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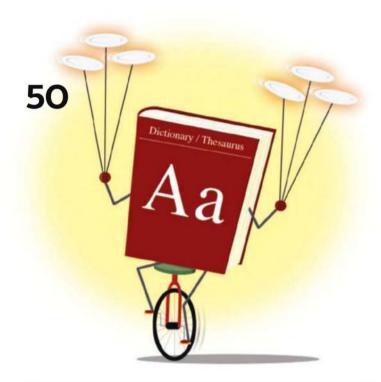
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Podcast: Reviewing the iPhone 4

Christopher Breen and Jason Snell talk about the *Macworld* review of Apple's latest phone (macworld.com/6352).

We also recommend:

Slideshow: An Inside Look at the Mac Mini (macworld .com/6353).

Slideshow: Unboxing the iPhone 4 (macworld.com/6354).

Slideshow: Great Travel Gadgets for Photographers (macworld.com/6355).

Podcast: Hands On with iPhone 4 (macworld.com/6356).



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FROM THE EDITOR'S DESK By Jason Snell

Self-Portrait

We shoot Macworld's iPhone 4 cover with an iPhone 4

reating a *Macworld* cover is a complicated process. First, the editors have to come up with a cover-worthy topic. But then our creative team—designers and editors—must come up with the words and images that will grab a potential reader's eye.

While we love our subscribers, our relationship with you is more of the long-term variety; you judge us by the content of our issues over the course of a year. The cover is our effort to snag the roughly 30,000 people who don't subscribe to *Macworld* but who pick it up in airports, Wal-Marts, and everywhere in between.

One of *Macworld*'s greatest weapons in this fight for your attention is our contributing photographer, Peter Belanger. Peter has shot almost every photograph you have seen in the pages and on the cover of this magazine over the past few years. (While we are one of Peter's most faithful clients, he also works for plenty of other big names, including HP and, yes, Apple.) One of the things I still love about print as a medium is the richness of graphics; for me, Peter's photographs are a joy to behold on the pages of our magazine.

Peter's contribution to this issue is even more remarkable than usual: He shot and processed the cover image of the new iPhone 4 entirely with *another* iPhone 4. Peter has been tinkering with the idea of



Shooting and editing on the iPhone alone had its challenges.

shooting a *Macworld* cover with an iPhone for some time. With its high-quality, 5-megapixel camera, the iPhone 4 was finally the right phone for the job.

Shooting and editing on the iPhone alone had its challenges. Normally Peter shoots *Macworld* covers with a Phase One P65+ digital camera, which has 12 times the resolution of the iPhone 4's camera. That meant the image he shot had to be as close to the size of the *Macworld* cover as possible; any cropping would have reduced the resolution of the image even further.

"My strategy for photographing the cover didn't really change from how I

would shoot normally," Peter says. "I had my normal set, with lots of lights, flags, and stands. I did have to change my light source from studio strobes to tungsten lights, because the iPhone can't sync with strobes. Normally I use Photoshop to add in the image on the iPhone screen and clean up dust, scratches, and any other imperfections. I wasn't going to have that same control on my iPhone, so the photo needed to look really good and as close to final as possible.

"The iPhone's Retina display is awesome," he says. "I was able to see the detail in the photo as I was shooting. The final photo was dust-free and looked great. I was extremely impressed with the detail the iPhone captured."

For postproduction, Peter used two iPhone apps: the \$3 PhotoForge (*****; macworld.com/5101), to remove a slight green cast from the image; and the \$1 Resize-Photo (macworld.com/6357), to increase the image from 216 dpi to 290 dpi to meet our printing requirements.

Peter is happy to share the details of his workflow with anyone who's interested. On his blog at peterbelanger.com, he has posted numerous behind-the-scenes photos and videos about his work, including *Macworld* photo shoots. For anyone who has ever wondered what goes into a *Macworld* cover photo shoot, Peter has posted a time-lapse video (macworld .com/6358) of the entire process.

Is the iPhone 4 ready for intense use as a magazine design tool? Probably not. But its camera really is of remarkably high quality, as our cover (and my review, which begins on page 40) makes clear. We never would have said that about the camera on the original iPhone. But in the intervening three years, Apple and the iPhone have come a long way.

E-mail me at jason_snell@macworld.com, or follow me on Twitter at twitter.com/jsnell.











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HOW TO CONTACT MACWORLD STAFF

Our offices are located at 501 Second Street, 6th Floor, San Francisco, CA 94107; phone, 415/243-0505; fax, 415/243-3545. Macworld staff can be reached by e-mail at firstname_lastname@

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The New All-Aluminum Mac Mini

Compact desktop Mac is well suited for your home entertainment center

BY DAN FRAKES

REVIEW

Apple's entry-level desktop computer, the

Mac mini, has a dramatic new look and design. Inside the computer are upgrades that, for some users, offer a notable jump in performance over the previous generation.

The new Mac mini comes in a single \$699 configuration with a 2.4GHz Core 2 Duo processor, 2GB of RAM, a 320GB hard drive, and nVidia GeForce 320M integrated graphics. Apart from the new graphics chip (the previous Mac minis used the nVidia GeForce 9400M), the specs of the new model fall somewhere in between those of the previous two models: a \$599 model with a 2.26GHz processor, 2GB of RAM, and a 160GB hard drive; and a \$799 model with a 2.53GHz processor, 4GB of RAM, and a 320GB hard drive.



computer on the market, using just over 9 watts of power when idle, and less than 1.5 watts when sleeping. It's also a bit quieter than the previous design, and, in my testing, it runs at least as cool.

Notably missing from the new Mac mini's box is the bulky, heavy power brick of previous models. Apple reduced HDMI output. Apple includes an HDMIto-DVI video adapter that passes the HDMI port's digital video signal to a standard DVI display; a Mini Display-Port-to-DVI adapter is a \$29 accessory. When you connect the new Mac mini to a TV via HDMI, the Displays pane in System Preferences shows available TV resolutions for your TV: 720p, 1080i, 1080p, and so on. However, the included Front Row software continues to provide only the most basic of media-center functionality, and you'll need to look elsewhere for Blu-ray playback.

The other big addition to the Mac mini's back panel is a built-in SD Card reader. However, by putting the card reader on the rear, Apple has made accessing the slot inconvenient at best; if your Mac mini is in an AV cabinet, hidden under your desk, or otherwise tucked away, you may end up not being able to use the slot at all.

The rest of the Mac mini's crowded back panel is filled with a power button, a power-cord jack, an autosensing gigabit ethernet jack, a FireWire 800 port, four USB 2.0 ports, autosensing analog/

If you've been considering a Mac mini but passed on the previous models, now is a great time to make the jump.

Heavy Metal

While previous Mac minis sported a 6.5-by-6.5-by-2.0-inch, aluminum-andplastic case, the new model features a unibody aluminum enclosure that is shorter and wider: At only 1.4 inches tall and 7.7 inches wide, it's almost the exact same size as the Apple TV.

Apple says that the new Mac mini is the most energy-efficient desktop

***; \$699; Apple, www.apple.com; full review, macworld.com/6304

the size of the Mac mini's power supply and hid it inside the computer itself. At 3 pounds, the new Mac mini is slightly heavier than the previous model, but once you take into account the weight of the previous model's external power supply, the new Mac mini is actually about a pound lighter overall.

The Mac mini's back panel hosts the ports and connectors. Perhaps the biggest change is that while Apple has kept the Mini DisplayPort connector, the company has dropped the mini-DVI port of the previous model in favor of an

optical-digital audio input and output minijacks, and an exhaust vent for the mini's cooling system. Internally, the new Mac mini provides Bluetooth 2.1 + EDR and 802.11a/b/g/n wireless.

Especially attentive readers will notice two back-panel absentees compared to the previous Mac mini: a fifth USB port and a security-lock slot. Apparently, these were eliminated due to space constraints.

The smooth-metal front of the Mac mini is interrupted only by a slot for the 8X SuperDrive; on the right end of the slot is the infrared receiver for the Apple Remote, which remains an optional accessory (\$19).

Easiest. RAM. Upgrade. Ever.

The RAM-upgrade procedure for previous Mac mini models was a stressful undertaking, requiring putty knives and producing nerve-racking cracking sounds. With the new Mac mini, you don't need any tools at all.

You can upgrade the RAM on the new Mac mini with a simple twist-and-lift of its bottom panel. Pop out the two stock chips, snap in the new chips, and replace the base—you're done. Not only is this procedure dramatically easier than it was with the previous Mac mini, but, looking back, I can't think of a Mac that's been easier to upgrade, at least for RAM. (If even this upgrade daunts you, you'll be happy to know that Apple charges a very reasonable \$100 at the time of purchase to bump the RAM up to 4GB.)

On the other hand, the procedure for replacing the Mac mini's hard drive, which on the previous model was even

Macworld Lab Test

Speedmark 6 Test Results

Mac mini/2.4GHz (Core 2 Duo)	117
Mac mini/2.53GHz (Core 2 Duo; late 2009)	118
Mac mini/2.26GHz (Core 2 Duo; late 2009)	104

Longer bars are better. Reference systems are in italics. For complete benchmark results for the Mac mini, please visit macworld.com/6304.—MACWORLD LAB TESTING BY JAMES GALBRAITH AND MCKINLEY NOBLE



Easy Access RAM To upgrade RAM in the mini, you no longer need to pry it open with a putty knife. The new mini's removable bottom lid lets you upgrade the memory with little effort.

more difficult than upgrading RAM, doesn't get the same twist-and-pop treatment. It certainly requires just as much disassembly this time around. Of course, it's debatable whether or not you'd even want to upgrade the hard drive: The mini ships with a 320GB drive, which is large enough for many people, and those who need more storage will likely be better served by purchasing an external drive.

For similar reasons, I recommend against paying Apple \$100 to swap the stock 320GB drive for a 500GB model. With 1TB FireWire 800 drives available online for roughly the same price, it's tough to justify a larger (but still slow, at 5400 rpm) internal drive unless you're using the Mac mini in special circumstances that prevent you from using an external drive.

Speedmark Scores

The new Mac mini falls squarely between the two late-2009 Mac mini models when it comes to processor speed: 2.4GHz compared to 2.26GHz and 2.53GHz. In our Speedmark 6 suite of system tests, we did not see huge performance gains in most programs.

However, the new 2.4GHz Mac mini's graphics performance was improved enough to bring the new mini's overall Speedmark score, at 117, to within a single point of the late-2009 2.53GHz model's 118. The new Mac mini also showed a modest boost over the previous 2.26GHz Mac mini, which scored 104.

In real-world use, the new mini handled everyday tasks (Web browsing, e-mail, word processing, and Apple's iLife suite) without a problem. Only when I had many of these programs open simultaneously did the stock 2GB of RAM become a limitation. If you do tend to keep many applications running simultaneously, I recommend upping the mini's RAM to at least 4GB.

I also used the new Mac mini to play several games. The performance of Call of Duty 4 with recommended graphics settings was noticeably better on the new Mac mini than on the 2009 models. This isn't a gaming rig, but for casual gamers who don't mind dialing back detail and textures, it will let you enjoy most games.

Macworld's Buying Advice

The Mac mini remains an impressive feat of hardware engineering and design. It is Apple's most versatile desktop computer, and an appealing option for anyone who doesn't need workstation-level performance. If you've been considering a Mac mini but passed on the previous models, now is a great time to make the jump.

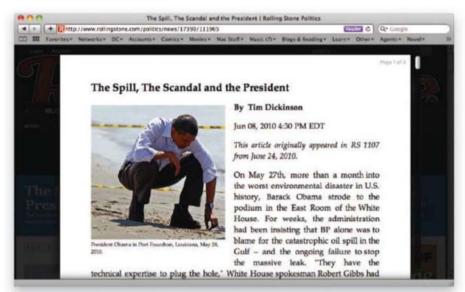
On the other hand, the new mini doesn't offer a major increase in performance over the previous generation—only AV enthusiasts desperate for a true HDMI output, or people who'd like to be able to play some of the more-demanding games without splurging for a Mac Pro, should consider upgrading from one of last year's models.



Safari 5: Fastest Web Browser on the Mac

Tough competition has only made Apple's browser better

BY NATHAN ALDERMAN



A Touch Dyslexic The ballyhooed new Reader feature cuts clutter nicely but doesn't always work as advertised.

The battle for Web browser supremacy has intensified with the release of Google's Chrome (see page 14). But Apple isn't resting on its laurels; with Safari 5, Apple secures its place on the browser throne. The duration of its reign is anyone's guess, but for now, you won't find a more powerful Mac browser than Safari.

Safari's biggest new feature is its increased horsepower. On a 2GHz aluminum MacBook with 2GB of RAM and Snow Leopard, I tested Safari 5 against Firefox 3.63, Chrome 5, and Opera 10.53. Safari trounced them all, with a few minor asterisks. In XHTML rendering, Safari 5 ran roughly as fast as its predecessor, displaying a locally hosted test page in 580 milliseconds against Safari 4's 540 milliseconds. More importantly, Safari 5 thumped the competition; Chrome took 780 milliseconds, Opera 1670 millisec-

####¹; free; Apple, www.apple.com; full review, macworld.com/6305 onds, and Firefox a decidedly odd 12,420 milliseconds. Safari also topped a locally hosted CSS test, scoring 33 milliseconds against Chrome's 51, Opera's 193, and Firefox's 342.

The emerging HTML5 standard relies on JavaScript for rich online applications, and Safari 5 definitively leads the pack here. It completed the SunSpider JavaScript benchmark in 376.2 milliseconds, well ahead of Chrome's 448.6, Opera's 485.8, and Firefox's 1161.4.

Besides speed and compatibility, the biggest addition to the browser is the Reader button, which appears in the location bar in the same spot as the RSS icon. Click it while visiting a blog or news site, and Reader automatically displays a clean version of the main article, preserving related images but stripping away ads, navigation, and other distractions.

A great idea in theory, Reader is hit or miss in practice. Blog entries and multipage New York Times stories displayed flawlessly. But a Slate article didn't show up correctly until I scrolled to the top of the page and reactivated Reader; a multipage GQ article took roughly a full minute to completely load; and a Rolling Stone article displayed the current page's content, but not the rest of the article. I'm guessing Reader can't yet adjust for all the different ways sites display their articles. Apple says that it's aware of the problem, and it's working on a fix.

And finally, Safari now supports user-made extensions, as Chrome and Firefox do. I'm glad to see Apple filling this glaring feature gap, but I wish Safari 5 had also borrowed a few more of its rivals' useful innovations, particularly Chrome's built-in language translation and HTML auditor, and Firefox's site-level privacy features.

Macworld's Buying Advice

Safari 5's Reader feature needs a little work, the proprietary CSS3 tricks aren't quite kosher, and the jury's still out on extensions. But until someone else steps up for the next shot at the title, Safari is still the fastest, sleekest, all-around best browser in the business.

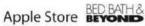
Kid-Friendly Computing

With school just around the corner, students and parents are investing in new Macs. Kids have different needs than adults, however. Check out these guides on Macworld.com to help make your Mac suitable for your youngster.

- > Set up a kid-friendly computer (macworld.com/6316): Put together a Mac just right for small and messy hands.
- > Keep kids safe online (macworld .com/6317): Set limits this summer with Snow Leopard's parental controls.
- > Online fun with a Mac (macworld .com/6318): Check out these activities and Websites for kids' idle hours.













Chrome Challenges Safari

Polished Web browser provides a satisfying experience

BY NATHAN ALDERMAN

REVIEW

Bug-free and beautifully designed, Google Chrome

5 strives to combine the best of all browser worlds. Chrome's usability and functionality allow it to give Safari a run for its money.

In XHTML and CSS tests, Chrome was slower than Safari. Safari rendered a local XHTML test page in 580 milliseconds to Chrome's 780 milliseconds, and a local CSS test page in 33 milliseconds to Chrome's 51 milliseconds. Safari 5's time of 376.2 milliseconds in the SunSpider JavaScript test beat Chrome's 448.6 milliseconds.

Featurewise, Chrome offers the usual slate of privacy and security features found on most modern browsers, all competently executed. But it lacks additional touches like Firefox's clever Forget This Site option in the browser history. Chrome does ape Firefox with a collection of artistic themes to gussy up your browser window and an impressive library of user-created extensions.

Like Firefox's, Chrome's handy extensions add useful new features to your Web browsing. For example, the Invisible Hand extension compares prices on shopping sites to tell you when you could be saving money elsewhere.

Chrome's best and most useful feature is its Omnibox. The browser's location bar also brings up search results from your bookmarks and browser history as you type—and seamlessly doubles as a Google search box. It's an elegantly simple idea, and it works exactly as you'd expect it to.

I also loved the page auditor hidden in Chrome's developer tools. With one

****; free; Google, www.google.com; full review, macworld.com/6306

click, Chrome will analyze a given Web page, producing a helpful list of ways to optimize its code—a dream come true for Web designers.

Macworld's Buying Advice

Chrome reaches a very happy balance between speed and customization. It's

not as fast as Safari 5, but it's a wonderful addition to the ranks of Mac browsers, and a clarion call to Apple, Mozilla, and Opera to step up their game in the war of the browsers.



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MAC GEMS Discover Great, Low-Cost Mac Products By Dan Frakes



YoruFukurou 2.13

SOCIAL NETWORKING Twitter is a great way to communicate with friends, colleagues, and-for me-readers. Like many Twitter users, I opt for a dedicated Twitter client, and my Mac client of choice has become YoruFukurou. Each message appears, along with useful information and options, in a vertical list. Right-click on a message, and you get a slew of additional options for replying, retweeting, copying message info, and more.

Click a message, and all messages from the same person are instantly highlighted, making them easy to spot. If the selected

message is part of a conversation—a series of back-and-forth replies—all the messages in that conversation are similarly highlighted, though in different colors. (You can also apply filters that display only messages from a particular user or from a particular conversation.) In addition, a timeline search lets you filter your message list by keyword or username.

YoruFukurou's window also features tabs that let you display different types of content: mentions, direct messages, favorites, and search results, as well as custom tabs that can include saved searches, messages from particular users, or messages filtered by user-defined rules. The program also features built-in image previews, autocompletion of usernames and hash tags, and a slew of keyboard shortcuts. You get myriad alert and notification options, too. The only significant limitation—and it's a big one for some people—is that the program supports only a single account.

\$\$\$\$\\\^2\$; free; YoruFukurou Team; macworld.com/6260



AFPStatus 1.3.0

doesn't provide a convenient way to monitor File Sharing connections.

AFPStatus resides in your menu bar, displaying an OS 9–like file-sharing face icon that, appropriately enough, smiles when the File Sharing service is active and frowns when it's not. When someone connects to your Mac via File Sharing, the menu-bar icon changes to show two faces, which "talk" to each other during file transfers.

Click the menu icon to display the IP address of the connecting computer. AFPStatus can also prevent your Mac from sleeping if users are connected, and it keeps an easy-to-read log of File Sharing events. The program can also use Growl for connection and disconnection notifications.





iStat Menus 3.0.1

Bjango's iStat Menus puts a collection of live-updated status icons in your menu bar to help you keep track of what your system is up to and how its resources are being allocated. Version 3 is an application, rather than a pane in System Preferences, and it constitutes a major makeover of this venerable utility.

iStat Menus still includes monitors for CPU, memory, and disk usage; disk and network activity; hardware sensors; and the date and time. But it gains a new battery-status option. Click any menu item to view a menu containing a wealth of information about various components of your system. You can tailor each menu to your tastes; each offers plentiful customization options.—AAYUSH ARYA

*****; \$16; Bjango; macworld.com/6261

WORLD'S THINNEST PORTABLE LAPTOP STAND







12 Degree Ergo Benefit

Provides an optimal ergo angle that reduces strain on your wrists.

Airflow

Raising the laptop two inches off your work surface allows for better airflow, enabling the laptop to run cooler and more efficiently.

Ultra Thin and Lightweight

Measuring in at 1mm thin when open and 5mm thin when folded, this portable laptop stand weighs a mere 5.5 ounces.

Hylite® Material

This German-made, patented aluminum material provides a flexible lightweight solution that is extremely durable.

www.AViiQ.com











Socialite 1.2

SOCIALNETWORKING Socialite looks much like an e-mail client, but it handles most of today's popular social networks—Twitter, Facebook, Flickr, and Digg—as well as Google Reader and RSS. Just click an account on the left to view its activity to the right (or click the Unread item to view new activity across all services). You can add multiple accounts for each service, which is great for managing, say, both your personal and work Twitter accounts.

Socialite supports many service-specific features, such as commenting on Facebook posts, retweeting Twitter messages, and marking favorite Flickr photos, and a systemwide menu provides access to a number of useful tools. Instead of visiting a bunch of different sites or

using various apps, or tediously logging in and out of multiple accounts, you can keep up with the online adventures of your friends, family, and peers, and publish your own content, from a single app.—DAVID CHARTIER \$\frac{1}{2}\$\$:\$29; Realmac Software; macworld.com/6264

TotalFinder

flexibility and power from the Finder. A promising option is to tweak the Finder by using Binary Age's TotalFinder (\$15 when released; Binary Age; macworld.com/6262), currently available in a public alpha (pre-prerelease) version. The program's biggest tweak is that it gives Finder windows tabs, allowing you to view the contents of multiple folders within a single Finder window. These tabs work similarly to those in your Web browser: You can drag a tab to the left or right to change its location among other tabs; you can drag a tab down to separate it from the tab bar and create a new window; and you can drag tabs between windows.

These tabs also support Mac OS X's spring-loaded feature for folders and windows. If you drag a file or folder onto a tab in a Finder window, that tab is brought to the front, allowing you to drop the item into the folder represented by that tab. A number of other useful options are also available in a new screen in the Finder's own preferences window. TotalFinder is still in development, so it has some bugs, but its official release is something to look forward to.





PadSync 1.0

iPAD Syncing files between your Mac and various iPad apps can be a major hassle, usually involving sending files via e-mail or using iTunes' messy File Sharing feature (for more on this process, see "The iPad File Swap," Working Mαc, page 52). Until Apple offers a better way, a more convenient alternative is PadSync, which automates the process.

Launch PadSync and connect your iPad, and you'll see an iTunes File Sharing–like window listing your compatible apps; click one, and the app's documents appear to the right. Drag a file from your computer to an application name in PadSync, and the document appears in that app's list in the program. If your iPad is currently connected to your Mac, the file is immediately synced; if not, it's synced at the next connection. You can even view and edit a file when your iPad is not connected—any changes you make are synced to your iPad the next time it's connected with PadSync running.

