead

This could all get a lot easier in the future. The company that supplies Apple's Wi-Fi chips has recently introduced a system called SecureEasySetup, which lets network administrators generate and distribute strong WPA keys with the push of a button. Apple hasn't announced yet whether it'll sign on.

For the time being, you'll just have to rely on careful typing. □

Your Key, Please

OS X can't tell what kind of encryption a closed network uses, so it presents you with all the possible options (left). If you aren't running Panther, WPA won't be a choice (right).

GLENN FLEISHMAN is a coauthor of *Take Control of Your AirPort Network* (Peachpit Press, 2004) and a frequent contributor to *Macworld*.



CHECK IT OUT

Hotspots Everywhere

Mac users now have another way to get online on the road: Boingo Wireless (www.boingo.com) has finally released an OS X version of its software.

Boingo is a hotspot aggregator. Thanks to the company's partnerships with Wayport, STSN, Surf & Sip, and other network providers, Boingo customers can log in to more than 10,000 Wi-Fi hotspots around the world—in coffee shops, restaurants, airports, and convention centers—with a single user name and password. The Mac version of Boingo works with Apple's AirPort software to sniff out wireless hotspots; it also includes an automatically updated directory of all the hotspots in the network. The software is downloadable for free; subscriptions to the Boingo network cost \$7.95 per day and \$21.95 per month.—BRAD COOK

Instant Collaboration

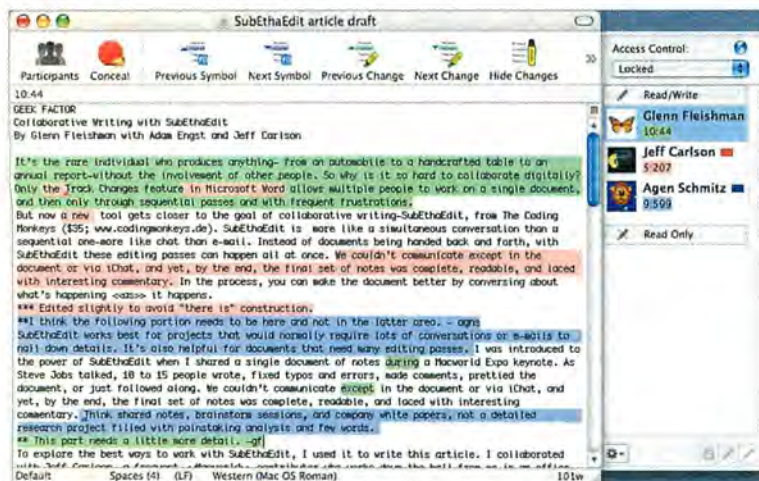
It's the rare individual who produces something—from an automobile to a handcrafted table to an annual report—without the involvement of other people. So why is it so hard to collaborate digitally? Up until now, only Microsoft Word's Track Changes feature allowed multiple people to work on a single document, and even then they could do so only through sequential passes and with frequent frustrations.

But now there's a tool that gets closer to the goal of collaborative writing—SubEthaEdit, from The Coding Monkeys (\$35; www.codingmonkeys.de). SubEthaEdit is more like a simultaneous conversation than a sequential one—more like chat than e-mail. Instead of requiring that users hand documents back and forth, SubEthaEdit allows these editing passes to happen all at once. In the process, you can make the document better by conversing about what's happening as it happens (see "All Together Now").

I was introduced to the power of SubEthaEdit when I shared a single document of notes during a Macworld Expo keynote. As Steve Jobs talked, 10 to 15 people wrote, fixed typos and errors, made comments, or just followed along. We couldn't communicate except in the document or via iChat, but by the end, the final set of notes was complete, readable, and laced with interesting commentary.

To explore the best ways to work with SubEthaEdit, I used it to write this article. I collaborated with Jeff Carlson, a frequent *Macworld* contributor who works down the hall from me in an office in Seattle, and Adam C. Engst, a *Macworld* contributing editor who lives 2,500 miles away in Ithaca, New York. We've done many projects together, but we had a lot to learn about using SubEthaEdit to get this job done.

All Together Now
With SubEthaEdit, a group of editors can work on the same document at the same time. Participants' color-coded edits and comments wink in and out as they're made. The Internet window shows active participants and their status, as well as the current shared document.



Diving In

SubEthaEdit works best for projects that would normally require lots of conversations or e-mail messages to nail down details. It's also helpful for documents that require many editing passes. Think shared notes, brainstorm sessions, and company white papers, not a detailed research project filled with painstaking analysis and few words.

You can download and use SubEthaEdit noncommercially for free. When you launch the program, you'll see what looks like a simple text editor that lacks any formatting options except positioning with tabs and spaces. To get started, one person creates a new document, saves it on a local hard drive, and clicks on the Announce button in the button bar.

Get Connected How do other writers and editors join in? The easiest way is through Rendezvous connections over a local network. In a memorable presentation, Rendezvous inventor and evangelist Stuart Cheshire used a SubEthaEdit document for his simple slide show and accidentally left the document shared. When an audience member corrected an error on screen, Cheshire looked up to see that his technology had the unintended consequence of allowing spontaneous copyediting.

You can also access a document over the Internet, but the Mac that hosts it must have a publicly accessible Internet address. That requires either a static address that doesn't change over time, or a dynamic address that the outside world can reach.

A shared Internet connection—for example, a Wi-Fi gateway connected to a DSL modem—introduces another level of difficulty. You'll have to use port forwarding. Consult the SubEthaEdit manual and FAQ page at find.macworld.com/0253.

Join the Team Connect to a document by pasting a URL sent by the host (File: Copy Document URL) into the top field in the Internet window. (If that window isn't visible, go to Window: Internet.) You can also browse for documents by accessing the Window: Rendezvous window and double-clicking on a document.

You can join a document that's set to Read, Read/Write, or Locked. If the document is locked,



CHECK IT OUT

Curiously Strong Battery Power

What do you get when you put together a FireWire port, a few batteries, some wire, and a playing-card box? You get 18 more hours of battery life for your iPod, that's what.

In October 2004, Drew Perry, 19, a lighting technician from York, England, released a simple schematic and photographs of his iPod Battery Pack contained entirely within a box of playing cards (see find.macworld.com/0254). This device, he says, cost him less than \$6 to make and provides an additional 18 hours of battery life for his iPod. By comparison, Belkin's Backup Battery Pack for iPod (www.belkin.com) costs \$60.

Perry's friends, skeptical at first, soon changed their minds. "Initially they call me a nerd," he says. "If they own an iPod, they then ask me to make one for them."

It wasn't long before Chris DiClerico, 31, a Web designer from New York City, saw the schematic and was inspired to do the same thing—but in an elegant, pocket-size Altoids mints tin. (See the plans at find.macworld.com/0255.) David Jones of Indianapolis, Indiana, duplicated the same feat around the same time (find.macworld.com/0256).

"[The Belkin charger] is kind of this big, weird, white hunk of plastic hanging on the back of your iPod," says DiClerico. "I think this is way cooler."

He adds that while he has received offers as high as \$40 to make more Altoids iPod chargers, he has no plans to make a commercial version. But if you make your own, you'll have all the battery power you need—plus the minty

fresh breath your friends will love.—CYRUS FARIVAR



can reverse deletions, but it's tricky if no one notices the change. And a malicious deleter could ruin a collaborative document. Because SubEthaEdit doesn't have an autosave feature, someone must save the document from time to time. Luckily, everyone—not just the person who created the original—can save a local copy.

If you lose important information, all is not lost. Even though the file reverts to plain text when you save and close it, Word's Compare Documents feature or BBEdit's Find Differences feature can show you the differences.

The Future Is Collaborative

Working as a team in this way takes some effort, but the bottom line is that it saves time. We've used SubEthaEdit to shave hours off projects—from building outlines and conducting group meetings to revising articles. We think it's only the first of many programs that will promote collaborative processes. □

GLENN FLEISHMAN is the author of *Take Control of Your AirPort Network* (Peachpit Press, 2004; www.tidbits.com/takecontrol). JEFF CARLSON is the managing editor of TidBits and the author of *Making a Movie in iMovie and iDVD: Visual QuickProject Guide* (Peachpit Press, 2004). ADAM C. ENGST is a *Macworld* contributing editor and the publisher of TidBits.

the person who has the file must admit each editor manually as he or she tries to connect. You don't need user names or passwords, but we found that leaving a document locked can prove troublesome. If remote users disconnect, they can't get back in again until you approve them.

SubEthaEdit assigns participants specific colors, which highlight their edits. Because the basic document is text with no metadata or hidden formatting tags (a trick that Microsoft Word, RTF, and HTML documents use to preserve presentation), these colors persist only while the document is open. If you want to keep track of who suggested what, you can export a picture of the document as a Web page (File: Export) complete with color coding.

Tips from the Front Lines

As I mentioned earlier, Jeff, Adam, and I wrote this article using SubEthaEdit. Since I'm the only one of us who has a static IP address, I started the draft, clicked on Announce, and then alerted Jeff and Adam via iChat. (It's helpful to use voice chat or the telephone as an adjunct to SubEthaEdit—that way, you don't have to manage typing in two applications.)

I wrote large parts of this article in draft form and then outlined the rest. The other two jumped in, and we spent time brainstorming, editing, and writing together. This caused some confusion until we broke the job down into separate tasks. After completing a working draft, I finalized it and sent it around using Word's Track Changes features to produce the draft we submitted to *Macworld*.

Set Ground Rules When people communicate face-to-face, they know not to interrupt, to give everyone a chance to talk, and so on. But in the virtual world of a SubEthaEdit document, you need new rules.

For one thing, it's easy to get disoriented while working with SubEthaEdit because words can appear and disappear in front of your eyes—even words you were working on. We agreed to not edit a section that someone else was actively editing, and to put a note at the bottom of the section when we were done editing.

Also, although SubEthaEdit color-codes text as you work on it with a different color corresponding to each editor, we needed the ability to annotate those edits to explain why we'd made them. We put notes below paragraphs we had changed—for example: *** This part needs a little more detail. -gf*

It's also important to agree that someone is in charge. In our experience, people implicitly let the person who started the document lead. But there may be situations where it's good to specify explicitly who controls the document. The leader is also the person who's most likely to keep others from chatting too much within the document.

Beware the Eager Deleter The greatest danger in SubEthaEdit is the overeager or accidental deleter: you

Mac OS X Hints

Unlock certain compressed Windows files, create a keyboard shortcut for making .zip archives, pause playback of animated GIFs, enable page scrolling in Safari and Mail, use Terminal to check the time in distant lands, and look up your Address Book contacts with Google.

Open Certain Compressed Windows .exe Files

When you come across a Windows self-extracting zip file—an archive that may contain Mac-compatible files wrapped in a seemingly unusable Windows executable file—you needn't fret. If you receive one that you're reasonably confident is a zip archive file (a PDF manual from Nikon, for example), here's something you can try.

Change the file's extension from `.exe` to `.zip`, and then drop it on Allume Systems' free StuffIt Expander (www.stuffit.com)—OS X's built-in zip expander can't handle these files. If the file is nothing more than a zip archive in disguise, it will expand into the uncompressed contents of the archive.

If you're comfortable in Terminal, however, you can use the `unzip` command—without first renaming the file. Just make sure that you're in the same directory as the file, and type `unzip filename.exe`.

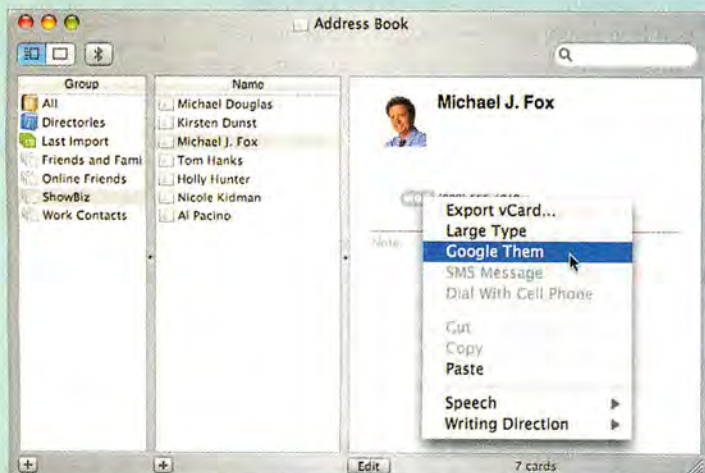


CHECK IT OUT

Google Your Contacts

Ever want to quickly run a Google search on one of the contacts in your Address Book list? Download our script at find.macworld.com/0272, and then drop it into the *your user folder/Library/Address Book Plug-Ins* folder (if this folder doesn't exist, create it).

Now launch Address Book and control-click on any contact's phone number. You'll see a Google Them option in the pop-up menu (see "Look Me Up"). Select it to open Safari, load Google's page, and start searching for your contact's name. If you want something more interesting than a Google Them label on the pop-up menu, you can change it by editing the words inside quotation marks in the line that reads `return "Google Them"` in the script. (You'll have to have a phone number entry for your contacts, as you can't associate a script with the Name field.)



Look Me Up Using a simple Address Book plug-in, you can quickly find out what Google knows about any of your contacts.

Create a Keyboard Shortcut for Making .zip Archives

One of OS X 10.3's nice features is that it lets you create keyboard shortcuts for most of the Finder's menu items. Click on the Keyboard Shortcuts tab of the Keyboard & Mouse preference pane, click on the + (plus-sign) button, select the application you want to modify from the pop-up menu that appears, enter the exact menu title, and then press a combination of keys to create the shortcut.

But when you try to add a shortcut for creating .zip archives, it doesn't seem possible—when you select an item to compress, the menu item (in the File menu) is Create Archive Of, followed by the name of the selection. So how do you enter a changing selection name in the Keyboard Shortcuts panel?

Well, you don't. To create a .zip-archive shortcut, specify the Finder as the application and then just type `Create Archive` in the Menu Title box. Assign your keystrokes (`⌘-control-shift-Z`, for instance) and click on the Add button. To make your new shortcut take effect, you'll need to restart the Finder. You can do this by logging out and then back in, or through the Force Quit dialog box. Just press `⌘-option-escape`, select Finder in the list, and then click on Relaunch.

You should now have a keyboard shortcut next to the Create Archive menu item, and OS X will simply add the selection name as needed when you execute the command (see "Zip It Quick"). From now on, creating a .zip archive is as simple as highlighting something in the Finder and pressing your magical key combination.



UNIX TIP OF THE MONTH

Check the Time around the World

Do you have friends scattered about the globe? And do you have trouble remembering whether it's yesterday or tomorrow in Australia? Terminal and some handy commands can help you avoid accidentally calling a friend in the middle of the night.

OS X includes time-zone information for a huge number of locations. To see what's available, open Terminal, type `cd /usr/share/zoneinfo`, and press enter. Then type `ls` and press enter. (You can find the same information in the Finder if you select Go: Go To Folder and type `/usr/share/zoneinfo` in the Go To The Folder box.) You'll see a large list of directories and files. Within the folders are the names of cities in each geographic area—Europe contains Amsterdam through Zurich, for example.

Now that you're suitably impressed by the collection of time zones, how can you put this data to good use? By employing the `env` command and the `TZ` variable, which sets the working time zone for your machine. The `env` command lets you run any other command with environment settings that may differ from those you currently use. To put it another way, `env` lets you run programs in a mode that differs from the mode in which you would normally run them. In this case, we're going to set the `TZ` variable so that `env` thinks we're in a new time zone, and then have `env` run the normal Unix date command as if we were in that time zone.

