



# iPad: Okay for Windows Users?

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# PCWorld

## 52 Incredibly Useful Sites

If you haven't bookmarked all of these sites, you're missing out on the best of the Web **See Page 64**



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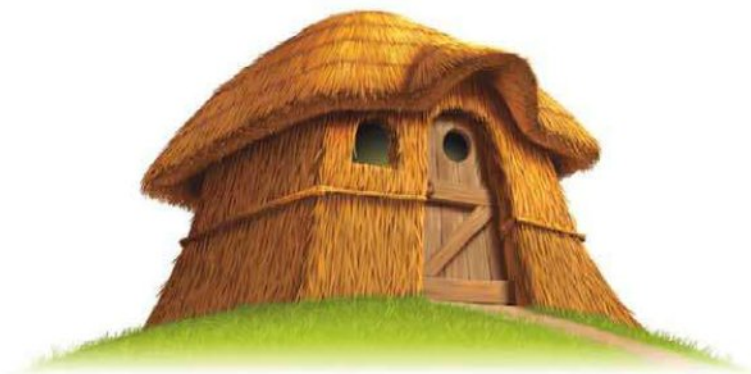
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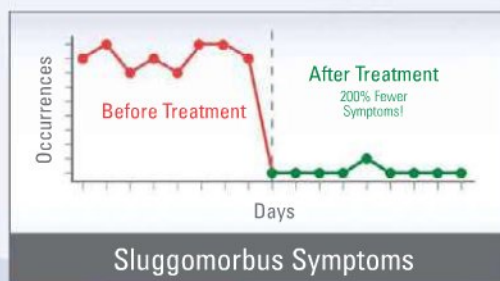
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## Extra, Extra! Five More Exceptional Sites

"USEFUL" IS A relative term. The same tool I can't live without might seem a complete waste of time to someone else. Modifying *useful* with the adverb *incredibly*, as we do in this month's cover story ("52 Incredibly Useful Sites," page 64), raises the bar big time. If a Website can lay claim to being "incredibly useful," it needs to provide substantial value to a broad swath of people—and the 52 sites that we list in this issue deliver.

Now about that number, 52. I'd like to claim that there is some sort of cosmic significance—or even internal logic—to our choice of such a seemingly random integer. Weeks in a year, cards in a deck, that sort of thing. But the reality is much simpler: After spending weeks nominating sites and then debating the make-up of the list over a course of heated meetings and e-mail exchanges, *PCWorld's* staffers agreed on 52 final candidates. Executive Editor Robert Strohmeyer, who wrote the piece and shepherded it through our arduous editorial process, ultimately banged the gavel and declared that we were done at 52.

### Just Missed the Cut

Of course, anytime you narrow down a list of this sort, certain worthies get left out. So as a public service, let me present the top five outtakes from our collection, along with the reasons they were omitted in the first place. Here's hoping you find them useful.

**Memeo Share** ([memeo.com](http://memeo.com)): This inventive site offers a handy way to share photos and videos. It didn't make the cut because it requires you to down-

This fistful of Websites didn't make the final cut for our cover story, but they might prove just as useful as the ones that did.

load an app. So according to our strict definition of what constitutes an "incredibly useful site," Memeo Share by itself isn't enough. Still, as Strohmeyer puts it, "sharing photos via e-mail attachments is a neolithic proposition, and even the best photo-sharing sites make it a chore to find the latest pictures from family and friends and to integrate them into your library." But Memeo

exclusion from the list of the magic 52.

**MOG** ([mog.com](http://mog.com)): This Mecca for music lovers got bumped from our list when we opted for staff favorite Grooveshark, which has a simpler, more intuitive interface for finding and playing music. But we love MOG for its phenomenal wealth of musical content—for one, it brings together some 900 music blogs in a surprisingly coherent package.

**ZumoDrive** ([zumodrive.com](http://zumodrive.com)):

We didn't include ZumoDrive in our list of sites because (like Memeo Share) it doesn't work unless you install its app on your PC. "But we still recommend it for anyone whose media collection is too big for their iPhone," says Strohmeyer. "With ZumoDrive on your desktop PC, you can stream every bit of your music and video to your phone without leaving anything behind, and that makes it just plain cool."

**Vlingo** ([vlingo.com](http://vlingo.com)): This top-notch app brings voice recognition to a wide variety of BlackBerry, iPhone, Nokia, and Windows Mobile phones. Unfortunately, Vlingo is primarily an app, not a site; hence its exclusion from our roundup. But don't let our nitpicking keep you from giving Vlingo a spin.

There you have it: a bonus fistful of sites with a lot to recommend them. Are they "incredibly useful"? That depends on your perspective. So let's just go with "mighty useful"—which is pretty good in my book. ●

Steve Fox is editorial director of PCWorld.



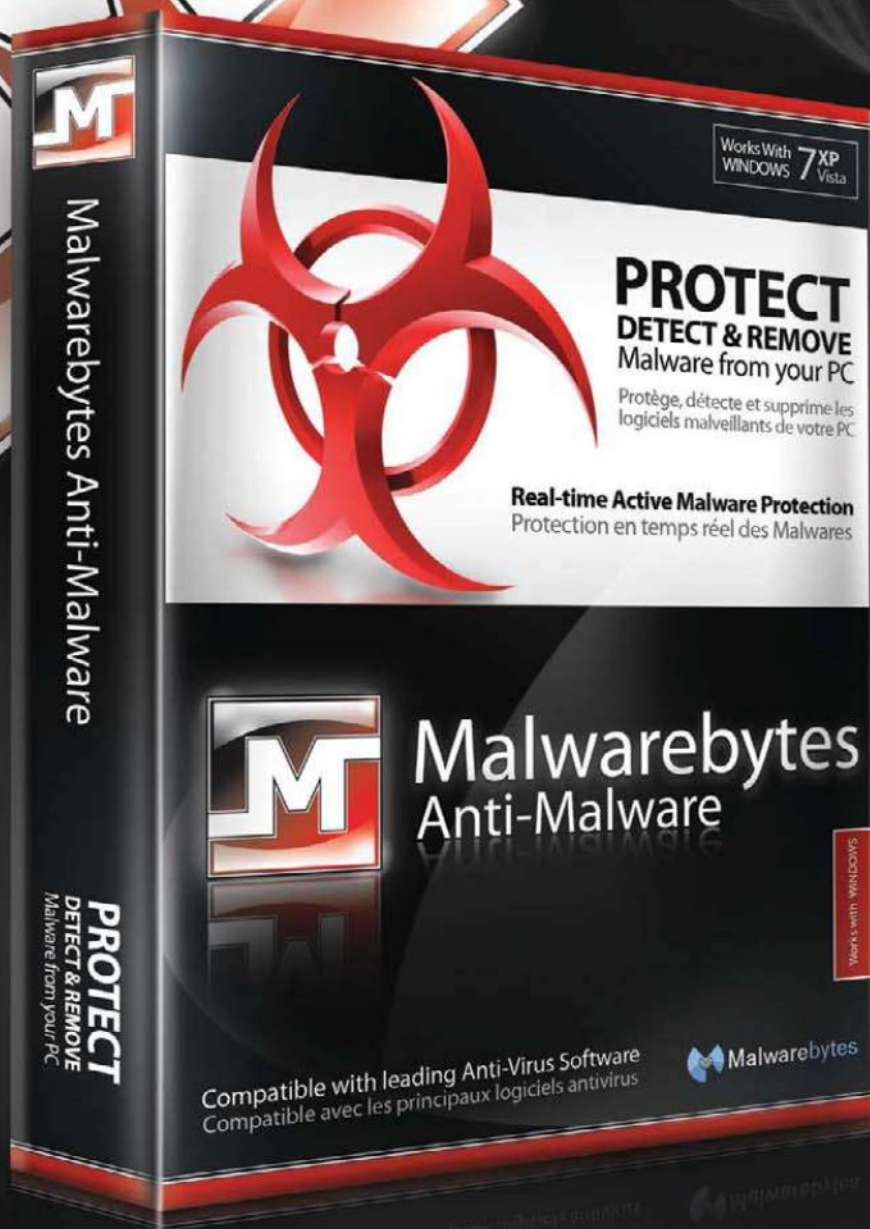
Share takes the effort out of sharing your library. You simply form a group and drop photos into your Memeo folder. Then Memeo Share takes over, syncing everyone's shared folders and alerting them when new images arrive.