** 12; \$10; Ecamm Network; macworld.com/6265

































LapTuk Pro Stand

One challenge to using your MacBook at your desk with an external display. keyboard, and mouse is finding a place to put the laptop. If you want to use the laptop in what Apple calls "closed clamshell" mode, Macessity's \$90 LapTuk Pro Stand (www.macessity.com) can help save space on your desk. This low-profile, solid-steel accessory is just 2 inches tall, but provides a slot for your closed 13- or 15-inch MacBook, MacBook Air, or MacBook Pro, with a space underneath for storing your keyboard (provided the keyboard is less than 15 inches wide). The top of the LapTuk Pro supports a display of up to 35 pounds (strong enough for most displays), keeps all your laptop's ports and connections accessible, and adds a useful 4-port, powered USB 2.0 hub. There's even an opening in the back of the stand for ventilation. (Apple has complete instructions on its Website about how to use your laptop while it is closed, at support.apple.com/kb/ HT3131.)—DAN FRAKES

Chronories

Think about the most mundane aspects of keeping a diligently updated diary: writing about the weather, your mood, your work, people you chatted with, music you listened to, and so on. Synium Software's \$29 Chronories can do all of this for you, automatically keeping a daily log of your local weather, your e-mail habits, your chat and Web surfing history, how long you ran applications, major news headlines,



and even the music you listen to. It also lets you enter your daily mood and take a screenshot or Webcam snapshot with just one click. Of course it also provides you with an actual spot for writing, but with all of the bases Chronories covers, you may have a lot less to write about (www.syniumsoftware.com).-DAVID DAHLQUIST

Safari Extensions

If you're looking to see the kind of tricks you can make Safari perform with the new extensions feature introduced in Safari 5, look no further than the Safari Extensions blog. While Apple eventually plans to showcase extensions in its own gallery, the Web community has taken up the slack in the meantime. Here you'll find a catalog of add-ons for everything from adding a new Reload button to

restyling Google Reader, as well as tips on using extensions (safariexten sions.tumblr .com).—dan moren



moveAddict

Kapeli's moveAddict adds the Cut command to the Finder for those of you who find yourself fruitlessly pounding \(\mathbb{H} - X. \) It

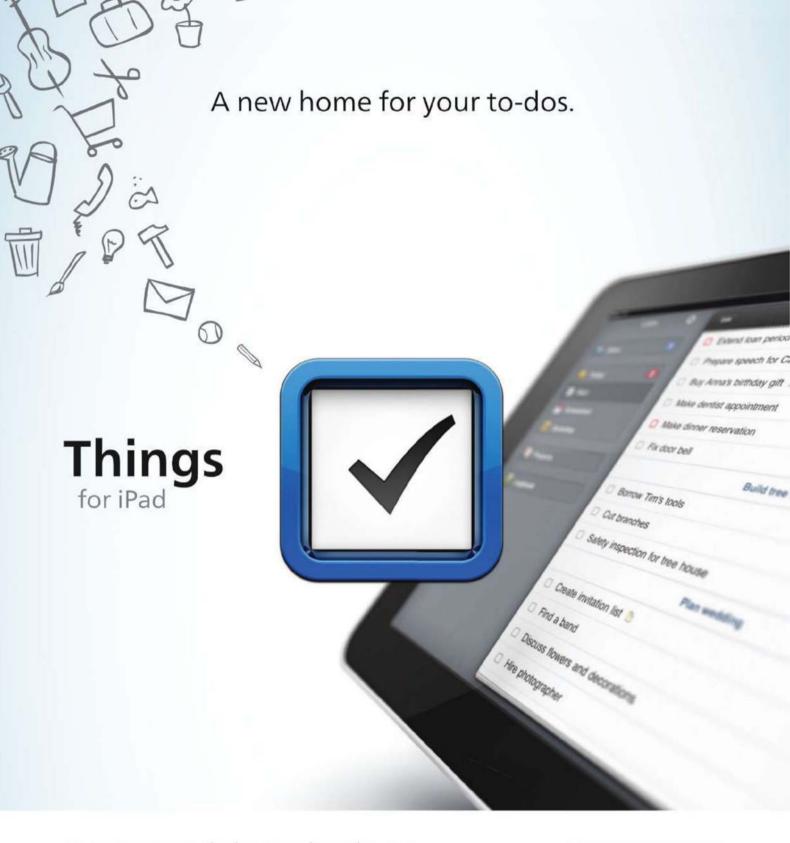


works identically to Finder copy-andpaste features, but it moves files instead of copying them. Unlike a true cut to the clipboard, moveAddict's features keep files in their original position until they are pasted, so there is no risk of data loss. moveAddict also provides a Merge Folders function, which acts as an alternative to overwriting a folder of the same name. moveAddict is \$5 and requires Mac OS X 10.6, aka Snow Leopard (kapeli.com).—JEFF PORTEN

USB 3.0 TO eSATAP ADAPTER

Serial ATA (SATA) might be one of the fastest interfaces for transferring data, but many computers and all Macs—lack an external SATA (or eSATA) port. For people who need to connect an eSATA device to their Macs, Addonics Technologies has released an eSATA adapter that lets you connect any eSATA storage device to any USB 3.0 (which is not available on current Macs), 2.0, or 1.1 port. The \$34 adapter is about the size of a cigarette lighter and is compatible with external hard drives, solid-state drives, or optical drives with an eSATA interface. Since it's powered by USB, no additional power supply is needed—in fact, the adapter itself can even provide juice for low-power 5V eSATA devices (www.addonics.com).—DAVID DAHLQUIST





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Things can be synced wirelessly using Wi-Fi

IPHONE CENTRAL

The Latest on the iPhone, iPod Touch, iPad, and App Store

Up Close with iMovie for iPhone

iPhone 4-only app delivers mobile moviemaking—with some limits

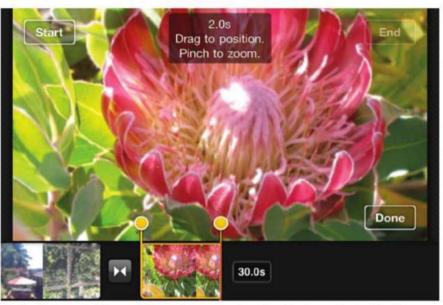
BY CHRISTOPHER BREEN

REVIEW

Prior to June's release of iMovie for iPhone, your

Apple-supplied editing options for the video you shot with the phone included trimming the beginning and end of clips, syncing the clips to your Mac, and sharing them via e-mail, MMS, MobileMe, or YouTube. Apple's \$5 iMovie app, which runs only on the new iPhone 4, dramatically expands those options.

With iMovie, you can piece together multiple clips, place transitions between those clips, add titles, incorporate stills with the Ken Burns pan-and-scan effect applied to them, add a music bed that attempts to get out of the way when there's audio in video clips, and apply a theme to the finished product. If you're not a fan of the desktop version of iMovie-and it's one of the more divisive, love-it-or-hate-it offerings out of Cupertino—note that the application is an entirely different experience on the iPhone. Where the lack of a formal timeline and the need for a fair amount of drag-and-drop in iMovie '09 can be



Moving Pictures Adding a still image to your movie automatically applies the Ken Burns pan-and-scan effect.

timeline itself, dragging it back and forth on screen.

When you launch iMovie, you're asked to create a new project based on one of five themes—Modern, Bright, Travel, Playful, and News. You see

On a computer, iMovie can be confounding, but the app makes sense on an iPhone.

confounding on a computer, it makes sense on a touchscreen device.

The Basics

iMovie's interface features a preview area that takes up around 80 percent of the iPhone's screen in landscape orientation. Below the preview area, you'll find a timeline with a nonmoving playhead in the middle. You move the

evidence of the theme in the finished movie only if you apply a title, choose the theme's optional transition effect, or add the theme's canned music to the project. Do none of these things, and you have a movie that has no discernible theme and that uses cross-dissolve transitions between clips.

Into this project, you can add video clips that you've shot with the iPhone

(though not videos in the iPhone's iPod library), still images from the phone's Camera Roll, and unprotected music tracks you've synced to the iPhone or tracks included with the five themes. Adding clips, stills, and audio is as simple as tapping a Video, Photos, or Audio button and then tapping the item you want to add. You can stretch clips and stills in the timeline so that you can more easily select a specific spot in the clip while editing.

When you add a still image to your movie, iMovie automatically applies the Ken Burns pan-and-scan effect. To change the length of the still, just tap on the image and drag an orange handle to

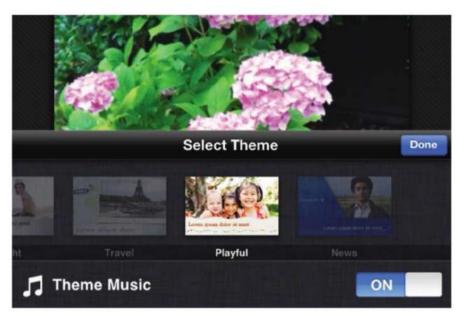
###; \$5; Apple, www.apple.com; full review, macworld.com/6303 lengthen or shorten it. Those who, like me, wish to use this effect only sparingly will be frustrated to learn that you can't turn it off. You can, however, work around it by ensuring that the start and end frames are exactly the same.

You can trim the beginning and end of a clip by tapping on it in the timeline and dragging handles. You can't, however, split clips (though you can work around this by dragging in two copies of a clip and shortening each one as you like). Thankfully, trimming is nondestructive. You can return to your project at any time and drag the trimmed clip's handles to restore your footage.

To rearrange the order of clips, simply tap and hold on a clip and drag it to a new position in the timeline.

When your project is complete, just tap the Project button to return to the Projects page, tap an Export button, and export your movie in one of three formats: Medium - 36op, Large - 54op,

PRODUCT SPECS RATING



Theme for Today iMovie offers five themes, each with their own transition effects and canned music.

or HD - 720p. Each setting produces an H.264 movie at 30 fps at the respective sizes of 640 by 360, 960 by 540, and 1280 by 720. When you export a movie,

it's saved to the iPhone's Camera Roll, where you can share it via the methods I outlined earlier. Note, however, that when you upload a 720p video to YouTube or your MobileMe gallery, it's compressed before uploading so that it doesn't appear in HD when published to the Web. To upload the full 720p version of the movie, you must import the movie to your Mac and upload it from there.

DISPLAY PERFORMANCE

iPad	16GB	Wi-Fi, ♦♦♦ ; 3G, ♦♦♦	Wi-Fi, \$499; 3G, \$629	9.7-inch color	Up to 10 hours on Wi-Fi; up to 9 hours on 3G	6000 Wi-Fi 6001 3G
	32GB	Wi-Fi, ♦♦♦ ; 3G, ♦♦♦	Wi-Fi, \$599; 3G, \$729	9.7-inch color	Up to 10 hours on Wi-Fi; up to 9 hours on 3G	6002 Wi-Fi 6003 3G
	64GB	Wi-Fi, ♦♦♦ ; 3G, ♦♦♦	Wi-Fi, \$699; 3G, \$829	9.7-inch color	Up to 10 hours on Wi-Fi; up to 9 hours on 3G	6004 Wi-Fi 6005 3G
iPhone 3GS and 4	8GB (3GS)	*** ***	\$99	3.5-inch color	9 hours of Wi-Fi Internet; 5 hours of 3G talk time	6255
	16GB (4)	****	\$199	3.5-inch color (Retina)	10 hours of Wi-Fi Internet; 7 hours of 3G talk time	6256
	32GB (4)	****	\$299	3.5-inch color (Retina)	10 hours of Wi-Fi Internet; 7 hours of 3G talk time	6257
iPod Touch	8GB	****	\$199	3.5-inch color	30 hours of music playback; 6 hours of video playback	3864
	32GB	*** ¹ / ₂	\$299	3.5-inch color	30 hours of music playback; 6 hours of video playback	5257
	64GB	*** *********************************	\$399	3.5-inch color	30 hours of music playback; 6 hours of video playback	5258

iPads and iPhones: Current Lineup

All prices are Apple's prices. Bln a browser's address field, typing in a find code after macworld.com/takes you to

Who It's For

For those who want something more polished than the raw clips produced by the Camera app but who lack the patience for editing video on their computer, iMovie for iPhone could be a good fit. With footage in hand, just about anyone should be able to assemble a polished "What I did on my summer vacation" movie in five minutes or less. Anyone looking for an iMovie '09 equivalent on the iPhone, however, will be disappointed by what they can't do with the app.

Still, the ultimate value of iMovie for the iPhone will hinge on whether the app's ease of use and natural workflow tempt more people to shoot video with their iPhones and turn that video into something worth watching. Even with iMovie's limitations, I believe it will.

Who's to Blame for iPad Security Breach?

BY MARCO TABINI

he leader of a security research firm and AT&T have been trading angry words over a data breach that exposed the e-mail addresses of 114,000 iPad 3G users. But both sides have plenty to answer for in how they've handled this security situation.

In June, Goatse Security
was able to extract the e-mail
addresses of some 114,000
iPad users by piggybacking
on a Web-based service
provided by AT&T. Designed
to simplify the sign-up process for adding
a 3G data plan to an iPad, the service
accepted the unique ID associated with
the SIM card in an iPad Wi-Fi + 3G and
returned the e-mail address of the
corresponding customer. By guessing a
large number of IDs, Goatse was able to
capture all of those e-mail addresses.

Goatse claims to have disclosed the information to AT&T through an unnamed third party so that the carrier couldn't take any legal measures aimed at silencing the firm. But the cellular provider blasted the group for what it

called unethical behavior. The FBI is looking into the matter.

While Goatse and AT&T point the finger at each other, there's more than enough blame to go around. The real

problem with AT&T's security lapse is that it wasn't caused by an inadvertent fault in the company's programs. Technically speaking, the Goatse researchers didn't have to hack any systems, because the system was designed to

work in an insecure way. Rather than being an embarrassing one-time occurrence, this episode appears to reveal a fundamental lack of regard for security in AT&T's development practices.

For its part, Goatse also has some questions to answer—such as why it needed to download 114,000 e-mails to satisfy itself that the security disclosure was real, and why it decided to disclose all 114,000 to a third party. A few selected e-mail addresses should have been sufficient to convince anyone that the security issue was real.

Opt Out of Interest-Based iAds

BY SERENITY CALDWELL

You may not be able to completely shut off Apple's new iAds system. But you can at least stop it from using your personal information to tailor ads aimed at you.

Similar in structure to Google's ad preferences, which allow the user to opt in or out of "interest-based advertising," Apple has released

its own Web-based tool, which, when visited on a device running iOS 4, will opt the user out of the iAds targeting system. To opt out, users will need to visit http://oo.apple.com with a device running iOS 4 or later. An Apple Knowledge Base article (macworld.com/6302) has more details, including this tidbit: The number of ads you see will probably not diminish, just the ads' relevancy to your personal taste.



What's New at the App Store



Apple Store Goes Mobile

Now you can shop for your next Mac from the comfort of your iPhone, courtesy of the Apple Store app (macworld.com/6299). You can browse through products, read reviews, and, of course, place orders with the app. You can also use it to find Apple Stores anywhere in the world and make reservations for Genius, Personal Shopping, and One to One training appointments.—MARCO TABINI



Reeder Ready for iPad

Already a popular RSS reader among iPhone users,

Silvio Rizzi's Reeder (macworld.com/6300) is now available in iPad form. This is no mere port, though—the \$5 app has been built from the ground up with the iPad in mind. Reeder organizes your RSS feed groups into stacks. Pinching a stack open will reveal the news sources within that group, while simply tapping the stack will bring you into a more traditional side view. There, you can read or skim articles, mark articles as favorites, and share articles through a variety of services, as well as perform other functions.—SERENITY CALDWELL



Panorama Creator Gets Performance Boost

Version 3.0 of AutoStitch

Panorama (macworld.com/5938) promises to make creating panoramic photos on the iPhone even easier while letting more than just iPhone users in on the action. The \$3 app, which used to run only on the iPhone, is now available for the iPod touch, too. AutoStitch Panorama 3.0 also adds advanced image-compositing techniques that aim to remove variations in brightness while preserving the original images' sharpness.—DAVID DAHLQUIST

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digital life goes on...



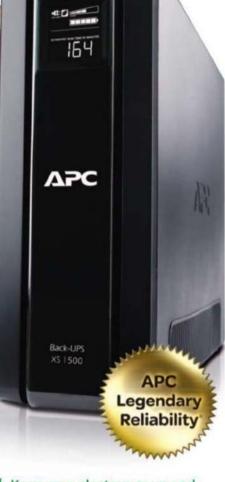












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Preserve what's most important to you.

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Whether DVRing your favorite show, updating your Facebook status, or playing a live networked game, you depend on your home electronics every day, all day. That's why APC by Schneider Electric has designed battery backup solutions that protect the constant availability and connectivity you expect...and depend on.

Peace-of-mind protection on two levels

When the power goes cut, our popular Back-UPS units go to work. They instantly switch your home technologies to emergency power, allowing you to work through brief power outages or safely shut down your systems so you won't lose valuable files—such as digital photos and media libraries. They also feature surge outlets to guard your electronics and data from "dirty" power and damaging power surges—even lightning. So you get two levels of protection in every APC Back-UPS unit!

Energy-saving insurance for what matters most

Our Back-UPS units protect your home office, digital living and home media applications, notebook computers, DVRs, and gaming application. And since we now offer energy-efficient models that reduce electricity costs through unique power-saving outlets, you can realize true energy savings regardless of the applications you're backing up. Throughout your home, the APC Back-UPS is the cost-saving insurance you need to stay up and running and reliably safeguarded from both unpredictable power and wasteful energy drains.



Keep your electronics up and your energy use down!

ES Series

The ever-popular ES models are priced affordably yet provide enough extended runtime to allow you to work through short and medium power outages. Some power-saving models have been designed to actively reduce energy costs.

The energy-efficient ES 750G

The ES 750G boasts innovative power-saving outlets, which automatically shut off power to unused devices when your electronics are turned off or asleep, eliminating wasteful electricity drains:

- 10 Outlets 450 Watts / 750 VA
- 70 Minutes Maximum Runtime
- Telephone/Network Protection

The best-value ES 550G

The ES 550 uses an ultra-efficient design that consumes less power during normal operation than any other battery backup in its class, saving you money on your electricity bill.

- ·8 Outlets •330 Watts / 550 VA
- 43 minutes Maximum Runtime
- Telephone/Network Protection





Power up to WIN 1 of 7 APC BR700G Battery Back-UPS units (a \$130 value)!





APP GUIDE Software for Your iPhone, iPod Touch, and iPad

IDAD

Let's Golf HD 1.0.1

GAMES With this iPad version of the golfing game, Gameloft took the iPhone version (****; macworld.com/4888) and made it bigger. While some of the same annoyances from the original remain—the intro video that plays each time you launch the app is still too long—this supersizing works out wonderfully. The visuals are simply lovely, and the game's cartoony aesthetic works well. Owners of the iPhone version may not need to upgrade, but if you're new to the game and own an iPad, this is a fun app to own.-LEX FRIEDMAN

\$\$\$; \$5; Gameloft; macworld.com/6273

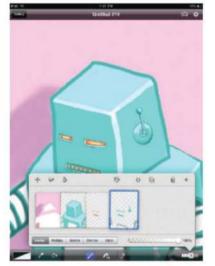


IPHONE

Vlingo 2.0.4

PRODUCTIVITY This iPhone voice-recognition app uses your spoken words to create e-mail messages, dial your phone. update Twitter or Facebook accounts, or search the Web. Right out of the box. I was able to speak to the app and have it recognize exactly what I was saying with virtually no correction. The app is free, though you can add e-mail and SMS composition features for \$10. It's not entirely hands-free-when dialing by voice, you still have to tap the number Vlingo summons to initiate a call. But this app still offers great voice-recognition capabilities.—JEFFERY BATTERSBY

***; free; Vlingo; macworld.com/6275



Brushes—iPad Edition 1.1.2

DRAWING Building on the success of Brushes for the iPhone (\$\$\$\$\frac{1}{2}\$, macworld .com/5092), this iPad-native painting app gives artists more of the good stuff they crave-namely, 19 different brushes and support for up to six layers (two more than the iPhone version). Five different blending modes affect how the layers interact. And naturally, the extra canvas size you get with the iPad gives you even more room to experiment with the brushes' size, spacing, and transparency.-TIM MERCER

* \$ \$ \$ \frac{1}{2}; \$8; Steve Sprang; macworld.com/6272

APP GEMS

Image-Editing



Mill Colour ### Bring out the color in your images with this photo-grading app (macworld.com/6295).



TiltShift Generator \$\$\$\fraction{1}{2}\$ macworld.com/5546



Color Splash **** macworld.com/6296

Find more great iPhone and iPad image editors at macworld.com/4910.

ShapeUp Club—Calorie Tracker 2.2.5

LIFESTYLE Simplicity is this calorie tracker's greatest virtue. Just enter a few details, and ShapeUp Club estimates your body mass index and how many calories you should take in each day. A data-entry system full of nutritional info makes it easy to log what you're eating. And while the app invites comparisons to the well-regarded Lose It (****; macworld.com/ 4890), ShapeUp Club stands out by having its daily calorie allotment include the ideal ratio of protein, carbohydrates, and fat you should Strive for.—ROB DE LA CRETAZ

12; free; Sillens; macworld.com/6274





IPHONE/IPAD Solar Walk 1.4

EDUCATION This hybrid app, which lets you explore the solar system in exquisite detail on either the iPhone or the iPad, is simply amazing. The app lets you pinch and zoom your way around the heavens, examining celestial bodies in an immersive 3D

environment from any angle or perspective. Tap on any object in the app-a planet, a moon, or so on-and Solar Walk re-centers the view so that you see things from a new perspective. And tapping an info button for any celestial body uncovers panels of information. With this app, the sky is truly the limit.—LEX FRIEDMAN

******; \$3; Vito Technology; macworld.com/6271

IDHONE

ToonPaint 1.2.0

PHOTOGRAPHY You don't necessarily need artistic skill or even time to create a cartoon-style image of yourself; you just need this handy app, which allows you to easily create those cartoon images seen in places like the movie A Scanner Darkly or those Charles Schwab TV ads. Once you pick a photo from your image roll—or snap one with the iPhone's camera—the app does all the work. You can adjust the result with sliders that affect the color, edges, and sharpness. An Advanced tab offers even more variables; you can really spend a lot of time playing with this delightful image editor.-TIM MERCER

####; \$2; Toon-FX; macworld.com/6288



More Reviews

See more iPhone, iPad, and iPod touch apps we've tested at iPhone Central (macworld.com/4164).

APPLICATION	DESCRIPTION	PRICE	RATING	FIND CODE*
Air Display 1.1 Avatron Software	Mac display utility for iPad	\$10	## # ¹ / ₂	6289
Feathers 1.4 Naklab	Twitter composer	\$1	****	6290
Momento 1.0.6 d3i	diary app	\$3	*** ¹ / ₂	6291
PhotoNote 1.6.0 Bananas Design	photo notation app	\$2	**** ¹	6292
Shazam for iPad 2.0.0 Shazam Entertainment	music ID app	free	****	6293

* In your browser's address field, typing a find code after macworld.com/ directs you to a product's review or overview. For example, macworld.com/6289 takes you to our review of Air Display.

ESSENTIAL APPS

Apple Design Award Winners

Here are just a few of the apps that took home top prizes at Apple's Worldwide Developers Conference award ceremony (macworld.com/6294)



Flight Control HD **** After wowing us on the

iPhone, this game makes a successful landing on the iPad.



Doodle Jump \$\$\$\$\frac{1}{2}\$ It's amazing people stopped playing this addictive casual game long enough to give it an award.

Pinball HD #### Pinball comes to the iPad in a way that's just about perfect for the device.