The `TZ` variable is defined by the names of the files and folders in the `/usr/share/zoneinfo` folder—the folder name comes first, then a slash, and then the city name within the folder. So to see the date and time in Reykjavik, Iceland, you'd type `env TZ=Atlantic/Reykjavik date`.

Press enter to see the current date and time as if your machine were located in Reykjavik. To change locations, just repeat the command with a new folder and city—`env TZ=US/Hawaii date`, for instance. If you check times around the world often, you might want to use an alias to make it easier. Using a Unix editor or a pure text editor, open the invisible `.bash_profile` file at the root of your user folder (or create it if it's not there already). Add an alias line for each location you want to create—for example, `alias hawaii='env TZ=US/Hawaii date'` for Hawaii.

Save the file, quit the editor, and then type `source .bash_profile`. Press enter. Now type your alias (`hawaii` in this example) to see the date and time for the location.

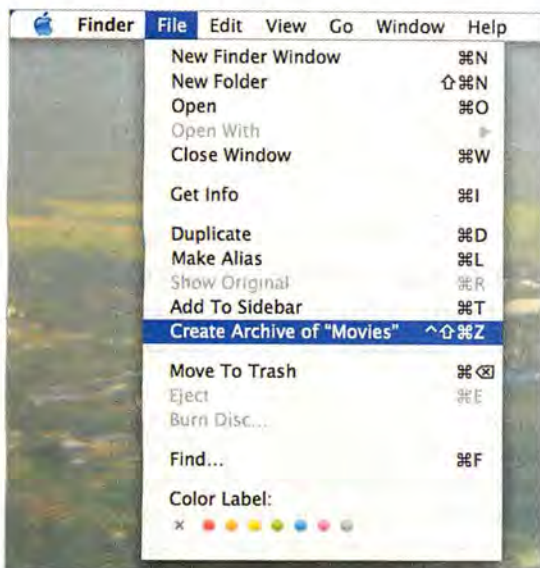


In Mail, for example, if you have a long list of messages, pressing page-up or page-down won't let you scroll through them quickly—those keys affect only the message displayed in the preview pane, not the message list.

And in Safari, if you're viewing your bookmarks or browsing history, page-up and page-down don't work at all. You have to use the arrow keys (or your mouse) to move around these potentially long lists.

But a hidden keyboard shortcut can save you scrolling time in either application. Press and hold the control key before you press page-up or page-down, and you'll find that you get page-at-a-time scrolling—just as you would have expected the keys to perform when used on their own. □

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).



Zip It Quick Save yourself some time by adding a keyboard shortcut to OS X's built-in tool for creating .zip archives.

You can use this trick for most other menus that change with the Finder selection; just ignore the variable piece at the end and type in the core of the menu item's name.

Pause Playback of Animated GIFs

Many people think that animated GIFs were one of the worst inventions of the early days of the Internet. However, when used properly, those animations can convey information that would be difficult to get across in other ways. For instance, The Imaging Resource (<http://imaging-resource.com>), a digital-camera-review Web site, uses animated GIFs to show the different overlays on each camera's LCD screen. A problem, though, is that the animations blink by so quickly, you can't really get a good view of any individual screen.

To temporarily pause any animated GIFs on a page, you can either click on and release a top-level menu such as File or Edit (which may obscure part of the page you're trying to see), or just click and hold the mouse button on the scroll bar's thumb (the part that moves). As long as you have the mouse button down, the animated GIFs won't play. Release the mouse button, and the GIFs will go back into action.

If you'd like to really study a particular animated GIF, however, drag it to your desktop and open it in Preview. You'll then be able to view each frame as a separate image that you can browse with the Page Down and Page Up buttons.

Take Advantage of Page Scrolling in Safari and Mail

Both Mail and Safari suffer from the same scrolling bug: the page-up and page-down keys don't seem to work just where they would seem to be most useful.

Mac 911

This month in *Mac 911*, we discuss fixing slow iTunes and iPhoto launches, showing the extensions of a group of files, making Finder views stick, and forcing text copied from Word to appear as text when it's pasted into an iChat window.

Lethargic Launching

My iMac has become extremely sluggish. Opening applications, especially iTunes and iPhoto, seems to take forever. Any suggestions?

Uwe Blecker

You can speed up the launch of iTunes by reducing the number of smart playlists that have the Live Updating option enabled. To test this fix, I created a dozen smart playlists on a 933MHz Power Mac G4 with the Live Updating option enabled, and then I quit iTunes. On relaunch it took the program about eight seconds to display the main iTunes window. When I disabled the Live Updating option in all the smart playlists and relaunched the program, the main window appeared in five seconds.

iPhoto's smart albums don't appear to impede that program's launch—in my tests, iPhoto launched in a

relatively slow fashion regardless of the existence of smart albums. In this case, it's simply a matter of distinguishing a sluggish application from one that acts sluggishly. It is just in iPhoto's nature to launch slowly. You can lessen the impact of this slow launching by scaling thumbnails to their smallest size before quitting the program. When you quit iPhoto with thumbnails scaled all the way up (so one image takes up the entire iPhoto window), you have to wait a few extra seconds on relaunch for iPhoto to shift from the blurry overview image to the high-resolution image.

Seeking Mass Extension

To show the file extension for a particular file's name, one needs only to choose Get Info from the File menu and deselect the Hide Extension option. Is there a way to do the same thing for a selected group of files all at once?

Greg Geitzenauer

Indeed there is. The trick is that you must put all the files in the same folder. Once they're there, simply ⌘-click on the files you'd like to alter and press ⌘-I. When you perform this action, up pops the Multiple Item Info box. Here you'll find the Hide Extension option under the Name & Extension triangle. Just deselect this option, and the file extensions will appear in each selected file's name.

Note that the Hide Extension option will be disabled (in other words, it won't work) if you've included a folder among your selections.

Unreliable Views

Every time I restart my Mac or log in, my folders' view settings have shifted. Despite configuring the Finder to display my Applications folder in List view and my Home directory in Icon view, the Applications folder shows small icons scattered all over and on top of each other, and my Home directory is in List view. How do I make my icons behave?

Steve Crandall

This is one of those problems for which no single solution exists. To start, let's be sure that you're doing views properly. To create a view that sticks, you must open a Finder window, apply the view you prefer, and



TIP OF THE MONTH

You'll Flip over This

In the December 2004 *Mac 911*, you addressed the issue of flipping the image from an iSight camera with mechanics. This is no longer necessary, thanks to iGlasses, an \$8 shareware application from Ecamm Network (find.macworld.com/0259).

iGlasses can not only flip and mirror an iSight image (thus allowing you to mount it upside down); it also allows you to enhance the picture that the iSight broadcasts, by brightening the image and fine-tuning color settings. (For a full review of iGlasses, see Mac Gems, February 2005.—Ed.)

Steve Kellener



Picture Prescription

If you're having problems with color balance or low light (or if you simply want to flip your iSight), just outfit your Mac with iGlasses.



UNSOLICITED ADVICE

Manage Media

Given the mission of *Mac 911*, you'd think my mailbox would spill over with letters demanding to know the meaning of arcane error messages or the reason that a Mac has suddenly caught fire.

Hardly. No, what readers want to know most is how to manage the media they own—specifically, how to use programs bundled with a new Mac on an old Mac, how to back up DVDs, and how to restore a corrupted music library from an iPod. Allow me to offer the shorthand versions of solutions for these problems:

Using Bundled Programs on Another Computer CharlesSoft's \$20 Pacifist (www.charlessoft.com) is designed to extract folders and files from OS X .pkg files. It's the tool to use for installing a single application from an Apple installation disc.

Backing Up a DVD Opus Computer Consultancy's free DVDBackup (find.macworld.com/0260) can back up a DVD to your Mac's hard drive. It will not, however, allow you to create a disc-based copy of the DVD's contents. To create a disc-based backup, get DVD2one (€50 [about \$66 at press time]; www.dvd2one.com), a tool that compresses the Video_TS folders created by DVDBackup so they fit on a 4.7GB disc.

Restoring Your Music Library from an iPod The Little App Factory's \$10 iPodRip (find.macworld.com/0261) can transfer to your Mac not only an iPod's music library but also its playlists.

Family Album

My son and I share an iMac at home. Is there a way for us to use the same iPhoto library?

Kiki Mulliner

With the proper privileges, this can be done with aliases. It works this way:

Choose the most up-to-date iPhoto Library folder (located at *your user folder/Pictures*) and move it to the Shared folder inside the Users folder at the root level of the hard drive. Click on the iPhoto Library folder, press ⌘-I to call up the iPhoto Library Info window, click on the Ownership & Permissions triangle, and then click on the Details triangle below. Select Read & Write from the Access pop-up menu directly beneath the Group pop-up menu, select Read & Write from the Others pop-up menu, and then close the Info window. Hold down the ⌘ and option keys and drag the iPhoto Library folder back to the Pictures folder to create an alias.

Switch to your son's user account, change the name of his iPhoto Library to something like iPhoto Library Old (in case you want to use this library again), open the Shared folder within the Users folder, and ⌘-option-drag that folder's iPhoto Library folder to your son's Pictures folder to create an alias. □



Contributing Editor CHRISTOPHER BREEN is also the editor in chief of *Playlistmag.com* and the author of *Secrets of the iPod*, fifth edition (Peachpit Press, 2005).

then *close the window*. The invisible .DS_Store file that contains view information won't update until the window is closed.

Let's say you've done this but the views still won't stick. First try tossing out the *com.apple.finder.plist* file, which is found at *your user folder/Library/Preferences*. The Mac will create a new Finder preferences file, which may solve your problem. If not, it's time to take sterner measures: log in as root and arrange views the way you'd like them to appear when you're logged in to your usual account.

Fire up NetInfo Manager, click on the lock icon at the bottom of the window, enter your administrator password, click on OK, and choose Enable Root User from the Security menu. You'll be prompted to enter a password to gain access to root. Create such a password, quit NetInfo Manager, and log out.

If your login screen is configured to show blank Name and Password fields, enter root in the Name field and the root password you created (in NetInfo Manager) in the Password field. If the login screen displays a list of names, press option-return and click on any name. A window with blank Name and Password fields will appear. Arrange windows with the views you like, close them, log out of root, and log in to your normal account. For the sake of security, return to NetInfo Manager and disable the root account (follow the steps for enabling root, but select Disable Root User from the Security menu).

A Word about iChat

Whenever I try to copy a bit of text from Microsoft Word into iChat, an attachment appears in the iChat window instead of the text. What's going on?

Bill Dunn

Word text is formatted in such a way that iChat thinks it's a graphics file instead of text. When you send one of these attachments, recipients see a black bar rather than words. The secret to resolving the issue is to strip out that formatting before you bring the copied text into iChat.

Although you can do this by pasting the text into a text editor, copying it again, and pasting it into iChat, who needs the aggravation? I prefer Carsten Blüm's free Plain Clip (find.macworld.com/0257), an application that strips formatting from text stored in the Clipboard, combined with Jean-Daniel Dupas's free Spark 2.0 (find.macworld.com/0258), which lets you create hot keys for launching applications and documents, executing AppleScripts, and controlling iTunes. I've used Spark to create a key combination that invokes Plain Clip, so when I want to copy text from Word into iChat, I copy the text, press ⌘-shift-C (the hot key I created to launch Plain Clip), and paste the text into iChat.

ADVERTISERS AND PRODUCT INDEX

Interact with the companies whose products and services are advertised in **Macworld**.

ADVERTISER	INTERACT	PAGE NO.	PAGE NO.	ADVERTISER	GET-INFO
H A R D W A R E					
COMPUTERS					
Alsoft	800-257-6381	34-35	C2-1	Apple Computer	—
Ambrosia Software	ambrosiasw.com	43, 89	HARD DISK STORAGE		
Apple Computer	—	C2-1	36	Wenzel Data	—
Aspyr Media	aspyr.com	42, 45, 47	MISCELLANEOUS		
Battery Technology	batterytech.com	85	85	Battery Technology	—
Bose	bose.com/q3857	51	51	Bose	—
Broadway	800-361-3436	112	84	Dension USA	—
Brother Intl	brother.com	C3	49	DLO	—
CDW	800.ALL.MACS	17	72, 73, 77, 80, 88, 91	Dr Bott	—
ClubMac	clubmac.com	113	32	Engineered Audio	—
Dension USA	densionusa.com	84	86	Etymotic Research	—
DLO	dlodirect.com	49	69, 90	Griffin Technology	—
Dr Bott	drbott.com	72, 73, 77, 80, 88, 91	87	InnoPocket	—
eCost	ecostmac.com	93	33	IOGear	—
Engineered Audio	engineeredaudio.com	32	73	Klipsch	—
Etymotic Research	etymotic.com	86	C4	La Cie	—
FileMaker	filemakertrial.com/mwld	9	76	Macally	—
Geek Cruises	geekcruises.com/macmania4/	36	74	MacResQ	—
GEICO	geico.com/myquote	46	76	Marware	—
Griffin Technology	griffintechology.com	69, 90	6	Small Dog Electronics	—
Hewlett-Packard	hp.com/go/drive4	21	70	Sonnet Technologies	—
InnoPocket	innopocket.com	87	85	STM Bags	—
Insider Software	insidersoftware.com	8	85	Tekkeon	—
IOGear	iogear.com/mw	33	85	The iStore	—
Klipsch	klipsch.com	73	82	ThinkDifferentStore	—
La Cie	lacie.com	C4	83	Vaja Cases	—
Macally	macally.com	76	13	Wacom	—
MacConnection	800-800-3333	81, 110-111	C3	Brother Intl	119
MacMall	800-MACMALL	78-79, 109	21	Hewlett-Packard	—
MacResQ	macresq.com	74	PRINTERS		
MacSoft/Destineer	macsoftgames.com	41	2-3	Xerox	101
Marware	marware.com	76	MAIL ORDER		
Micromat	800-829-6227	19, 92	112	Broadway	—
Microsoft Office	officeformac.com	11	17	CDW	2
Microsoft VPC	microsoft.com/mac	23	113	ClubMac	98
Otherworld Computing	800-275-4576	75, 114-117	93	eCost	—
Outspring	outspring.com	37	81, 110-111	MacConnection	—
Parliant	parliant.com	31	78-79, 109	MacMall	132
Small Dog Electronics	800-511-MACS	6	75, 114-117	Otherworld Computing	224
Sonnet Technologies	podfreq.com	70	S E R V I C E S		
STM Bags	stmbags.com	85	MISCELLANEOUS		
Tekkeon	tekkeon.com	85	46	GEICO	—
The iStore	theistore.com	85	11	Vonage	—
ThinkDifferentStore	thinkdifferentstore.com	82	TRADESHOWS/CONFERENCES		
Vaja Cases	vajacases.com	83	36	Geek Cruises	—
Vonage	vonage.com	11	S O F T W A R E		
Wacom	i3today.com	13	BUSINESS		
Wenzel Data	storageelements.com	36	9	FileMaker	—
Xerox	xerox.com/office/1965	2-3	11	Microsoft Office	—
			23	Microsoft VPC	—
			37	Outspring	—
			ENTERTAINMENT		
			43, 89	Ambrosia Software	—
			42, 45, 47	Aspyr Media	91
			41	MacSoft/Destineer	148
			FONTS		
			8	Insider Software	—
			UTILITIES		
			34-35	Alsoft	141
			19, 92	Micromat	37
			31	Parliant	—

MacMall

Your #1 Source for Mac Products!