**Freecycle** ([freecycle.org](http://freecycle.org)): If your basement is brimming with gear you don't use anymore, Freecycle is for you. "This simple site gives you a guilt-free way to get rid of old tech by donating it to people and organizations that really need it," says Strohmeyer. "It's the ultimate win-win." But if you don't hoard old scanners, PCs, TVs, and the like (I've been assured that such people exist), Freecycle will leave you cold. Hence its



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Our April feature “The Subscription Trap”—about sneaky signups and other marketing tricks at many sites—drew some fervent responses from readers who either have been entrapped themselves or just keenly resent these underhanded plays. Add your comments at [find.pcworld.com/69961](http://find.pcworld.com/69961).



## The Subscription Trap

Regarding “The Subscription Trap” (April): We need more awareness of Internet scams, which is what these subscription traps appear to be. I have insisted that all my friends obtain this issue of *PCWorld* and read the story.

*Melvin Campbell, Rock Island, Washington*

I had my own nightmare experience with a people-finding site. It offered more information than other sites, but it did cost something—a mere \$4.95. I filled out the required information for the credit card charge, but did not scroll down under the Submit bar, missing a check mark on an auto membership agreement that would charge \$19.95 monthly to my credit card.

I didn’t catch these charges on my statement until months later. My credit card company graciously removed the current charge, but the charging company said that it would credit only the last one—which my credit card company had already removed.

After some research online, I filed a complaint with my state, the federal government, and a complaints board that already had a class-action suit against the company and its partners.

I e-mailed the company with this

information, and two days later received an e-mail saying that all the charges had been credited back to my card. I consider myself very lucky, as this rarely happens. I now read everything and make paper copies of all orders and payments.

I made two foolish mistakes: not reading below the Submit button, and not checking my bank-card statement more carefully each month.

*Marsha Watson, Klamath Falls, Oregon*

As you suggest in the sidebar “How to Avoid Getting Hooked,” make sure you always use a credit card, not a debit card. Why? Because it is much easier to get credit card charges refunded immediately than debit card charges.

*Adam Van Hook-Drucker, Phoenix*

## Conflicting Advice?

I’m wondering if the writers at your magazine talk to each other. Case in point: In your April issue [“Find Your Windows 7 Desktop”], you portray the HP Pavilion HPE-170t as a top choice among desktop PCs. On paper, it looks like a good machine; yet in your March survey article, “Technology’s Most (and Least) Reliable Brands,” you wrote, “Across the board and in every category we tracked where it had a significant

presence, Hewlett-Packard ranked as the least-reliable manufacturer in the survey.” As good as a computer looks on paper, it isn’t of much use if it’s plagued by problems or if a user can’t get decent support to fix them. How do you reconcile these two very different messages regarding HP products, and where does it leave the consumer who depends on your magazine to guide technology purchases?

*G. Richards, Schenectady, New York*

**Editor’s response:** We agree that it is important to take a holistic view of any tech product you buy. But our readers expect us to focus on the technical specs and lab performance of products they might consider buying. That said, we are experimenting with factoring a weighted Reliability and Service score for manufacturers into the scoring system we use to rate and rank products. —Mark Sullivan

Re: “Eleven Things I Now Know About the iPad” ([find.pcworld.com/69960](http://find.pcworld.com/69960)): The iPad is a front for the iTunes store. After the hype wears away, people will realize they have no need to lug around an Apple Game Boy.

*shoaura, PCWorld.com forums*

## 3G Wireless Speeds

In the April *Forward* story, you say that “AT&T Roars Back...” in your wireless speed tests, finally expanding its network and improving its 3G speed.

However, a friend who uses an AT&T smartphone visited us recently, and we discovered that he could get only one bar at our home. He could barely make calls, let alone use his smartphone’s fancier and more demanding features. In contrast, when my husband is away hunting in upper Wyoming, he can call me using the Verizon network. What good is having the fastest 3G network if you can’t make a connection?

*Jo Kelly, Conklin, Mississippi* »



## Tech Pranks

I was disappointed in your "Five Playful Tech Pranks for April Fools' Day" [*Here's How*, April]. Having worked in an IT department on the help desk for some years, I can only imagine how busy corporate IT offices will be on this day as a result of your "helpful tips" to sabotage a coworker's computer. How about just going out to the parking lot and letting the air out of someone's tires—funny, eh? Many not-so-savvy computer users might try to fix their

own computer after enduring such sabotage, making the IT department's job even more time consuming.

Come on, guys, let's stress the importance of locking your computer when you leave your work space and actually help *PCWorld* readers!

*Kerry Carver, East Peoria, Illinois*

**Editor's response:** We realize that many IT departments have pretty thankless jobs, and that most help-desk staffers don't need extra work. That's why we try to strike a balance in our PC pranks—focusing on little gimmicks that might give the prankee a jolt of horror but will keep the person's hard drive intact.