IPHONE Grocerv Gadget 3.2.1

PRODUCTIVITY

This shopping-list manager continues to add helpful features. such as improvements to the way you e-mail copies of your grocery list, the ability to



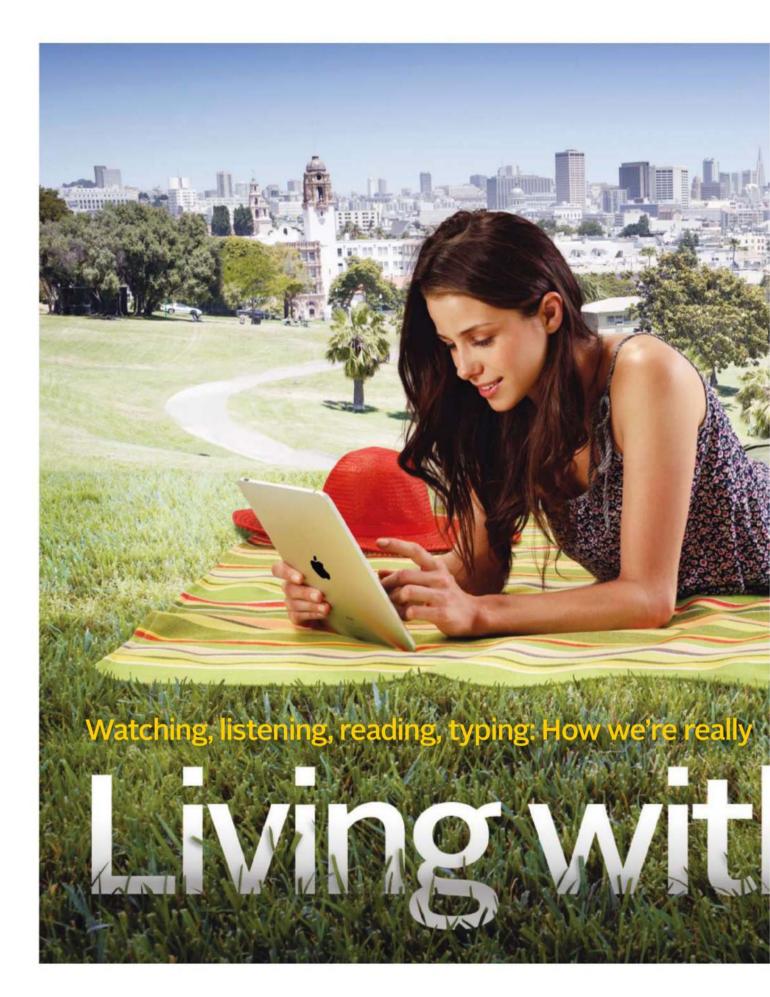
add items by scanning their barcodes with your iPhone's camera, and localized coupon browsing. Most important, the app continues to help you create multiple shopping lists, with clever presets for weekly shopping runs.—LEX FRIEDMAN

\$\$\$; \$5; Flixoft; macworld.com/4972

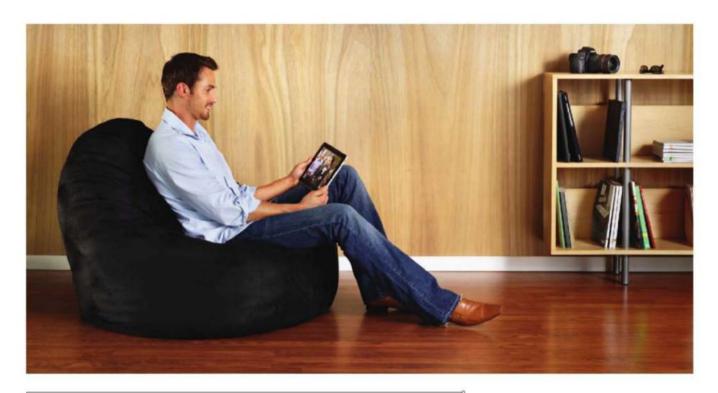
App Guide

Get more reviews, including reader reviews, as well as listings for every iPhone and iPad app at AppGuide.com.









Change Your Life to Suit Your iPad

BY CHRISTOPHER BREEN

HOSE WHO'VE PURCHASED an HDTV understand that when making such a purchase you don't simply buy the TV. You have to upgrade your cable or satellite TV account for HD. And since you have this glorious picture, are you really going to settle for the weak stereo sound built into the TV or are you going to cough up the money necessary for a surround-sound receiver and speakers? And then there's the hunk of furniture large enough to hold the thing.

The iPad has a similar power to compel change. Here are some of the changes it's wrought in my life during the couple of months I've spent with it.

Sitting Pretty When Steve Jobs first demonstrated the iPad, he settled into a comfortable chair. He did so because the iPad is easiest to command when it's nestled in your lap. Regrettably, that position isn't good with an office chair or even a swank leather lounger.

To my mind, the perfect chair for the iPad is one that you can adjust to support your legs and that also enables you to recline slightly. And no chair I can think of handles that job better than that icon of the seventies—the beanbag chair.

I chose Sumo's \$149 Omni model (sumolounge.com). Available in 10 colors, this large (5.5 by 4.5 feet) beanbag chair is covered in ballistic nylon and filled with polystyrene foam beads. It feels much more rugged than the beanbag chair you remember from your youth. And the shape is versatile: You can mold the chair into a form that allows you to work with the iPad without straining your neck, back, or arms.

Working It Out I resolved to get more exercise this year, so I bought an elliptical trainer. I used it religiously for a couple of weeks and then slacked off.

The iPad has brought me back to it.

Just underneath the machine's boring LCD, which tracks my workout progress, is a shelf just deep enough to accommodate my iPad. Once on the machine, I can fire up the Netflix app and sweat away in a pleasantly distracted fashion.

Think Mobile With its larger screen and faster processor, the iPad is a better productivity device than my iPhone. As such, I wanted to use mine for real work. The hitch is that doing real work often requires moving files between devices and opening files in different applications.

To address the first issue, I resolved to get serious about Dropbox (dropbox .com), a service that provides 2GB of free online storage, and tools for easily syncing stored data between devices. (For more on swapping files between an iPad and a Mac, see "The iPad File Swap," Working Mac, page 52.)

With the assistance of the Dropbox app for the iPad and the Dropbox folder on my Mac, I have easy access to the documents on both my Mac and my iPad. You can't

For links to all the apps we mention in this story, visit macworld.com/6347.

SLEEVES

If you already carry around a backpack, shoulder bag, or briefcase, you don't need another one just for your iPad. But you do need a sleeve that will protect your tablet inside the other bag.



edit such documents in Dropbox, but the Dropbox app contains a helpful Open In pop-over menu that allows you to open files stored on Dropbox in other applications. One app that has proven to be particularly helpful is DataViz's \$15 Documents To Go Premium – Office Suite. Using Documents To Go, I can open and edit Microsoft Word, Excel, and PowerPoint files, as well as text files bearing the .txt extension.

Take a Stand I suspected that I'd use my iPad in a lot of different rooms throughout my house, but I hadn't thought about where I'd put it. As the family cook, I've turned to Condé Nast's free Epicurious app and Weber's \$5 On the Grill app. But I

generally have my hands full when cooking and need the iPad at a viewable angle.

Since I was using the iPad as a cookbook, it made perfect sense to place it in a cookbook-holder stand. These things are sturdy enough to hold a heavy cookbook and, unlike iPad-specific frame stands, often come with acrylic shields, which should protect your iPad when your cooking takes an adventurous turn.

Making Connections I'm using Apple's \$49 Component AV Cable (macworld .com/6336) to watch movies. The Netflix app can send out video via the iPad's dock connector port, so now I can watch Netflix videos on my back-bedroom TV.

Apple's \$29 iPad Camera Connection Kit (***, macworld.com/6259) and the iPad are changing the way I take pictures. Typically I throw out dozens of shots at home because I've failed to focus correctly or I've misjudged the light.

I can now toss the iPad in my camera bag along with the iPad Camera Connection Kit and, while on location, string a USB cable between my camera and the iPad dongle and then review what I've shot.

What's Next The iPad still has room to improve. Transferring and editing files should be easier. Having to physically connect the iPad to my Mac to transfer and sync media and data seems archaic. And I'm a little surprised that we haven't seen more speaker docks that accommodate an iPad and allow you to orient it in landscape mode so you can comfortably watch videos on it.

Home Slice In the two months that I've had the iPad, it's brought welcome changes to my life. When I'm not in my office, the tablet is almost constantly at my side—ready whenever I want to check e-mail, perform a casual Web search, and entertain and educate my family. I look forward to the additional changes it will bring as Apple and third parties find new ways to exploit its many capabilities.

Christopher Breen is a Macworld senior editor.

How I Use My iPad SUSAN ORLEAN



riter Susan Orlean (www.susan orlean.com)—best known for writing *The Orchid Thief*—is becoming a geek. She writes a blog for *The New Yorker* (macworld.com/6335), tweets as @susanorlean, and loves her 3G iPad.

Orlean tried a PC netbook after tiring of lugging a MacBook. "The problem is, it was awful. Teeny, tiny keyboard. Tiny, tiny memory," she says. She switched to her iPhone, but the small screen didn't cut it.

The iPad is a solid compromise, Orlean says. On a recent trip, she dropped her in-progress manuscript for a biography of animal star Rin Tin Tin into Dropbox, and then accessed that file from the iPad using Pages. She complained about the round-trip process—"It ought to work a little more easily than it does"—but was happy to get substantive work done.

Orlean finds that the iPad disappears while she's using it. "It's just this vast, fluid, thing," she says. "You are in a tunnel underwater, and this is your window, and through it you see this gigantic ocean, and you can beckon what you want to that window."

She notes that for folks uninterested in computers, "It's the simplest and most accessible way of interacting with the Internet."

Orlean said that she and her husband recently opted not to buy an expensive DVD system as part of a new car. Instead, she will likely buy her son an iPad. "You buy an iPad, and you're reading books, you're drawing, you're doing puzzles, you can watch a movie, and then you get to the hotel and you bring it in with you," she says.

She adds, "He never asked to use my laptop—there's nothing fun about that."

-GLENN FLEISHMAN

Typing on the iPad

BY DAN MOREN

VEN BACK WHEN the iPad was still a mythical product that was everything to everybody, one thing concerned me above all others: If the device was to truly be usable for me to get done what I needed to, then Apple would have to deliver a great way to input text. After living with the iPad for more than a month, I've had the opportunity to type more than a few words on it and figure out whether or not it lives up to expectations. The verdict? It's better than you might think-but not as good as you might hope.

Portrait or Landscape? The iPad's portrait mode is hardly unusable, but it's the less functional of the two keyboard orientations. In landscape mode, the whole situation changes. The keyboard is larger—still not as large as an actual MacBook keyboard, but definitely usable. I've been able to ten-finger type on the landscape keyboard, but I make more mistakes and type at a slower pace than I do on a standard computer keyboard.



Touch Typing Although typing in the iPad's landscape mode on a flat surface is doable, I've found that having a slight incline (such as that provided by Apple's iPad case) is preferable: It makes both typing *and* reading easier.

Even though typing a number requires you to shift to the keyboard's number layout, you can type a period, comma, exclamation point, and question mark without leaving the letters screen. And you can even make a fast apostrophe by quickly swiping upward on the comma key.

The Hardware Option Using the \$69 Apple Wireless Keyboard (****); macworld .com/3970) is a joy. It's as responsive as typing on a MacBook, and you can see more because the software keyboard isn't taking up screen space. You can use the arrow keys to jump around, just as you would on a Mac, and even select text by holding down the Shift key. You can even copy, cut, paste, undo, and redo with the usual shortcuts, and type special characters with the Option key. However, #-I doesn't italicize text, nor does #-B bold text.

Spellbound The iPad boasts an autocorrect system that will try to figure out what you mean to type even when you don't quite tap the right keys. The system is a mixed blessing: When you're quickly typing on the virtual keyboard, mistakes happen, and the software fixes many of them. But sometimes it's dogged about fixing things that are already correct.

Like the iPhone, the iPad will pop up a suggestion bubble below a questionable word. But it also silently fixes what it perceives to be common misspellings

FOLIOS

These snazzy folios work inside another bag or when you're carrying the iPad in your hand. And, in many cases, they'll also double as a stand, propping up the iPad for easier reading and typing.

Apple iPad Case

***; \$40; macworld.com/6337

3 Dodocase

####¹; \$60; macworld.com/6338

M-Edge Flip Jacket

***; \$50; macworld.com/6339



without providing any suggestion. For example, it will fix *thier* to say *their*. Most of the time it's helpful, but every once in a while it "fixes" something that was correct (often involving merging two words into one). The only way to turn it off is to turn off the entire Auto-Correction system in Settings ▶ General ▶ Keyboard.

Some apps will also underline misspelled words. But unlike on the Mac, there's no way to make the spelling checker ignore a particular word, such as a proper name.

Are You the Keymaster? While not as magical as I might have hoped, typing on the iPad is really pretty good. The iPad's heavy reliance on the touchscreen interface means that I don't have to type that much. And I can always throw a Bluetooth keyboard in my bag—just in case.

Dan Moren is a *Macworld* senior associate editor.

What About My Laptop?

BY JASON SNELL

'VE USED A LAPTOP as my primary Mac for more than a decade, toting it back and forth between work and home every single day. Yet, within two months of getting an iPad, I stopped. I stuck that old, reliable MacBook in a drawer at home and installed a new iMac on my desk at work—all because the iPad has replaced the laptop for a huge number of tasks. My iPhone's been feeling a little neglected as well, because the iPad replaces it in many ways too. I didn't expect the iPad to be so quickly disruptive. But it has been.

At Home with the iPad For ages now, I've kept a laptop tucked under the couch. At the drop of a hat, I could pull it out and quickly get online. My wife would occasionally vanish into our office to check her e-mail on our iMac. With the arrival of the iPad in our home, we don't do either anymore.

It turns out that there's a whole set of tasks that require the Internet but no keyboard. Whether we're checking in on a game of Words With Friends, browsing Twitter, or answering e-mail, the iPad works better than a laptop or an iPhone.

This is not to say that the iPad is perfect for every job. I don't, for instance, use it to reply to e-mails at great length; if a message requires a long answer, I wait until I'm at a Mac. Same goes for any task requiring me to dig around for an old file. And if I need to do some serious writing, the iPad's on-screen keyboard won't cut it.

But since the iPad entered my life, I rarely use my laptop at home.



iPhone and iPod I still use my iPhone all the time for listening to audio, checking Twitter and e-mail when I'm out and about, and the like. But the number of iPhone apps I use regularly has dropped to half. I've stopped watching iTunes videos or reading e-books on the iPhone's tiny screen. I often used iPhone apps rather than use my Mac because the app experience was so good. But a lot of my favorite iPhone apps are even better on the iPad.

My wife had been thinking of buying an iPhone. But now that she has an iPad, she's satisfied with her cheap cell phone.

Travels with iPad On a recent business trip, I brought my iPad and a Bluetooth keyboard, and was able to do some real writing. On another day trip, I brought just the iPad. It was liberating.

Yes, if I wanted to travel with the absolute least amount of tech gear possible, I could bring my iPhone and the smallest keyboard I could find. (With the advent of iOS 4, iPhone users can now use external keyboards.) But since the iPad arrived, that scenario doesn't seem particularly necessary.

Is the iPad a perfect traveling machine? No. It still has a few rough edges. But as apps and accessories continue to rush in over the next few months, I expect it to rapidly become the closest to that ideal I've seen so far.

Jason Snell is Macworld's editorial director.

The iPad for Readers

BY LEX FRIEDMAN

threatens gadgets like netbook computers and smartphones.

But just how does it fare against that marvel of tried-and-true technology, the book? Pretty well, in fact. Though it's not without flaws, the experience of reading on the iPad is positive enough to earn the device yet another solid passing grade on its report card of features.



The Hardware Compared to Amazon's \$189 Kindle (****: macworld.com/6340), the iPad is a bit heavy. The Kindle weighs just 10.2 ounces: I can comfortably hold it with one hand for hours. The iPad weighs 1.5 pounds, and holding it can put a lot of strain on your fingertips. For extended reading time, I prop the iPad up somehow—whether on my folded-over leg, a tabletop, or the side of my pillow.

Pillow time is one area where the iPad (quite literally) shines. The Kindle's reflective E Ink display, like paper books, requires a book light for bedtime reading. The iPad's display lights itself.

The Software It's nice that users aren't limited to Apple's own iBooks app for reading. There are a handful of other options, but iBooks, Amazon's Kindle app, and Barnes & Noble's BN eReader are the most prominent.

All three apps offer plenty of advantages over paper books. You can tap on any word to see its definition, or instantly look it up with Google or Wikipedia. (The Kindle app doesn't offer a lookup feature yet, but Amazon says one is coming shortly.) Plus,

you can store dozens of books on your iPad within any or all of these apps (which adds up to a heck of a lot less weight in your carry-on than the alternative).

iBooks' font selection is good, but BN eReader offers the most and best font customization options: You can not only set the font and its size, but also adjust the leading (the space between lines of text). The Kindle app doesn't let you customize anything but font size; the publisher chooses the font itself.

The Kindle and BN eReader apps get nighttime reading right: Each app lets

you adjust both the background color and the text color, which means you can read faint, contrasting text on a dark background. iBooks doesn't handle night reading nearly as well. While the app offers a brightness slider, there's no option to change the text or background colors.

Other Apps The iPad doesn't just excel as a book reader. It's also the bar-none best reader for graphic novels and comic books, thanks to its bright, colorful screen. The Comics, iVerse Comics, and Marvel and DC Comics apps are all excellent. And if you're a reader of documents in PDF form, you'll find several great options: Apple's iBooks isn't alone in supporting PDF reading; several other file-viewing apps do too, including our favorite, the \$1 GoodReader.

Epilogue The most important feature of any reading device is whether it disappears when you're engrossed in the text, letting you focus on the words. The iPad certainly succeeds at that.

Perhaps the iPad's biggest weakness as a reading device is that it does so many other things: It's hard to resist temptation when your e-mail—and the baseball game, and Netflix, and Twitter—are all just a couple of taps away. But in that case, to paraphrase the Bard, the fault lies not in our devices, but in ourselves.

Lex Friedman reviews iPhone and iPad apps for *Macworld's* App Guide.

The iPad as an iPod

BY CHRISTOPHER BREEN

PPLE HAS CHANGED the way we obtain and consume media, thanks in large part to the iPod. One might reasonably make the case that without the company's diminutive music player there would be no iPad today. Given the importance of media to Apple and its family of portable products, the iPad's music and video capabilities deserve a close look.

Listening Like the iPod touch, the iPad spreads media over two apps, iPod and Videos. Thanks to the iPad's greater display space, the iPod app looks more like iTunes on a Mac than it does the iPod touch's Music app. Similar to iTunes, the iPad's iPod app sports a

source list (labeled Library on the iPad), where you see entries for Music, Podcasts, and the like. In the lower left is a plus-sign (+) button for creating a new standard playlist on the iPad.

The iPad is too big to be a truly portable music player, but it's a suitable tabletop music player. With its large display, a crowd can gather around an iPad connected to powered speakers or an amplifier and tap out the tunes they





How I Use My iPad

JOE POSNANSKI



or someone like Sports Illustrated senior writer Joe Posnanski (joeposnanski.com), filing stories constantly from a variety of uncomfortable locations—often cramped, ill-lit, and without Internet access—is the rule, not the exception. "I'm on the road all the time; I've gotten used to writing in tight quarters on planes and in hotel rooms," he says.

His 3G iPad is "already changing my working life to an extent. I find myself using it for research and to do the reading that I need to do, and I'm also doing some writing on it," he says. "Once it becomes every bit as easy as

using a laptop, I think the laptop goes. It's surprised me how close it is already for being the essential work thing."

On an airplane, Posnanski says, he'd worked out techniques for typing on his laptop in cramped quarters, but the iPad gives him more room to work. "Going through security is easier," too, he says.

Posnanski is bonding with some of the people he covers through the iPad. "I have already talked to different players who have gotten the iPad, and they have filled me in on various things they've done with it."—GLENN FLEISHMAN

want to hear. The internal speaker is loud and sounds better than the typical clock radio. The sound from the headphone jack is clean and packs as much punch as you'll need.

Watching The iPad is clearly a better device for viewing video than an iPhone, an iPod touch, or a click-wheel iPod. The screen is large enough, and the off-angle viewing good enough, for two people snuggled on a couch or in bed to comfortably watch a video on it. It would just as easily serve a backseat full of kids. While you'll get a richer audio experi-

ence by using headphones or external speakers, the iPad's internal speaker will more than do in a pinch.

About HD The iPad's display offers 1024-by-768-pixel resolution. The iPad will accept 720p video, but it can't show the entirety of the video at that resolution. When you load an HD video on the iPad, the device will scale the content to fit its display. HD videos do look better than standard-definition videos, both on the iPad itself and when the iPad is connected to a TV. (But unfortunately, while the iPad can play

back HD video files, it can only output standard-definition video to a TV set.)

Other Sources The iPad's life as a video player doesn't end when the Videos app runs dry. There's a plethora of other video apps out there. The \$15 MLB At Bat 2010 will let you watch live baseball games. Air Video lets you play back videos that reside on another computer in your house, even if they're in a format the iPad doesn't natively support. And of course the Netflix, Hulu Plus, and ABC Player apps let you view video-on-demand streams.



The iPad as a Game Machine

BY CHRIS HOLT

f you still don't think Apple has designs on the gaming market with its mobile devices, you haven't been paying attention. The arrival of the iPad was very similar to the arrival of a new gaming console, right down to a raft of high-profile game releases from some of the biggest names in gaming.

During my month of iPad gaming, I found the quality of games to be a mixed bag. Simply put, developers have not had enough time with Apple's new device to understand how to create games for the platform. It all comes down to a matter of control—a gaming platform is ultimately tethered by its control system. I've found the iPad's to be suited for certain games, but not others. Here's a rundown of the control schemes that are suited for particular games on the iPad.

D-Pad Gets a D-Minus Many iPhone games feature a clunky on-screen mimicking of the directional buttons traditionally found on game console controllers, and iPad games have inherited this unfortunate feature.

Take Activision's \$10 Call of Duty: World at War: Zombies HD. The iPad version is as awkward to play as the iPhone version. Despite the iPad's promise of less-cluttered interfaces and more-interactive controls, most action games simply don't play any better on the device. Instead of being something between mobile gaming and console gaming, a lot of iPad offerings play like phone games—only they cost more.





Needs NoteBook



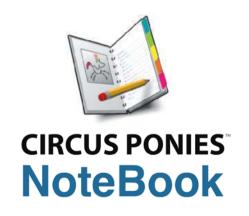
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Best Education Product Macworld UK













BAGS

If you aren't already carrying around another bag, or if you need lots of room for lots of other accessories, you should consider a full-blown iPad bag. They're not as common as sleeves, but they can do a whole lot more.



Rude Gestures Similarly, gesture-based controls may work in some casual settings, but the iPad is proving they have their limits. Sure, Firemint's \$5 Flight Control HD is a breeze to play, but other gesture-based games on the iPad have been headaches.

macworld.com/6341

EA's \$10 Mirror's Edge was one of the more exciting games available for the iPad on day one, but the gesture-based movement and combat systems handicap what could have been a terrific game. I found it was easy to flick my finger up or down to control the game's main character when she was running at full tilt. But when I tried to do anything more exact—like running across billboards or fighting—the results became a beautiful mess.

Tap Your Troubles Away Like the iPhone and iPod touch, the iPad excels with games that rely on tapping. Rhythm games like Tapulous's free Tap Tap Radiation and tower defense games like PopCap Games' \$10 Plants vs. Zombies

HD are just as easily played on this device as they are on the iPhone.

macworld.com/6342

Similarly, strategy games that rely on turn-based movement and tapping have actually fared better on the device than I anticipated. Games like Affogato's \$2 Strategery and 2K Games' \$13 Civilization Revolution play much better on the iPad because its larger screen reveals more of the battlefield while still offering a simple touch mechanism for ordering around your units.

Accelerated Developments Thanks to the iPad's accelerometer, developers are also proving that the new device is nicely suited for driving games. Firemint's \$10 Real Racing HD, the Need for Speed series, and many others have harnessed the iPad to create racing simulations that are better than anything else out there. When the graphics and depth catch up to console games like Project Gotham and Gran Turismo, the iPad could become the best platform ever built for racing games.

iPhone Games on the iPad While many developers launched "HD" versions of their iPhone games for the iPad, others have been slower to adapt. The iPad's ability to play iPhone and iPod touch games didn't get much fanfare when the capability was initially revealed, but games like Capcom's \$10 Street Fighter IV prove that not every game has to be designed for the iPad to be enjoyed on the platform.