Order now: 1-800-321-7532

Visit us at macmall.com

5 NEW PowerBook G4s!

New ultralight 12", 15" and 17" Powerbook G4s!

Up to 1.67GHz, as thin as 1" and as light as only 4.6 pounds!

Includes iLife '05!



starting at

\$1,494!

FREE!

With select Apple computer purchase!
While supplies last.

Epson Printer (\$99 value)
Memory (up to \$199 value)
Keyboard & Mouse (\$34⁹⁹ value)
Carrying Case (\$39⁹⁹ value)

Apple Authorized Reseller

iBook® G4



- Up to 1.33GHz PowerPC™ G4
- Optional wireless & Bluetooth
- Up to 14.1" display



Perfect for
students and
mobile pros!

starting at **\$1,044!**

Power Mac® G5



- Up to Dual 2.5GHz PowerPC G5
- 8X SuperDrive™ (DVD-R/CD-RW)
- Massive expandability options



Display sold
separately.

starting at **\$1,494!**

NEW! Mac mini



- Up to 1.42GHz PowerPC G4
- 80GB Ultra ATA hard drive
- Includes NEW iLife™ '05 suite

Makes
a great
hub for
the iPod®!



starting at **\$494!**

iMac® G5



- Up to 1.8GHz PowerPC G5
- 17" or 20" LCD
- Built-in speakers
- Only 2" thin!

Astounding
processing in
a stylish and
thin design!



starting at **\$1,294!**

Up to \$300 Price Drops!

Apple Cinema
Display® Series—
20", 23" and 30"



starting at **\$994!**

FREE RAM OFFER—An additional \$39.95 MacMall installation fee applies to all models. A \$99 MacMall mail-in rebate is required for Power Mac G5 and iBook G4 models. Price of RAM before rebate is \$99. A \$119 MacMall mail-in rebate is required for PowerBook models. Price of RAM before rebate is \$119. A \$49.95 MacMall mail-in rebate is required for eMac G4 models. Price of RAM before rebate is \$49.95. No rebate required for iMac G5 models. FREE CARRYING CASE OFFER—Carrying Case is free after \$29.95 MacMall mail-in rebate for iBook or 12.1" and 15.2" PowerBook models. Price before rebate is \$29.95. A \$39.95 MacMall mail-in rebate is required for 17" PowerBook models. Price before rebate is \$39.95. FREE PRINTER OFFER—Epson Stylus C86 Printer is free after \$70 Epson and \$29 MacMall mail-in rebates when purchased with any Apple computer through 4/15/05. Price of printer before rebate is \$99. FREE SHIPPING OFFER—Free UPS ground shipping or \$9.99 FedEx overnight on selected products. Call or visit macmall.com for details. Not valid with any other discounts. FREE KEYBOARD & MOUSE OFFER—After \$34.99 MacMall mail-in rebate with purchase of Apple Mac mini computer. Price before rebate is \$34.99. Offer valid through 4/15/05. ALL OFFERS VALID WHILE SUPPLIES LAST.

Upgrade your Mac mini:

Get a SuperDrive installed for only \$99

1.25GHz	\$593	#5616402
1.42GHz	\$693	#5616445

Get Bluetooth and an AirPort Extreme wireless card installed for only \$129

1.25GHz	\$623	#5616429
1.42GHz	\$723	#5616453

Get Bluetooth, an Apple wireless keyboard, and an Apple mouse for only \$149

1.25GHz	\$643	#5616488
1.42GHz	\$743	#5616496



Bluetooth™

Visit www.macconnection.com for more details.

Ultra-Portable Audio System for iPod
iMmini iPod Audio System

- Designed exclusively for iPod Mini
- Enjoy a full spectrum of sound
- Built-in docking station

ONLY \$129⁹⁵ #5569378

ALTEC LANSING



New!

Light-Weight, Compact Sound Station
JBL On Stage iPod Speaker System

- Provides rich sound in any location
- One-touch volume control
- Compatible with all iPod versions

ONLY \$119⁹⁵

#5547321

JBL



New!

Maximize the iPod Listening Experience
iFi System for iPod

- Series RSX-3 satellites, a dedicated subwoofer, docking station, and RF remote
- "Plug and play" setup

ONLY \$399

#5598902

Klipsch



TV On Your Own Time **New!** **elgato**
Eye TV 200

- FireWire digital video recorder and cable-ready TV tuner lets you watch and edit TV on your own schedule

ONLY \$329⁹⁵

#5559524



The Most Affordable Mac Ever!

MAC mini
STARTING AT

\$494

#5591461

All-New Mac mini

- Just 6.5" wide and 2" tall
- Up to 1.42GHz G4 processor
- Up to 80GB hard drive
- Supports VGA and DVI monitors
- Works with any USB keyboard and mouse
- Includes new iLife '05



FREE HP Deskjet 3650 Printer*

*After mfr.'s \$50, and MacConnection \$29.95 mail-in rebates with purchase of any Apple system. Expires 4/30/05. #450146



New! iPod shuffle

- Autofill with up to 240 songs from iTunes
- 512MB and 1GB models available

512MB \$99 #5591583

1GB \$149 #5591604



iCruze
Now Available

www.macconnection.com/monster

iPod Mini with FREE \$10 iTunes Gift Certificate or Safari Case*

- 4GB (holds 1000 songs*) ■ 3.6 oz
- 8 hours on one battery charge ■ PC and Mac



ONLY \$249

#5222850 (Silver)
#5222892 (Gold)
#5222930 (Pink)
#5222913 (Blue)
#5222981 (Green)

*Actual formatted capacity for MP3 players may vary. *With purchase of iPod mini while supplies last.

U2 iPod Special Edition

with FREE \$10 iTunes Gift Certificate*

- Striking jet-black case with unique, red Click Wheel
- Signed by U2

20GB \$344⁸⁸

#5483339

*With iPod purchase through 4/30/05 or while supplies last.



iPod Photo with FREE \$20 iTunes Gift Certificate*

- PC and Mac
- New color screen
- Only 5.6 oz.

40GB \$494⁸⁸ #5508567

60GB \$594⁸⁸ #5508575

*With iPod Photo purchase through 4/30/05 or while supplies last.



Access Files Faster Than Ever Before

USB 2.0 Mini Drive with Flash 64MB SD Card

- Fast data transfer rate
- Add additional flash cards for infinitely expandable storage

ONLY \$29⁹⁵

#4855989

SimpleTech



Flat-Out Beautiful

42" SD Plasma Display

Panasonic

- Table-top or wall mountable
- Widescreen viewing
- Display full-screen digital photos

ONLY \$2099

#5448699



TV On Your Own Time **New!** **elgato**
Eye TV 200

- FireWire digital video recorder and cable-ready TV tuner lets you watch and edit TV on your own schedule

ONLY \$329⁹⁵

#5559524



Play Your iPod Through Your Car Stereo
iCarplay Wireless Plus

- Listen to iPod through any FM radio frequency
- Smart Digital Charging maximizes your iPod's battery life

ONLY \$79⁹⁵ #5528453

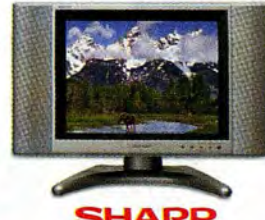
MONSTER



Just 3" Deep
13" LCD Display

- Integrated cable-ready TV tuner
- Sleek, side-mounted speakers
- Wide 170-degree viewing angles

ONLY \$449 #5185884



IMAGINE

STYLISH SYSTEMS THAT DO IT ALL

HOT NEW PRODUCTS AND COOL DEALS



Monitor sold separately.

Power Mac G5

- Up to dual 2.5GHz PowerPC G5s
- Up to 8GB PC3200 DDR SDRAM
- DVD-R/CD-RW SuperDrive
- Up to 160GB HD



Authorized Reseller



FREE HP Deskjet 3650 Printer¹

¹After mfr.'s \$50, and MacConnection \$29.95 mail-in rebates with purchase of any Apple system. Expires 4/30/05. #450146

PowerBook G4

- Up to 1.67GHz G4
- 512MB RAM
- 12", 15", 17" display
- AirPort Extreme standard
- Optional 8X SuperDrive



iBook G4

- Up to 1.33GHz G4
- Up to 60GB HD
- 256MB DDR266 SDRAM
- 12" or 14" TFT display



Fits your Hand and your Budget!

ZR300 MiniDV Camcorder

Canon

- 16:9 widescreen recording
- Simultaneous video and still photo recording
- 22X optical zoom



ONLY \$499 #5614001

Save \$30 Instantly When You Upgrade*

Painter IX Upgrade

- 10X faster than previous versions
- New Artists' Oils Painting System
- Enhanced Adobe Photoshop file compatibility

Upgrade ONLY

\$169⁹⁵ #5339417

COREL



*After \$30 instant rebate. Expires 4/30/05.

Ground-Breaking New Features

Mac Office 2004 Standard

- Transform the way you manage ideas and information
- Improved e-mail protection
- New Project Center

Upgrade ONLY

\$214⁹⁵ #4893045

Microsoft



Play, Store, and Record DVDs

DVDirect DVD Recorder

SONY

- Use as a stand-alone DVD recorder/player, or a DVD drive for storage
- Converts VHS directly to DVD



ONLY \$269⁹⁵ #5409614

Camcorder sold separately.

www.macconnection.com/mw

800.800.3333

MacConnection[®]

A PC CONNECTION, INC. COMPANY

the right tools for the right brain[™]

We specialize
in Overnight Delivery.
Place Your Order by 7:00 PM EST
and Receive Your Order by
the Next Business Day!
For an Additional
\$29.95



21 Day Satisfaction
Next Day Air Available
Worldwide Shipping
No Surcharge on Credit Cards
Government & School PO's Accepted

Visit our website at: www.broadwayphoto.com

DIGITAL CAMERAS

NIKON Coolpix 8800
• 8.0 MegaPixels
• 10x Opt/4x Dig Zoom
\$649⁹⁹

NEW! Coolpix 4800\$279.99
NEW! Coolpix 5100/5700CALL
Coolpix 5400\$319.99
Coolpix 8700\$499.99

NIKON D70
• 6.1 MegaPixels
• 1.8" LCD Screen
\$649⁹⁹

D100\$879.99
NEW! D70 Kit\$849.99

OLYMPUS Eviott E-300
• 5.0 Million Pixels
• 1x Opt/1x Dig Zoom
\$699⁹⁹

E-1\$799.99
Stylus 410\$224.99
NEW! Stylus 500\$289.99
NEW! Stylus Vena Dig (BSW)\$229.99

SONY DSC-F828
• 1.8" LCD Screen
• 4x Dig/7x Opt. Zo
\$609⁹⁹

DSC-F88\$249.99

SONY DSC-T3
• 5.1 MegaPixels
• 2x Digital Zoom
• 2.5" LCD Screen
\$304⁹⁹

DSC-PT11\$304.99 DSC-T33\$329.99
DSC-V3\$449.99 DSC-T1\$399.99

CANON PowerShot G6
• 7.1 MegaPixels
• 4x Optical Zoom
\$469⁹⁹

A85\$194.99 A95\$249.99
Pro 1\$579.99 A400\$379.99
A510\$159.99 A520CALL

CASIO EX-Z55
• 5.0 MegaPixels
• 3x Opt/4x Dig. Zoom
\$289⁹⁹

EX-P700\$389.99 EX-Z40\$294.99
EX-S100\$239.99 EX-Z50\$239.99
QVR-61\$259.99 QVR-62CALL

MINOLTA Dimage A200
• 8.0 MegaPixels
• 7x Optical Zoom
\$509⁹⁹

E50CALL X31\$139.99
X50\$239.99 G600\$219.99

NIKON Coolpix 8400
• 8.0 MegaPixels
• 10 Opt/4x Dig Zoom
\$519⁹⁹

Coolpix 3200\$164.99
Coolpix 4100\$174.99
Coolpix 4200\$194.99
Coolpix 5200\$239.99

OLYMPUS C770
• 4.0 MegaPixels
• 10x Optical Zoom
\$309⁹⁹

C-765\$279.99 D-425CALL
D-535\$124.99 D-580\$179.99
D-590\$214.99

PENTAX *IST-DS
• 6.1 MegaPixels CCD
• 2.0" LCD Screen
\$609⁹⁹

*IST-D\$849.99

SONY Mavica CD-500
• 4.0 MegaPixels
• 2.5" LCD Screen
\$409⁹⁹

CD-350\$289.99
FD-200\$249.99

CANON DIGITAL REBEL KIT
• 6.3 Megapixel CCD
• 1x Opt/1x Digital
\$649⁹⁹

Digital Rebel\$549.99
SD20\$269.99

CANON PowerShot S500
• 5.0 MegaPixels
• 3x Optical Zoom
\$279⁹⁹

SD200\$219.99 SD300\$269.99
S410\$249.99 S50\$319.99
S70\$359.99 S1-IS\$269.99

FUJIFINEPIX S3
• 5.0 MegaPixels
• 2.0" LCD
\$1699⁹⁹

FP E500\$174.99 FP E510\$199.99
FP E550\$249.99 FP A340\$149.99
FP S20 Pro\$409.99 FP S2\$1049.99

MINOLTA Dimage Z3
• 4.0 MegaPixels
• 12x Optical Zoom
\$299⁹⁹

Z2\$259.99 Z5CALL
Z10\$189.99 Z20CALL
NEW! Maxxum 7 Digital\$1099.99

NIKON D2H
• SLR Type Dig. Camera
• 5.47 MegaPixels
• Uses Nikon AF-D/.....
\$1649⁹⁹

NEW! D2XCALL

OLYMPUS C-8080
• 8.0 MegaPixels
• 5x Opt/3x Dig Zoom
\$549⁹⁹

C-5060\$399.99 C-5500CALL
C-60\$249.99 C-70ZCALL
C-7000\$419.99 C-7070CALL

PENTAX Optio 750Z
• 7.0 MegaPixel CCD
• 8x Dig/5x Opt. Zo
\$399⁹⁹

S50\$204.99 S5i\$259.99
MX4\$219.99 OPT X\$269.99
SV\$259.99 WPCALL

SONY DSC-P150
• 7.0 MegaPixels
• 3x Opt/2x Dig. Zoom
\$319⁹⁹

DSC-P41\$154.99 DSC-P73\$189.99
DSC-P83\$239.99 DSC-P200\$339.99
DSC-L1\$244.99 DSC-M1\$409.99
DSC-W1\$259.99 DSC-W5\$299.99

CANON EOS 20D
• 8.2 MegaPixels
• 1.8" LCD Screen
\$1049⁹⁹

EOS 20D Kit\$1119.99
EOS 1D II\$3149.99
EOS 1DS II\$6499.99
EOS 1DS\$5099.99

KODAK DX7590
• 5.4 MegaPixels
• 10x Opt/3x Dig. Zo
\$339⁹⁹

CX7330\$129.99 CX7430\$159.99
CX7530\$219.99 DX6490\$279.99
DX-7630\$249.99 LST43\$189.99
LST53\$259.99 EasyShare1CALL
DSC-Pro SLR C/N\$2949.99