Also, no rule forbids you to fix a PC that you pranked. The sweetest moment in the prank isn't when the victim sees the seemingly broken monitor, it's when you calmly walk over to the PC, change the desktop picture, and look in the person's eyes for the inevitable "D'oh!" moment—all without so much as a filed ticket or tech support call.

—Patrick Miller

## Surviving Tech Support

Regarding "Tech Support Survival Tips" (*Here's How*, April): Print the spec sheet from the online manual (and verify that everything listed is there); also print system information and screenshots of Msconfig, and all hardware information you can pull from screens and the board. Store the pages in a large envelope, and keep that envelope securely near the computer. It will really help with troubleshooting. And note any part numbers and serial numbers in addition to the model name—they'll give tech support more hardware info.

*ejtoll, PCWorld.com forums*

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### CORRECTION

IN MAY'S "USB 3.0 Arrives" (*Reviews and Rankings*), the name of the Buffalo hard drive should have been given as the Buffalo DriveStation USB 3.0 HD-HXU3.

*PCWorld regrets the error.*



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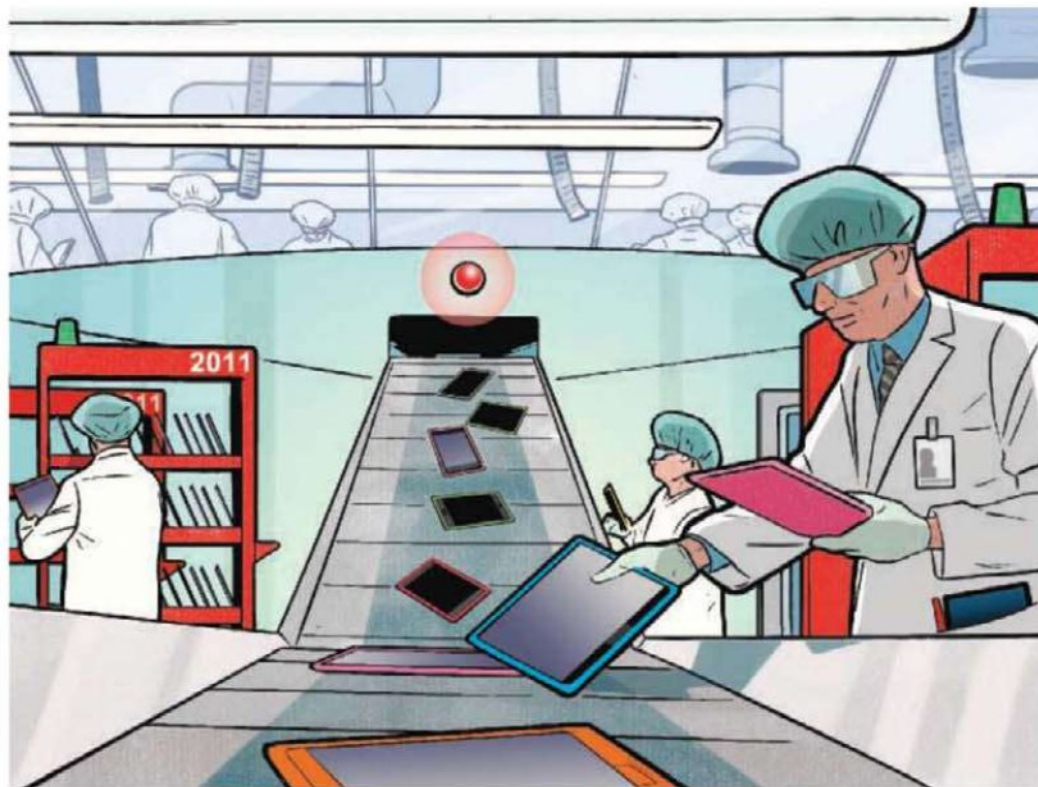
## Apple's Rivals Scramble to Make iPad Challengers

Dell, HP, and Lenovo are going all out to compete against the Apple iPad tablet PC, in a hot market that could see 50 million units sold by 2015.

BY DANNY ALLEN

FEW PEOPLE DOUBT that 2010 will go down as the year the tablet computer took off. On April 3, the first day of sales, Apple sold 300,000 iPad tablets to eager buyers. Weeks later, Apple said it would delay the iPad's international launch by one month because it couldn't keep up with domestic demand. (See page 76 for our take on the iPad.) Meanwhile, other companies are gearing up to ride the wave by prepping their own tablet PCs.

Rivals to the iPad include tablets that carry Google's Android operating system, Flash video, multitouch



screens, front-facing cameras, and multitasking support. These models offer alternatives to the iPad, which lacks key features such as Adobe's multimedia Flash technology, a camera,

and a built-in USB port.

Will tablets become the go-to gadget when you want to kick back and browse the Web, check e-mail, read an e-book or magazine, play games, or watch a movie?

Tablets have tanked in the past. Yet the IDC market research firm projects that the category of media-centric tablets may sell as many as 15 million units in 2011.

Analyst Bob O'Donnell of

**For full specs and other details about all of the tablet PCs discussed here—as well as several others—see our slideshow “Slate Wars: 15 Tablets That Could Rival Apple’s iPad” ([find.pcworld.com/69983](http://find.pcworld.com/69983)).**



**IT'S RAINING tablet PCs as manufacturers try to find pots of gold in the vicinity of the Apple iPad. The five tablet models depicted here are (left to right) the HP slate PC, the Fusion Garage JooJoo, the Dell Streak (aka Mini 5), an artist's rendering of the rumored Microsoft Courier, and the Lenovo IdeaPad U1.**



IDC says that Apple rivals will struggle to match the iPad's slick touch interface, unique content (such as iBooks and iTunes), and thousands of App Store applications. "Success is pinned on the amount of apps you can offer tablet users," O'Donnell says.

But what iPad alternatives lack in apps they make up for in hardware specs. They will offer a broader choice of shapes and sizes, along with Webcams (for video chat), USB slots, and HDMI ports. Some upcoming tablets will pair Windows 7 with an Intel Atom processor, or match nVidia's Tegra 2 chip with Linux or Google's Android OS. Multitasking? Check. Flash video? You bet.

Google is said to be building a tablet that will run either its Android platform or the Web-centric Chrome OS. Microsoft may be developing a paperback-size dual-screen device, dubbed the Courier, that may be more of a pen- and touch-controlled digital journal/e-reader than an iPad-style media tablet.

Meanwhile, Toshiba and Asus will hedge their bets by

building both Google- and Windows 7-based tablets. Toshiba has its eye on late 2010; Asus is likely to unveil new tablet devices (perhaps even a Chrome OS slate) this June at Computex, Asia's largest tech show.