Yes, you'll see more pixelation if you blow an older iPhone game up to the iPad's full screen. But the iPad's fast processor means that the games often run smoother than they do on Apple's smaller devices. And iPhone games that contain high-resolution graphic elements, such as Coding Monkeys' \$5 Carcassonne and the Iconfactory's \$1 Pickin' Time, wind up looking great, as will any games designed for the iPhone 4's high-resolution screen.

The Road Ahead The iPad is well suited for turn-based strategy, board, racing, and pinball games, but developers have only begun to explore what other gaming genres might succeed on the platform.

So far, though, the first months of iPad gaming looks a lot like the past 12 months of iPhone and iPod touch gaming. It'll be up to developers of all stripes to push the platform into something that's more than merely mobile gaming—something that can compete with the gaming experience you get with a traditional console.

Chris Holt is a Macworld associate editor.

STANDS

Whether you're viewing videos and photos hands-free, typing the next great American novel, or just keeping your iPad secure as you charge and sync it, a stand is a useful add-on. But note: The ones we've seen so far have been pretty expensive, given what they do. In some cases, you may be just as well served spending a couple of bucks on a simple book stand.



Griffin A-Frame ***; \$50; macworld.com/6343



Twelve South Bookarc
\$\$\$\ddot*\delta^{\dagger};\$40;
macworld.com/6344



Element Case Joule \$\$\displays \frac{1}{2}\$; \$129 to \$139; macworld.com/6345



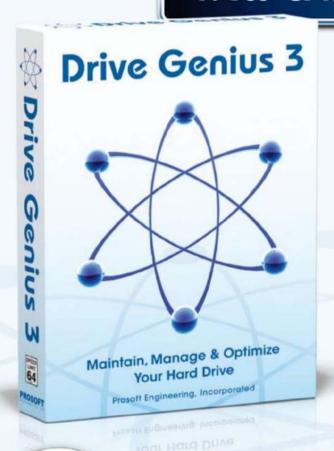
Luxa2 H4 ****; \$60; macworld.com/6346

Drive Genius 3

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Monitors the overall health of your drive, alerting you to possible issues before they become major problems.



64-bit

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Provides even better defragmentation of your files and even more fragmentation information in a new user interface.



RAID Support

Support for hardware RAID and Apple's software RAID.



Enhanced Repartition

Add, delete, hide, expand or shrink OS X partitions so you can organize your drive more efficiently.



Scan

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Email Notifications

E-mail notifications can be sent when long-running tasks complete and you are away from your computer.



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PHOTOGRAPHY BY PETER BELANGER

very year, Apple updates the iPhone and the operating system it runs. This year, it's the iPhone 4 and the newly branded iOS 4. And once again,

Apple has updated both with a few Big New Features and dozens of smaller ones.

On the iPhone 4, the big news includes an incredible new high-res screen and the addition of a second camera for videoconferencing. For iOS 4, the marquee features are multitasking and folders. But the list of all the new features for each runs into the dozens.

It's a lot to sort out. Do the new features live up to Apple's hype? Are they worth the price of upgrading from whatever iOS device you might own already? We've been pondering those questions ever since Steve Jobs introduced the new phone and OS at this year's Worldwide Developers Conference. We had multiple Macworld editors delve deeply into the new hardware and software once they actually arrived. Taking all testing into account, here's what we really think.



Phone

BY JASON SNELL

It is in many ways the best iPhone Apple has ever made: faster, with an astoundingly sharp screen and a face-forward camera for videoconferencing. But what about that antenna? •>



t first glance, the iPhone 4 is still recognizably an iPhone. It has the same glass front and rounded corners as most iOS devices. The dock connector, Home button, hold switch, volume controls, Sleep/Wake button, and headphone jack are all in the same places. But look more closely and you begin to notice the differences.

For example, there isn't a chrome bezel around the face anymore. Instead, the



glass reaches to the edge, where it meets a thin, stainless-steel frame that wraps around the device's circumference. The back is flat glass rather than curved polycarbonate. The rounded edges of past iPhones have become sharper. The hold switch is broader and harder to budge; the volume rocker has been replaced by two discrete volume buttons, etched with plus and minus symbols, respectively.

Also, a new, second microphone is on the top edge of the iPhone, and it serves a couple of different purposes: When you're shooting video or video chatting, this top mic acts as the primary mic. When you're using the iPhone as a phone, speaking into the microphone on the bottom, the top one gathers ambient sound for noise-cancellation purposes. It seems to work, too: On one of my first calls with someone else using an iPhone 4, he apologized for an alarm in the background. I couldn't hear it at all.

The only design decision that gives me pause is the all-glass back. It doubles the chance that, if you drop the iPhone, it'll land glass-side down. I never really liked the polycarbonate backs of the 3G and 3GS, but at least they were nearly bulletproof. As gorgeous as the iPhone 4 is, I think that many buyers will cloak

More than Cosmetic Rubber bumpers for the iPhone 4 can improve its looks and its cellular data reception.

them in protective cases to avoid shattering the glass.

The iPhone 4 also feels denser than before-in a good way. The phone is as tall (4.5 inches) as its predecessors and

weighs the same 4.8 ounces. But it's thinner (.37 inch thick) and narrower (2.31 inches wide). The fit and finish are immaculate; nothing feels cheap.

Reception, Interrupted

The iPhone's new steel frame isn't just decorative: The strip on the left side serves as the antenna for Bluetooth and Wi-Fi, while the one on the right and bottom is for cellular connections.

Objectively assessing cell phone reception is tricky: Signal strength can vary from city to city and even block to block within a city. That said, our lab tests found that the iPhone 4 transferred data faster than the iPhone 3GS. Anecdotally, I found the iPhone 4 extremely fast, especially with data uploads. But your results will likely vary.

As you've no doubt heard by now, if you hold the iPhone 4 at the lower corner, so that your hand makes contact with both antennae, you can drastically

iPhone 4



PROS: Gorgeous high-res screen; fast A4 processor; FaceTime videoconferencing; great still images, good HD video; longer battery life; support for

CONS: Cellular signals can be disrupted; glass front and back adds to fragility; can't play HD video on an external display.

PRICE: 16GB, \$199; 32GB, \$299 COMPANY: Apple, www.apple.com

FULL REVIEW: macworld.com/6256





The Form Evolves While its buttons and ports are mostly the same, the iPhone 4 (left) has flatter surfaces and sharper edges than the iPhone 3GS (right).

decrease the iPhone 4's cellular reception. After conducting extensive testing, Apple publicly confirmed the problem, while emphasizing that the issue impacts other smartphones as well. As a result, the company is offering a free case (which insulates the phone from your hands) to all iPhone 4 owners through the end of September. Apple also promised to issue a refund to those who purchased one of the company's \$29 iPhone 4 bumpers. In addition, Apple released an iOS update to more accurately display signal-strength bars on the iPhone.

Pixel Perfect

While the iPhone 4's glass face hasn't changed much, the display it covers most definitely has. The device's new high-resolution screen—dubbed the "Retina display" by Apple—packs four times the pixels (960 by 640) of previous iPhone displays into the same rectangular area. The screen resolution is now 326 pixels per inch, up from the previous models' 163.

The result is incredible. Highdefinition videos play back so smoothly and clearly, you feel like you're looking through a tiny window same IPS (in-plane switching) display technology found on the iPad and iMac, so you can see everything on the screen clearly, even from extreme angles.

The iPhone 3GS display was really good. But if you view the two models side by side, the difference isn't even subtle. The iPhone 4's screen is so good, it's shocking.

Smile for the Camera(s)

The iPhone 4 also adds HD video to its bag of tricks. It can shoot 720p video at 30 frames per second; HD videos are clear and crisp. To my eye, the quality of the iPhone 4's HD video approaches that of the Flip video cameras.

Another reason an iPhone 4 beats a Flip is the introduction of iMovie for iPhone (****); see page 22 for our review). That app lets you quickly edit the videos you shoot with the phone and post them online. iMovie for iPhone is by no means perfect—for example, it can't split clips. But the fact remains that you can *edit HD video on a phone*, quickly and with a minimum of hassle.

Still, I won't be dumping my HD camcorder for the one on the phone. Like most pocket camcorders, the iPhone 4 has no image stabilization or

phones have 8-megapixel sensors, the iPhone 4 outperformed all but dedicated point-and-shoot cameras in our tests.

The iPhone 4 also has a built-in LED flash, which addresses one of the big complaints about previous iPhone cameras, but I find it disappointing. Too often, it produced strangely colored, unevenly illuminated shots. If you're shooting in a pitch-black room, you should use it. But in dim light, I preferred images I took without it.

The redesigned Camera app keeps things simple: Rather than fiddling with settings, you touch the screen to set the point where you want to focus, and the camera adjusts immediately. There are simple controls to turn the flash on and off and to adjust the digital zoom. It would be nice if the iPhone 4's camera had optical zoom, but given the space considerations it seems impossible.

Get Some FaceTime

There's a second, front-facing camera on the iPhone 4, to the left of the speaker. Its resolution is a meager 640 by 480 pixels. But it isn't for still photos: It's for FaceTime video calls.

Once you've enabled FaceTime in Settings, there are a couple of ways to initiate those types of calls: You can dial a person's iPhone 4 and, once connected, tap the FaceTime button on screen. Or you can tap on someone in your Contacts list, scroll down, and tap the FaceTime button.

FaceTime is well thought out and couldn't be easier to use.

into another world. Black text on a white background in Safari and iBooks looks like it was printed on paper. Colored or gray text often looked jagged on previous iPhones; on the iPhone 4, it's immaculate.

The screen is also brighter than the iPhone 3GS's, with better contrast and warmer colors. The screen uses the

physical zoom. Bright colors against a dark background are badly blown out, and audio is poor.

The quality of the iPhone 4's still photos is much more impressive. The iPhone 4's rearfacing camera packs a 5-megapixel sensor. Though some comparable



Either way, FaceTime worked flawlessly for me. I connected with several other early adopters and could see and hear them without any trouble at all. The speakerphone is loud enough to manage the audio portion of the call. And FaceTime is smart enough to rotate the video window properly depending on the way you and the person you're talking to are holding your iPhones. FaceTime is well thought out and couldn't be easier to use.

Speed and Endurance

Although Apple doesn't like to talk about iPhone specs, we know that the iPhone 4 is (like the iPad) powered by a custombuilt A4 processor. It has 512MB of on-board RAM, twice the amount in the iPad, iPhone 3GS, and third-generation iPod touch (and four times the amount in the first two iPhone and iPod touch models). As a result, the iPhone 4 is the fastest iPhone ever made, and faster than even the iPad in some tests.

You can feel the iPhone 4's speed all around. Apps launch in an instant. Switching between apps happens in the blink of an eye. Actions that cause even the speedy iPhone 3GS to bog down,

Media Master

Since the iPhone was introduced, there's one app that I've used more than any other, by far: iPod. I use my iPhone to listen to music and podcasts during my commute, when I'm mowing the lawn, and when I'm washing the dishes.

Media playback is where the iPhone shines, both in the hands-down excellent iPod app and (especially thanks to the multitasking features of iOS 4) third-party apps such as Pandora and MLB At Bat 2010.

If I had to choose between an iPad and an iPhone, I'd choose the former to watch video, because of its larger screen. But the iPhone 4's high-res display is spectacular for video playback, and, finally, there's an iPhone that's capable of playing back HD-quality video files. (Previous models couldn't handle resolutions higher than standard-def.)

Unfortunately, those 720p video files that play back with aplomb on the iPhone 4 can't be played back on an HDTV via the iPhone. The iPhone 4 has the same external playback limitations as its predecessors: it can use an RGB, composite, or component adapter to

the future. And the rear-facing camera offers high-quality stills and Flip-class HD video. With the addition of iMovie, you've got an entire home video studio in your hand. If only the iPhone 4 could play those HD-caliber videos back on an external HDTV itself.

The recent changes to AT&T's wireless data plans means that the base iPhone service costs \$15 less a month (\$15 for 200MB versus \$30 for unlimited data). That could entice many consumers to take the iPhone plunge. For them, and for owners of original iPhones and two-year-old iPhone 3Gs, the iPhone 4 is a perfect match.

If you own the iPhone 3GS, though, this new iPhone is less of a step up—and you'll probably have to pay a large upgrade fee to get it. If that's the case, you'd probably be better off waiting until you're eligible for a fully subsidized upgrade.

Finally, there's an iPhone that's capable of playing back HD-quality video.

such as bringing up playback controls on streaming video, are instantaneous. Even high-resolution game graphics move fluidly.

According to Apple, the A4 processor brings more power while consuming less energy. That, combined, with the iPhone 4's larger battery, allows Apple to claim that this model gets 40 percent more talk time per charge than the iPhone 3GS. In our battery testing (which runs the phone through a very different suite of tasks than Apple's tests), we got 4 hours and 32 minutes of life on one charge; an iPhone 3GS doing the same things lasted 3 hours and 28 minutes.

display standard-def video, but that's pretty much it. I'm not sure whether it's a limitation of the iPod dock connector or just the on-board video circuitry, but it's a shame: A device with the muscle to handle HD video should be able to display it on an HDTV.

Macworld's Buying Advice

The iPhone 4 is, in many ways, the best iPhone Apple has ever made. It's faster than the 3GS, but the screen is the biggest leap forward. The new face-forward camera works well with FaceTime, and opens the door to more videoconferencing in





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iOS 4

BY DAN MOREN

The latest update to the iPhone operating system brings a host of small improvements to the latest iPhone and to older models as well.

ith each new release of the iPhone operating system, Apple adds at least one big new tentpole feature that many will argue should have been in there from the very beginning. In iPhone OS 2.0, it was support for third-party apps. In iPhone OS 3.0, it was copy and paste. Now, in iOS 4, it's multitasking.

Make no mistake: Multitasking is the key new feature of iOS 4. For better or worse, the rest of the new features are really window dressing—welcome window dressing, to be sure, but window dressing just the same.



Meet Multitasking

Tech-pedants have complained that the iPhone's multitasking isn't *true* multitasking. For example, applications can't grab new data from the network while they're in the background; in plain English, that means you can't do things like have your Twitter client download new tweets in the background while you're doing something else.

For many users, though, iOS 4's version of multitasking will be good enough. That's because it's really fast app switching: An app can now save its current state—essentially taking a snapshot of exactly what you were doing when you left the app. When you switch to another app and then back, you'll be right where you left off.

Multitasking has been smoothly blended into the iPhone interface: Double-click the Home button and the entire screen slides up, presenting a shelf of four app icons. Apps you used most recently are in the foreground; swipe from right to left, and the list continues with the next most recent applications. Tap on any of them and that app moves to the fore with a nifty card-shuffling animation.

When it works, it works *great*. At this point, however, few apps have been updated to take advantage of fast app switching; the list is made up mostly of Apple applications. Switching to an app that doesn't support fast app switching doesn't feel like multitasking, as you wait for it to reload your data.

Fast app switching is only the most visible manifestation of multitasking. For example, iOS 4 now lets third-party



applications, such as Pandora, play audio in the background. Voice-over-IP applications such as Skype and Fring will let you carry on conversations while you're using other apps. Location-based

name iOS 4 gives a folder with

whatever you like.





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apps such as Loopt and GPS turn-byturn apps like Navigon Mobile Navigator can update your location even when they're not running.

Folder-ol

The deluge of new apps has not abated since the App Store was introduced two years ago. With iTunes 9 (****; macworld .com/5384), Apple tried to give us a better

By default, iOS names the folder after a category of apps (Entertainment, Sports, Games, and so on), though you can change the name.

Once you've loaded up a folder, its icon shows miniature thumbnails of the apps inside—a neat touch, but on the iPhone 3GS's screen, it's tough to tell what any of the apps are. Tapping a folder causes the screen to slide apart,

As nice as folders are, they strike me as more of a stopgap for a system that has outgrown its roots—Apple clearly never expected third-party apps to be the huge success they've been. I hope Apple comes up with a better app-management scheme in the next iOS.

In with the Inbox

Mail also gets a significant upgrade in iOS 4, with three major new features.

The first is the unified inbox. At the top level of Mail, a new screen lists inboxes for all your accounts, as well as an All Inboxes option that lets you see all of them at once. The unified inbox doesn't do much for me. I split my accounts between work and personal, and I don't really want the twain to meet. But listing them in one place does make it faster to jump between them.

The Mail app also gets conversation threading. An Organize By Thread slider in Settings ► Mail, Contacts, Calendars switches this on for all your accounts.

Folders are another attempt to help us manage the flood of mobile apps.

way to organize them. But that was more of a trick than it was a fix. Folders in iOS are the latest attempt to help us deal with the flood of mobile apps.

Creating a folder is simple: You tap and hold on an app until it begins dancing, then you drag it onto another app: The second one becomes a folder. showing you the apps inside. A folder can hold a maximum of 12 apps; you can't drag folders into folders. If one of the apps in the folder gets a notification with a badge (like Mail), the badge will appear on the whole folder; you'll have to tap into it to see which app the badge is for.





That done, you'll see a list of threads in your inbox. Tapping a thread reveals a list of the messages in it. As handy as threading is, it takes some getting used to. But it does reduce inbox clutter.

The third major new feature in Mail is the ability to open attachments in third-party applications. (Those apps must be updated to take advantage of the feature.) However, any changes you might make in the third-party app won't be reflected in the original attachment.

Those aren't the only improvements in the e-mail app. You can move or delete multiple messages in a search result. There's finally support for MobileMe's e-mail aliases in Mail. And you can now sync notes from an IMAP account other than MobileMe.

I've found a few minor bugs in the new Mail. For example, the first page of a PDF attachment may appear inline, but the rest of the pages may be inaccessible. At least one user I know has had to force-quit Mail before it would connect to his accounts. And Mail still lacks several features I'd like a lot, such as flagging and full-text searching.

Macworld's Buying Advice

The features I've described are only the most prominent. This update is rife with tons of other little improvements.

And those improvements aren't available on the iPhone 4 alone; the new capabilities are available on older devices, too. However, the legacy support has its limits.

If you have a 3GS or a third-generation iPod touch, the update is a nobrainer; all the new features should work fine. If you own an iPhone 3G or second-generation iPod touch, you won't get multitasking, but you will get many of the other benefits of iOS 4. If you own an original iPhone or iPod touch, however, you're out of luck. That may seem awfully abrupt. But given the speed of change in the mobile business, it shouldn't be surprising.





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September 2010 Macworld 49

WORKING MAC

Tips. Tricks, and Tools to Make You and Your Mac More Productive

Learn New Dictionary Tricks

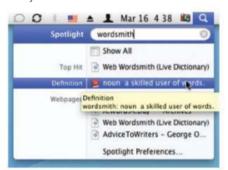
Shortcuts and little-used features can help you master this wordwise OS X tool

BY DAN FRAKES AND SHARON ZARDETTO

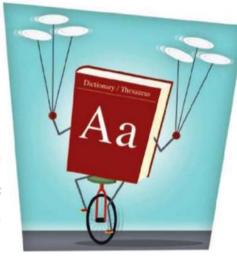
ac OS X's modestly named Dictionary application is a handy resource that offers much more than simple definitions. Use it to look up information about words and topics in its dictionary, thesaurus, Wikipedia, or Apple modules. (The Apple module explains tech terms.) But few people realize how many ways there are to access this information without having to launch the Dictionary application itself, or just how many other useful things the Dictionary can do. These tricks will get you started.



For fans of OS X's Dashboard feature, the Dictionary widget may be the most convenient alternative to launching the application. Just activate Dashboard (press F12), choose your data source (Dictionary, Thesaurus, or Apple—there isn't a Wikipedia option here) from the pop-up menu, and enter the term you want defined. (The source menu also lets you see the results from other



Search for Definitions Activate the Spotlight search menu (%-Spacebar) and type a word you need defined. The first definition from OS X's Dictionary appears in the menu.



sources after the search has finished.) Click the letter button to the left to view other words with the same root.

Get Definitions from Spotlight

Much to the surprise of many people, you can use OS X's Spotlight search feature to quickly look up the meaning of a word. Just activate the Spotlight search menu (by clicking the Spotlight icon in the menu bar or by pressing

In a fraction of a second, the first definition from OS X's Dictionary appears in the menu (see "Search for Definitions"). Few definitions will fit on a single line, so hover your cursor over the text to see the full definition, or select the definition to open the Dictionary program to that word.

Look Up Words with a Launcher

LaunchBar (macworld.com/3545), Quicksilver (macworld.com/1247), and Butler (macworld.com/1246) are popular

launcher utilities for Mac OS X, and many launchers provide a way to quickly look up a word's definition in the Dictionary program. For example, you can activate LaunchBar, type di (for dictionary), press the spacebar, and then type the word for which you want the definition. LaunchBar launches the Dictionary application, opening it directly to the definition of the word.

Use Pop-Up Definitions

A useful OS X feature—and one that too few people take advantage of—is systemwide pop-up definitions. In most recent Mac applications—including Apple Safari and Mail, and most other programs that display text or let you edit text—you can simply position the cursor over the word you want to define and then press containing the definition(s) of that word (see "Pop-Up Definitions").

You can switch to the Thesaurus entries for a word by using the pop-up menu at the bottom of the balloon; and clicking More will open the Dictionary application to the word.

A nice touch is that if you hold down around the screen, the definition balloon updates continuously to display information about whichever word is beneath the cursor.

Access OS X's Autocomplete

Sometimes you don't care about definitions or synonyms; you're just you're looking for similar words. OS X includes an autocomplete feature that can help. After typing a few characters in



Pop-Up Definitions In many Mac programs, you can hover your cursor over a word and press #-Control-D to see this definition balloon appear.

a text document, an e-mail message, or a Web form, press Escape. OS X will display a list of all words that start with those characters. Choose one (by clicking it, or by using the up and down arrow keys and then pressing Return), and it will be inserted immediately.

Unfortunately, this trick works in fewer programs than the previous trick; for example, while I can look up definitions of words from within Bare Bones Software's BBEdit text editor, the autocomplete feature doesn't work.

Make the Dictionary Talk

If you can decipher the pronunciation symbols provided in Dictionary, you are probably a linguist. If you can't, let Dictionary pronounce the words for you.

All the system voices sound slightly robotic. (Choose one in the Speech system preference's Text To Speech tab.) But still, the pronunciations are helpful and accurate, with correct syllabication and stresses.

To make the Dictionary talk, point to a word and Control-click (or right-click) on it. From the pop-up menu, choose Speech ▶ Start Speaking, You don't have to select the word first unless it's split into syllables in the entry; if it is, select the word and Control-click (or right-click) on one of the bullets that separates the syllables to avoid hearing only a single syllable pronounced.

Bonus Tip Skip the selection process for a multisyllabic word simply by Control-clicking on the word elsewhere in the Dictionary window, in the sample of how it's used in a sentence, or in the title of its Thesaurus entry.

Get Synonyms First

Change the Dictionary's priority from definitions to synonyms, and you'll see the Thesaurus entries at the top of the Dictionary window and as the default for Dictionary pop-ups and Spotlight-menu displays. Open the Dictionary and choose Dictionary ▶ Preferences. Drag Thesaurus to the top of the list (see "References Preferences").

Bonus Tip One quick way to access

the Dictionary in most applications is to select a word. Control-click, and then choose Look the contextual menu. But if the pop-up Dictionary panel that appears is too small for you, then you can choose to always see the full Dictionary window instead. In Dictionary, select Dictionary ▶ Preferences. Then

Up In Dictionary in under Contextual



Menu, choose Opens Dictionary Application.