FUJIFINEPIX S5100
• 4.0 MegaPixels
• 10x Optical Zoom
\$249⁹⁹

FP 3100\$199.99 FP F440\$219.99
FP F450\$249.99 FP 810\$309.99

PANASONIC DMC-FZ20 (K/S)
• 5.0 MegaPixels
• 12x Optical Zoom
\$409⁹⁹

FX-2\$249.99 FX-5\$249.99
FX-7\$329.99 FZ-4\$329.99
FZ-5\$359.99 FZ-15\$349.99
LC-1\$699.99 LC-80\$264.99

DIGITAL VIDEO

CANON GL-2
• 20x Optical Zoom
• 100x Digital Zoom
• 2.5" LCD Screen
\$1469⁹⁹

NEW! XL-2\$3299.99
ZR-80\$249.99
ZR-85\$289.99
Special! ZR-90\$329.99
NEW! ZR-100\$289.99
NEW! ZR-200\$319.99
NEW! ZR-300\$359.99

JVC GZ-MC200
• 2.12 MegaPixels
• 10x Optical Zoom
• 200x Digital Zoom
• 1.8" Color LCD
\$749⁹⁹

GR-D230\$409.99
GR-D72\$269.99
NEW! GR-D93\$319.99
NEW! GR-D250\$279.99
NEW! GR-D270\$289.99
NEW! GR-D295\$319.99
NEW! GZ-MC100\$619.99
NEW! GZ-MC500CALL

SONY DCR-VX2100
• 48x Digital Zoom
• 12x Optical Zoom
• 2.5" LCD Screen
\$1809⁹⁹

NEW! DHR-1000\$2979.99

SONY DCR-PC350
• 3.0 MegaPixels
• 10x Optical Zoom
• 2.5" LCD Screen
• BLUETOOTH
\$819⁹⁹

Special! DSR-PDX10\$1499.99
Special! DSR-PD170\$2399.99
NEW! DCR-TRV280\$264.99
NEW! DCR-TRV480\$304.99
NEW! HDR-Z1\$4049.99

CANON ELURA 70
• 1.33 MegaPixels
• 18x Optical Zoom
• 2.5" LCD Screen
\$419⁹⁹

Elura 60\$319.99
Elura 65\$369.99
NEW! Elura 80CALL
NEW! Elura 85CALL
NEW! Elura 90CALL

JVC GR-HD1
• 200x Digital Zoom
• 10x Opt. Zoom
• 3.5" Color LCD
• USB
\$1649⁹⁹

NEW! GR-DF430CALL
NEW! GR-DF450CALL
NEW! GR-DF550CALL
GR-DX77\$319.99
NEW! GR-DZ7\$499.99
JY-HD100\$1949.99
GY-DV300\$1549.99
GY-DV500\$3699.99

SONY HDR-FX1
• 12x Optical Zoom
• 3.5" LCD Screen
\$2749⁹⁹

Special! DSR-PDX10\$1499.99
Special! DSR-PD170\$2399.99
NEW! DCR-TRV280\$264.99
NEW! DCR-TRV480\$304.99
NEW! HDR-Z1\$4049.99

CANON OPTURA 500
• 2.3 MegaPixels
• 10x Optical Zoom
• 200x Digital Zoom
• 2.5" LCD Screen
\$699⁹⁹

Optura 30\$449.99
Optura 40\$579.99
NEW! Optura 400\$589.99
Optura XI\$719.99

SONY DCR-HC1000
• 12x Optical Zoom
• 150x Digital Zoom
• 2.5" LCD
• USB
\$949⁹⁹

NEW! DCR-HC21\$339.99
NEW! DCR-HC32\$399.99
NEW! DCR-HC42\$459.99
NEW! DCR-HC90\$709.99

SONY DCR-DVD301
• 10x Optical Zoom
• 120x Digital Zoom
• 3.5" LCD
• 1.0 MegaPixel
\$619⁹⁹

NEW! DCR-DVD7\$549.99
NEW! DCR-DVD92\$489.99
DCR-DVD101\$469.99
NEW! DCR-DVD103\$529.99
DCR-DVD201\$579.99
NEW! DCR-DVD203\$569.99
NEW! DCR-DVD403\$689.99

PANASONIC PV-GS200
• 120x Digital Zoom
• 10x Optical Zoom
• 2.5" LCD Screen
\$589⁹⁹

PV-GS14\$314.99
PV-GS15\$329.99
NEW! PV-GS16\$339.99
NEW! PV-GS19\$329.99
NEW! PV-GS31\$329.99
NEW! PV-GS35\$389.99
Special! PV-GS55\$349.99
NEW! PV-GS65\$449.99
PV-GS120\$419.99
NEW! PV-GS150\$499.99
NEW! PV-GS250\$649.99
NEW! PV-GS400\$879.99

PANASONIC AG-DV1000A
• 3-CCD Imaging
• Super VHS
• 12x Optical Zoom
• IEEE-1394
\$2299⁹⁹

AG-DV2500\$1279.99
AG-DVC200\$2649.99
AG-DVC7\$749.99
Special! AG-DVC30\$1349.99
NEW! AG-DVC60\$1749.99
SV-AV50A\$249.99
NEW! VDR-M54\$449.99
NEW! VDR-M55\$529.99
Special! VD-RM70\$504.99
NEW! VDR-M75\$569.99
NEW! VDR-M95\$669.99

VIDEO PROJECTORS

IN FOCUS X2
• DLP
• 1600 Max Ansi Lumens
\$839⁹⁹

LP-120\$1399.99
LP-70+\$1299.99

EPSON PowerLite S1+
• 5x 5" LCD
• Digital Zoom
\$849⁹⁹

PowerLite 730-C\$1979.99
PowerLite 61-P\$1159.99
PowerLite 81-P\$1529.99

BENQ PB7210
• 2200 Max Ansi Lumens
• DLP
\$1509⁹⁹

PB 6100\$849.99
PB 7230\$1999.99
PB 8220\$1549.99

SCANNERS

CANON FS4000
• 5888 x 4000 pixels
• 4000 DPI Optical Resolution
• USB
\$469⁹⁹

LS-40\$409.99

NIKON LS50
• High Quality CCD Sensor
• 4000 DPI Optical Resolution
\$489⁹⁹

LS-40\$409.99

NIKON Super Coolscan LS-5000
• 4,000 dpi Optical Res
• 2x-linear CCD
• Multiple file format
\$869⁹⁹

LS-8000\$1909.99
LS-4000\$699.99

TELEVISIONS

JVC LT-32X585
• 32"
• HDTV
• W-XGA LCD
\$2499⁹⁹

PD-42WX84\$3349.99
LT-26WX84\$1599.99
HD-52Z575\$2399.99

PANASONIC TH-42PA20
• 42"
• HDTV
\$2099⁹⁹

TH-42P2X5\$3599.99
TC-26LX20\$1699.99
TH-50P2X5\$4699.99

SHARP LC-37HV4U
• 37"
• Aquos Liquid
• TFT Active Mat
\$1999⁹⁹

LC-30HV4U\$1349.99
LC-20E1U\$649.99
LC-20B4U\$699.99

PRINTERS

EPSON Stylus 2200P
• USB/Serial Port
• PC or Mac
• 6 Color Small Archival Links
\$539⁹⁹

Stylus 3000\$1179.99

EPSON Stylus 1280
• Smudge Free Inks
• PC or Mac
\$399⁹⁹

Stylus 3000\$1179.99

OLYMPUS P440
• Dye-Sublimation
• 1.8" LCD
• USB
\$379⁹⁹

Stylus 3000\$1179.99

The All **NEW!** Apple® Mac mini

Everything you ever wanted nothing you don't need.



Just 6.5 inches wide and 2 inches tall, Mac mini provides what you need to have more fun with your music, photos and movies — right out of the box. Mac mini is the Most Affordable Mac ever!

Starting at **\$494** #188260

Faster Powerbooks!

All Feature the new Scrolling TrackPad, Sudden Motion Sensor
Built-in Air Port Extreme, enhanced Bluetooth 2.0 & SuperDrive!



12"



15"



17"

Now Up to

1.67GHz!

Apple Authorized Reseller

New PowerBooks Starting At **\$1494**

iPod® and iPod Mini!

iPod with Click Wheel Starting at



\$294
20GB

iPod Mini
Choice of 5 Colors

Only **\$244**



Mini iPods - 1,000 Songs (without Dock)

Silver	Gold	Pink	Blue	Green
#351002	#351008	#351010	#351009	#351011

iPod photo

Why should your ears have all the fun?



Starting at **\$494**
40GB

iPod U2

Autographed by each U2 band member



Only **\$344**
20GB
Also included in the box: \$50 off The Complete U2. More than 400 tracks spanning the band's career!

The All **NEW!** iPod® Shuffle

Enjoy Uncertainty
Time to mix things up. Meet iPod shuffle, the unpredictable new iPod. What will it play next? Can it read your mind? Can it read your moods? Load it up. Put it on. See where it takes you. Choose from pocket-size 512MB or 1GB models.



Starting at **\$94** #188265

Power Mac® G5!

Engineered For the Creative Class
Up to Dual **2.5GHz!**
Liquid Cooled

Starting at **\$1494**



FREE!
Up to 1GB of RAM!

†Terms and Conditions apply. See offer for details.

EPSON® Stylus Photo R800

#317673

Printers

#442083	Epson Stylus Color C86	\$99.00
#462249	Epson Picturemate 4" X 6" Photo Printer	\$199.00
#493645	Epson Stylus Photo R320 w/Preview Monitor	\$199.00
#744192	HP Deskjet 6127	\$249.00
#356835	HP Color LaserJet 3500	\$699.00



Apple New Cinema Displays

Starting at **\$994** #459636

Displays

	30"	23"	20"
#767511	LaCie Electronblue 19" IV 1600X1200 76Hz	\$379.00	
#259776	Sony SDM-593 19" LCD	\$482.99	
#459836	Apple 20" LCD DVI Cinema Display	\$994.00	
#459837	Apple 23" LCD DVI Cinema HD Display	\$1794.00	
#459838	Apple 30" LCD DVI Cinema HD Display	\$2994.00	



FREE!
Case & RAM!

The iMac® G5!
Up to **1.8GHz!**

Starting at

\$1294

†Terms and Conditions apply. See offer for details.

GVP 120GB External FireWire Hard Drive

#505565

Storage

#491462	LaCie 16x Double Layer DVD±RW Drive	\$199.00
#247894	Fantom Drives Titanium Firewire 250GB Hard Drive	\$179.99
#494776	LaCie Extreme Triple Interface 200GB Ext Hard Drive	\$249.00
#291218	GVP 250GB XP800 Series FW800/400 USB 2.0 HD	\$279.00
#341450	LaCie 500GB Big Disk FW 800/400 USB 2.0 D2 HD	\$449.00



Canon

PowerShot A400

#494220

Digital Cameras and Camcorder

#443260	Canon PowerShot S60 Digital Camera	\$419.95
#394121	Canon Powershot S410	\$349.99
#974509	Nikon Coolpix 5700 DigO5_vital Camera	\$629.00
#392139	Nikon D70 Digital SLR 18-70mm Zoom-Nikkor Lens	\$1109.00
#493720	Canon EOS 20D Digital SLR Camera	\$1495.00



Nikon

CoolPix 3200

#19995



FREE!
Case & RAM!

iBook® G4!
Now with Airport Extreme built-in!
Now Up to **1.33GHz!**

iBooks Starting at **\$994**

†Terms and Conditions apply. See offer for details.

Apple Panther Mac OS X 10.3

#296382

Software-Utilities/Business

#448022	Quicken for Mac 2005	\$64.95
#154631	Symantec Norton Antivirus 9.0	\$64.89
#367228	Symantec Norton Utilities 8.0.1	\$44.89
#367212	Symantec Norton Systemworks 3.0	\$65.99
#399928	Microsoft® Office 2004 For Mac Standard Edition	\$348.99
#206067	QuarkXpress 6.5 <i>Save \$300* when purchased with select Macs!</i>	\$899.99

*After \$50 Mail-in Rebate. Exp. 6/30/05. *Ask your sales rep for details Ends 3/14/05.

Apple Final Cut Pro HD

with **FREE!** Shuttle Pro V2

#458593

Software-Graphics

#283190	Adobe Photoshop CS Upgrade	\$169.00
#279956	Adobe Illustrator CS Upgrade	\$169.00
#283185	Adobe InDesign CS Upgrade	\$169.00
#403921	Apple Final Cut Pro HD	\$994.00



24 Hours, 7 Days a Week

ClubMac®

Source Code: ZMWC504

Choose 98 at www.macworld.com/getinfo

The eMac G4

Up to **1.25GHz!**

Starting at **\$794**



FREE!
256MB of RAM!

†Terms and Conditions apply. See offer for details.

FREE SHIPPING!*
*Free UPS Ground Shipping Terms & Conditions

1-800-260-8549

NO SURCHARGE

*Free UPS ground shipping on select items. No rebate needed. Call your sales rep for details.

WWW.CLUBMAC.COM

E-Mail: cmsales@clubmac.com
Local & International Sales (949) 768-8130
24-Hour Fax (310) 630-3078

ALL PRODUCT INFORMATION AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE. NOT RESPONSIBLE FOR TYPOGRAPHICAL ERRORS. WARRANTIES: All items manufactured by ClubMac should be returned to ClubMac for warranty repair. Refer to manufacturer's warranty for Non-ClubMac products. MONEY BACK GUARANTEE: All products manufactured by ClubMac carry a 30 day money back guarantee. RETURNS: ClubMac extends all other manufacturer's return policies to its customers. Call for a Return Authorization (RA) number! Any product that is returned WITHOUT an RA# will be refused. NOTE: Products may be returned for replacement only. Apple Branded Products are not returnable. If you experience problems with your Apple purchase contact Apple 1-800-505-7078.

Other World Computing

Serving the Mac Universe since 1988

800.275.4576 visit macsales.com

Excellent service • Competitive prices • Quality products • Expert tech staff

Your Online Internal Parts To Make

More Memory = Faster Mac

Get more memory to run more of your applications faster!
Top quality memory from OWC makes the difference!

PowerMac G5



All Models

- 4 or 8 memory slots
- 4 internal drive bays
- AGP 8X video slot
- 3 PCX or PCI slots
- FireWire 400/800, USB, Bluetooth & AirPort

3200 DDR C.A.S. 3.0

Maximum up to 8 GBs!

1 GB kits (2) 512 MB

DIMMs **\$159.99**

2 GB kits (2) 1 GB

DIMMs **\$399.99**

PowerMac G4 w/AGP Slot



- 3 or 4 memory slots
- 3 or 4 internal drive bays
- AGP video slot
- FireWire and USB built-in

Maximum up to 2 GBs

256 MB from **\$31.99**

512 MB from **\$83.89**

iMac G3, G4, and G5; eMac G4



- 2 memory slots
- FireWire and USB standard

Maximum up to 2 GBs

256 MB from **\$39**

512 MB from **\$83**

1 GB from **\$188**

PowerBook and iBook G3 or G4



- 1 or 2 memory slots
- PCMCIA (PowerBook)
- FireWire and/or USB

SODIMMs Max. up to 2 GBs

256 MB from **\$33**

512 MB from **\$93**

1 GB from **\$229**

PowerMac G3



- 3 or 4 memory slots
- 2+ internal drive bays
- FireWire and USB (Blue & white only)

PC66/100 CL2 SDRAM

Maximum up to 1 GB

256 MB SPECIAL **\$25.99!**

256MB x 3 = 768MB, x 4 = 1GB!