Apple has done the tablet market a favor, according to Jeff Orr of ABI Research. He believes that the iPad has raised the public profile of the media-tablet category. By 2015, ABI Research estimates, 57 million tablets will be sold annually. Here's a look at some of the tablets, besides the iPad, that may be popular in the year ahead.

### HP's Slate PC

The device doesn't have an official name at press time, but HP's slate PC is already turning heads. It runs Windows 7, can accommodate hardware-accelerated Flash video, and may cost between \$549 and \$599. Specs include an 8.9-inch (1024-by-600-pixel) display, 32GB or 64GB of storage, a USB 2.0 port, a SIM card slot, a VGA Webcam on the front, and a 3-megapixel camera on the back. HDMI output comes

via a dock accessory. Basically it's a netbook squeezed into a slate design. Also on board: a 1.6GHz Intel Z530 Atom CPU, 1GB RAM, and 802.11b/g Wi-Fi.

HP reportedly is working on a range of tablets as well—one a mini Android device intended to compete with the 5-inch Dell Streak.

### Fusion Garage JooJoo

Available now, the notorious CrunchPad-turned-JooJoo tablet has a 12.1-inch capacitive multitouch display, runs Ubuntu Linux with a custom interface, and supports Flash video. Early reviews have criticized the choppiness of its Flash video playback, and have noted that \$499 for a browser-only 4GB tablet (its apps are Web-based) is pricey. Key specs include a 1.6GHz Intel Atom CPU, nVidia Ion graphics, 1GB of RAM, Bluetooth, and 802.11n Wi-Fi.

### Dell Streak (or Mini 5)

Dell has confirmed plans for a "family of tablets," led by this Android 2.x handheld. Its 5-inch multitouch screen is more pocket-friendly than

those on rival slates, yet it's larger than most smartphone displays (the Mini 5 can make calls). It comes with a 1GHz Snapdragon CPU, a 5-megapixel camera on the back, a front-facing camera (for video chat), and GPS. The 5-inch Streak will arrive around midyear, to be followed closer to 2011 by 7- and 10-inch models.

### Microsoft Courier

Microsoft's Courier, a folding dual-screen digital journal, has the potential to match Apple in interface innovation...if it ever leaves the drawing board. An Engadget ([engadget.com](http://engadget.com)) report cites an "extremely trusted source" as saying the Courier is on track for the second half of 2010. It will reportedly use nVidia's Tegra 2 chip, and the same OS as Microsoft's Zune HD and Windows Mobile 7 phones.

### Lenovo IdeaPad U1

As a laptop, the IdeaPad U1 runs Windows 7 with a 1.3GHz Core 2 Duo SU4100 processor. Pop the screen off, however, and the versatile machine instantly ➤



becomes a multitouch tablet running its own widget-style Linux interface. And get this: Some tasks, such as open Web pages, automatically continue between both modes. The keyboard base can operate independently, the screen includes 3G, and Lenovo rates the unit's battery life at about 8 hours. It sounds great, but the U1's popularity could hinge on its price and on how responsive to touch its resistive display is. The Lenovo IdeaPad U1 is expected to arrive in early June for around \$1000 without carrier subsidies.

## Netbook Tablets

If you'd like to flick through Web pages or e-books by touch, but not lose your physical keyboard, a netbook with a swiveling screen may be a good choice. Over the next few months, several "netvertibles" will emerge, including Lenovo's IdeaPad S10-3T (available now), Viliv's S10 Blade, Asus's Eee PC T101MT, and Gigabyte's Touch Note T1000P. Each model will have a 10.1-inch multitouch display, will run Windows 7, and will cost around \$500. That's significantly cheaper than standard 12.1-inch convertibles such as the HP TouchSmart tm2t and the Lenovo ThinkPad X201T—both of which are multitouch capable.

## Archos 9 PC Tablet

On paper, the Archos 9 PC tablet looks quite impressive, thanks to a generous

**FIVE MORE IPAD challengers (clockwise from upper right): the Lenovo IdeaPad S10-3T (a representative 'netvertible' netbook tablet), the Archos 9, the ExoPC Slate, the Innovative Converged Devices Ultra, and the Notion Ink Adam.**



configuration that includes a 1.2GHz Atom Z510 CPU, 1GB of RAM, a 60GB hard disk, Windows 7, Flash support, a front-facing Webcam, and a price of \$549. But the device's 8.9-inch display is resistive and lacks multitouch, and the company hasn't made standard Windows 7 any more finger-friendly. Archos also sells 7- and 5-inch Android-based tablets/mobile Internet access devices; and the company recently announced the Archos 8 Home Tablet, which is essentially an 8-inch touchscreen photo frame that runs Android.

## ExoPC Slate

The ExoPC Slate—a Windows 7 slate with a custom touch interface, an 8.9-inch (1366-by-768-pixel) multitouch screen, netbook-like specs, and Flash support—

was scheduled to arrive at the end of March, but ExoPC postponed the launch to June or July. To check in on the rival HP slate, perhaps? Whatever the reason, the ExoPC Slate will include a 1.66GHz Intel Atom N450 processor, 2GB RAM, 32GB or 64GB of storage, Intel GMA500 graphics, a front-facing 1.3-megapixel camera for videoconferencing, 802.11n Wi-Fi, two USB 2.0 slots, and a mini-HDMI output. Prices will start at \$599 (32GB) when the unit comes out in the summer of 2010.

## ICD Ultra

When it reaches the market at midyear, Innovative Converged Devices' Ultra is expected to have a starting price of \$250 (without carrier subsidies). Verizon used an Ultra in January to demonstrate its next-generation

4G LTE wireless network; and the Ultra's big brother (the 15.6-inch ICD Vega) is scheduled to debut with T-Mobile in the United Kingdom before the end of the year.

Specs include a 7-inch resistive single-touch display (with a resolution of either 1024 by 600 pixels or 800 by 480 pixels; capacitive versions are expected as well), a 1GHz nVidia Tegra 2 (Tegra T20) CPU, 256MB of RAM and 512MB of ROM, 4GB of internal flash memory (non-removable), 802.11b/g Wi-Fi, Bluetooth, a mini-HDMI output, FM radio, and 3G and GPS options.

## Notion Ink Adam

Everything about this device screams "Innovation!"

Designed in India, the Adam uses a multitouch-enabled 10.1-inch "transflective" screen from Pixel Qi that switches between color LCD and sunlight-friendly e-paper modes as needed. It also has a 3.2-megapixel, 180-degree-swivel camera; a high-def-video-capable Tegra 2 processor; an HDMI port; 3G; and GPS. It has been previewed running Android 2.1. A cheaper (and thinner) standard-screen version will also be available this summer when the Adam launches this June or July for between \$327 and \$800.