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Use 'Hidden' Links

You wouldn't know just by looking at a Dictionary entry that it's filled with links. Hover over a word—almost any word—in the window, and you'll see it turn blue and underlined, becoming immediately recognizable as a clickable link. So if a definition includes an unfamiliar word, you can just click on it to see what it means. Or follow a trail through lists of synonyms in the Thesaurus to find just the right shade of meaning.

Dan Frakes is a Macworld senior editor. Sharon Zardetto is currently enjoying two new additions to her family: the latest MacBook Pro and an iPad. Read about the latter at iPadPunditry (www.ipadpunditry .wordpress.com).



References Preferences Use Dictionary's preferences to choose the reference sources you want shown, and then define their display order by dragging an entry up or down in the list. Use the Contextual Menu options to specify what happens when you use the Look Up In Dictionary command after Control-clicking (or right-clicking) on a word.



The iPad File Swap

How to minimize your hassle when copying files between an iPad and a Mac

BY KIRK MCELHEARN

o be productive with your iPad, the first thing you need to do is learn how to exchange documents with your Mac.

Use iTunes

For apps that use Apple's File Sharing, such as Apple's iWork programs, you can use iTunes 9.2 (macworld.com/6276) to get files on and off the iPad. When your iPad is connected to your Mac and iTunes is open, select your iPad in the iTunes Source list and then click on iTunes' Apps tab. Scroll down to the File Sharing section. You'll see a list of apps. Click on one to see any files you've already added to, or created on, the iPad.

Add and Delete Documents Click Add, navigate to a document in the Open dialog box, select the document, and then click Open. When you click Sync, the file will copy to your iPad.

Alternatively, drag a file onto the File Sharing list when the appropriate app is selected in the Apps list. This method copies the files immediately; you don't need to click Sync. To delete documents, select them in the file list and press Delete.

Import iWork Documents

When you're working with the iWork apps, you'll also need to import files before you can view and edit them. To do this in Pages, for example, open Pages on your iPad and tap the folder icon in the toolbar. You'll see a list of available documents. Tap a document to import it. Now it'll show up in your My Documents list.

Avoid Problems Importing is not always a smooth process—sometimes fonts and document elements don't all come through. If you're using Keynote, see Apple's support

document for avoiding import problems (macworld.com/6074). Pages users should check Apple's Pages for iPad FAQ (macworld.com/6277). Numbers users should turn to Apple's Numbers for iPad FAQ (macworld.com/6279).

Export iWork Documents Once you're done editing a document on your iPad, you must export it before you can move it onto your computer. Tap My Documents. Open the document and then tap the Send icon. Tap Export and choose a format.

If you've made changes to a document you imported by using iTunes, you'll see a dialog box asking if you want to replace the original file. Tap Replace. The app exports the file, and you can now copy it from iTunes back to your Mac.

Other iPad apps may not require this procedure. The \$1



Moving Files with Dropbox This image shows what the list of files in Dropbox looks like on an iPad.

GoodReader (******: macworld.com/ 6136) displays a number of file types, including PDFs and Microsoft Office files. It merely requires that you add files via iTunes.

Copy Documents onto Your Mac To use File Sharing to copy documents from the iPad onto your Mac, connect your iPad to your computer and open iTunes. Select your iPad in the iTunes Source list and then click on iTunes' Apps tab. Scroll down to the File Sharing section and select the appropriate app. Select the file in the list and click Save To. In the Open dialog box that appears, navigate to a folder where you'd like to save the file, and click Open.

For \$10, a new iPad app, Ecamm
Network's PadSync (****; see Mac
Gems, page 18, for details), can
help simplify your file transfers.

Use Dropbox

If you use Evenflow's file-sharing tool Dropbox (www .dropbox.com) on your desktop, you might find the free Dropbox iPad app (***: macworld.com/6279) the ideal way to get files onto your iPad.

To use Dropbox, download the software and set up an account. Use the same e-mail address and password on both your Mac and your iPad to link the two. When you put files or folders into your Mac's Dropbox folder, you'll see them in Dropbox on your iPad. A list shows up at first. Tap a file to open it in Dropbox. Tap the Send icon in the toolbar to choose an application that can open the file.

To get the document off the iPad, you'll need to use the method described above for iWork apps, or send the document by e-mail. Dropbox doesn't yet sync files *from* the iPad *to* your Dropbox account.



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Sierra Wireless Overdrive

BY KEN BIBA

If you're like me, you need to be connected to the Internet constantly with multiple devices and at the highest speeds possible. Wi-Fi is great for connecting from places like home, work, and local coffee spots. But when I'm on the road, finding usable Wi-Fi hotspots for connecting my wireless devices is a challenge, and I often use (or wish I

could use) cellular data service instead.

Sprint's Overdrive 3G/4G mobile hotspot device (made by Sierra Wireless) connects to Sprint's cellular network and then forms a miniature Wi-Fi zone for all your mobile devices. The battery-powered Overdrive looks like an unusually thick coffee coaster; it fits easily in your shirt pocket and can share your cellular data connection with up to five Wi-Fi-capable devices.

Your Mobile Hotspot

Unlike its competitors, including Novatel's popular MiFi (****; macworld .com/5220), the Overdrive is capable of supercharging its mobile hotspot with 4G WiMax, which claims to offer a

download speeds of up to 10 mbps, with average speeds in the range of 3 mbps to 6 mbps. In *PCWorld*'s 13-city wireless broadband performance tests conducted in January 2010 (see macworld.com/6319), Sprint's 4G network delivered average download speeds of between 2 mbps and 4 mbps.

During my tests in Sprint 4G cities, the Overdrive remained in 4G mode about 80 percent of the time. When I used the Overdrive to connect my laptop near Washington, D.C., and Baltimore, I saw download speeds of around 3.2 mbps, and upload speeds of 400 kbps. In other words, for power laptop users, the Overdrive is a godsend. In 4G cities, it delivers substantially higher performance (often two or three times better) than that generally available from hotel or coffee shop Wi-Fi connections.

The Overdrive's performance with my smartphones and iPad was very different from its performance with my laptop. On the iPhone, iPad, Verizon

Sprint Source Source

those devices seemed pointless. (The latest Overdrive firmware update substantially improved iPhone performance.)

In 3G-only cities, performance for all devices drops to Sprint's reliable but somewhat leisurely 3G speeds, which *PCWorld*'s 13-city speed tests showed to be marginally slower than Verizon's and markedly slower than AT&T's.

Weighing Price Options

The device has a list price of \$350, but Sprint's current rebates bring the up-front net cost to \$99 when tied to a two-year contract that includes a \$60-per-month plan for unlimited 4G data but with a 5GB-per-month cap on 3G data. These prices are the same as they are for single-laptop USB network adapters, but you can share the bandwidth among several devices. For frequent travelers, offsetting hotel Wi-Fi charges easily justifies the cost.

The Overdrive's performance with my smartphones and iPad was very different from its performance with my laptop.

tenfold increase in performance on 3G. When the Overdrive can't connect with a 4G network, it automatically reverts to Sprint's 3G or 2G service.

Sprint (through its partner Clearwire) has deployed 4G WiMax in 28 cities and says that it will offer the service in at least 56 cities by the end of 2010. Sprint promises peak 4G

Droid, and Sprint Hero, 4G download speeds were substantially worse than the corresponding speeds on my Overdrive-connected laptop.

In fact, in my tests, the iPhone and iPad registered faster speeds when they were connected via their internal 3G radios. So using the Overdrive rather than the internal 3G radio to connect

PRODUCT WATCH

HARDWARE

Network Space Max, from LaCie (www.lacie.com): NAS device can be used as a file or iTunes server, or as a Time Machine drive (2TB, \$280; 4TB, \$480).

SOFTWARE

Evizone, from Evizone (www .evizone.com): More-secure communication- and document-management service for businesses (\$25 per month).

Relationship 2, from Jumsoft (www.jumsoft.com): Customerrelationship-management app includes e-mail integration, advanced options for grouping contacts, and more (\$39).

Memeo Connect 2.0, from Memeo (www.memeoconnect .com): Google Docs syncing and management application beta adds GDrive integration and full-text search (\$9 per year).



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HARDWARE

Avastor HDX-1500 >

Avastor claims that the HDX-1500 is a "portable HD



drive" but that's a bit misleading. You couldn't pop this big drive into a pocket and walk around with it. Still, some elements of its design are refreshing. Instead of requiring a screwdriver and a steady hand to remove the hard drive from the casing, Avastor utilizes a screwless design. Slide two gray strips from the top and bottom of the drive and voilà! You've exposed the hard drive and can easily replace it. Best of all, doing this does not void the warranty. The HDX-1500 offers two FireWire 800 ports in addition to a USB 2.0, a FireWire 400, and an eSATA port. The hard drive has a 32MB cache, a three-year warranty, and an Oxford Semiconductor chipset. The drive is stackable and can be oriented either vertically or horizontally on your desk. The HDX-1500 performed decently in our lab tests. With a FireWire 800 connection enabled, the HDX-1500 finished the 1GB copy test in 25 seconds (only a couple of seconds behind our top-rated drive). Duplication scores were equally strong. Unfortunately, the HDX-1500 posted disappointing low-memory Photoshop test scores (macworld.com/6280).

\$\$\$\frac{1}{2}\$; \$229; Avastor, www.avastor.com



Canon Pixma iP2702 \triangle

Canon's Pixma iP27O2 inkjet printer delivers what you can reasonably expect for \$50: adequacy. In our tests, its photo speed and image quality stood out, but it

is otherwise a humdrum package with unusually pricey ink. The top-mounted, vertical input tray doubles as a cover for the printer's innards and feels sturdier than most front-mounted paper travs we've seen. Photo printing on Canon's own paper was the highlight, as images came out fast (1.18 pages per minute), with good to very good quality. As for graphics speed, the iP2702 worked at a poky rate of 0.69 ppm for a four-page PDF. Color quality was tolerable despite the pinkish and faded effects. For text printed on plain paper, the iP2702 managed an anemic pace of 6.36 ppm, and the output lacked crispness. Printing in black costs 7.3 cents per page; a page with all four colors costs 15.9 cents. If you plan to use your printer a lot, you'll be better off buying a model that costs more up front but has better ink prices (macworld.com/6281).

\$\$\frac{1}{2}\$; \$50; Canon, www.canon.com

Western Digital My Passport Studio ⊳

The latest My Passport Studio hard drive offers a dual-interface design, with FireWire 800 and USB 2.0 connectivity. The drive also comes Time Machine-ready



and in capacities of 640GB, 500GB, and 320GB. The unit itself is slightly shorter and more rounded than the previous version, weighing in at 0.4 pounds and with dimensions of 3.3 by 0.7 by 4.8 inches. It survived several of our drop tests. The drive is small and light enough to put in your pocket, and features a sleek silver aluminum exterior with white trim and a new smart display. Even when unplugged, you can view the white-onblack customizable label. The display can reveal what's on the drive and to whom it belongs, or indicate some other message to its owner. Meanwhile, the

display also lets you know the available capacity and security status of the drive. With only a 5400-rpm mechanism and without eSATA connectivity, it's not surprising that the drive did not achieve stellar times in our lab tests. The My Passport Studio finished our 1GB copy test in 31 seconds while using its FireWire 800 connection (macworld .com/6282).

🛊 🛊 🖟 ‡; \$190; Western Digital, www.wdc.com



SOFTWARE

eBlaster Mac 2010 \triangle

Whether you have an employee you suspect of misappropriating your company's confidential information, you have a hunch that someone is updating a personal pornography collection on company time, or you're worried about who your children are becoming friends with or chatting with online, there may come an unfortunate moment in time when your only choice is to hide in the shadows of someone's hard drive to capture the facts. SpectorSoft's eBlaster Mac 2010 is a powerful tool for surreptitiously monitoring every keystroke someone makes on their computer. Easy to use and install,

Find It Online

For expanded reviews, type the blue URL at the end of each summary into your browser's address bar.



eBlaster can start delivering you activity reports in a matter of minutes. Unlike with its sister product, SpectorPro, all reports are sent via e-mail from the computer being monitored, so you don't have to be at the computer or even in the same country to track what's going on (macworld.com/6283).

* * * * 12; \$100; SpectorSoft, www.spectorsoft.com



FastTrack Schedule 10 △

Project management is a difficult job that requires an almost obsessive focus. Part of the challenge is in knowing who is available to do the work, juggling people's time and the deadlines for specific tasks, and then adjusting for unforeseen circumstances. AEC Software's FastTrack Schedule 10 is a major release for Mac users that will help you stay true to a project plan. A newly designed interface and handy extras make it an outstanding project-management aid. FastTrack is designed primarily for one manager working on one large, complex project. Yet, new features for creating baselines (a snapshot of your project as it currently stands), effortdriven schedules (for adding people to a project to make sure it's completed on time), and fix-duration options (for setting unmovable due dates regardless of who is working on the project) bring the software closer to enterprise-class programs. FastTrack Schedule 10 is speedy, has plenty of powerful features, and offers an amazing cadre of templates. Its only downsides are that multiple project managers cannot access a project at the same time; and, unlike competing tools, it is not available from the Web (macworld.com/6284).

****; \$349; AEC Software,

www.aecsoftware.com

Top Products	YOUR GUIDE	TO THE BEST	HARDWARE V	VE'VE TESTED
HARD DRIVES Desktop				
PRODUCT	RATING	PRICE *	TYPE	FIND CODE®
iStoragePro iT1 Dock (pictured) www.istoragepro.com	****	\$329 (2TB)	quad interface	5843
Rocpro 850 www.rocstor.com	****	\$129 (500GB)	quad interface	5397
VR Mini www.caldigit.com	****	\$629 (1TB)	quad interface	5396
HARD DRIVES Portable				
PRODUCT	RATING	PRICE A	TYPE	FIND CODE®
iStoragePro Pocket iT1PKT72320 www.istoragepro.com	****	\$259 (320GB)	dual interface	5808
Mercury On-the-Go (pictured) www.macsales.com	*****	\$180 (320GB, 7200 rpm)	triple interface	4258
lomega eGo Mac Edition www.iomega.com	****	\$110 (500GB)	triple interface	5219
MONITORS Widescreen				
PRODUCT	RATING	PRICE*	TYPE	FIND CODE®
324 LCD (pictured) www.lacie.com	***	\$828	24-inch display	3896
LP3065 www.hp.com	****	\$1215	30-inch display	2509
SyncMaster 2233SW www.samsung.com	****	\$120	21.5-inch display	5900
PRINTERS Laser				
PRODUCT	RATING	PRICE *	ТҮРЕ	FIND CODE ⁸
C544DN www.lexmark.com	******	\$399	LED, color	4356
Dell 513Ocdn (pictured) www.dell.com	****	\$1549	LED, color	6009
HL-4070CDW www.brother-usa.com	*** *********************************	\$336	PostScript- compatible	3385
PRINTERS Multifunction				
PRODUCT	RATING	PRICE A	TYPE	FIND CODE ⁸
Artisan 810 (pictured) www.epson.com	** ***	\$300	inkjet	5916
Color LaserJet CM1312nfi www.hp.com	****	\$350	laser	5183
LaserJet M1319f www.hp.com	****	\$185	laser, monochrome	5480
All prices are the best current prices take browser's address field, typing a find code				

BUSINESS CENTER News and Analysis about Macs in the Workplace



Microsoft Office Updates

Microsoft has released Office 2004 and 2008 updates and confirmed a few new technical details about the upcoming 2011 suite upgrade.

The Office 2004 (macworld .com/6286) and Office 2008 updates (macworld.com/6287) focus on improving security for both suites and fixing vulnerabilities that could allow malicious code to overwrite portions of your Mac's memory and run arbitrary commands. To view the updates, look for the Microsoft AutoUpdate tool in your Applications or Office folder. The company recommends that all users upgrade immediately.

As for the new Office version on the horizon, Macintosh Business Unit product unit manager Jake Hoelter wrote on the company's Mac Mojo blog that the forthcoming version of the productivity suite will not make the leap to 64 bit. Office 2011 for Mac will remain 32 bit only. As is the case with most 64-bit applications right now, the majority of users will not necessarily see a performance increase (although, Excel power users who manage spreadsheets with millions of cells probably would have appreciated the change).

Microsoft still expects to release Office for Mac 2011 by late 2010.

-DAVID CHARTIER

TextFlow Brings Collaboration to Google Apps

Nordic River has released TextFlow, its powerful collaboration and versioning app, for Google Apps users.

For some time, TextFlow (www .nordicriver.com) has brought change-tracking and collaboration tools to Microsoft Word, Open Office, and even Box.net. Users can view all versions of a document, display and compare changes between each or every version, and selectively approve, deny, hide, or save changes to a scrapboard for later. The 25 million



Google Apps users across 2 million businesses and organizations can harness TextFlow's collaborative features. While Google Docs is largely a collaborative document-editing service, it's always been light in the change-tracking department. Everyone can try TextFlow free for 14 days, and business users can buy TextFlow for their account for \$99. Academic institutions can get TextFlow for \$49, but individual undergrads can get it for free.—pavid chartier

No Mac Required with New HP Printers

Forthcoming Hewlett-Packard printers that are priced at more than \$99 will let users print remotely from mobile phones and other wireless devices without needing a traditional PC, the company announced.

By next year, more printing will be done from the Web than traditional PC-based word processing programs, a trend that has pushed HP toward developing Web-friendly printing services, said Vyomesh Joshi, head of HP's Imaging and Printing Group (IPG), during a press event in New York. HP's Inkjet and Laserjet lines, along with other consumer and enterpriselevel printers, will have the capability, called ePrint, to print from Web-connected devices.

Each printer with the ePrint capability will be assigned its own e-mail address. If someone wants to print a document from an iPhone, the document will go to HP's data center, where it will be rendered into the correct format and

then sent to the person's printer. The process takes about 25 seconds.

The process will not require drivers or involve a PC. The ePrint feature works with mobile devices such as the iPad and iPhone, plus Palm and Android-based devices. HP's technology holds a special advantage for iPad users, since the device does not have native printing capabilities.—JEREMY KIRK





MoshiMoshi 01-H MoshiMoshi 02



MoshiMoshi 04 8 Bluetooth MoshiMoshi 03 (3 Bluetooth)





Change the way you use your iPhone and iPad

"It's not the same sitting down for a Mammoth chat at home while holding a mobile to your ear. Step forward Native Union and its ingenious MoshiMoshi range of home-style handsets. Simply plug in to your mobile for an authentic analogue feel

The Gadget Show

"Over the course of the last two weeks, the iPhone accessory receiving the most active use and attention around here has been Native Union's Moshi Moshi 02"

Jeremy Horwitz Editor-in-Chief, iLounge

It's really a handset shaped like your traditional landline phone that can be used with mobile phones. VoIP (via USB) and even iPhones and iPads.

If there's one thing I've always struggled with when using my mobile phone at home for extended periods of time, it's the comfort factor.

Mobile phones are small and talking on them for extended periods of time can be uncomfortable. Enter the Native Union Moshi Moshi 02. The device, which resembles a ultra-modern handset, works in conjunction with your mobile phone to create a much more user-friendly environment when you're at home. It's stylish, comfortable and fully functional.

Larry Greenberg Gear Diary

www.ubergizmo.com

The folks at Native Union have brought the sexy back with the MM01.

Seriously, we think this thing is great.

The Unofficial Apple Weblog





Everything You Need to Know about iPods, iTunes, and Mac-based Entertainment

Mac Mini versus Apple TV Showdown

Can Apple's latest mini supplant the Apple TV?

BY CHRISTOPHER BREEN

hen Apple released a Mac mini that bears an HDMI port in June (***; read our review in MacUser, page 10), it took mere minutes before people suggested that this new mini was the next-generation Apple TV in disguise. And for some, it may be.

Connections

One of the clumsier aspects of using a Mac mini as a media center has always been the TV connection. Although you can make a connection with a DVI-to-HDMI cable or (on more recent minis) with a DisplayPort-to-HDMI adapter, the results of the operation can be uneven. The images displayed by the mini may exceed the bounds of the TV's display. True, the new mini has an Underscan slider in the Displays system preference that allows you to scale the mini's image so that it perfectly fits your TV screen. But on the other hand, the Apple TV's HDMI and componentvideo options have made this type of connection easy from the start. ADVANTAGE: Tie



the resulting movie. And at least the mini has an optical drive that supports standard-defintion DVDs.

ADVANTAGE: Mac mini

Content

Today's Apple TV lets you look at YouTube videos and Flickr slideshows, but it's otherwise limited to the contents of iTunes libraries and the iTunes Store. The Mac mini is a Mac, and as such you can use it to play any Web content that OS X can handle, as well as all sorts of file types that iTunes balks at. And the Mac mini supports 1080p HD playback. ADVANTAGE: Mac mini

Rhapsody, and RadioTime content—plus play your movies and music from any computer or NAS drive in your home; all this without leaving the confines of Front Row. A wireless keyboard and mouse can give you total control over the Mac mini from your couch, but for a media center, simplicity rules.

ADVANTAGE: Apple TV

DVR Capabilities

Some people won't be satisfied until an Apple TV serves as a digital video recorder à la TiVo. With the mini, you can add a device such as Elgato's EyeTV HD (****); see our review on page 64) to turn your Mac into a DVR. The Apple TV offers no such options, and probably never will. ADVANTAGE: Mac mini

Price

The Apple TV costs \$229, whereas the new mini starts at \$699. Pricewise, the Mac mini can't compete. If you plan to also use the mini as a hub for sharing your iTunes library around the house, hosting your Website, or performing another duty (and don't mind that it'll have to be within cable distance of your TV), then the mini's higher price becomes easier to justify.

ADVANTAGE: Apple TV

The Mac mini is a Mac, and as such you can use it to play Web content as well as all sorts of file types that iTunes balks at.

Physical Media

Like all other Macs, the mini can't play Blu-ray discs. Sure, the quality of streaming video is getting better, and greater bandwidth will make purchasing, renting, and streaming video even more attractive; but there's still a large segment of the public that wants to shove a plastic disc into a slot and watch

Navigation

On the navigation front, the Apple TV has a clear advantage. Front Row, Apple's media interface for the Mac, was an exciting idea—when it was released half a decade ago. Even better would be a version of Front Row that allows you to do all the great things possible with a Web browser-access Hulu, Netflix, Pandora,

Where Should iTunes Go Next?

BY KIRK MCELHEARN

hen Apple released iTunes
9.2, the update's main feature
was support for the iPhone 4
and iOS 4. It included some other minor
improvements, too, but it's been a while
since iTunes made any huge leaps forward.
So what's next? Whither iTunes 10? Here
are some ideas for where iTunes can go.

New Content Types

As things stand now, iTunes handles pretty much every type of digital content available. With music, videos, podcasts, apps, audiobooks, e-books, and ringtones, there's not much Apple could add.

Perhaps as the iPad grows, there will be one or two new libraries in the iTunes sidebar: Periodicals, or Newspapers and Magazines. If this were to happen, it would be interesting for iTunes to not only manage those files (as it manages e-books), but also display them. I'm not sure I'd want to read a "newspaper" in iTunes on a Mac, but having the capability to do so might be useful.

And why not let users read e-books on their computers too? Amazon's Kindle application for the Mac lets you read books on your computer, and it can sync your last-read locations (the place where you left off reading) across devices.

Streaming Content

One popular bit of speculation is that Apple is planning a streaming service for music (and, perhaps, video). This is based on the company's acquisition and closing of Lala, a cloud-based music-streaming service. Will Apple add a new Streaming library, where users can add links to files they want to listen to or view? Or will this be more of a two-way service, where you can upload your own music to Apple's servers? But that wouldn't be new content, just a new way of accessing existing stuff.