Mac Mini Memory



- 1 Slot
- 1 GB Max
- DVD & HD

1 GB PC2700 DDR DIMM

Only **\$187.99!**

Faster = Mac

OWC takes the guesswork out of upgrading

- Lifetime Advance Replacement Warranty
- Fully meets or even exceeds Apple specs
- UPS/FedEx Air delivery from \$4

You've got the right Mac, but does your Mac have the right memory? With top quality memory upgrades from Other World Computing, OS X and applications can run faster and better than ever! Less spinning 'beach balls'! We have memory for just about every Apple/Mac out there! Call and speak to one of our knowledgeable sales reps, or visit www.macsales.com/memory to use our online memory guide.



SUPERDRIVE YOUR COMPUTER FROM ONLY \$75.00

WWW.MACSALES.COM/SUPERDRIVE

Make music, movies, data backups and more!



You can use Apple iTunes/Discomburner, Toast, or just about any CD/DVD authoring software available!



Up to 16X DVD Burn Speeds
Up to 40X CD Burn Speeds
Up to 6X Dual Layer Burn!

Internal options for iMacs & PowerBooks



Internal options for desktop Macs



Media, Cases, Label Kits in stock too!



Bigger, better, faster, and quieter! Upgrade your hard drive today!

Seagate Western Digital TOSHIBA
Maxtor HITACHI
SERIAL ATA ATA/IDE SCSI

Available for the Mac model you have!

For Minis, iBooks & PowerBooks

For iMacs, eMacs & PowerMacs



2.5" Up to 100GB from \$69!



3.5" Up to 500GB from \$51!

Hard Drive Controllers

Use Serial ATA hard drives or bigger, faster ATA drives with a new PCI hard drive controller

SIIG Serial ATA/150 **\$59.99**

Mac PCI Controller **\$59.99**

Sonnet Tempo ATA/133 **\$79.99**

• Supports up to 4 ATA drives
• For OS 8.6-9.2.x & OS X
• 3yr Warranty

Network Adapters

D-Link Building Networks For People

D-Link 10/100 Ethernet PCI Card **\$9.99**

USB Keyboard

Logitech Freedom USB Wireless Keyboard & Mouse Set

Just **\$27.95** for any Mac with USB

Is your Mac forgetting what time it is? OWC PRAM batteries starting at **\$5.99**

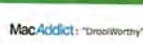
PRAM Batteries



Mac Upgrade Center

Your Old Mac Like New

visit macsales.com
800.275.4576



External for any Mac (or PC) with an available FireWire/USB 2.0 port:

Neptune

Mercury Pro



OWC FireWire/USB External DVR-109 SuperDrives

DVD+R/RW, +R DL up to 16X, CD-R/RW up to 40X Burn

OWC Mercury Pro FireWire/USB 2.0 Combo **\$169.99**

OWC Neptune FireWire only Solution **\$159.99**

Above include: All Cables, Dantz Retrospect Backup, NTI Dragonburn, 25 pieces 52X CD-R Media, 5 pieces 8X DVD-R media, 1yr OWC Warranty

OWC FireWire/USB 52x32x52x CD-R/RW Externals

OWC Mercury Pro FireWire+USB 2.0/1.1 **\$97.99**

OWC Neptune FireWire only Solution **\$89.95**

Above include: All Cables, Dantz Retrospect Backup, NTI Dragonburn, 25 pieces 52X CD-R Media, 5 pieces 8X DVD-R media, 1yr OWC Warranty

FireWire/USB Adapters

Connect to thousands of new USB and FireWire Products!

ADD FIREWIRE 400/800* OR USB 1.1/2.0* TO YOUR POWERMAC!

OWC 2-port FW 400 PCI Card for PowerMacs **\$9.95**

OWC 3-port FW 800+2 Port FireWire 400 PCI for PowerMacs **\$49.99**

OWC 3-port FW 400/5 Port USB 1.1/2.0 PCI for PowerMacs **\$29.95**

* FireWire 800 and USB 2.0 operation require Apple OS X 10.2.x or later.

ADD FIREWIRE 400/800 TO ANY POWERBOOK!

OWC 2-port FW 400 PCMCIA for PowerBooks **\$24.99**

LACIE 2-port FW 800 PCMCIA for PowerBooks **\$78.95**

Multimedia



M-Audio StudioPro 4 Desktop Audio Monitors **\$149.00**

M-Audio Keystation 49e 49-Key USB MIDI Controller **\$99.00**

Nova Large Capsule Cardioid Microphone **\$99.00**



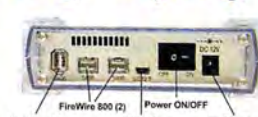
Contour Shuttle A/V Controllers

Shuttle Pro v2 Jog/Shuttle (15 programmable buttons) **\$84.99**

Shuttle Express Jog/Shuttle (5 programmable buttons) **\$39.95**



OWC FireWire & USB High performance plug & play



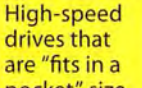
The sleek, compact solution that stands or stacks.



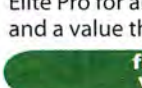
Your Drive + Mercury = Plug 'n' Play



High-speed drives that are "fits in a pocket" size



Your Drive + OTG = Plug 'n' Play



Mercury Elite Pro

Size	Speed	Data Buffer	FireWire 400/USB	FW800/400*	FW800/400/USB
80GB	7200RPM	2MB	\$129.99	\$149.99	\$169.99
120GB	7200RPM	8MB	\$165.99	\$189.99	\$199.99
160GB	7200RPM	8MB	\$179.99	\$199.99	\$219.99
200GB	7200RPM	8MB	\$209.99	\$239.99	\$249.99
250GB	7200RPM	8MB	\$229.99	\$249.99	\$269.99
300GB	7200RPM	8MB	\$289.99	\$319.99	\$329.99
400GB	7200RPM	8MB	\$429.99	\$449.99	\$469.99

Call for other Available Models and Options!

* Elite 800 Pro FW800/400 solution has same ports as pictured FW800/400 + USB model, without the USB 2.0 port.

All Mercury Elite Solutions are Apple HFS+ Preformatted Ready to go and include: Dantz Retrospect, Express Backup Utility (Mac/PC), Intech HD Speedtools (Mac), all cables, and a 2 Year OWC Warranty.

Build your own Mercury Elite FW/USB drive

Case kits include all connecting cables and driving mounting screws. Use any 3.5" IDE/ATA hard drive up to 500GB!

Oxford911+ FireWire 400 Kit **\$65.99**

Oxford911 Combo FireWire 400/USB2 Kit **\$79.95**

Oxford912 FireWire 800/400 Kit **\$99.95**

Oxford922 FireWire Combo 800/400/USB2 **\$119.95**

Mercury On-The-Go

	FireWire 400	FW400 + USB 2.0/1.1
40GB 5400RPM 8MB Data Buffer	\$139.97	\$149.99
40GB 5400RPM 16MB Data Buffer	\$149.97	\$159.99
60GB 4200RPM 8MB Data Buffer	\$159.97	\$169.99
60GB 5400RPM 16MB Data Buffer	\$189.97	\$199.99
60GB 7200RPM 'Fastest Ever!'	\$235.97	\$239.99
80GB 5400RPM 8MB 'Fast-High Cap.'	\$229.97	\$239.99
100GB 5400RPM 8MB 'Fastest 5400RPM'	\$299.97	\$309.99

Call/Visit www.macsales.com for other 20-100GB models.

All Mercury On-The-Gos are Apple HFS+ Preformatted and include Dantz Retrospect Express Backup Utility (Mac/PC), Intech HD Speedtools (Mac), all cables, AC Power Supply, and a 1 Year OWC Warranty.

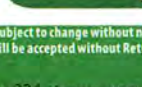
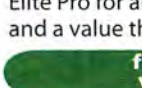
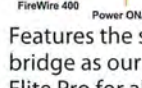
Build your own Mercury On-the-Go FW/USB drive

Case kits include all connecting cables and driving mounting screws.

Use any capacity 2.5" IDE/ATA drive

Oxford911 FireWire 400 Kit **\$67.99**

Oxford911 Combo FireWire 400/USB2 Kit **\$79.99**



Neptune "Value Done Right"

Size	Speed	Data Buffer	
40GB	7200RPM	2MB	\$99.99
80GB	7200RPM	2MB	\$115.99
120GB	7200RPM	8MB	\$139.99
160GB	7200RPM	2MB	\$139.99
200GB	7200RPM	8MB	\$179.99
250GB	7200RPM	16MB	\$199.99

Call for other Available Models and Options!

Neptune FW Solutions include Dantz Retrospect Express backup software (Mac & PC), Intech Speedtools (Mac), all cables, 1 yr. OWC Warranty

for all of your high-speed storage needs!
visit <http://www.macsales.com/firewire>

Prices, specifications, and availability are subject to change without notice. Items returned within 30 days may be subject to a restocking fee. No return will be accepted without Return Merchandise Authorization number.

Other World Computing
1004 Courtlands Dr., Woodstock, IL 60098

SAVE A BIT O' GREEN

OWC Enhancements to the Digital Lifestyle!

The Hottest iPod Enhancements

newer technology
High Performance, High Quality - Highly Reliable Products that Work!

iPod Replacement Batteries

Get up to Over 20 Hours of Playing time for iPod with 1st, 2nd, 3rd and now 4th Generation High-Capacity Batteries!

1st/2nd Gen 1800mAh **\$29.99**

1st/2nd Gen 2100mAh **\$39.99**

3rd Gen "Dock Connector" 850mAh **\$25.99**

4th Gen "Click Wheel" 750mAh **\$25.99**

Replace your short running iPod Battery with one that's far better, the longest running internal iPod batteries available! Visit www.macsales.com/ipod for all of our great Apple iPod products!



Contour
Design
ShowCase



Easy Install Opening tools included
(For 1st, 2nd and 3rd Gen. iPods only)

1 NEWS

playlist

HIGHLY RECOMMENDED
ipodlounge.com

RoadTrip!

FM Transmitter

\$14.99

for any iPod or music player - Listen to your music through your car's FM radio. Now available in 87.9 MHz and 107.7 MHz versions (not a power adapter or iPod charger)



PowerBook & iBook Accessories

High-Capacity PowerBook Batteries Up to 50% more Capacity than Original!

NEW! PowerBook 12" & 17" Batteries now available!



G4 15" 'Aluminum'

53.3 watt hour **\$129.99**



G4 15" 'Titanium'

65 watt hour **\$139.99**

71 watt hour **\$149.99**



Lombard/Pismo G3

7200mAh **\$159.99**

5400mAh **\$139.99**

iBook Batteries from **\$99**

The longest-running laptop internal batteries available
Call or visit www.macsales.com/batteries for all your PowerBook battery needs

Protect your screen!

There's an OWC Laptop Screen Protector (LSP) product for your Mac

The OWC LSPs are precision cut, glove soft leather protectors that prevent potentially permanent marks which can occur from the trackpad and keyboard while your laptop is closed.



Protect your computer with these great products!



Rain Design iLap

for iBook and PowerBook

sizes 12"-17"
from **\$49.90**



Village Tronic VTBook

Add another CRT or Flat Panel Display to your Powerbook **\$246.99**



PowerBook G4 17"

\$17.99



PowerBook G4 15" \$15.99

PowerBook G3s **\$14.99**

15" PowerBook G4 12" / iBooks **\$12.99**

Connectivity

Upgrades and add-ons for home and the road

D-Link
Building Networks For People

PCMCIA Ethernet Card **\$19.99**

IOGEAR

logear 2 Port USB 2.0 PCMCIA Card **\$38.95**

logear Bluetooth to USB Adapter, 30 Meter **\$29.99**

logear Compact Firewire 6 Port Hub 1394A **\$59.99**

macally

MacAlly BT-Mini

Programmable Bluetooth Mouse **\$46.99**

MacAlly iVoice USB Microphone Adapter **\$14.99**

MacAlly IceCam USB Video Web Camera **\$29.99**

MacAlly IceCad USB Mini Writing Tablet **\$39.99**

matias products



Matias Laptop Armor
Carrying Cases
from **\$78.99**



Hoodman Laptop Hoods

for Powerbook and iBook
12" Models **\$27.95**
15" Models **\$28.95**
17" Models **\$29.95**

You don't do Windows?

Mac-Only Internet
from just
\$8 per month!

FasterMac.net
Pay less. Get more. Surf faster!

High-Speed Nationwide High-Speed
Nationwide Dial-up and DSL Services
24/7 Toll Free Tech Support & More!

Visit www.FasterMac.net or call toll free
800-869-9152 to learn more or to sign up today!

Buy from OWC

visit macsales.com
800.275.4576

Satisfy that Need For Speed -
OWC Has a Processor Upgrade to make your Mac like New!

\$ OWC gives cash back for your old processor \$

OWC Mercury G4 Extreme

MacAddict RATED GREAT
Macwelt 5 out of 5
Macworld
macHOME

G4/7455 1.0GHz \$229.99
G4/7455 1.2GHz \$289.99
G4/7455 1.4GHz \$389.99
G4/7447 1.467-1.5GHz \$459.99

Call for BREAKTHROUGH

G4 DUAL Upgrades 1.0 to 1.8GHz from \$399.95!

- 100% Compatible w/all Apple Software and Operating Systems
- 30 day 100% money back guarantee
- 3 year warranty lets you buy with confidence!

Call 800-275-4576 or visit www.macsales.com/FASTER for New PowerMac G4 'MDD' DUAL Processor Upgrades from \$599.95!

Power Up that PowerMac!

Power up your G3 Beige, G3 Blue & White, & G4 'Yikes' with Wicked Fast ZIF Upgrades by PowerLogix and Sonnet!

PowerLogix

G3/1.0GHz w/1MB L2 1:1 Cache \$259.00
G3/1.1GHz w/1MB L2 1:1 Cache \$349.00
High Performance Value!

SONNET
SIMPLY FAST

G4/500MHz w/1MB L2 2:1 Cache \$159.00
G4/800MHz w/1MB L3 4:1 Cache \$299.00
G4/1.0GHz w/1MB L3 4:1 Cache \$395.00

ATI MacEdition Video Cards

For Power Mac G5 models:

x800 G5 Dual DVI with 256MB \$495.99
9800 ProSpecial Edition 256MB \$297.99
ATI 9800 w/256MB

For AGP Equipped PowerMac G4s:

9800 Pro 128MB \$249.99
9000 Pro 128MB \$127.99
ATI 9800 Pro
ATI 9000 Pro

G3, G4, G5 PowerMacs with open PCI Slot:

9200 Pro 128MB \$124.99
ATI 9200 Pro



Not up to speed...

Even starting from a G4/350MHz you can upgrade to 1.7GHz+ speed! Upgrades for PowerMac G4 AGP Graphics/Sawtooth, Cube, Gigabit Ethernet, Digital Audio, and Quicksilver G4 Models.



SONNET
SIMPLY FAST

- 100% Compatible w/ all Apple Software and Operating Systems
- 30 day 100% money back guarantee

Sonnet Encore/ST

G4/7455 @ 1.0GHz \$229.95
G4/7455 @ 1.2GHz \$299.95
G4/7455 @ 1.4GHz \$399.95
G4/7447 @ 1.7GHz \$499.95

Sonnet Encore/ST Duet DUAL G4/1.3GHz \$695.99

Visit www.macsales.com/FASTER to see all the upgrades we offer for Powerbooks, PCI Macs, Clones, Etc! Our Upgrade Finder shows you just what makes your Mac a FASTER Mac!

thegaragealbum by Roger Adler

Rock out to this CD created entirely with Apple's Garage Band Software!