*Senior News Editor Tom Spring contributed to this report.*



# Grading iPhone OS 4.0: A Features Report Card

Will Apple's mobile OS take the lead once again, or is it merely pulling even (for now) with Android and other competitors?

THIS APRIL, Apple unveiled seven major features of its new iPhone OS 4.0. Most of them already exist in other mobile operating systems. How does Apple's OS compare to the competition?

## Multitasking

iPhone 4.0's multitasking system is incredibly simple and clean, and Apple says it won't drain your iPhone's battery—because the apps don't run simultaneously at full power. Apple's multitasking combines background processing and fast app switching, so you can, say, stream music from Pandora while checking e-mail.

To see your open apps, you double-click the home button, and a dock showing all of your open apps appears at the bottom of the screen.

The other mobile platforms all have some kind of multitasking system, too. Android, Symbian, and WebOS use true multitasking. Windows Phone 7 has quick app switching and some background processing. Visually, I like the Leap feature in HTC's Sense interface for Android, which lets you



pinch to view seven thumbnail versions of your open pages; from there, you can go to any open app. I also love Palm WebOS's attractive, easy-to-use deck-of-cards multitasking system.

## Customization

iPhone 4.0 doesn't support live widgets (à la Android or Symbian), nor does it offer a

customizable homepage. But you can personalize the wallpaper to some extent, and folder support is excellent: You can organize your apps into folders by category by dragging and dropping them into one another. The iPhone will automatically assign a category name to them.

## Notifications

Apple tweaked its notifications system, which I still find slightly disruptive, and which gives you no place to save or store notifications. Both Palm and Android have relatively unobtrusive notification systems that let you see older notifications.

On the other hand, iPhone 4.0 will have "local notifications" that don't rely on a third-party server.

## Universal Inbox and Exchange Accounts

Apple finally adopted universal inbox support, so you can view your Exchange, Gmail, Yahoo, and other accounts in one seamless

view. The interface seems to be on a par with those used for Android, BlackBerry, and WebOS universal inboxes. iPhone 4.0 will also support multiple Exchange accounts.

## Gaming

Android and WebOS have recently added support for 3D graphics, but in this area the iPhone is still king. And with the new Game Center coming later this year, the iPhone will just get better.

To keep pace, Windows Phone 7 will ship with a mobile version of Xbox Live support, offering similar features to Game Center.

## Navigation and Maps

Google Navigation is free and available to all Android phones, as is Ovi Maps for Nokia Symbian phones. And all Windows Phone 7 devices will come with Bing Maps.

An iPhone Maps app may arrive later this year, but for now you have to use Google Maps or a third-party app.

## Social Networking and Flash Support

Aggregated social networking is a hot feature in phone OSs, particularly in Android flavors such as Motorola MotoBlur and HTC Sense, which list all activity on your social networks in a seamless, integrated view. Currently, iPhone 4.0 offers no social networking aggregator.

Flash Player 10 is coming to all of the other mobile platforms, but Apple has no plans for Flash or Java support on the iPhone.

—Ginny Mies

## iPhone OS 4.0 Catches Up to Other Mobile OSs

FEATURE	iPhone 4.0	Android 2.0 OS	Palm WebOS	Windows Phone 7
Flash Player 10 support	Probably never	Coming this year	Coming this year	Coming, but not at launch
Gaming network	Game Center	None	None	Xbox Live
Multiple Exchange accounts	Yes	No	Yes	No
Multitasking	Yes	Yes	Yes	Yes
Notifications	Yes, but not stored	Yes, stored	Yes, stored	Yes, stored
Universal inbox	Yes	Yes	Yes	Yes
Wizard support	No	Yes	No	No



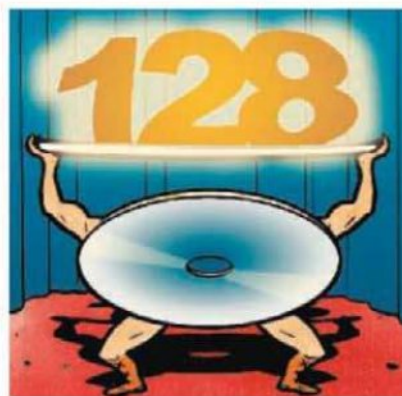
## Blu-ray Format Adds Capacity, Functionality

THE BLU-RAY DISC format will soon be able to perform some nifty tricks—if manufacturers adopt new specifications that the Blu-ray Disc Association, the format's governing body, is likely to finalize soon. First, Blu-ray disc capacity could jump to hold 128GB; today's maximum is 50GB. Second, the discs will be able to store fixed data on one layer and rewritable data on another. Before either upgrade to Blu-ray can occur, a consortium of Blu-ray manufacturers must agree to them; observers expect such an agreement to be worked out by the end of the summer. The fledgling disc types will

still face significant adoption challenges, however.

Problem number one for consumers is that current Blu-ray hardware can't take advantage of the new Blu-ray disc enhancements. Requiring everyone to purchase new Blu-ray players will not be an easy sell; and on PCs—where Blu-ray Disc burners have yet to supplant rewritable DVD burners—the task may be even more daunting.

The two distinct Blu-ray disc format enhancements are BDXL (which increases storage capacity) and IH-BD (which adds a read/write layer to Blu-ray discs).



Even if it doesn't become a U.S. consumer standard for recording television programs, BDXL could make a splash in the professional storage market, as a medium for computer backups and archiving. It might also be a viable alternative to hard-drive storage, especially in

data-driven professional markets. The most obvious use of IH-BD will be in gaming, as it can store game code in a read-only (ROM) layer, and scores and game progress in a 25GB rewritable layer.

BDXL discs have more layers than do current Blu-ray discs—hence the need for new hardware.

“Existing recorders can't support these multilayer discs,” says Andy Parsons, chairman of the Blu-ray Disc Association. “The drive's optical pickup has to be redesigned to accommodate reading and writing through multiple layers.”