Improved File Support

One thing a lot of iTunes users would love to see is support for more music and video formats. Take Free Lossless Audio Codec (FLAC) files, for example. While there are some ways to play FLAC files in iTunes, they're not ideal. On the video side, there are a number of popular formats that iTunes should support.

I'm not holding my breath waiting for Apple to offer native support, but it doesn't have to—it can just allow third parties to do so. With an add-on like the free Perian (perian.org) installed, you can play all sorts

> of audio and video file formats in QuickTime. Why can't iTunes play those files too? Perhaps it has to do with syncing to Apple devices, but the company could easily mark those files somehow within iTunes. And even for files

iTunes can't play, it could at least store them, especially since it's supposed to function as your central media library.

Other Areas

Here are a few other ideas that might make iTunes better:

A Real Network Version of the App iTunes needs better file exchange (better than the current Home Sharing system), and the ability to rip CDs directly to a centralized copy of iTunes.

iTunes User Accounts Many people share a computer but have individual iPods, iPhones, or iPads. Individual user accounts would allow all users to automatically sync their devices.

Better Support for Classical Music I'd love to use iTunes DJ to play classical music at random. But I'd need iTunes to be able to choose groups of tracks according to the Grouping tag rather than just play movements out of order.

Wireless iPod Syncing Seriously, why doesn't iTunes do that for devices that have Wi-Fi?

E-book Reader Price War

BY MARCO TABINI

Book retail giant Barnes & Noble recently launched a new version of its Nook e-book reader, and in so doing dropped the price of admission to its e-book family.



At the same time, it also lowered the price on the existing model.

The new Nook Wi-Fi has no 3G connectivity, relying instead on Wi-Fi networks to access the Internet and download content. The reduced connectivity has enabled the company to sell the new device for \$149, \$50 less than its more-capable 3G + Wi-Fi counterpart, which now sells for \$199 (down from \$259).

On the very same day, Amazon cut the price of its Kindle 2 e-book reader by \$70, bringing its cost down to \$189. (This is the third price reduction by Amazon in a little over a year: When it launched in February 2009, the Kindle 2 cost \$349.) And then soon after, Amazon announced a new version of its Kindle DX, with a \$110 price cut from \$489 to \$379.

All of this has taken place since Apple released the iPad and iBooks, which, according to company CEO Steve Jobs, accounted for as much as 22 percent of all e-book sales for the largest publishers that distribute books through it, after only two months in the market (and before extending iBooks to the iPhone and iPod touch). Clearly, the iPad—although much more than just an e-reader—is proving to be strong competition for Amazon and others, even with its starting price of \$499.





Hands On with Roku's New Netflix Channel

BY DAN FRAKES

edia-player vendor Roku (www .roku.com) recently rolled out a new version of the Netflix channel for the company's stand-alone streaming-media players. The updated channel now lets you search, browse, and play titles from Netflix's instant-streaming library. (The previous Netflix channel let you play items in your Netflix Instant Queue, but required that you use your computer to find and add those items.)

The new Netflix channel is a welcome update. It presents you with a grid of DVD cover thumbnails—24 rows of videos, each with five visible items (at least on my TV). As you press the arrow keys on the Roku remote, a floating display shows information about the currently selected video: name, viewer rating, release year, time, MPAA rating, and a short description. When you've found a video you want to watch, pressing the Select button presents you with the standard Netflix-streaming options, which differ based on the type of video: play, resume playing, choose a different episode (for a TV series), rate, and add to or remove from the queue.

The top row of videos displays your current Instant Queue—this was essentially the entire Netflix channel previously,

except that it was displayed in list view. Below that is Search, which provides a text box for searching Netflix's streaming catalog. (As with the Apple TV's remote, Roku's remote has no keyboard, so you must spell out your search by using the remote's arrow buttons, one letter at a time; however, search results appear as you type, so you won't necessarily have to enter the entire name.)

Just below the Search row is a Recently Watched row, useful for resuming videos you haven't yet finished. It's followed by a series of browsing rows with categories similar to those you'll find on Netflix's Website: New Arrivals, Comedy, Action, Independent, TV Dramas, and so on—21 in all. The experience is a huge step up from being limited to browsing only the queue you set up on your computer.

Finally, below the category rows is a row for Netflix's Like feature, which recommends titles based on those you've previously watched and rated.

In my testing, the streaming performance of the Netflix channel seemed unchanged, but there's no question that the new interface and options are big improvements that address my biggest criticisms of the original Netflix Player.

Judge to Viacom: YouTube in the Clear

BY JUAN CARLOS PEREZ

If you heard a very loud sigh of relief coming from San Bruno, California, recently, it probably had something to do with the fact that Viacom's \$1 billion copyright infringement lawsuit against Google's video-sharing site, YouTube, has been dismissed by the court, ending (for now) an acrimonious legal battle that has been going on for more than three years.

"This is an important victory not just for us, but also for the billions of people around the world who use the web to communicate and share experiences with each other," wrote Kent Walker, Google vice president and general counsel, in a blog post.

In March 2007, Viacom hit Google with this \$1 billion lawsuit over what Viacom described as widespread and willful infringement of its movies, TV shows, and other content on YouTube.

Google, which bought YouTube in October 2006 for \$1.65 billion, argued that YouTube complies with the requirements in the Digital Millennium Copyright Act (DMCA) to remove infringing material upon owners' requests.

Viacom called the ruling "fundamentally flawed" and at odds with the DMCA, Congress, and the Supreme Court. Viacom intends to appeal.

"After years of delay, this decision gives us the opportunity to have the Appellate Court address these critical issues on an accelerated basis. We look forward to the next stage of the process," reads Viacom's statement.





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REVIEWS Home Entertainment Hardware, Software, and Accessories



Altec Lansing inMotion Classic A

The inMotion Classic speaker dock features an integrated carrying handle that rotates behind the unit, serving double duty as a kickstand. Also clever is the Classic's built-in remote cubby, which should make it slightly more difficult to lose the system's tiny, wireless remote control. If you want a built-in battery. along with the luxuries of a remote control, an FM radio, and lots of onboard controls, the Classic will suit you perfectly (macworld.com/6309).

**** \$150; Altec Lansing, www.alteclansing.com

AverMedia AverTVHD Volar Max ⊳

The AverTVHD Volar Max isn't as advanced as other Mac TV receivers, but it's also not as pricey.

The basic TV viewing functions work well, as long as you have good TV reception. The personal video recording capabilities are limited, but it works just fine. If you don't mind possibly manually entering program info for scheduled recordings, and you can put up with the workarounds for saving recorded videos to your Apple devices, the Volar Max is a decent value (macworld.com/6310).

***; \$95; AverMedia, www.avermedia-usa.com

Elgato EyeTV HD ▽

The EyeTV HD differs from most of Elgato's other offerings

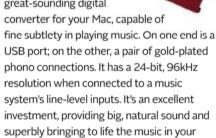


in that it isn't a TV tuner-it's a videocapture device. The encrypted signals from your cable or satellite provider require a decoder to play on your TV, whereas the EveTV HD leaves that work up to your set-top hardware, but takes over from there. The EyeTV HD comes with everything you need in the box, and it does a pretty good job of letting you watch and record premium cable and satellite content—despite a few software bugs (macworld.com/6311).

***; \$200; Elgato, www.elgato.com

HRT Music Streamer II >

The Music Streamer II is a great-sounding digital



digital library (macworld.com/6312).

www.highresolutiontechnologies.com

Western **Digital WD TV** Live Plus ▷

For people looking to add



Netflix's streaming service to an HD home entertainment system, the WD TV Live Plus is as an affordable, attractive option, especially for those who also want to stream media from networked Macs and PCs and storage devices. It supports YouTube, Flickr, Pandora Radio, Live 365, and a range of content via the MediaFly content distribution network. The WD TV Live Plus has TV connections for HDMI, optical digital audio, component video, and composite video with analog audio, plus two USB ports for media. It does lack Wi-Fi support, but that's not a deal-breaker since Wi-Fi isn't always an optimal technology for media streaming anyway (macworld.com/6813).

****; \$150; Western Digital; www.wdc.com

iPods: Current Lineup

PRODUCT	SPECS	RATING	PRICE A	DISPLAY	PERFORMANCE	FIND CODE ^B
iPod Classic	160GB	****	\$249	2.5-inch color	36 hours of music playback; 6 hours of video playback	5262
iPod Touch	8GB	****	\$199	3.5-inch color	30 hours of music playback; 6 hours of video playback	3864
	32GB	#### ¹ / ₂	\$299	3.5-inch color	30 hours of music playback; 6 hours of video playback	5257
	64GB	***** ¹	\$399	3.5-inch color	30 hours of music playback; 6 hours of video playback	5258
iPod Nano	8GB	### # ¹ / ₂	\$149	2.2-inch color	24 hours of music playback; 5 hours of video playback	5363
	16GB	*** *******	\$179	2.2-inch color	24 hours of music playback; 5 hours of video playback	5364
iPod Shuffle	2GB	***	\$59	none	10 hours of music playback	5267
	4GB	***	\$79	none	10 hours of music playback	5268

 $^{\Lambda}$ All prices are Apple's prices. 8 In a browser's address field, typing a find code after macworld.com/ takes you to a product's review or overview



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iTunes Digital Booklets on the iPhone, iPod Touch, and iPad

iTunes Digital Booklets are the PDF files of lyrics, liner notes, cover art, and the like that come with some iTunes albums. Unfortunately, they've been of limited usefulness up to this point since you can't really do much more than view them on the computer or organize them into a smart playlist. With the latest version of the iBooks app and iTunes 9.2, however, you can now view them on your iOS devices. To add an iTunes Digital Booklet, you must first change the Media Kind of the file to Book in the Options tab of the Info pane, which will put the booklet into iTunes' Books library. From there, you can sync the files to the iBooks library of a compatible device. Unfortunately, Apple notes that iTunes LP and iTunes Extras are still not iOS-friendly (macworld.com/ 6314).—SERENITY CALDWELL



Altec Lansing Octiv Mini

Altec Lansing, the company that brought you the first iPod audio dock, has announced the Octiv Mini. The device's angular design makes the Octiv Mini look like a modern art piece, and its tiny footprint preserves counter space as well. Along with charging and playing music from any iPhone or iPod model, the Octiv Mini also serves as an alarm clock and comes with Altec's free Alarm Rock app for your iPhone or iPod touch. While the official price is \$60, Altec Lansing's online store lists the Octiv Mini at \$50, making it significantly cheaper than most full-size speaker docks (www.alteclansing.com).-DAVID DAHLQUIST





Scosche FlipSync

Apple's USB dock-connector cable is fine for charging and syncing your iPod. iPhone, or iPad at home, but when you're trying to pack light—and reduce cable clutter-you want something smaller. Scosche's \$20 flipSync may be the answer. About the same size as the black-plastic head on many of today's car keys, the flipSync actually contains a compact USB-to-dock-connector cable that unfolds to give you about four inches of slack for on-the-go connections. And thanks to the built-in opening for a key ring, you'll be sure to always have the flipSync with you when you need it (www.scosche.com).-DAN FRAKES

Mophie Juice Pack Reserve

Power may corrupt, but for portable

devices it's a rather necessary evil. Mophie's \$40 Juice Pack Reserve aims to provide the power you need with its new 1000mAh external battery designed for every model of dock-based iPod and iPhone. Besides a high-output battery that offers superfast charging, the 1.6-by-3.15-by-O.63-inch Reserve is also very portable. It has a retractable 30-pin dock connector and comes with a carabiner keychain so you can always have it with you (although it

helps if you have big pockets). It even has an LED flashlight for good measure (www.mophie.com).—JONATHAN SEFF

PURE EVOKE FLOW RADIO

Ask your parents to describe the "portable" radio they brought to the beach when they were young, and they'll likely describe a box that resembles Pure's \$229 Evoke Flow radio. Sporting the classic lines of a radio from the early 1960s, the Evoke Flow is a portable radio that allows you to wirelessly tune in Internet and FM radio stations as well as stream music from your computer. While it offers only a mono speaker, it provides a stereo output jack and an auxiliary input jack, should you wish to plug your iPhone, iPad, or iPod into it (www.pure.com).—christopher breen

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DIGITAL PHOTO

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Lightroom 3: Smart Fixes and New Tools

Adobe adds some slick new features and addresses some old issues in this worthy update

BY RICK LEPAGE

REVIEW

Photoshop Lightroom 3 is a stealth upgrade to

Adobe's image-management and -editing application for photographers. The new feature list seems modest: a handful of enhancements to the raw-image processing engine in the Develop module, some cosmetic changes, and a few additions to each of the core modules. Although these improvements might not seem to add up to much, they are all in the service of streamlining the process of managing your photos and creating the highest-quality images.

Less Noise, Sharper Photos

Digital cameras have gotten quite good at minimizing both luminance (light's intensity) and color noise at higher ISO settings, but noise can still be an issue when you're shooting in low light. Lightroom 3 features entirely new noise-reduction algorithms that do an amazing job of eliminating noise while still preserving detail in your photos.

Adobe has added adjustment options for both color and luminance noise reduction. In addition to the ability to control the strength of the reduction, you also get sliders for preserving detail, and, in the case of luminance reduction, a slider for adjusting contrast. These new controls let you quickly dial in the right amount of reduction without softening your final image too much.

In revamping the raw-image processing engine in Lightroom 3, Adobe has

***** \$299; upgrades, \$99; Adobe, www.adobe.com; full review, macworld.com/6328



Noise Improvements Lightroom's new noise-reduction algorithms let you preserve more detail and contrast, as shown in the image on the right.

also improved the sharpening algorithms. These enhancements are a bit more subtle than the noise-reduction tools, especially since sharpening in Lightroom 2 was already pretty good.

Part and parcel of these new imageprocessing tools is a general performance boost across the board. The speed increase is hard to quantify, but Lightroom 3 feels much zippier than its predecessor, especially when it's building thumbnails, and when you're moving between images or using the adjustment brushes in the Develop module.

Lens Corrections

Since its first release, Lightroom has offered simple tools for controlling vignetting—the darkening of the edges of a photo that occurs most often when you're shooting with wide-angle lenses at large apertures. Version 3 offers much

beefier lens-correction tools, enabling you to adjust the geometric and chromatic distortion in an image based on the profile of a specific lens. The program ships with profiles for a large number of lenses from Canon, Nikon, Sony, and others, but you can create your own profiles for your lenses with Adobe Labs' Lens Profile Creator.

The lens-correction tools are quite extensive, and are available in both automatic and manual modes. The manual mode lets you perform perspective correction, for instances when you shoot an object (like a building) at a sharp angle. This latter feature isn't going to replace a tilt-shift lens or fix an extreme angle of view, but it can help remedy problematic street shots and skylines.

Adobe has also enhanced Lightroom 3's postcrop vignetting, letting you create more natural-looking vignettes.

Filling In the Gaps

Adobe's primary focus in Lightroom 3 was to enhance the image-processing engine and performance, but the program contains a number of other new and improved features too. For example, it supports tethered shooting, allowing you to capture images directly to your Lightroom library from your DSLR. A comprehensive watermarking feature lets you add watermarks of almost any type to your images, quickly and easily. The Slideshow module can now export a slideshow as a video in a variety of sizes (including HD video). A new Custom Package option in the Print module lets you create flexible photo layouts across multiple pages.

Other small enhancements include a more intuitive Import dialog box, and a Publish Services feature that lets you create a synchronized set of images on Flickr or on your hard drive (great for syncing with an iPad). In addition, Lightroom can now import and catalog video files alongside your photos, though you can't edit them.

Small Problems

Some of the little inconsistencies in previous versions have been fixed, but I noticed a few places where Lightroom's overly modal nature continues to get in the way of my workflow. For example, you still can create stacks only in the Library's primary catalog view; if you're working in a collection, you can't stack (or unstack) photos. And you still can rename a file or add a keyword only in the Library module.

None of these limitations are dealbreakers, but I'd like to see Adobe move away from forcing photographers to go from module to module as they work on their images.

Macworld's Buying Advice

The image-processing enhancements in Lightroom 3 are impressive, and only solidify the program's position as one of the top tools for managing, editing, and publishing photos.

Rick LePage, a former *Macworld* editor, is the editor in chief of *Photoshop Elements Techniques*.

How to Speed Up iPhoto

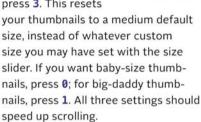
BY DERRICK STORY

If you find that iPhoto is running sluggishly on your Mac, here are a few suggestions for speeding it up—some tried and true such as rebuilding the library, and others a bit more esoteric such as vacuuming the database. Performance can vary widely depending on the age and power of your machine, and the size of your library. If you attempt any of the techniques that involve the iPhoto Library, be sure to back up all of your images first.

Rebuild the iPhoto Library Over time, the iPhoto database can accumulate some cruft that may affect performance. Rebuilding the library can act as a tune-up. To do it, guit the application and then and open iPhoto again. You should be greeted with the Rebuild Photo Library dialog box; select both the Rebuild All Of The Photos' Thumbnails and the Examine And Repair iPhoto Library File Permissions checkboxes. (For more information about rebuilding options, read Apple's knowledge-base article on the topic at support.apple.com/ kb/HT2638.)

Speed Up Thumbnail ScrollingWhen you're scrolling through hundreds of iPhoto thumbnails,

performance can get jerky. If this happens, press 3. This resets



Learn Keyboard Shortcuts Part of speeding up iPhoto involves speeding yourself up. That means using keyboard shortcuts such as #-Right Bracket ([) when editing text in the Information field. To see the complete list of timesavers, open iPhoto and select Help ► Keyboard Shortcuts.

Add More RAM iPhoto requires that you have at least 512MB of RAM installed on your system, but recommends 1GB. It shouldn't come as a shock to learn that iPhoto runs even better with 4GB. As an added bonus, everything on your Mac will probably run better, too.

Vacuum the Database This advanced technique involves opening the Terminal to get to the SQLite databases. Only try it if you know what you're doing in Terminal and like tinkering under the hood. You can find full instructions at macworld.com/6329. Using iPhoto's built-in Rebuild iPhoto Library command should get the job done in most cases.



When Shooting Raw Is Better

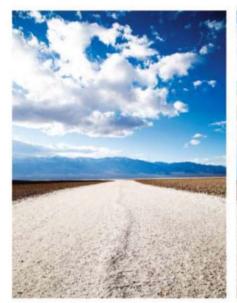
Capture amazing images by knowing when to set your camera to raw mode

BY BEN LONG

here are many advantages to shooting raw images, from making edits that are impossible with JPEG images to the ability to easily alter white balance. The term *raw* simply refers to the fact that the data in a raw image file has not been processed by the camera. To turn that raw data into a usable image, you must still put the file through all the processes your camera employs when you shoot in JPEG mode (calculating color, determining white balance, sharpening), but these steps are performed through raw converter software, such as Lightroom, Aperture, iPhoto, or Photoshop Camera Raw.

The advantages of shooting raw image files usually outweigh the downsides (such as large file sizes) of working with the file type. Even if you don't always shoot raw, you should consider switching your camera to raw mode in these situations:

When You're Unsure about White Balance Any time you're shooting in a tough white-balance situation, like when there is shade, cloud cover, or mixed lighting, make sure you're shooting raw.





Punching Up Clouds Check out the clouds on the right to see where detail has been restored to the overexposed highlights. This edit would be impossible with a nonraw image.

complete white, and salvage otherwise unusable shots.

This will be useful if you're shooting in bright sunlight on a partly cloudy day, or in any situation with a lot of dynamic

With a raw file, you can change the white balance of an image after the fact.

With a raw file, you can change the white balance of an image after the fact. If you've ever tried to correct a bad color cast on a JPEG image with an image editor, you know how hard it can be to correct a white-balance problem. With raw, this is never a concern. And while the auto white-balance mechanisms on most cameras are very good these days, they can still be tripped up.

When You Have Highlights That Might Get Overexposed You should always shoot raw if you're taking photos in a situation where it is difficult to control highlight exposure. In a raw file, you can often restore detail to highlights that have been overexposed to range; or if you're shooting shiny objects that cast bright highlights.

When You Plan on Doing Extensive Editing If there's no way to capture the scene the way you want in camera, or if you think your image will need a lot of editing and adjustment, then switch to raw. Raw files allow for much more editing than JPEG files. When you shoot in JPEG mode, your camera immediately throws out a bunch of data that it captures. Most of the time, this data loss doesn't matter, but if you edit a lot, or if you plan on adjusting the contrast and color to extreme degrees, then the lack of data could leave visible artifacts in your image when you edit.

When You're Going to Enlarge an

Image The JPEG compression algorithm is lossy. That is, when an image is JPEG-compressed, data is discarded, and the image is permanently degraded. Apply enough JPEG compression and the degradation will become visible. If you want to enlarge your image a lot, JPEG artifacts could be a problem. Because raw files are not compressed, you never have to worry about this.

When Not to Shoot Raw Raw is not a magic bullet that will immediately make your images look better. In addition, raw files are much larger than JPEGs, and it can take longer for the camera to write out a raw file, which means that you may not be able to shoot bursts as quickly. On some cameras, a slow write time can mean you can't shoot images as often.

Try It Out With programs like iPhoto, Aperture, Lightroom, and Photoshop (Elements and CS), raw workflow is simple, and there's very little difference in post-production whether you shoot raw or JPEG, so there's really no reason not to give it a try!



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Show Your Monitor's True Colors

BY KIRK MCELHEARN

f you're an amateur photographer, if you like to watch videos on your Mac, or even if you're a gamer, you should consider calibrating your display. Macs use a default *color profile*—a group of color settings—for each connected display. But if you find that these colors look odd, or don't match the colors of real objects that you can compare to on-screen photos, you can make changes by creating your own color profile.

Basic Color Calibration

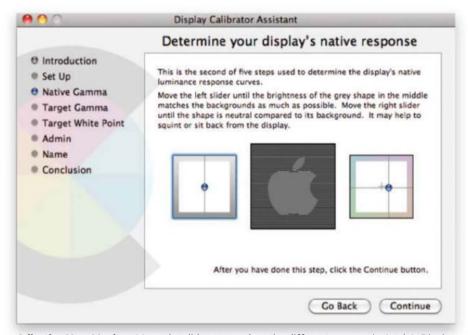
Open System Preferences and click the Displays icon. If you have multiple monitors, a separate window will appear on each. Click the Color tab, and you'll see a number of color profiles. If you check Show Profiles For This Display Only, you'll see only the profiles that can be used with your monitor. If the selected profile is not ideal given your display's possible color response, you'll want to calibrate the monitor.

Click the Calibrate button. This opens the Apple Display Calibrator Assistant, a tool that will walk you through some simple operations to help you create a color profile. Check the box for Expert Mode on the first screen, and then go through the different screens and follow the instructions. Don't worry about getting everything perfect; you'll be able to run through the process again if you don't like the results.

What you're doing in this process is making subtle adjustments for a number of color settings—finding out exactly how much the colors of your display are "off" compared with the ideal colors.

Advanced Tweaks

One of these screens is for the *white point*, which is the color temperature of the white on your screen. You shouldn't change this from the default—D65— unless you know why you want to change it. (Go ahead and try; you'll see what it does right away.)



Adjusting Your Monitor Move the sliders around on the different screens in Apple's Display Calibrator Assistant until the apple blends in with the background.

Then there's this thing called gamma. Gamma affects the way images appear on screen; the richness of colors and the overall density and contrast are different. Gamma settings can vary from device to device; until Snow Leopard was released, Macs used a target gamma of 1.8, as opposed to Windows PCs, which used a setting of 2.2. Now Macs also use 2.2. For most situations, stick to this default.