NEW! Check it Out at www.thegaragealbum.com

Software

Upgrade Your System!

Apple OS X

Apple OS X 10.2.x 'Jaguar' from \$17.99
Apple OS X 10.3.x 'Panther' from \$49.00

Utilities

TechTool Pro 4 - The ultimate Mac utility \$67.99

Special!



XpostFacto

The Power of OS X on Macs not supported by Apple!
visit www.macsales.com/osxcenter



Other World Computing

Serving the Mac Universe since 1988

800.275.4576 visit macsales.com

Excellent service • Competitive prices • Quality products • Expert tech staff

Other World Computing
1004 Courtlands Dr., Woodstock, IL 60098

Prices, specifications, and availability are subject to change without notice. Items returned within 30 days may be subject to a restocking fee. No return will be accepted without Return Merchandise Authorization number.

Macworld Showcase Featured Advertisers

Developer Showcase

@ Last Software	sketchup.com
Omni Group	omnigroup.com/outliner
Popwire	popwire.com
Sonic Emulations	bandmateloops.com
GizmoLab	gizmolab.com/save/mw/1
iProof	iproofsystems.com
Photo Control	photo-control.com
Data Video Corp.	datavideo-tek.com
Biomorph	biomorphdesk.com
Lind Electronics	lindelectronics.com
RadTech	radtech.us/mw
Rain Design	raindesigninc.com
BooqBags	booqbags.com

DesignStar

Koolsink

iSkin

Acme Made

Axio

MarWare

Granite Digital

Mark/Space

Transintl

Ioswap

Hoodman

Services Showcase

Creative Juices

Retractable Banners

mac-case.com

koolsink.com

iskin.com

acmemade.com

axio-usa.com

marware.com

granitedigital.com

markspace.com

transintl.com

ioswap.com

hoodmanusa.com

bigposters.com

retractablebanners.com

FatCow

Copy Craft

Disc Makers

Tradeshow Stuff

Mac Solutions

SeafoodByNet

Shreve

Sharpdots

Global Print Runner

Presentation Services

AmericasPrinter.com

Zoo Printing

Drive Savers

TechRestore

fatcow.com

copycraft.com

discmakers.com/mw/mag

tradeshow-stuff.com

macsolutions.com

seafoodbynet.com

shrevesystems.com

sharpdots.com

globalprinrunner.com

imagers.com

americasprinter.com

zooprinting.com

drivesavers.com

techrestore.com/win

Your Mac Life

Direct Showcase

Powermax

MegaMacs

Mac Solutions

Mac Pro

Mac of all Trades

PowerOn Computers

Academic Superstore

Data Memory Systems

1-800-4-Memory

Journey Education

yourmaclife.com

powermax.com

megamacs.com

macsolutions.com

mac-pro.com

macofalltrades.com

poweron.com

academicsuperstore.com

datamem.com

18004memory.com

journeyed.com

For more information, contact Niki Stranz or Carol Johnstone at (800) 597-1594.

dream. design. communicate.

with FREE Component Libraries for:

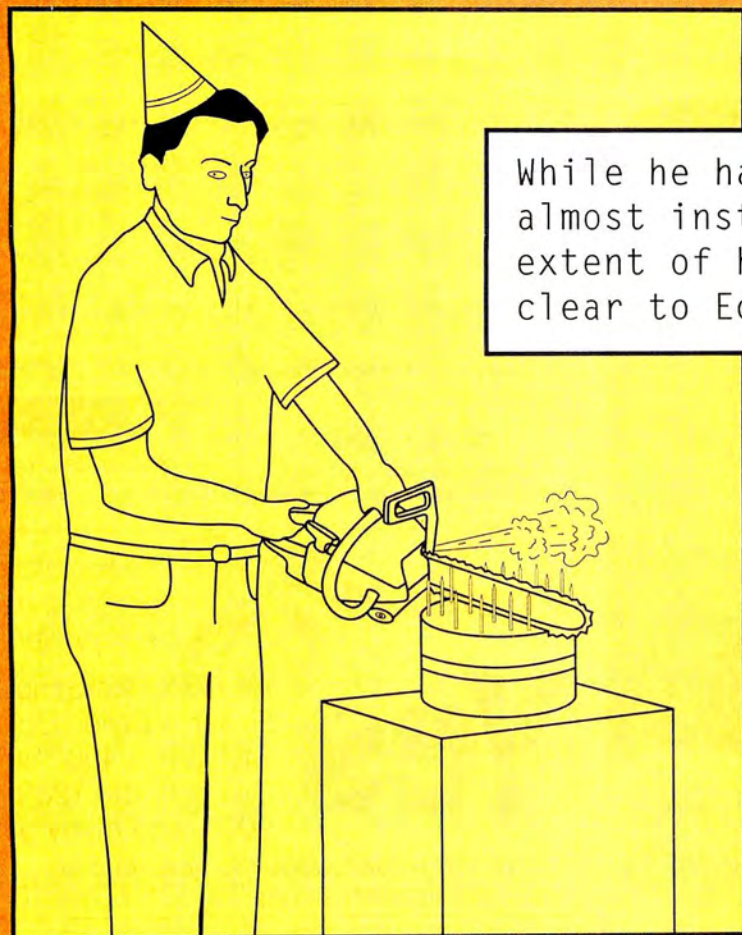
• FILM PRE-VIZ • INTERIOR DESIGN • ARCHITECTURE • LANDSCAPING

SketchUP[®]


www.sketchup.com

Download a free trial version & new components today!





While he had some misgivings almost instantly, the full extent of his mistake became clear to Ed all too soon.

No matter what your task might be, using the wrong tool can produce frustrating results.

Introducing **OmniOutliner 3**, an amazingly flexible program for taking notes, making lists, managing projects, and organizing information. Use **OmniOutliner 3** to draft to-do lists, track expenses, plan events, or write screenplays - you'll find that when it comes to brainstorming new ideas, drilling out specifics, and lining up steps to get everything done, you'll have exactly what you need.

Download a free trial today and see for yourself what a difference the right software can make. www.omnigroup.com/outliner

"I have a feeling I'm going to live in this program..." - PC World, January 2005

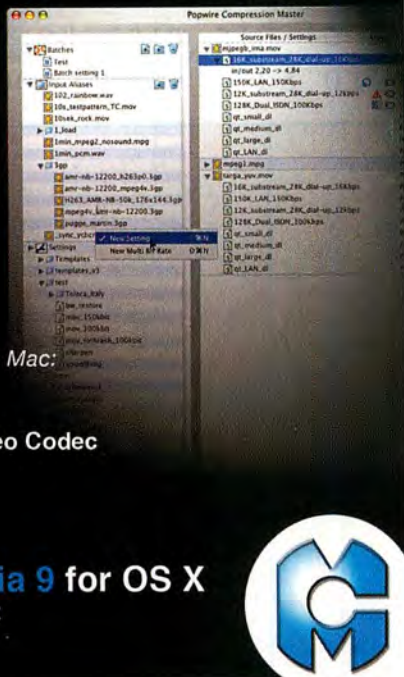


Compression Master 3.1

www.popwire.com

Available Now!

\$395



Video Encoding for the Mac:

H.264 (AVC)

Next-generation Video Codec

Flash Video

2-pass Encoding

Windows Media 9 for OS X

Multi-bitrate Support



bandmateloops.com

The Ultimate Destination for Apple Loops

• **Instant Digital Delivery - 24/7**

Start Making Music within minutes

• Bandmate Libraries as low as **\$9.95**

• **100% Compatible** with GarageBand, Soundtrack and Logic 7 Pro & Express

Use Coupon code **"THE5528661GJ6YP"** for 10% off your entire order.

Try us today!

www.bandmateloops.com

3D CAD for Woodwork

"A joy to use," say our users



- materials lists
- cutting diagrams
- accurate to Angstroms
- Metric or Imperial (American)
- library of customizable designs

Macworld 4.5 stars "...easy and fun, as well as a great value." - Greg Miller

www.gizmolab.com/save/mw/1

PowerRIPX

The best way to send PostScript data to 120 inkjet printers

Yes

An OSX PostScript RIP for Epson's Stylus Color 3000, Stylus Pro 4000 and 5500, Stylus Photo 1280, 1200, 2000, and many others.

Check our website today for your printer.
www.iproofsystems.com Tel: 321-777-3910

BookEndz

DOCKING STATIONS

Convert your PowerBook or iBook to a desktop system in seconds without displacing cables or damaging connectors.

15" - G4 PowerBook Docking Station

\$244⁹⁵ titanium
\$229⁹⁵ black



iBookEndz Docking Station

\$159⁹⁵ white
\$144⁹⁵ black



- Eliminates cable confusion and damage to connectors.
- New release levers for easier docking and undocking.
- Adds only 3" to rear when docked.
- Also available for G3 PowerBooks.

12" - G4 PowerBook Docking Station \$179

- Aluminum look to match your PowerBook.
- Eliminates cable confusion and damage to connectors.
- All connectors are routed to the rear of the Dock.
- The Dock converts RGB to standard VGA connector.
- Streamlined design complements your PowerBook.
- Use internal or external speakers.
- Easy to use ejection system.



Check our Web Site for latest product announcements.

BookEndz - Manufactured by Photo Control Corporation

4800 Quebec Ave. N, Minneapolis, MN 55428

Phone: (763) 537-3601 • Fax: (763) 537-2852 • www.photo-control.com

www.bookendzdocks.com

datavideo®

www.datavideo.us

DAC-10

Bi Directional DV
Component, Composite & S-Video
NTSC / PAL



IX / Analog Video Format Converter



DAC-100

Bi Directional DV
Composite & S-Video
NTSC / PAL

Tel. 562.696.2324

Mac and PC Compatible





biomorph®

ergonomic computer desks

free catalog 888 302 DESK
order online biomorph.com

Biomorph is a reg. trademark of S. Barlow-Lawson ©2005 Ground Support Equipment (USA) Ltd. NYC 10004

Choose 161 at www.macworld.com/getinfo

OmniCleanz™

New!

Advanced, environmentally safe formula

Safely cleans ALL
Screens • Lenses • CDs
and much more!

"...it's the best display-cleaning
juice I've ever used."

Bob Levitus, Houston Chronicle



www.radtech.us/mw

RADTECH™

LIND

Power Accessories *for*
Mobile Computing

Auto/Air Power Adapters
for all
Titanium G4s & iBook models



Lind adapters feature:
• Fault protection circuitry
with Automatic reset
• Durable ABS housing
• Nylon carrying case

Replacement Mini
AC Adapters
for all
Titanium G4s & iBook models
(65 Watts max.)



Mini AC adapters feature:
• 100 - 240 auto switching input
• Fold away outlet prongs
• Convenient cable wrap
with Velcro™ Strap
• 4.1 x 1.6 x 1.1"

LiIon Auxiliary Power Packs

For all Ti G4s & iBooks

Extend your laptop runtime

3 to 4 times longer

Lightweight

2.4(MP60)lbs - 3.4(MP90)lbs

Size - 11.25 x 8.5 x .5"



MaxPower 60(95WH)
& MaxPower 90(140WH)

Order online at:

www.lindelectronics.com

or call #800-897-8994 to order

Lind Electronics, Inc. 6444 Cambridge Street, Minneapolis, MN 55426 #952-927-6303

i360°



Let's interact!

NEW. i360° turntable provides an elegant and
dynamic way to turn your iMac G5 and Cinema
Display (17-inch, 20-inch and 23-inch).

iGo



Your iMac's other half.

"iGo is a desk designed with the iMac in mind,
and the two together are quite a sight."

★★★★ Macworld UK

iLap



Stay cool. Wherever.

"iLap features an angled anodized aluminum base
with a soft padded riser and padded wrist rest..."

★★★★ Macworld

Tel: 1800 797 7321 www.raindesigninc.com **rain design**



Cobra.XM

Go Ahead, Make Your Friends'
15-inch PowerBooks Jealous.
Get Your Cobra at
www.booqbags.com today.

booq



Designed By BOOQ in California. ©2004 by BOOQ. All Rights Reserved. For more information, please visit www.booqbags.com or call 626.836.9365.

Get the Message



The New MacCase Messenger

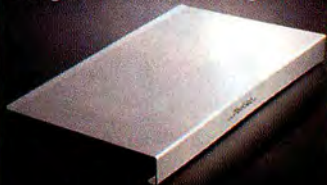


See your
Apple Reseller or www.mac-case.com
866-526-2247

MacCase
The First Name in Mac Portable Protection

Laptop Cooling Stand

• Elegant • Efficient • Ergonomic



• Portable
• Conserves battery power
• Increases performance

www.KoolSink.com

SEND AN EMAIL!



Macworld
SHOWCASE

niki_stranz@macworld.com
carol_johnstone@macworld.com

iSkin



Gone Wild

Introducing Wild Sides™ from iSkin. A fun new way to keep your iPod safe & sound and looking good. These special edition iSkins come with a colored ultra-clear screen protector, rotary belt clip and a cool click wheel protector that combine to provide all-round protection for your iPod. iSkin Wild Sides™ are available in three funky color combinations that glow in the dark!

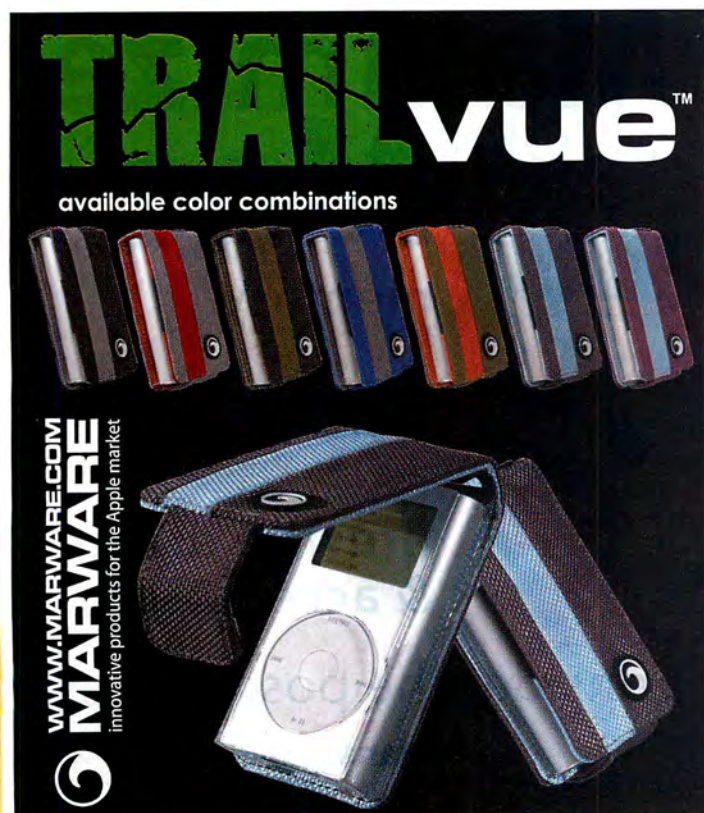
Made for iPod and iPod photo

iSkin is a registered trademark of iSkin Inc. All Rights Reserved. iPod and the Apple Logo are registered trademarks of Apple Computer

iSkin.com



Designed Protection **Acme Made**
order now at www.acmemade.com



BUSINESS AND
PLEASURE
ALL IN
ONE



axio
AXIO BY HARODESIGN

See the Hybrid @ Apple stores, Apple online and axio-usa.com

FireWire - SATA - USB - SCSI Storage

Hot-Swap Features:

- 150MB/s
- Inexpensive
- Convenient swapping of drives is perfect for backing up and for managing large projects.