—Melissa J. Perenson

## BETA WATCH EDWARD N. ALBRO



### Pearltrees: Arrange Bookmarks Visually

Lately, I've been drawn to the mind-map model of arranging information, which consists of a central hub with spokes of related topics radiating from it. The model is a useful way of organizing data in a world where everything seems to be connected in some fashion. That's why I like Pearltrees, a free, visually oriented bookmarking service. Each bookmark is a small, circular “pearl” that you can connect visually with related pearls. If you're interested in netbooks, for instance, you can have a branch of reviews, another of how-to information, and yet another with videos. To rearrange the representation, simply drag your pearls around. [pearltrees.com](http://pearltrees.com)

### Glympse: Share Your Location Privately

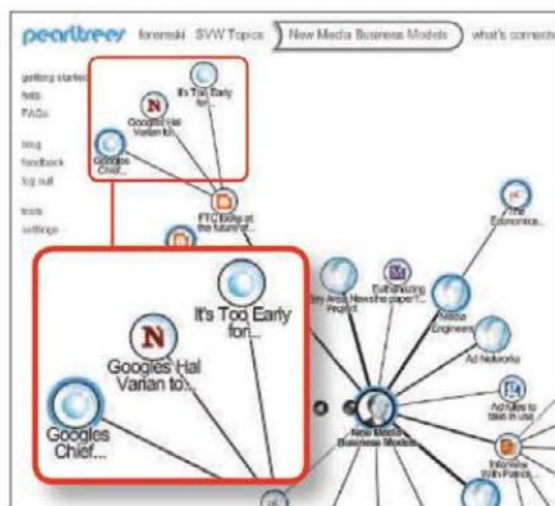
You may know about Foursquare and Gowalla—phone apps that let you tell the world where you are and what you are doing. What if you want to inform not the world, but only your spouse?

Or a coworker whom you're planning to meet? Glympse, a free service with OS-specific apps for iPhone, Android, and Windows Mobile phones, lets you share your location with the particular people you designate for a limited time (between 5 minutes and 4 hours) that you set. Each such person will receive an e-mail or text message with a link to a map identifying your current location, updated in real

time, and a simple message. When the time limit expires, the recipient can't track you anymore. [glympse.com](http://glympse.com)

### Tinysong: Tweet Tunes

Are you compelled to tell your friends when you discover a new band or hear a fantastic song? Then you have to try Tinysong, a free service created by the developers of Grooveshark. Search for your latest favorite on Tinysong, and the service will provide a short URL that you can share in Twitter or elsewhere. When your tweeps click the link, they'll hear the tune (the whole thing, not just a preview) on Grooveshark. [tinysong.com](http://tinysong.com)



**PEARLTREES USES** the mind-map model to organize your bookmarks, connecting related items visually.



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## Expert Sees Arrival of 3D Internet in Next Decade

SEAN KOEHL, a technology guru at Intel Labs, predicts that much of the Internet will host realistic-looking three-dimensional applications in five to ten years.

"The Internet may never go fully 3D," says Koehl, who reasons that people will likely prefer to experience certain kinds of online interactions, such as reading text, in two dimensions.

Nevertheless, Koehl expects 3D technology to change the way we interact with online information. "I think it's going to give flexibility to let people really take advantage of virtual realities. The power to shape your environment would be dramatic," he says.

"If you look at virtual worlds today, the graphics are a little behind," he adds. "Once we get to a certain level of performance, the realism of the 3D world will change by leaps and bounds. The realism could be like a Hollywood CGI [computer-generated imagery] movie in maybe ten years."

—Sharon Gaudin

## GEEKTECH

### AMD Turbo Core: Automated Overclocking

AMD recently released its new six-core Phenom II X6 processor, code-named Thuban (see [find.pcworld.com/70037](http://find.pcworld.com/70037) for more information). And with the chip came Turbo Core, AMD's take on automated overclocking. We've covered Intel's comparable Turbo Boost feature at length elsewhere (see [find.pcworld.com/70038](http://find.pcworld.com/70038)); Turbo Core follows many of the same principles.

#### Safe Overclocking

The idea behind Turbo Core (and Turbo Boost) is that many apps don't take full advantage of multicore processors, leaving lots of wasted potential as unused cores lie dormant. Both Turbo Core and Turbo Boost propose to fill that gap by increasing the performance of cores that are in use, while staying within the chip's power and heat specifications. In the Phenom II X6, the Turbo Core feature will kick in when three or more processor cores sit idle, automatically overclocking three active cores up to 500MHz over their stock clock speed.

Though Turbo Core is promising, AMD has yet to develop a response to Intel's Hyper-Threading feature, which allows a single core to process a pair of threads simultaneously, effectively making twelve threads available for multithreaded applications to take advantage of on a six-core processor.

CPUs based on the Thuban platform will work with existing socket AM3 and AM2+ motherboards (after a BIOS update), including those based on the new 890GX chipset (which we recently reviewed; see [find.pcworld.com/70039](http://find.pcworld.com/70039)). This backward compatibility promises to reduce upgrade costs, and cost-conscious upgraders will certainly appreciate it. AMD has sold six-core Opteron server processors for some time, but the Phenom II X6 is aimed at a wider market, with a not-especially-subtle nod toward enthusiast gamers, and workstations. The new processor is available now.

While Intel's processors have maintained a steady lead on the performance charts, AMD's offerings have historically been competitive on price—and the Phenom II X6 is no exception. So even if its six-core platform can't unseat Intel's six-core Core i7-980X processor ([find.pcworld.com/70040](http://find.pcworld.com/70040)) in speed trials, AMD has another

Also: The iPad's arrival triggers a flood of music-production apps optimized for the new tablet.

card to play: It will offer consumers a six-core processor at a suggested retail price of \$300—well below Intel's \$1000 price point—which, to power users on a strict budget, may outweigh any performance shortcoming.

At press time, we had not yet compiled any performance results for the Phenom II X6, but head over to [find.pcworld.com/70041](http://find.pcworld.com/70041) to see how AMD's latest CPU fared.

—Nate Ralph



THE INTERFACE for Korg's iElectrube for iPad app.

#### iPad Music Apps

The Apple iPad is here (see page 76), and so are a multitude of third-party apps. Here's a look at four music-production apps made for the iPad.

Synth for iPad is an on-screen keyboard app that features over 40 instruments and assorted effects controls. Korg's iElectrube for iPad is a full-on virtual analog musical instrument synthesizer with a ton of effects, sound banks, and a step sequencer. It's modeled after Korg's Electrube series of analog synthesizers.

Groovemaker is a popular "beatmaking" loop sequencer app that debuted on the iPhone. This novice-friendly app lets you select from a huge library of loops (drum track, bassline, synth riff, and more) and layer them to create music on the fly. When you're done, you can export your newly created song to a PC or a Mac.

For more on these and other apps, see [find.pcworld.com/70033](http://find.pcworld.com/70033).

—David Saetang ●

Visit the GeekTech blog at [go.pcworld.com/geektech](http://go.pcworld.com/geektech) for more hacks, tweaks, and tips.