When you've finished going through the Calibrator Assistant screens, name your profile, click OK, and you'll see the new look of your display. Does it solve any specific color issues you were experiencing before? If not, you have two choices: Calibrate it again, paying more attention to each color setting, or try using a hardware color calibrator.

Use a Hardware Calibrator

A hardware calibrator is a small device that includes a *colorimeter*—a sensor that detects colors—and a USB cable. Color calibrators examine the actual color response of your screen as it displays test colors, and then adjusts the color profile to make those colors match the norms they are meant to represent.

I tried two color calibrators from X-rite (www.xrite.com), the \$129 hueyPro, and the \$176 iiDisplay LT. The former is designed to remain connected to your computer, and it adjusts the brightness of the monitor as the ambient light changes; the latter has a colorimeter that examines more colors during the calibration process. Results typically vary from one device to another, and sometimes it can be difficult to get different brands of monitors to match up.

Calibrating your display is a good idea for all users, and those who work with color should consider using a hardware color calibrator. However, bear in mind that calibrators have limitations, and low-priced devices may not be the ideal solution. If a high-end calibrator is out of your budget, pay your local camera store a visit. Many rent out professional-quality color calibrators at reasonable prices.

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HARDWARE

Canon PowerShot SX210 IS A

Offering the holy trinity of ease of use, manual controls, and best-in-class video quality, the 14X-optical-zoom PowerShot SX210 has a slim frame, the ability to zoom while shooting video, and lots of scene modes. This is one of the top one-size-fitsall cameras available, offering the best range of controls to suit both advanced and novice photographers. It has a full set of manual controls, including aperture- and shutter-priority mode, and full manual exposure. Aperture settings range from f3.1 on the wide-angle end to f8.0 in full telephoto. The Canon PowerShot SX210 IS is the rare camera that's sure to please a variety of users (macworld.com/6330). ****; \$350; Canon, www.usa.canon.com

Samsung HZ35W ⊳

The GPSenabled, 12-megapixel HZ35W produces sharp, high-quality images,



but its confusing menu system and poor video quality knock it down a peg. The 15X lens offers the largest optical-zoom range of any compact camera currently available, and it has a great dual-stabilization feature. The camera takes supersharp images with excellent color accuracy and good exposure quality. Unfortunately, the video performance is poor and the microphone weak. An even bigger drawback is the complex menu system, which is hard to

navigate (macworld.com/6331).

***; \$350; Samsung, samsungimaging.com

Sony NEX-5 ▷

The Sony NEX-5 is an excellent interchangeable-lens camera for hobbyist point-and-shoot photographers who want to increase their capability but not be weighed down by a full-size camera. The NEX-5's portability combined with an incredible burst mode, good image quality, and HD movie capture, make it an excellent choice for kid photography, travel, and even amateur sports. Other high-performance capabilities include the 14.6-megapixel CMOS APS-C sensor and the 25-point auto-

focus system—both well beyond the usual realm of point-and-shoots. The NEX-5 has no built-in flash, though it ships with an external flash. The camera uses Sony's new E-mount lens system and requires a converter for using it with other lens types (macworld.com/6334).

***; \$700; Sony, www.sonystyle.com



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K-x www.pentaximaging.com	****	\$490	12.4- megapixel	6012				
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SOFTWARE









Solio Classic-i Charger

If you're on a trip and need to recharge your photography equipment, but the nearest wall socket is miles away, a solar-powered charger can be just what you need to keep your camera going. Solio's Classic-i solar charger is a great option when you're off the grid. Fan it out and leave it sitting cell-side up in the sun when you go off shooting during the day. When you return you'll have a charged battery that you can plug into your camera, iPhone, or other gizmo. The Classic-i can hold its charge for up to a year, and charge from a USB or wall socket in addition to the sun. Note that you need to have the right Solio adapter for specific devices (\$80; www.solio



Akvis Coloriage

Colorizing black-and-white pictures has been a popular photographic technique since the invention of film. Akvis Coloriage is an automated colorizing tool that you can use to create some great effects simply by



squiggling lines and curves. It's available as a stand-alone program or as a Photoshop plug-in. Coloriage's interface is clean and easy to use, once you understand the basics of the program. All you do is use the Pencil tool and the color palette to define areas that you want colored. Click on the Process button, and voilà, you have a colorized photo. The Color Library is divided into types of color—such as skin, eyes, wood, and fabric—or you can choose your own colors from the palette (Home version, \$97; www.akvis.com).—SALLY WIENER GROTTA AND DANIEL GROTTA

Lowepro Napoli Camera Case

Compact cameras may be pocket-size, but a pocket is not the safest (or the most comfortable)

place to store them. Camera bag maker Lowepro has a variety of camera cases and pouches intended just for point-and-shoots. And since a camera case should look at least as good as the camera, opt for a stylish case and pick up one of the Napoli pouches. The handsome leather cases come in four sizes and range in price from \$25 to \$40 (lowepro.com).—HEATHER KELLY

Quik Pod

This collapsible monopod is a simple gadget for extending your camera's reach. It may look silly at first, but it's usefulness is undeniable. With the Quik Pod, there will be no more asking strangers to take your picture in front of landmarks. Just attach your camera to the end of the Quik Pod, turn it to face you and your friends, and set the timer.



You can also use it to get shots from up high and from other angles you can't normally reach (\$25; www.quikpod.com).

-HEATHER KELLY

Que Pod

COKIN MAGNETIC FILTER SYSTEM

You don't need a DSLR to use filters. Cokin sells a magnetic filter system that's compatible with most compact cameras. A small or medium metallic ring fits around your camera lens and keeps the filter holder in place. If your camera has a tripod socket, you can use the Digi Shoe Holder instead, which screws into the bottom of your camera. Both holders work with Cokin A-Series filters, which you can purchase in kits with the holders or separately. Stock up on color, infrared, diffraction, graduated, center-spot, and star filters (\$45; www.cokin.com).—HEATHER KELLY



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Using the Web for Video, Graphics, Web Publishing, and Other Creative Pursuits

The Podcasting Starter Kit

The Macworld Podcast host gives the play-by-play for creating your own podcast

BY CHRISTOPHER BREEN

or the uninitiated, jumping into creating a full-fledged podcast seems both intimidating and expensive—but it doesn't have to be either. Here are some techniques and equipment I use to produce professional-sounding productions for both the Macworld Podcast and my own projects.

Gear

I produce podcasts from my home office. My microphone is a vintage AKG C 414 EB, attached to a Mac Pro via CEntrance's \$150 MicPort Pro 24-bit/96kHz XLR-to-USB mic preamp (macworld.com/6320). The microphone is mounted on a Heil PC-2T boom stand. A boom stand helps you avoid the noise that results from placing the microphone on a table stand. A \$25 Nady MPF-6 pop filter in front of the mic reduces plosives—popped p's (macworld.com/6322).

If a panel of guests is together in one place, I use PreSonus's \$500 FireStudio Project audio interface (macworld.com/6326) with several inexpensive Samson microphones. It connects to an iMac, with the recording captured in Garage-Band '09.

Record Remotely

If participants are scattered, I conduct interviews over Skype's free VoIP software. I ask participants to capture their interview parts using any audio editing software and then upload the audio to a server, where I retrieve and piece it all together in GarageBand. This sounds much cleaner than using only Skype.

For guests who can't record their own parts, I simply record the Skype stream and



Expert Podcasts GarageBand '09 provides all the tools you need to create a professional-sounding podcast. On the left, all vocal tracks are in place, while on the right, the Media Browser provides images and musical loops.

hope for the best. I use two separate tools, Ecamm Network's \$20 Call Recorder (macworld.com/6324) and Rogue Amoeba's \$32 Audio Hijack Pro (macworld.com/3016), one of which serves as a backup. A redundant setup helps me avoid a botched podcast due to equipment failure. I use Call Recorder's audio tools to split the captured stereo track into separate mono files—one with my voice and the other with participants' voices.

Edit Interviews

I prefer to edit interviews in a GarageBand project separate from the one I create for the full podcast. This way, I only have to worry about mixing those voices. I create a GarageBand Voice project and drag the audio files into separate GarageBand tracks. I choose a Voice project rather than a Podcast project because I prefer to export edited interviews as uncompressed audio files; when you export a Podcast project, GarageBand compresses the files. To give voices a fuller tone, I select each track and,

in GarageBand's Browse tab, choose the Podcasting entry and then the Male Radio or Female Radio preset. I then click the Edit tab and enable the Compressor effect. The compressor evens out the volume of the speaker, and offers the option to pump up that track's volume. I try to balance the volume of the various speakers and remove errant noises, such as coughs and table taps. To remove these sounds, I'll either split the track and cut out the noise, or expose the automation controls and draw in a volume curve to mute the noise.

If a track has a fairly constant din in the background—such as traffic noise—I apply BIAS's \$129 SoundSoap 2, a plug-in for sampling and removing such noise (macworld.com/3013).

Once I'm done mixing an interview, I choose Share Fexport Song To Disk. In the sheet that appears, I leave the Compress option unchecked in order to export the file in AIFF format. I choose AIFF rather than a compressed format not only because I want the cleanest version,

but also because I process these files later with the Conversations Network's free Levelator (macworld.com/6325). This utility aims to balance the volume across the file—increasing the volume in quiet parts without raising the roof on louder

Adding chapters is simply a matter of selecting the podcast track, clicking the Info button at the bottom right corner of the GarageBand window, and dragging chapter art either from the desktop or from GarageBand's Media Browser to the proper

To give voices a fuller tone, select each track and, in GarageBand's Browse tab, choose Podcasting, and the Male or Female Radio preset.

bits. It works only with uncompressed files and performs best with voices.

Edit the Podcast

Most of the podcasts I produce for Macworld have a templated format and run 40 to 50 minutes. Sandwiched between each vocal segment is a musical theme that I composed and recorded in GarageBand—using prerecorded loops and a MIDI keyboard.

After recording and mixing the interviews, I record my host bits. As with the interview tracks, I apply the Male Radio preset to my voice and add the Compressor effect. I then import the mixed interview files into tracks within the GarageBand project, applying no effect to them because the voices have already had effects applied in the original mix. Finally, I shift the various audio bits into position.

GarageBand offers automatic ducking which reduces the volume of background tracks (music) when a primary track (voice) plays simultaneously. I draw the ducks manually by clicking the automation arrow in the music track, making sure that Track Volume appears in the automation area, and clicking points where I want a fade to begin and end. I generally begin a fade within a second of where the voice enters or leaves. A complete fade-out lasts a couple of seconds.

Enhance the Podcast

I produce two versions of my Macworld Podcasts—an MP3 and an enhanced AAC version. The enhanced version includes chapter marks, chapter graphics, and embedded URLs that lead to related stories or sites. An enhanced podcast lets listeners select the parts they want to hear.

location. For example, the Macworld Podcast logo file goes at the beginning of every episode. I then drag in a picture of my face to align with the point where I introduce myself as the host. Other images reflect various podcast topics.

The Media Browser is really helpful for material we use routinely. I've created two folders on my Mac-one containing artwork that appears in each podcast (the Macworld logo or my picture, for example) and another containing the music tidbits we always use. By dragging these folders into the appropriate tabs of the Media Browser, their contents are readily available.

When you drag images into the Podcast track, chapter marks appear in the Podcast Markers area at the bottom of the window. Resize or reposition

artwork by double-clicking the thumbnail image in the Artwork column and using the Artwork Editor. Add other information in the appropriate fields.

To complete the tagging, I move to the information pane to the right of the GarageBand window and enter the podcast's title, artist, composer, and description. This information is appended to the enhanced version.

Export the Podcast

Because I create two versions of the podcast, I export each episode twice. Exporting is easy. Choose Share ▶ Send Podcast To iTunes and, in the sheet that appears, choose AAC Encoder from the Compress Using pop-up menu and choose Spoken Podcast from the Audio Settings pop-up menu. Click the Share button. For the second version, choose MP3 Encoder and Spoken Podcast. In this sheet you can also enter the name of the iTunes playlist where the encoded episode will appear, and its artist, composer, and album name. It's worth filling in these fields correctly, because the information will appear as ID3 tags for your podcast. If you don't, you'll have to do your tagging later in iTunes.

When GarageBand finishes exporting the episode, it appears in iTunes and starts playing.



If you're looking to throw a video together really quickly, let iMovie '09 do some of the work. When you create a new

project, turn on the option to automatically add transitions between clips. You can also enable this option later as you're working on the project. To extend the duration of transitions from the 0.5-second default, go to



File ▶ Project Properties, click the Timing button, and drag the Transition Duration slider to something more reasonable, like 1.Os. If Automatic Transitions are enabled, the change affects all transitions in the project. This dialog box also contains all sorts of potential speedups, such as the way photos are treated (cropped or with the Ken Burns effect, for example).-JEFF CARLSON



Beyond Text: Images as Letters

Create this beautiful letterform effect with Photoshop Elements

BY CHRIS MCVEIGH

picture may be worth a thousand words, but a word made of pictures may be worth even more. Here's how to create eye-catching text by popping a picture inside letterforms, using Adobe Photoshop Elements 8.

Set the Canvas Size

The first step is to create a new document. Choose File ▶ New ▶ Blank File.

Choosing the canvas size can be tricky. It's better to scale down than up. So base the height of your canvas on the height of your smallest source picture. The width of your canvas should be as wide as the word you're using. It's best to err on the large side and crop later. Once you've entered the canvas size, set the Background Contents to Transparent and click OK.

One Letter at a Time

Now it's time to place a picture inside the text. Use the Text tool to create a letter, convert the letter to a mask, and paste your picture into the mask. Tackle your word one letter at a time.

1. Click the Text tool and, in the Options bar, choose the font and the font style. Now set the font size to the same pixel height as your canvas or at least as large as the height of the image you're using. Type your first letter and then tweak the font size if necessary. The maximum font size you can choose is 1296 points. You can get bigger text, however. Click your text once to highlight it, and you'll see a bounding box. Next, click one of the control handles in any of the corners; in the Options bar, you'll see fields for horizontal and vertical

scale. Simply enter the same percentage into each field (for example, 175 percent) and then click Return or the green checkmark. Alternately, you can use the handles to scale and transform the letter.

- **2.** Choose Layer ► Simplify Layer. This will convert the vector text to a bitmap.
- 3. Go to Layers (Window ► Layers), and you'll see a layer containing your letter, in addition to a locked background layer. Make a selection of the letter by ૠ-clicking the layer thumbnail. This selection will function as a mask. It's very important that you maintain this selection, so take care to avoid accidentally clicking on your canvas.
- **4.** Choose Layer ▶ New ▶ Layer. Give the layer an apt name, and click OK. The selection will be carried over to the new layer.





Illustrative Letters Once you've pasted your picture into the selection, drag the corner control handles to resize it.

5. Open the picture you want to insert into the current letter. Choose Select ► All and then Edit ► Copy. Return to your document and choose Edit ► Paste Into Selection to paste the picture into the letterform.

6. Click and drag the picture's corner control handles to resize the picture for a better fit, and then drag the picture into place within the letter. When you're happy with the positioning, press Return.

(Warning: This will crop the picture within the letter selection. You will not be able to resize or reposition the picture within the letter beyond this step unless you intend to distort the picture.)

7. Go back to Layers. Click both your original text layer and the locked background layer, and then choose Layer ► Delete Layers to get rid of them. What remains is your new letter, filled with your image, on a transparent background.

Put It Together

Once you've finished a letter, repeat the process to complete your word. Use the same font size, and place each new letter to the right of the preceding letter in your document (unless you want irregular lettering). You might also want to toggle the visibility of completed letters to avoid confusion as you work. Then crop the canvas to delete excess space. You can now export your word for use online, in printed flyers, or anywhere else you'd like to make an impact with colorful, creative text.

COLOR & OUTSTANDING FOR iPhone 4

These colorful, funny distinct cases will definitely grab everyone's attention, it's made of high quality silicon which is more durable and flexible. With lightweight Polycarbon, it provides high protection for your iPhone 4. For further information, please visit our website:







iWeb Design Makeover

How to customize iWeb's built-in navigation bar

BY ADAM BERENSTAIN

ou might think you can't fully customize iWeb's themes, but you can. However, it's not easy, and your redesign may not translate in expected ways to all pages or hold up if you later upgrade iWeb. But if you can build the navigation bar described below, you'll be able to easily change the standard iWeb pages into something uniquely expressive.

Add Pages

Select File ► New Site and choose the White theme. Start with a blank page, then select File ► New Page to add another blank page. Next, add a Photos page, a Movie page, and some additional pages. Double-click the two blank pages in the leftmost sidebar and rename them Welcome and About Me. Delete the black hairline rule at the top of each page, but leave each page's placeholder headline.

Select View ► Show Inspector. In the Page inspector click the Page button and

uncheck Display Navigation Menu, and repeat for all pages.

Create a Navigation Menu

Select your Welcome page, choose Insert > Text Box, and then resize the box to a vertical rectangle. Drag the Welcome page icon from the sidebar into the text box: the word *Welcome* will appear at the top of the box and will automatically link to the Welcome page. Click the text box to make the cursor appear, and press the Return key to move the cursor to the line below *Welcome*.

Drag the next page's icon from the sidebar into the text box and repeat until all page names appear in the box.

To style the text, select it and choose options from the Format ▶ Font ▶ Show Fonts menu. Drag the text box to the upper left of the Welcome page when you're done.

Add Decoration and Headlines

While still on the Welcome page, choose



Unique Navigation The key to building your own navigation bar is turning off iWeb's default navigation menu in the Inspector.

Try an Image Map

Want to create image-based navigation for your site? Go to macworld.com/6327 and check out step 5 to find out how.

Insert ► Shape ► Oval. Change the oval's color by selecting it and clicking the Graphic inspector's Fill swatch; then change its Stroke to None. Drag the shape's handles until you have a tall, wide oval.

Drag the oval over your menu (it will partially disappear off the page). Then, with the oval selected, choose Arrange ► Send To Back, and position it behind the text. Adjust its color for legibility.

Customize Background Colors

Using the Page inspector's Layout button, select Color Fill for the Page and Browser Backgrounds and click their swatches to choose new colors. When selecting a new Browser Background color, click the magnifying glass in the Colors window and then click the oval you created in order to match both colors and tie the page together. You don't have to do this, but matching colors in a simple design looks elegant. Next, type a greeting in the page's placeholder headline and style the text.

Apply to All Pages

Choose Edit ► Select All to copy your custom Welcome page elements. Hold down the Shift key and click the placeholder headline to deselect it, and then choose Edit ► Copy. Select your About Me page, and then choose Edit ► Paste. Repeat this process for all of the pages. Note: you'll need to resize elements on the Photos, Movie, and multimedia pages to accommodate your new menu bar. And you may also need to adjust the page and browser background colors.

Replacing iWeb's navigation bar with your own design gives you the benefits of a new theme without much of the hard labor.

REVIEWS Hardware, Software, and Accessories for Your Creative Endeavors



camcorder, but it doesn't deliver the kind of high-quality HD images we expect. It's also full of interface guirks, and its solid-state drive doesn't offer any benefit over conventional flash memory or hard-drive storage. HD image quality at the highest setting gives good results outdoors, although the 10X zoom is lackluster and the HMX-H1O4 doesn't always focus as quickly as we'd like (macworld.com/6269).

\$\$\frac{1}{2}\$; \$580; Samsung, www.samsung.com

Wacom Intuos4 Wireless ⊳

Sleek, black, and gorgeous, the Intuos4 Wireless is a pen tablet whose looks

and functionality are almost identical to those of its wired cousin, the Intuos4 M. Only now, thanks to Bluetooth technology. it's wireless. The Intuos4 Wireless comes in only one size, so if you need a larger drawing area, you'll have to stick with the wired version. Also, you will need a Bluetoothequipped computer (or an add-on Bluetooth adapter) to use the tablet wirelessly. The Intuos4 Wireless does not include an accessory mouse (macworld.com/6270). \$\$\$\$\frac{1}{2}\$; \$399; Wacom, www.wacom.com

SOFTWARE

Kinemac 1.8.3

Kinemac 1.8.3 makes creating 3D animation fast and fun. It's a reasonably priced but powerful 3D-creation tool from which any digital artist can benefit. Kinemac lets you adorn objects with surfaces containing

reflections, color, transparency, and other variations that you see in real time. Whether you're a hobbyist or a professional 3D content creator, this program is worth checking out (macworld.com/6266).

\$\$\$; \$299; Kinemac, www.kinemac.com

Strata Design 3D CX 6.1

Strata Design 3D CX 6.1 is an excellent production tool and offers tremendous advantages for people who use Adobe apps to design 3D models. But like many programs in tightly integrated suites, it gains power when used in conjunction with its partners. Strata Design 3D CX works with many standard formats such as OBJ, 3DS, DXF, IGES, and others. You can almost always find a way to convert your model. even if standard (LightWave 3D, modo, or Cinema 4D) files won't load (macworld .com/6268).

***; \$695; Strata, www.strata.com

Veenix TypeBook Creator 2.4.1 >

Ideally, a tool for printing font specimen

pages would have customizable layout options; it would let you print samples from inactive fonts and use standard font identification terms to categorize fonts; and it would indicate each font's format. TypeBook Creator 2.4.1 lets you do all of these things and more. This program is great for anyone who has struggled with choosing appropriate fonts for a project. Its unique features let you explore the fonts you have, it offers the best selection of layouts for specimen pages, and it is reasonably priced (macworld.com/6267).

****; \$50; Veenix Technologies, www.veenix.com



DVD BURNERS Desktop and Por	table			
PRODUCT	RATING	PRICE^	TYPE	FIND CODE®
d2 DVD±RW w/LightScribe www.lacie.com	****	\$93	desktop	3900
MediaStation 8X External Blu-ray Writer (pictured) www.buffalotech.com	****	\$269	Blu-ray	5344
CAMCORDERS High Definition				
PRODUCT	RATING	PRICE A	TYPE	FIND CODE®
Flip MinoHD (120 Minutes) (pictured) www.theflip.com	\$\$\$\$\frac{1}{2}	\$200	mini camcorder	5512
		\$829	HDD/SD	6106

HELP DESK

Answering Your Questions and Sharing Your Tips about Getting the Most From Your Mac

Mac OS X Hints

The insider tips you won't get from Apple

BY MACWORLD STAFF

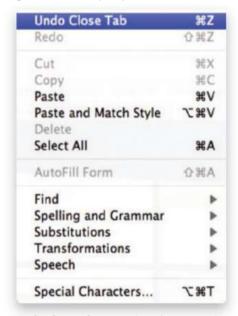
Safari 5 Tips

Since Apple released Safari 5, MacOSX-Hints.com readers have been brimming over with tips for the new browser. Among the handiest are the following:

Reload Accidentally Closed Tabs

Since version 3.0, Safari has provided Reopen Last Closed Window and Reopen All Windows From Last Session commands in its History menu. These commands let you easily reopen the last Safari window you closed, and reopen all windows that were open the last time you quit Safari, respectively. Each command also restores any tabs that were open within those windows.

But what about the single tab you just closed accidentally? The one you opened a while ago, so it's not easy to find in your history? Safari hasn't provided an easy way to resurrect it—



Undo Close Tab Just as it undoes errors in most Mac apps, #-Z in Safari 5 reopens a mistakenly closed tab.



Reload Button Miss Safari's old Refresh button? You can implement something just like it with John Siracusa's Safari Reload Button extension for Safari 5.

until now. It's an (apparently undocumented) feature in Safari 5: If you accidentally close a tab you didn't mean to close, press ૠ-Z (you can also select Edit ► Undo). The lost tab will be immediately restored—in fact, this will open the last tab closed in *each* window.