Hot-Swap System



Removable Drive Trays



Hot-Swap RAID Storage System

Dual Rack Hot-Swap Features:

- Fast Disk-to-Disk Backup
- Inexpensive Hot-Swap Trays
- Convenient Swapping of Drives
- Unlimited Storage Capabilities

Starting at \$389

Special \$149

The new Granite Hot-Swap Drive is the most versatile storage systems on the market. With the low cost of ATA hard drives you can now affordably use hard drives to backup your computer, transport large amounts of data, dedicate drives for projects, and completely eliminate the need for tape drives and other archival systems. It's the ideal solution for your removable storage needs and it is faster than all other types of archival systems.

Hot-Swap RAID / JBOD Systems offer unsurpassed value and reliability

Our RAID / JBOD Systems can be configured with any size drives and are truly Hot-Swappable. Now no matter what your storage or backup needs entail Granite Digital has the affordable solution that fits the bill.



Granite Gold Cables, Adapters, SCSI Terminators, and Components offer the ultimate in quality and reliability



SCSI Cables



FireWire Cables



Adapters



Bridge Boards



Host Adapters

Get our catalog online at www.granitedigital.com

Granite Digital • 3101 Whipple Rd., Union City, CA. 94587 • 510-471-6442-tel • 510-471-6267-fax

Choose 186 at www.macworld.com/getinfo

The Missing Sync™

Get the most from devices running:

- ▶ Palm OS
- ▶ Pocket PC 2002
- ▶ Windows Mobile 2003



Say goodbye to outdated synchronization software

www.markspace.com

Choose 214 at www.macworld.com/getinfo

Maximize your Mac



memory



hard drives



firewire drives
& accessories...

Consider the possibilities.

transintl.com

Visit us at www.transintl.com or call (800) 783-2120 Today!

Introducing **TinyDrive™** Portable Mini USB MicroDrive

HI-SPEED
**USB
2.0**

- Hi-speed USB2.0 Portable Storage
- Available in 2.2GB & 4.4GB Capacities
- Plug-n-play Driverless Design
- Fast 6.5MB/s Sustained Data Rate

TinyDrive 2.2GB \$165
Tiny Drive 4.4GB \$228



IOSWAP™
DATA STORAGE PRODUCTS

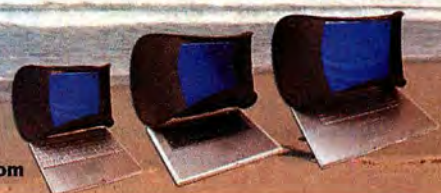
To order visit us at www.IOSWAP.com, or call 562-777-3497

A day at the beach with the PowerBook® family...

...some call
them Hoods!

(800) 818-3946

www.HoodmanUSA.com



BIG POSTERS

AT HUGE DISCOUNTS

2-3 DAY TURNAROUND

OTHER SIZES AND MEDIA AVAILABLE

24" x 36" \$25 NO MIN.

17" x 22" \$12.50
36" x 48" \$50
48" x 72" \$125
60" x 84" \$210

GLOSS, SATIN, MATTE FINISH

Learn more: Call or visit: **BIGPOSTERS.COM**

ASK FOR A SAMPLE PACK TO SEE AND FEEL THE QUALITY

Creative Juices Printing & Graphics - 96 Gazza Blvd - Farmingdale, NY 11735

1-888-880-HUGE

Choose 117 at www.macworld.com/getinfo

retractablebanners.com

- Easy to...
- setup
 - take down
 - transport
 - change banners

the BannerUp Plus

real.fast.
banner
solutions.



800.969.9913

\$8.25*
a month

Hosting You Can Take Home To Mom!

Get a FatCow®

- 1 Gig of disk space
- 30 Gigs of monthly transfer
- 100 email boxes
- WebMail
- Spam & virus filtering
- SiteDelux Site Editor

Get a MiniMoo

- Domain parking
- 1 email account
- Spam & virus filtering
- Customized coming soon page

\$5/year

- Shopping Cart
- CGI, PHP
- Toll-Free Support
- Website Statistics
- Search Engine Tools



FatCow

www.fatcow.com/mac

Toll Free 1.866.506.9572

*Monthly rate based on the annual fee of \$99, due at signup.

Copyright © 2004 FatCow Web Hosting

Your Source For 300 Line Screen Waterless High Definition Printing!

What you're used to...times 2!

FULL COLOR BUSINESS CARDS

1000 for \$99
2000 for \$169
5000 for \$325

Printed 4/0 on 12pt. C1S with
Free Aqueous Coating

FULL COLOR PRESENTATION FOLDERS

500 for \$999
1000 for \$1160
2000 for \$1548

Printed 9x12, 4/0 on 12pt. C1S
with Free Aqueous Coating

ENVELOPES OR LETTERHEAD

1000 for \$399
2000 for \$473
5000 for \$602

Printed 4/0 on 70lb
White Hammermill

FULL COLOR POSTCARDS

1000 for \$149
2500 for \$294
5000 for \$357

Printed 4/0 on 12pt. C1S with
Free Aqueous Coating

FULL COLOR 18 x 24 POSTERS

500 for \$724
1000 for \$794
2000 for \$923

Printed 4/0 on 100lb Gloss Text
with Free Aqueous Coating

FULL COLOR 8.5x11 BROCHURES

1000 for \$467
2000 for \$511
5000 for \$675

Printed 4/4 on 80lb GlossText
with Free Aqueous Coating



Fax: 806.798.8190
1.800.794.5594

request@copycraft.com
www.copycraft.com

The words Mac and Elite in the same sentence are kind of redundant, aren't they?

Disc Makers MacElite™ automated CD and DVD duplicators and printers – starting at \$2,990.

DISC MAKERS

Call 1-800-237-6666 or go to www.discmakers.com/mwrmag for your free catalog.



tradeshow-stuff.com

Affordable displays, graphics & tradeshow accessories

- tabletop displays
- flooring
- literature racks

real.fast. solutions

800.969.9913



MEMORY SOLUTIONS

www.memorysolutions.com

AirPort Card \$79!
Original 802.11b version Quantities limited

Best Memory Prices!
iMac • iBook • eMac
Power Mac • PowerBook

800-462-2160

Note: Prices are subject to change.

mwl31

SeafoodByNet.com

Fresh from the sea to your doorstep!

Join our free
Fresh Club Newsletter
for daily fresh deals!

Visit
www.SeafoodByNet.com
or call 815-337-4028



Your store for restaurant quality seafood and meats.

Choose 183 at www.macworld.com/getinfo

Over 25 years in business!!

MACS WANTED!!!

We buy, sell & trade macs & mac parts.

800-227-3971

1200 Marshall St., Shreveport LA 71119

ShreveSystems.com



Jennifer M.

Art Director For A Large Financial Company
Proofs Jobs Right From Her Desk
Saves Her Company A Ton On Color Printing
MUST BE A SHARPDOTS.COM CLIENT

**BECOME A
SHARPDOTS
CLIENT TODAY!**

**CHECK OUT OUR RATES:
\$100 FOR BOOKMARKS**
1,000 2x7 4/0 14PT UV COATING

\$135 FOR POSTCARDS
1,000 4x6 4/1 14PT UV COATING

MORE PRODUCTS AND MAILING SERVICES AVAILABLE!
CALL US OR VISIT OUR WEBSITE TODAY!

1-877-742-7789
WWW.SHARPDOTS.COM

sharpdots.com

Your Online Resource For All Your Printing Needs

All Products Printed From Your Press Ready Digital Artwork Prices Subject To Change Without Notice



Full Color Business Cards

2"x3.5" 4/0 or 4/1
14 Pt. C2S UV Coated

1,000 **\$59**

2,000 **\$89**

2"x3.5" 4/4 14 Pt. C2S
UV Coated Both sides

1,000 **\$89**

2,000 **\$119**

Postcards

4"x6" 4/0 or 4/1
14 Pt. C2S UV Coated

1,000 **\$129**

2,000 **\$189**

5,000 **\$379**

4"x6" 4/4 14 Pt. C2S
UV Coated Both Sides

1,000 **\$219**

2,000 **\$249**

5,000 **\$419**

Brochures

8.5"x11" 4/4
100# Gloss Book

1,000 **\$379**

2,500 **\$399**

5,000 **\$499**

11"x17" folded to 8.5"x11"
4/4 100# Gloss Book

1,000 **\$599**

2,500 **\$699**

5,000 **\$799**



We Do It All!

Full Color Letterheads • Envelopes • Brochures
Business Cards • Catalogs • Posters • Postcards
Presentation Folders & Much More

Call Us Toll Free

888-666-0744

www.GlobalPrintRunner.com



**Try Us For
FREE!**

www.imagers.com/free

Overnight Digital Services!

- True digital offset printing
- On-line proof approval
- Poster prints for indoor/outdoor
- Color lasers as low as 30¢
- Hi-Res film scans start @ \$.90
- Digital photo prints, slide imaging

IMAGERS

Since 1947

Digital Printing Center

www.imagers.com

800.232.5411 or 404.351.5800
1575 Northside Dr. Ste. 490 Atlanta 30318

Choose 155 at www.macworld.com/getinfo

**200
PRINTING**

FREE

DIRECT-TO-PLATE
AQ COATING
ONLINE PDF PROOF
EPSON MATCH PROOF

FLYERS	1,000	2,500	5,000	10,000
8.5" x 11" 100# Gloss Book	4/0 \$125	\$190	\$255	\$395
Two sided AQ Coating	4/4 \$235	\$285	\$365	\$540
8.5" x 11" 95# Gloss Cover	4/4 \$325	\$425	\$590	\$880
Two sided AQ Coating				
BROCHURES	1,000	2,500	5,000	10,000
11" x 17" 100# Gloss Book	4/0 \$245	\$380	\$500	\$780
Two sided AQ Coating	4/4 \$465	\$570	\$725	\$995
11" x 17" 95# Gloss Cover	4/4 \$645	\$850	\$1180	\$1760
Two sided AQ Coating				
POSTCARDS	1,250	2,500	5,000	10,000
4.25" x 6" 12 pt. C2S	4/4 \$145	\$185	\$245	\$390
Front sided AQ Coating				
5.5" x 8.5" 12 pt. C2S	4/4 \$215	\$280	\$350	\$555
Front sided AQ Coating				
6" x 9" 12 pt. C2S	4/4 \$225	\$295	\$395	\$605
Front sided AQ Coating				
BUSINESS CARDS	1,000	2,500	5,000	10,000
14pt C82 Two sided UV Coating	4/0 \$39	\$65	\$89	\$180
Photo Quality 350 Line Screen	4/4 \$49	\$75	\$99	\$190

All prices listed are for standard 5 day turnaround. 3 day prices and custom quotes are also available.
Prices do not include any binding work. We specialize in Cardstock.
We support all major software for Windows and Mac. We reserve the right to change prices without prior notification.
WWW.ZOOPRINTING.COM
310.253.7751



AmericasPrinter.com

The easiest way to print today.

From Film to Finishing, One Price completes the Job!

From 1000 to millions, we get your product printed fast....

We're a 40" Heidelberg® printshop designed to turn your job fast. We print 24 hours a day. We'll print and ship your job anywhere in the USA within 2-3 days from your order and data file.

New Prices
on over 1200 products
New Online Job Tracking
Watch your print job print
your file our finish
americasprinter.com

Business Card
1000
\$49.00
4/1 - 15pt Cardstock w/ UV
2500
\$69.00
4/1 - 15pt Cardstock w/ UV
1000
Trifold
8.5x11
\$299.00
4/4 - 100lb Gloss Book
with folding included

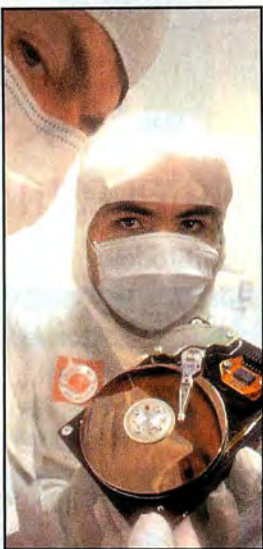
Postcard
1000
\$99.00
4/1 - 15pt Cardstock
4.25x5.5 w/ UV Gloss
2500
\$129.00
4/1 - 15pt Cardstock
4.25x5.5 w/ UV Gloss
5000
\$189.00
4/1 - 15pt Cardstock
4.25x5.5 w/ UV Gloss

8.5x11
Sales Sheet
1000
\$159.00
4/0 - 100lb Gloss Book
239.00
4/4 - 100lb Gloss Book
1000
11x17
Poster
\$299.00
4/0 - 100lb Gloss Book

714.521.1100 CA • 800.552.1303 toll free
714.521.5650 fax • jobs@AmericasPrinter.com
6940 Aragon Circle, Buena Park, CA. 90620

DATA RECOVERY: 800-440-1904

7 great reasons to choose DriveSavers:



- Fast, advanced, proprietary techniques.
- Recommended and certified by all hard drive manufacturers.
- All operating systems; Mac, Windows, OS/2, Netware and UNIX.
- All storage devices including SAN, RAID and NAS systems.
- Instantly retrieve recovered data with DataExpress™.
- Government Contracts and High Security Service.
- Featured on MacWorld, MacAddict, CNN, BBC, and others.



"We Can Save It!"

Visit DriveSavers at www.drivesavers.com

©2003 DRIVESAVERS, INC. 400 BEL MARIN KEYS BLVD., NOVATO, CA 94949 INTL: 415-382-2000

Choose 211 at www.macworld.com/getinfo

The Number One Mac Radio Show!

YOUR MAC LIFE
WITH SHAWN KING

Listen live
5:30-8pm PT,
8:30-11pm ET
Wednesdays

Can't listen live?
Archives at:
www.yourmaclife.com

I LISTEN TO
YOUR MAC LIFE
www.yourmaclife.com

24-Hour PowerBook Repairs And Upgrades! WORLDWIDE



Powerbooks and iBooks

24-Hour Repairs
Hinge Replacements
8x SuperDrive Upgrades
Hard Drive Upgrades With Data Transfer

From \$49!



iPod Repairs & Upgrades

24-Hour Repairs - All Models
Hard Drives, Screens,
Audio Jacks, Data Ports,
Cases, 20 Hour Batteries,
Original Apple iPod Accessories

From \$10!

PowerBook & iBook Liquidation!

G4/400 15": \$699	iBook G3/500: \$429
G4/500 15": \$799	iBook G3/600: \$499
G4/667 15": \$999	iBook G3/700: \$549
G4/867 12": \$999	iBook G3/800: \$549
G4/1GHz 12": \$1099	iBook G3/900: \$699
G4/1GHz 17": \$1799	iBook G4/933: \$849

TechRestore.com
1.888.572.3732

Call The Mac Experts!

New Apple Computers

Great Mac Mini Deals!

Choose from 12 different Mac mini configurations; increased RAM, Airport Cards, SuperDrives, Bluetooth modules and more!