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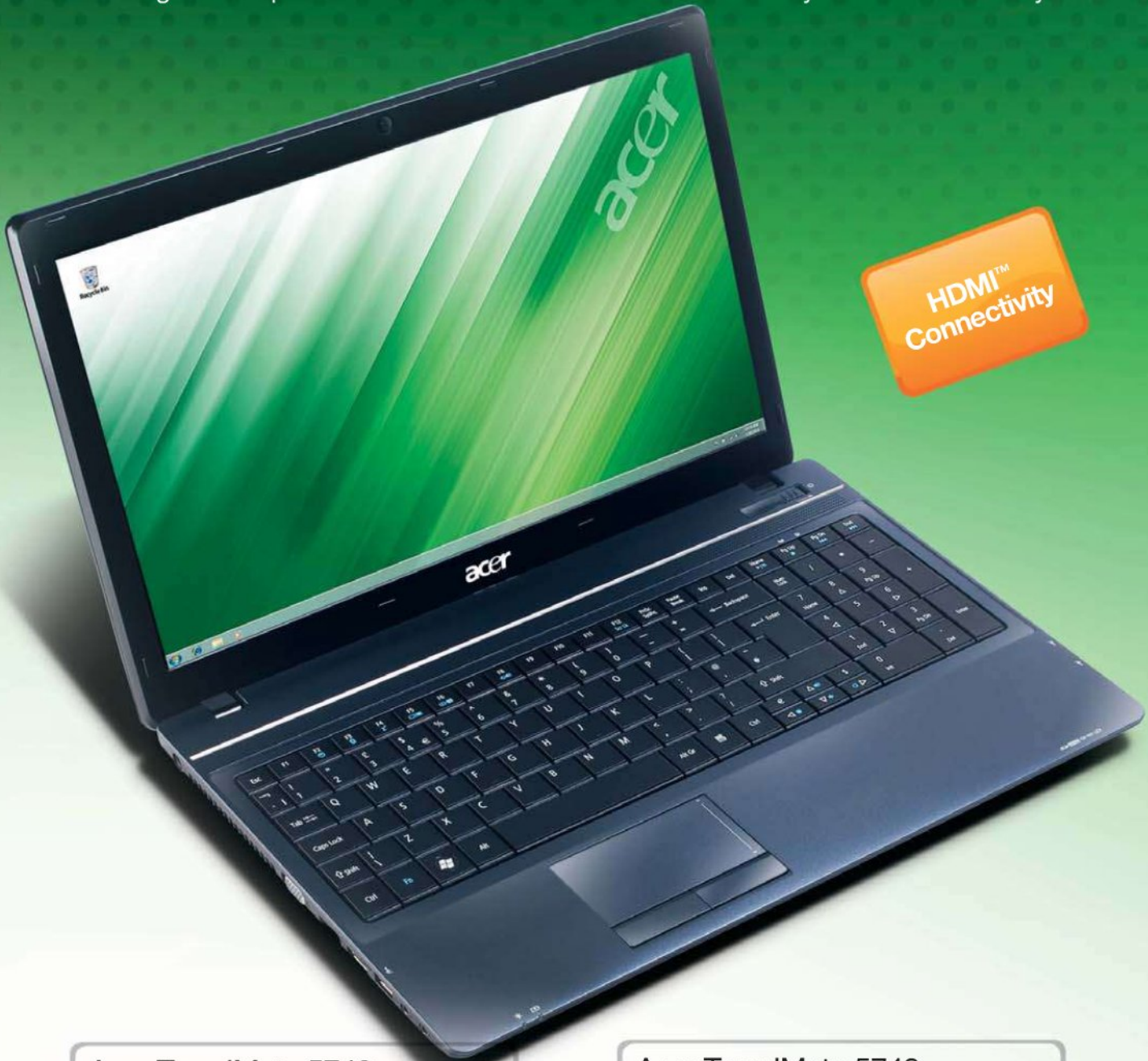
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  - Intel® Pentium® Processor E5500
  - 2GB DDR3 800 SDRAM
  - 320GB<sup>1</sup> SATA hard drive
- VX275-UD5500C (PS.VAM03.002)

**\$449**

### Acer P5271

- DLP® 3D-ready professional projector<sup>5</sup>
  - XGA (1024 x 768) native resolution
  - 4,000-hour lamp life (economy mode)
  - 3100 ANSI lumens (standard mode)
  - 3000:1 contrast ratio
  - 2X digital zoom
- (EY.J8701.008)



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### Acer S243HL bmii

- 24" wide-screen TFT LCD
  - White LED backlight
  - 1920 x 1080 maximum resolution
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  - 170°/160° horizontal/vertical viewing angles
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- Integrated webcam
- One-year limited warranty<sup>2</sup>

LED-Backlit  
Display



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for TravelMate Notebooks with 1-Year Limited Warranty (On-site service and Total Protection Upgrade run concurrently with limited warranty and limited warranty extension.)  
\$299

<sup>1</sup> When referring to storage capacity, GB stands for one billion bytes. Some utilities may indicate varying storage capacities. Total user-accessible capacity may vary depending on operating environments.

<sup>2</sup> For a free copy of the standard limited warranty end-users should see a reseller where Acer products are sold or write to Acer America Corporation, Warranty Department, P.O. Box 6137, Temple, TX 76703.

<sup>3</sup> The alternate operating system can be installed in place of, not in addition to, the pre-loaded operating system.

<sup>4</sup> Six-cell, 4400mAh lithium ion battery, up to 8.0 hours life depending on configuration and usage.

<sup>5</sup> 3D content, 3D glasses and an appropriately equipped PC are also required to display 3D images.

<sup>6</sup> Touch-screen capability requires appropriate software installed on the PC connected to the display. This software does not come with the display.

<sup>7</sup> On-site service applies to the continental U.S. and Canada only and may not be available in all locations. In those areas where on-site service is provided, a technician will be dispatched, if necessary, following efforts to resolve the problem by telephone support.

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# Consumer Watch

## Health-Care Records Enter the Digital Age

BY YARDENA ARAR

IT HAPPENS WHENEVER you visit a new physician, or one you haven't seen in a while: You have to fill out an intimidating, mile-long form with dozens of questions about every illness and chronic condition that you and close relatives have had, every time you've been hospitalized, every prescription, and so on. Wouldn't it be great if the doctor could pull the information up without handing you that clipboard?

The technology to bring medical records into the digital age is available—you can already assemble your medical history on one of several free Web services. They're unlikely to replace pencil and paper in most doctors' offices anytime soon, but they can be memory jogs and aids to caregivers.

The largest services seem sensitive to privacy concerns. "We have a really strict set of rules about what can happen to this data," says Sean Nolan, chief architect and general manager for Microsoft's Health Solutions Group. "You as a consumer own it." Microsoft HealthVault's privacy policy promises not to target ads or services based on your information without your consent. And Google Health posts a privacy policy for developers who want their apps on the service.