Add a Refresh Button With Safari 4, Apple shrank the toolbar's Refresh button and moved it to the end of the location bar, close to other easy-to-hit targets. If you've missed the old button, you're in luck: Thanks to Safari 5 extensions, you can bring it back.

To use it, start by enabling Safari's developer mode: Go to Safari ▶ Preferences ▶ Advanced, and then select Show Develop Menu In Menu Bar.

From the new Develop menu, select Enable Extensions. Now go to macworld.com/6307 and download John Siracusa's Safari Reload Button extension. Double-click the downloaded

file to install it. Now Control-click on the Safari toolbar (or go to the View menu) and choose Customize Toolbar. Add the new Reload Page button wherever you want to put it on the toolbar.

Get RSS Instead of Reader In previous editions of Safari, there has been an RSS icon on the right side of the address field; you could click on

Have a Hint to Share?

Navigate to MacOSXHints.com to submit it. This column was based on tips from Sasha Chhabra, Pepijn de



Vos, Jon Stovell, and anonymous contributors. Each month, the author of our favorite tip receives the *Help Desk* mug.

the icon to see and subscribe to a site's feed; but that's no longer the case in Safari 5. Now when you're on something like a blog page, you see the new Reader button instead of the old RSS icon. But you can still get to a page's RSS feed: Click and hold the cursor over the Reader icon; a menu will appear giving you a Show RSS option.

Turn Off Private Browsing In Safari 4, the only way you could toggle Private Browsing on and off was by going to the Safari ▶ Private Browsing menu item. But in Safari 5, an icon—similar to the RSS and Reader buttons—now appears in the address field when Private Browsing is active. Click on the icon, and a dialog box will appear asking whether you're sure you want to turn off Private Browsing. Click OK to turn it off.



Show RSS Click and hold the cursor over Safari 5's Reader button, and you'll have the option of seeing the current site's RSS feed.

Quickly Preview Windows in Spaces

If you use OS X's Spaces feature, you know that you can get an overview of all your workspaces by pressing the F8 key. However, you probably also know that seeing the individual windows within each space is difficult in this overview mode, because they can be tiny. Turns out there's a simple solution to the problem.

After pressing F8 to show all workspaces, hover your cursor over one of the individual windows and press the spacebar to invoke Quick Look. Doing this will give you a full-size preview of the window. You can then click on the window to make it active.

You can also use Exposé within the Spaces overview: Press F8 for the overview, and then press F9 to show all windows. If you press the spacebar once while hovering over a window and then mouse over another window, you'll get a Quick Look preview of that one, too.



POWER TIP OF THE MONTH

Automatically Log Out Idle Users

Mac OS X's Fast User Switching feature makes it easy for multiple users to share a single Mac, but it has one flaw: If several users log in but then don't log out, you can end up with all of the accounts running in the background, sucking up system resources.

OS X doesn't provide a way to log out idle users. (The Security setting for logging out automatically after a certain amount of idle time logs out *all* users.) But one MacOSXHints.com reader figured out a solution, using a launch agent.

In a text editor, enter the script shown here ("Log-Out Launch Agent") and save it as a file named 'com.username.backgroundUserLogout.plist' in the LaunchAgents folder of each user's Library folder. If that folder doesn't already exist, you'll need to create it. (If you don't want to type out all the code, you can download the script at macworld.com/6308.) If you type the code, note that there should be no line breaks between <! DOCTYPE and 1.0.dtd"> and between <string>if and fi<string>.

The next time each user logs in, the launch agent will load and then continually check to see whether the user has control of the OS X GUI. Once the user has been in the background for 30 minutes, the launch agent will automatically log the user out (unless the user has unsaved documents).

You can adjust the idle time by replacing 30 in the string \$(60 * 30)) with however many minutes you want. To avoid permissions problems, create the folder and .plist file while logged in to each user account. If a user should never be automatically logged out (an account with a shared iTunes library, say), you shouldn't create the launch agent in that account's Library. Finally, note that you can accomplish much the same thing with Matt Swann's free ScriptSaver utility (macworld.com/5973).

```
LOG-OUT LAUNCH AGENT
```

```
<?xml version="1.0" encoding="UTF-8"?>
  <!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN"
"http://www.apple.com/DTDs/PropertyList-1.0.dtd">
  <pli><pli><pli>version="1.0">
  <dict>
  <key>Label</key>
  <string>com.username.backgroundUserLogout</string>
   <key>ProgramArguments</key>
    <array>
      <string>/bin/bash</string>
      <string>-c</string>
      <string>if [ $(stat -f %u /dev/console) == $UID ];
then if [ -e /tmp/backgroundUserLogout.$UID ]; then rm
/tmp/backgroundUserLogout.$UID; fi; elif [ ! -e
/tmp/backgroundUserLogout.$UID ]; then touch
/tmp/backgroundUserLogout.$UID; elif [ $(( <code>date +%s/
code> - <code>stat -f %m /tmp/backgroundUserLogout.$UID ||
printf 0</code> )) -ge $(( 60 * 30 )) ]; then rm /tmp/
backgroundUserLogout.$UID; osascript -e 'tell application
"System Events" to log out'; fi</string>
    </arrav>
   <key>RunAtLoad</key>
    <true/>
   <key>StartInterval</key>
    <integer>60</integer>
  </dict>
  </plist>
```



Mac 911

Solutions to your most vexing Mac problems

BY CHRISTOPHER BREEN

Listen to Radio on the iPad

With my iBook, I get free music from iTunes via Internet radio.
But the iPod app on my iPad doesn't offer this kind of content. How can I get it with the iPad?

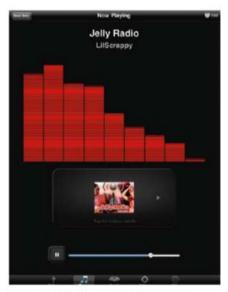
Daniel Shanefield

You are correct. While you can listen to streaming Internet radio on your Mac via the Radio entry in iTunes' Source list, the iPad's iPod app does not provide this feature. Fortunately, you are anything but out of luck.

A number of iPad apps can stream Internet radio broadcasts—more, in fact, than iTunes streams. Many of these apps use technology developed by RadioTime, a Dallas-based service that maintains a database of over 60,000 radio channels—terrestrial stations as well as Internet-based stations. With these apps you can search for stations in a number of ways, including by call letters, radio host, show name, genre, and bit rate.

As I said, there are many of these apps. I have a couple of them on my iPad, including the \$2 Spark Radio (macworld.com/6174) and \$7 Wunder-Radio (macworld.com/5026). Both apps use the RadioTime database. Each uses location information to let you see stations near you, each provides a feature for searching for stations, and each of them breaks stations into genres. WunderRadio is more pop-over menu-based than Spark Radio, which





Tune In With an app like Spark Radio, you can tune in to terrestrial and Internet stations across the globe.

uses buttons more extensively (see "Tune In").

At one time, you couldn't continue listening to the radio when you opened a new application on the iPhone or iPod touch. But thanks to iOS 4's multitasking capabilities, any radio apps updated to take advantage of those capabilities will continue to play even when you switch to another app on a device running iOS 4.

Balance Headphone Volume

You've previously told a reader who's deaf in one ear how to rip his tunes in mono, but I've never been able to find a solution to my partial—and variable—loss of hearing in one ear. I've never found an MP3 player with a balance control, so I'm stuck listening on my laptop. Is there a way to do this?

Via the Internet

First, let's update the "rip as mono" advice. If you're using an

iPhone 3GS or iPhone 4, a third-generation iPod touch, or an iPad, you can ask these devices to play all audio in mono. To do so, plug one of these devices into your Mac, fire up iTunes, select the device in iTunes' Source list, and then click the Configure Universal Access button in the resulting Summary pane. In the Universal Access window that appears, enable the Use Mono Audio option and click OK.

This advice doesn't apply to you because you hope to change the balance of the audio so one side of the stereo signal is louder than the other. An inline balance control will do that for you. Sennheiser provides just such a feature with its \$40 (around \$27 at Amazon.com) HZR 62 Universal Inline Volume Control (macworld .com/6297).

This is a passive control (meaning that it won't boost the volume beyond the volume of the device it's plugged into). It also has a very long cable—3.5 meters—so you'll want to be sure to bundle up the extra cable with a rubber band to help ensure you don't trip over it while you sprint into the distance.

Schedule E-mail Delivery

Q:

How can I set Mail so that it will send a message at a later time?

Art Denney

Apple's Mail doesn't include a scheduling feature, but you can add one. Andreas Amann's free Mail Scripts 2.10.2 (macworld.com/O446) includes a Schedule Delivery script. The idea is that you write your message and save it as a draft. Then invoke the script from the AppleScript menu, which you can enable in AppleScript Editor. (You'll find Schedule Delivery under the Mail Scripts heading in the AppleScript menu.)

When you invoke the script, you're presented with a window where you can choose messages in Mail's Drafts folder and create a delivery date and time for each one. Once you do this, the script creates a Mail Scripts calendar in iCal. Additionally, an event is created that includes an alarm compelling the message to be sent at the appointed time.

Note that the script doesn't appear to work with Microsoft Exchange accounts.

Sync iCal To-Dos between Your Mac and iPhone

I would like to find a simple mechanism for maintaining to-do lists on both my Mac and my iPhone, and keeping the two lists in sync with each other. I would also like to just use the native Mac and iPhone apps to do this, since my needs are modest, as is my budget. This should be simple, but I can't figure it out. Am I missing something?

Andrew Davidson

The only thing you're missing is the power to wave a wand as you proclaim, "Apple, seriously, this feature should have been there from day one. Make it happen!"—and lo, it happens. Regrettably, that power and wand are housed in a secret vault deep beneath Cupertino's fertile strip malls and not available to the general public.

While I understand that you'd like to do this with the native applications and within your budgetary constraints, there are times when it pays to pay. This is one of them. I can suggest a couple of iPhone and iPad To-Do apps that can do what you want for very little money—Merchon Cottrell's \$2 iPronto To Do (macworld.com/5762) and Appigo's \$5 Todo (macworld.com/ 3828). Each lets you create tasks on your iPhone and iPad and sync those tasks with iCal via a free syncing client that you run on your Mac. They may not be Apple-native apps, but since Apple hasn't gotten around to dealing with this issue, they're a solution that works now.

Bugs & Fixes BY TED LANDAU



Router's Password Can Slow Wi-Fi Speed There are numerous possible causes of

slow Wi-Fi on an 802.11n network. Most of them boil down to poor signal strength—due to distance from the router to the Wi-Fi device or interference from a cordless phone. However, if the signal is strong and everything else seems to be working fine, your type of password may be the reason behind the slowdown.

The maximum possible speed with an 8O2.11n network is about 3OO Mbps, although realistically you are more likely to get in the range of 13O Mbps. If you use a WEP or WPA (TKIP) password, the maximum transfer rate will be 54 Mbps, even on an otherwise properly configured 8O2.11n network. To get the maximum possible speed, choose a WPA2 Personal password.

To view or edit your password type on an AirPort base station, launch AirPort Utility and open the base station's settings. Next, go to the pop-up menu at AirPort ▶ Wireless ▶ Wireless Security, and you'll see the password info listed.



How to Uninstall iTunes If iTunes routinely freezes, crashes, or otherwise fails

to cooperate, you might want to uninstall it and install a fresh copy. Deleting just the application is almost always sufficient. However, according to Apple, in "rare instances, it may be required to remove all traces of iTunes from your computer." To do that, first launch Activity Monitor (in /Applications/Utilities) and quit the iTunes Helper process. Next, delete this same process from your Login Items list (in the Accounts system preference). Last, restart your Mac and install a fresh copy of iTunes.

If this doesn't solve your problem, you may need to go to youruserfolder/Library/Preferences and delete all the files that begin with com.apple.iTunes, including ones in the ByHost subfolder. Apple goes so far as to recommend deleting the youruserfolder/Library/iTunes folder. This folder contains all of your iPhone and iPod Software Update files. You might want to make a backup of this folder (storing it in another location) before deleting it. Just in case.

There may be more to do. A separate Apple support article notes that if your iPhone, iPod, or iPad is "not recognized in iTunes, you may need to remove and reinstall the Apple Mobile Device Service." To do so, delete the AppleMobileDevice.kext file in the /System/Library/Extensions folder as well as the AppleMobileDeviceSupport.pkg file in the /Library/Receipts/ folder. Then restart your Mac and install a fresh copy of iTunes.

Senior Contributor **Ted Landau** is the founder of MacFixlt (www.macfixit .com). Share your problems at bugs@macworld.com or on Macworld.com's Mac 911 forum.

More-Flexible Mail Searching

■ I use Apple's Mail, but it has a terrible search function. What I'd love is a program that lets me add layers to a search—so I can search for messages from a particular sender as well as for something specific in the message body. Any suggestions?

Via the Internet

Mail has the capability to perform deeper searches, similar to those you can carry out with Spotlight.

But you have to know the correct terms to enter in Mail's search field and the right way to format them.

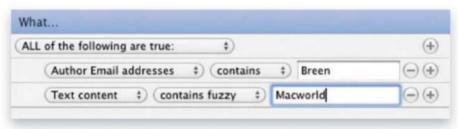
For example, if I wanted to find a message from John Doe to Mary Smith that contained the word poodle, I'd enter the following in the search field: poodle from: doe to: smith (assuming that both John and Mary's last names are part of their e-mail addresses). If I planned to conduct this kind of search routinely, I could then click on the Save button just

below the search field. This would create a smart mailbox where any messages matching these search terms would appear.

Alternatively, you can perform this kind of search from the Spotlight field in the Finder. Or, if you like, press #-F while in the Finder and, in the Searching window that appears, enter the search terms in the Spotlight field and then click on Save to save that search as a smart folder.

If all this sounds like a lot to remember, you might take a look at Houdah Software's \$30 HoudahSpot (www.houdah.com). HoudahSpot uses the data collected by Spotlight and allows you to create complex searches of that data with an easy-to-use interface—no need for you to memorize search terms or the proper formats for creating them (see "Simpler Search").

With HoudahSpot, you can choose where on your Mac you want to search (your Home or Documents folder, for



Simpler Search HoudahSpot lets you easily create complex searches on your Mac.

example), and you can limit the number of results you see. Additionally, you can save your searches as templates and call them up at another time.

Sort Downloads by Date Added

Safari downloads items to my Downloads folder, but because that folder is pretty full, I can't always find the things I've just downloaded. I tried sorting by Date Created, but some of the files weren't created recently so they don't appear at the top of the list. Is there any way to sort files by the date they were added?

Steve Wharton

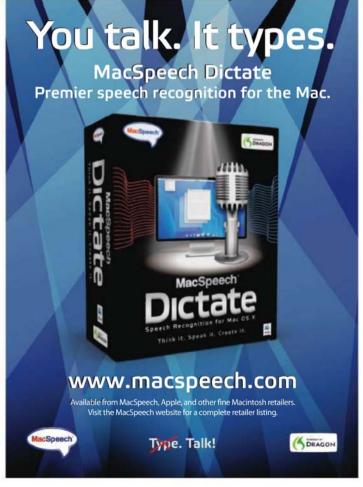
Yes, but not as a Finder default.

To work this spell, use Automator. In Snow Leopard, it works this way:

Launch Automator and select Folder Action in the Template Chooser sheet. In the resulting window, enter **shell** in the search field. This produces the single Run Shell Script action in the window's second column. Drag this action into the workflow area.

In the Run Shell Script action's text area, enter touch "\$@" and from the Pass Input pop-up menu select As Arguments. At the top of the window, click on the pop-up menu used to select the folder that receives the action and





choose your Downloads folder (inside your user folder).

Choose File ▶ Save and you'll be prompted for a name. Enter something intuitive such as Date Added, and you're nearly there.

So, how does it work? The shell script changes the date-modified date to the date and time the file was added to the folder. To complete your work, open the Downloads folder, press \mathbb{X}-J to produce the View window, and enable Date Modified. Close the window and click the Date Modified column to sort items by the date they were modified. From now on, items will appear in the order they are added to the folder.

Options for an Old iPhone

I purchased an iPhone 4, but now I'm left with my old iPhone. What options do I have for it?

Via the Internet

You have four options—use it without the phone functions



Opening Foreign Files

■ I receive e-mail messages with .pps files attached. I cannot open them. I have Mac OS X 10.5.8, but do not have Microsoft PowerPoint. Is there a utility that will allow me to open these files?

Roy Lundquist

If you have a copy of Apple's Keynote (part of the \$79 iWork productivity suite), you can open those PowerPoint files with it. Otherwise, take a look at the free NeoOffice (www.neooffice.org), an open-source software suite that can open and edit Microsoft Word, Excel, and PowerPoint documents.

(thus turning it into an iPod touch), pass it along, sell it, or keep it as a spare.

If you choose to pass it along, you should wipe all the data from it. The person receiving it can then set it up as a new phone with the phone's carrier. Apple provides instructions for doing just that (macworld.com/6301).

Instead, you could sell it to companies that purchase old iPhones, but first try

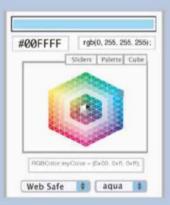
eBay or Craigslist—you might get a better price.

If you'd like to use it as a spare phone, you could unlock it (therefore voiding your warranty) and use it with a different carrier. This lets you employ a local (and less-expensive) SIM card when travelling overseas. The iPhone Dev Team's site (macworld.com/6298) offers instructions on unlocking an iPhone.

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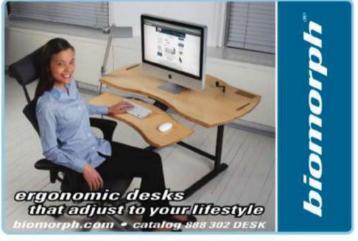


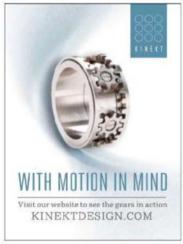


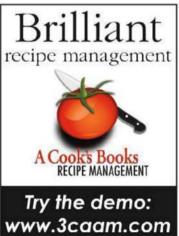
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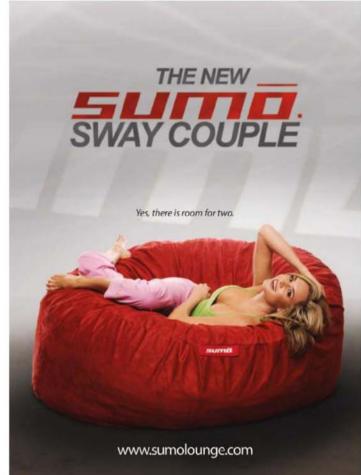




















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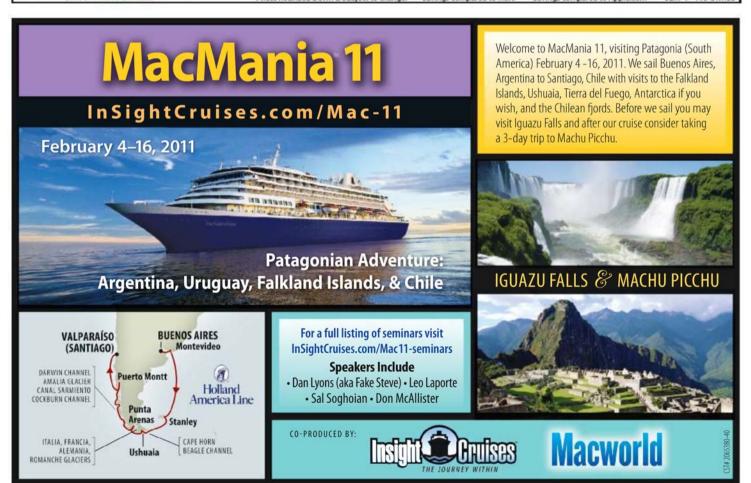
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Not So Smashing

How lame are iPhone-destruction videos? Very, very, very lame.

he release of a new consumer device from Apple has become a pretty predictable affair. The day before Release Day, cable news channels show the line outside the Fifth Avenue Apple Store in New York. They interview the same attention-seeker who always snags the first spot in line. On Release Day itself, local news channels show the early-morning lines outside local malls, and then, a little later, excited people exiting the store waving their little white boxes in the air.

Later that evening, YouTube is flooded with thrill-packed unboxing videos, in which it is demonstrated that the fantastic rumors were true: The new iPhone does indeed come with a USB cable. Finally, in the days that immediately follow, YouTube fills with videos of people destroying the new device.

Appetite for Destruction

In the week after the release of the iPhone 4, I saw videos of it being dropped from great heights to demonstrate its durability (or lack thereof). I saw it thrown against walls in fits of...well, in some sort of fit. In the past, I have seen iPhones and iPads shot with 50-caliber rifles, slammed in doors, set on fire, and doused in water; in one video, I saw one shot, set on fire, and run over with a car.

These videos remind me of those college-town bar bands, the ones that finish every show with the lead guitarist smashing his guitar to bits. "I might not have the skills of Jimi Hendrix or Pete Townshend," these axemen shout with every swing of their guitar. "But I do have the \$100 plus shipping it cost to get this cheap Les Paul knockoff from eBay!"

There was indeed a time when destroying your instrument onstage was subversive and thrilling. But that time was 40 years ago. By the mid-seventies, it was the stock-in-trade of schlocky would-be

rock gods. OK, so Pete Townshend kept smashing guitars well into the eighties. But he's Pete Townshend. You, Mr. YouTube Phonesmasher, are not Pete Townshend. You are not making a Bold Statement about Consumerism. You are not cutting Apple down a peg. You are not subversive in any way, shape, or form.

Step It Up

That said, if you still feel that you simply must destroy a new Apple gadget, you should at least step up your game. Do you have access to a deep-sea submersible, and can you arrange to smash the new iPad across the bow of the Titanic like a bottle of champagne? Do you have a friend in the astronaut corps who'd be willing to roll down the window of the Space Shuttle during reentry and hold the iPhone 5 out into the plasma stream? I would definitely leave you a positive YouTube comment on that video.

There was a time when destroying instruments onstage was subversive and thrilling. That time was 40 years ago.



Let's also talk about production values. Would it kill you to use a real video camera. There's a certain unintended irony in the fact that you would have wound up with sharper, clearer, and far more watchable video if, instead of using a four-year-old Nokia camera phone to record the destruction of a brand-new iPhone 4, you had reversed the two roles.

Also: Video editing is your friend. Once you've completed your White Suburban Gangsta rant about how dangerous and unpredictable you are and how little you care for society's rules, the video should cut right to the smashing of the iPhone. You'll want to edit out the two times you threw it against the wall and failed to even crack the screen, while your friends made fun of you.

Greater Goods

Even better, you could redirect your destructive urges in a more constructive direction. I might scorn destruction porn, but I applaud stress-test videos. The iPhone 4 has a glass front and back. Can those panels withstand a drop onto asphalt? Will a plastic zipper-bag keep an iPad dry if you use it in the bath?

Or, how about this: Take the \$500 you'd budgeted for the iPad that you were going to bust. Spread \$250 of it into a carpet of dollar bills, and shoot a wacky and subversive video of yourself setting it on fire. Then go down to deliver the other \$250 to a local food bank, in person. Maybe when you talk to people who will convert your cash into food and services for the hungry and poor, you'll appreciate what an empty, dumb-ass stunt it was to waste the other \$250 on a video that 282 random YouTube viewers will give barely a damn about.

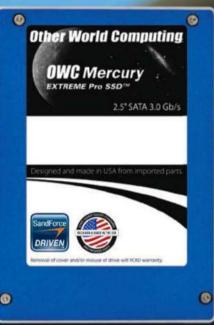
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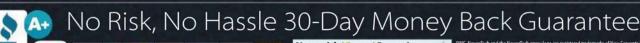
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