G4/1.25 GHz Mac mini: 256MB RAM 40GB HD, Combo Drive, 56k modem	\$499
G4/1.25 GHz Mac mini: 512MB RAM 40GB HD, Combo Drive, 56k modem, Bluetooth module	\$624
G4/1.42 GHz Mac mini: 512MB RAM 80GB HD, SuperDrive, 56k modem, Bluetooth module	\$824

call us for display & keyboard options!

New, Faster PowerBooks!

Apple's latest PowerBooks are better than ever - now with up to a 1.67 GHz G4 processor, scrolling trackpad, Sudden Motion Sensor and 100GB hard drive!

12-inch G4/1.5 GHz: 60GB HD, Combo	\$1494	15-inch G4/1.5 GHz: 80GB HD, Combo	\$1994	17-inch G4/1.67 GHz: 100GB HD, Super	\$2694
---------------------------------------	--------	---------------------------------------	--------	---	--------

Get a Great Deal On a G4 or G5 iMac!

17" G5/1.6 GHz iMac: 256MB RAM, 80GB HD, Combo drive, 56k modem	\$1294
15" G4/1.0 GHz iMac: 1.0GB Apple RAM, 80GB HD, Combo drive, 56k modem	\$1399
20" G4/1.25 GHz iMac: 512MB RAM, 80GB HD, SuperDrive, 56k modem, Bluetooth module	\$2099
20" G5/1.8 GHz iMac: 512MB RAM, 250GB HD, SuperDrive, Bluetooth mod. w/ wireless keyboard & mouse	\$2199

custom configurations in stock!

Free iPod Shuffle!

Buy any new G5 Power Mac, 17-inch or 15-inch PowerBook and get a free iPod shuffle after \$99 rebate. Get a 512MB model for free or a 1GB model for only \$49!



Certified Pre-Owned Macs

Attack of the iBooks!

PowerMax has become inundated with an invasion of Certified Pre-Owned Snow iBooks! Choose from literally hundreds of configurations. All have been extensively bench-tested and come with a 90-day warranty.

Prices Starting at \$598!

iBooks - over 250 models from which to choose	Starting at \$598
iMacs - over 200 LCD and CRT models from which to choose	Starting at \$179
PowerBooks - over 20 models from which to choose	Starting at \$519
Beige Macs - over 15 models from which to choose	Starting at \$129
G4 Power Macs - over 50 models from which to choose	Starting at \$549

A Great Selection of eMacs & Yosemite G3s too, plus hundreds of blowout accessories!

GET 90 DAYS Same-As-Cash Financing!*

Become a Preferred Customer with PowerMax!

*on approved credit, ask for details

Displays

Once You Go Flat, You'll Never Go Back!

It's no contest, flat panel LCD displays are simply better than CRTs. They're bigger and sharper than the best tube monitors. And PowerMax has the best prices and selection on the web. We'll help make the switch to LCD easy -- call us and find out what it's like to "go flat!"



nVidia GeForce 6800 Ultra DDL	\$599
Apple 17" LCD Display	\$695
Apple 20" Cinema LCD Display	\$994
Apple 23" Cinema LCD Display	\$1794
Apple 30" Cinema LCD Display	\$2994
Samsung 42" Plasma Monitor	\$2135
Lacie Photon 19" LCD Monitor	\$599
Lacie Photon 20" LCD Monitor	\$1299
Lacie Photon 21" LCD Monitor	\$1699
Apple DVI to ADC Adapter	\$100

Always Great Deals

Buy a new Mac and get*

- Free Printer
- Free iPod Shuffle
- Free Speakers



Call for the best info and prices on the latest product introductions from Apple!

*some restrictions apply - call for details

Trade-In, Trade Up! Remember, you can trade in your old iPod for credit toward a new model!

AppleCare for iPod a great investment	\$59
iPod shuffle 512MB	\$99
iPod shuffle 1GB	\$149
iPod Mini all colors available	\$249
20GB iPod current model	\$299
20GB iPod U2 Special Edition	\$349
iPod/iPhoto 40GB	\$494
iPod/iPhoto 60GB	\$594

Great iPod Accessories Available

Storage Solutions



Lacie is breaking the limits of hard drive capacity with their new Big Disk Extreme!



160GB d2 Extreme w/ Triple Int	\$179
250GB d2 Extreme w/ Triple Int	\$249
400GB d2 Extreme or Triple Int	\$369
500GB d2 Extreme or Triple Int	\$399
1.0TB d2 Extreme or Triple Int	\$929
1.6TB d2 Extreme Hard Drive	\$1899
FireWire 800 PCI Card	\$69
DVD+-RW 16x DL FW with Toast Titanium	\$189

We Take Trade Ins!

Thinking about trading in your old Mac or iPod? We'll take your Mac OS computer or iPod in trade toward the purchase of new product.



www.powermax.com

800-613-2072

Local: (503) 624-1827 • Fax: (503) 627-1635
Email: sales@powermax.com

Personal Financing • Fast P.O. Approvals • Business Leasing • Daily Specials on our Web Site

- Authorized Reseller
- Apple Specialist

Prices subject to change without notice. Credit card orders strictly verified against fraudulent use. With use of credit card as payment, customer acknowledges that some products are subject to final sale. Many prices are limited to stock on hand. All brand names are registered trademarks of their respective holders. Not responsible for typographical errors.

Are You A Member Of A User Group?

www.applemugstore.com

PowerMax is a division of CSNW, Lake Oswego, OR

Macintosh User Group members enjoy access to a very special Apple-sponsored web site featuring super deals on the latest Apple products and more! If you are currently not a member of an Apple User Group and would like access to the Mug Store special offers, discounts and resources, then contact an Apple User Group near you and sign up!



INCREDIBLE DEALS

iMacs • PowerMacs • Hard Drives • CDROMS • RAM • Monitors • Video Cards • Service Parts • MORE

iMacs	starting at	\$79
Monitors	starting at	\$19
Printers	starting at	\$9
CDROM	starting at	\$1
RAM	starting at	\$2
Drives	starting at	\$2



<http://shop.poweron.com>
800-673-6227 916-677-6227

**90 day warranty
 20% Return / Restock
 NO SURCHARGES**

Software Savings for Students, Teachers, and Schools!

Get up to 85% off retail software prices on the brands you know and use...



Adobe®
Photoshop CS
Save! 57%
Order Today!
Get the Best for Less!



Macromedia®
Studio MX 2004
Save! \$710
Now! \$189.⁹⁵
4 Programs - 1 Price



FileMaker®
FileMaker Pro 7
Save! 50%
Now! \$149.⁹⁵
#1 Selling Database!



Wacom®
Intuos3 6x8
Save! \$40
Now! \$289.⁹⁵
Great Graphics Tool!

We carry thousands of industry-leading software and hardware products at huge discounts for students, teachers and schools. These special prices are ONLY for the academic community. And our prices are typically \$10-\$20 lower than most college bookstores! Call or visit us online today and start saving!

Adobe®
Acrobat Pro 7.....**Save 69%**
Creative Suite.....**Save 69%**
Video Collection.....**Save 55%**
Alias®
Maya Complete Student.....**\$289**
Canopus®
ADVC-110 A/D Converter...**\$289**

Macromedia®
Flash MX 2004.....**\$95**
Dreamweaver MX 2004.....**\$95**
Contribute 3.....**\$95**
Microsoft®
Office 2004 Student/Teacher..**\$139**
Quark®
QuarkXpress 6.1 Student....**\$195**

This Month's Featured Titles:
StuffIt Deluxe 9.....**\$49**
Starry Night Pro 5.0.....**\$119**
Eye Candy 5: Textures.....**\$59**
Inspiration 7.6.....**\$49**
Avid Xpress Pro Student....**\$295**
Painter IX.....**\$95**

Parents:
Buy for your
students at home
or away at college!

Give us a call anytime! 1-800-218-7455
Visit us online! MW.AcademicSuperstore.com

ACADEMIC SUPERSTORE

Choose 174 at www.macworld.com/getinfo

MEMORY

Best Quality Service & Price

DMS Certified Memory

Register online to win monthly Free Giveaway

Call TOLL FREE • 800-662-7466



Memory for all Macs and Legacy Mac models. [Online Memory Configurator](http://OnlineMemoryConfigurator)
• Best prices | Best Quality | Best Service

LIFETIME
DMS Certified
Memory Guarantee
Buy memory online
and get
Free Shipping

ACCESSORIES | BATTERIES | CABLES | CAMERA MEMORY | CDRW | CPU
UPGRADES | DVD | FLASH MEMORY | HARD DRIVES | FIREWIRE | MEMORY |
NETWORKING | PRINTER MEMORY

DMS
Since 1987

www.datamem.com

800-662-7466

Choose 213 at www.macworld.com/getinfo

**MEMORY for PC and Apple,
Laptops, Digital Cameras,
MP3 Players and more ...**

**WE CAN BEAT
Crucial,
Kingston,
Comp-USA,
ANYONE!
AND, WE GIVE YOU
FREE
SHIPPING!**

- ✓ We Manufacture Our Memory Using the Highest Quality Components
- ✓ Lifetime Warranty
- ✓ Compatibility Guaranteed
- ✓ Free Technical Support
- ✓ Experienced Sales Staff Since 1994

18004MEMORY
.com

1-800-4-MEMORY

1-800-463-6679

<http://www.18004memory.com>

STUDENTS!

Save up to
85% off
popular software!!



Thousands
of Titles
Available!!

get your
FREE CATALOG!

www.JourneyEd.com

1-800-874-9001

JourneyEd
Education Marketing

Offer for U.S. & Canadian degree-seeking students only.
Proof of student status required with order.

Hot Stuff

Our Favorite
New Stuff

FROM THE EDITORS OF MACWORLD



PHOTOGRAPH BY PETER BELANGER

FASTCODER

Being able to create high-quality DVDs on your Mac is a wonderful thing—watching the hours tick by as you encode your video isn't. That's what makes me so excited about LaCie's \$249 FastCoder. Plug the tiny box into a FireWire port on your G3-, G4-, or G5-based Mac, and you've got a real-time hardware encoder that turns your DV video into MPEG-2 files ready for use with Apple's DVD Studio Pro or the included CaptiDVD software. And because it's hardware encoding, you can expect better quality than you'd get from Apple's Compressor, even at lower bit rates (www.lacie.com).—JONATHAN SEFF

PDFpen 2.0 and PDFpenPro

As I sit waiting for Adobe Acrobat 6.0 Standard to load, I often muse that there has to be a better way for run-of-the-mill users to realize the promise of PDF—and now I think I've found it. SmileOnMyMac's \$50 PDFpen 2.0 lets me look at PDFs in different views, fill out and save PDF forms, reorder pages via a drag-and-drop interface, and write on (read: sign) a PDF from my graphics tablet (as well as add graphics to boring PDFs). The \$95 PDFpenPro does all this, too, and it allows you to create PDF forms (www.smileonmymac.com).—JENNIFER BERGER



3D Weather Globe & Atlas

Has the sun set in Rome? Is it raining in Lima? And where the heck is Kyrgyzstan? Software MacKiev's \$40 3D Weather Globe & Atlas uses high-res NASA satellite images to create an accurate 3-D globe, complete with current cloud cover and temperature data (www.mackiev.com).—KELLY LUNS福德

ORIDJINOFFICE

You're never going to confuse your workspace with a nice, sandy beach in Hawaii. But the place where you spend the majority of your waking hours doesn't have to feel like the slave ship from *Ben-Hur*. DesignJourney Industrial is doing its part to make the cubicle someplace you'll want to spend eight hours each day. The \$1,799 OridjinOffice has frames and supports that hold up a high-quality plywood work surface, finished with a proprietary staining process and surrounded by screens—which lock at the end of the workday to keep the contents of your desk safe from prying eyes (www.designjourney.com).—PHILIP MICHAELS



WHAT'S HOT

Brought to you by John Moltz of the Crazy Apple Rumors Site (www.crazyapplurumors.com)

- 1 Apple Stores report that the iPod shuffle and Mac mini are selling like hotcakes. And just to follow through with this analogy, the International House of Pancakes reports that hotcakes are still selling briskly.
- 2 PC Magazine columnist John Dvorak praises the Mac mini, calling it close to perfect. Did anyone else just hear the sound of four horsemen approaching?
- 3 The iTunes Music Store hits 250 million tracks downloaded. Startlingly, 100 million of them? Polkas. Who knew?
- 4 Apple gets corporate with a Web site for IT administrators, new Xserves, and Xsan. However, thousands of admins are still confused about which version of Windows the Mac uses.

PAPERHUB

It's a paper tray. It's a hub. No, it's both: the \$150 PaperHub, a two-tiered, environmentally friendly, brushed-aluminum paper tray from Pressure Drop (which specializes in "visionary solutions fusing art and technology"), looks deceptively simple—until you turn it around to find yourself staring at a bevy of ports. Connect one USB and one FireWire cable from your Mac to the PaperHub (and plug in its power cable), and you've got yourself a powered hub with four USB 2.0 and four FireWire ports (www.pdrop.com).—JACKIE DOVE



Built-in Network Interface

MFC-5840cn
COLOR
FLATBED
MFC
About \$199



Dual Paper Trays

Print, Copy, Scan, Fax... and you thought
you couldn't get any more out of your Mac.

Introducing output and imaging solutions as innovative as you are.

If you're ready to get more out of your Mac®—not to mention your day—Brother Printer and Multi-Function Center® products are ready to help. With Brother laser printers, you'll be happy to know we have a full range of monochrome or color laser models. Whether your needs are for a simple desktop or a network-ready model, each one will give you fast output and quality to make your best work even better.

Our Multi-Function Center® models deliver the ultimate in printing, copying, scanning, and faxing in one compact design. If you are looking for a color inkjet model that can print from digital camera media at up to 6000 x 1200 dpi*, or a monochrome laser model with print speeds up to 21ppm... Brother has it.

So no matter what kind of Mac® is in front of you, make sure you have a Brother printer or MFC at your side.



LASER FLATBED
SOLUTIONS

COLOR LASER
SOLUTIONS

LASER PRINTER
SOLUTIONS

COLOR MFC
SOLUTIONS

A variety of MODELS AVAILABLE AT: MacWarehouse, MacMall, MacConnection, MacZone, Microcenter, CDW, Office Depot, Staples, OfficeMax, Fry's, J&R Computer World, and Apple Stores (or www.store.apple.com) and other fine resellers.

At your side.™

brother®

© 2005 Brother International Corporation, Bridgewater, NJ • Brother Industries Ltd., Nagoya, Japan

* Resolution is listed as vertical by horizontal • All registered trademarks herein belong to their respective companies. For more information please visit our Web site at www.brother.com

Choose 119 at www.macworld.com/getinfo



MEET OUR HARDCORE CONTROL FREAK.

THE LACIE BIGGEST F800, WITH HARDWARE RAID CONTROLLER, HARNESSES THE POWER OF 4 DRIVES TO GIVE YOU UP TO 2TB CAPACITY. SUPPORTING RAID LEVELS 0, 0+1, 5, AND 5+HOT SPARE, IT PROTECTS YOUR DATA WHILE PROVIDING GREATER PERFORMANCE, DATA INTEGRITY AND AVAILABILITY. IT ALSO PROVIDES EASY INSTALLATION WITH USB 2.0/FW800 AND RAPID TRANSFER RATES OF UP TO 80MB/S. WWW.LACIE.COM