### Online Health Services Offer Interactivity

Microsoft appears to be the furthest along in bringing interactivity to its service. In HealthVault ([www.healthvault.com](http://www.healthvault.com)) you'll find a list of industry participants (insurers, doctors,

hospitals, pharmacies) that Microsoft has partnered with for collecting and/or providing data; the feature enabled me to download records of prescriptions I've filled at Walgreens. In addition, a growing number of health-monitoring devices (blood-pressure and glucose-level readers, for example) can import readings into HealthVault and simplify some tedious

record-keeping. And HealthVault has links to applications, such as the free Mayo Clinic Health Manager app, that use your stored data to help you make informed decisions.

Google Health ([find.pcworld.com/70012](http://find.pcworld.com/70012)) supports importing data from various medical sources, as well. It has links to a few fee-based services that will convert paper records (obtained from you via fax or from your health-care providers) into electronic data that you can then import. The service also has links to online health tools and services that will help you find providers. Finally, it gives you access to services that will let you share your medical data, by printing a card to carry for emergencies, say, or by creating a record that some doctors will take in lieu of a clipboard form.

More of a do-it-yourself proposition, WebMD Personal Health Record ([www.webmd.com/phr](http://www.webmd.com/phr)) leaves you on your own for entering data. But filling out the site's lengthy Health-Quotient questionnaire can be a wake-up call for embracing a healthier lifestyle: At the end of the exercise you get a numerical rating for your overall health, an explanation of how you ranked against other users your age, and graphs showing your risk for problems such as stroke and heart attack. »

Free Web services allow you to compile and manage your medical history, but it will be a while before they catch on in doctors' offices.



ILLUSTRATION: RICHARD MEA

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**Microsoft researchers are studying how to improve medical care by making health data available to consumers on mobile phones and Xbox 360 consoles. Learn more at [find.pcworld.com/69985](http://find.pcworld.com/69985).**





## SKEPTICAL SHOPPER GINNY MIES

Some insurance companies are giving customers access to patient-centric medical records—histories that present a picture of a person's health as a whole rather than the traditional claim-by-claim records that focus on specific services. And some are also offering patients tools to help track the costs of their care. One tool is the Quicken Health Expense Tracker ([healthcare.intuit.com](http://healthcare.intuit.com)), which makes it easier to manage medical claims and doctor bills. (In a related development, Intuit has begun marketing an online bill-payment system to physicians, who have been slow to allow patients to settle bills electronically.)

### Slow Adoption Rate

Unfortunately, says Forrester Research analyst Elizabeth Boehm, very few people (no more than 3 percent of the U.S. population) are taking advantage of online medical-history tools because they're a lot of work—and because doctors don't really trust them anyway.

It's a sort of Catch-22: Electronic health records won't be useful until more doctors and hospitals contribute to them, but doctors and hospitals won't contribute to them until they're more useful. Still, even without doctor buy-in, these records can be invaluable in some instances—say, to other caregivers (such as relatives of the patient or hired aides who may not be familiar with the patient's history).

The transition to electronic record-keeping is getting a boost from the Obama administration's stimulus plan, which includes incentives for physicians who switch over to electronic medical records. The administration considers the adoption of this technology crucial, as it can help reduce costs by eliminating duplication of effort (such as tests that one doctor performs because he doesn't have the results of the same test conducted by another doctor). It will take time, but the spread of online systems that let patients manage their own health-care information will continue to pick up speed.

The clipboard's days are numbered.

## Want a Deal? There's Strength in Numbers

DEAL-OF-THE-DAY sites have been around forever, but sites that offer deals on local restaurants, services, and stores have boomed lately. Most (Tippr being an exception) have one catch, though: A certain number of people must purchase the deal before you can have it. For example, before I could enjoy half off a meal at my favorite restaurant, 250 other people had to sign up for the same bargain. Offering such fantastic prices makes sense to local merchants only if they can get a lot of new customers to try their wares.

With bigger local-deal sites, it usually isn't difficult to induce enough people to sign up for the offer. Within an hour of launch, over 250 people had purchased the deal on my favorite restaurant. On smaller sites, you might have to e-mail your friends and ask them to take part. If you purchase a deal but not enough other users sign up for it, your credit card isn't charged.

After you get a coupon, make sure you know how to redeem it. If it is for goods that you can purchase online, you might receive a code to enter at checkout. If it is for a restaurant, you may receive a printable coupon via e-mail.

Pay attention to the fine print: The bargain might not apply to the products or services you want. For instance, a deal for half off goods at a grocery store might impose restrictions (I recently saw a deal from a natural-foods store for everything except vitamins and cosmetics).

### Popular Local-Deal Sites

Ready to score a bargain? Here are a few local-deal sites to get you started.

By far the biggest and most popular of the regional-deal sites, **Groupon** ([www.groupon.com](http://www.groupon.com)) is available in just about

You can score bargains from local restaurants, stores, and services—but be sure you know how they work first.

every major U.S. city. The deals themselves are pretty random. I've been a Groupon subscriber for about a year now, and I've seen deals on everything from dental visits to "hiking yoga" classes.

Like Groupon, **LivingSocial** ([livingsocial.com](http://livingsocial.com)) has a fairly wide reach over the United States and is available in most major cities, including Atlanta, Austin, Boston, Chicago, Denver, Los Angeles, and Minneapolis. LivingSocial is a great resource for budget travelers; many of the deals, like guided city tours or wine-tasting excursions, are aimed at tourists.

**HomeRun** ([homerun.com](http://homerun.com)) goes beyond simply offering up one deal per day. It features "Avalanche" deals, which get lower as more people purchase them.

The newest of the city-focused sites, **Tippr** ([tippr.com](http://tippr.com)) is the brainchild of the geniuses behind Kashless.org (a site that rewards you for giving away your old junk for free). Tippr stands out from the others because it not only offers three deals per day but also ensures that the bargains improve as more people purchase them. Tippr seems to be available only in Seattle right now, but keep an eye on further growth of this site.

Too many deal-of-the-day sites to keep track of? Check out **Yipit** ([yipit.com](http://yipit.com)). This service aggregates deals from Groupon, LivingSocial, HomeRun, and other sites, and recommends the best ones for you based on your preferences. Unfortunately, Yipit is currently limited to deals in Boston, Chicago, Los Angeles, New York, and San Francisco. For the time being, you might be better off subscribing to one or two of the other sites described above.





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## ON YOUR SIDE MARLA MIYASHIRO



**I BOUGHT 23 Lenovo laptops from GovConnection, each with a three-year extended warranty with on-site service. When one of the laptops failed, the service provider, Service Net, refused to fix it, saying they would provide service only after the one-year manufacturer's warranty was over. Later they told us they provide on-site service only within 50 miles of their service center. Then they said that we did not, in fact, have an on-site service agreement with them and that we should pursue the matter with GovConnection. Repeated attempts to do that have proved unsuccessful. Can you help?** *Pons Bautista, Brandon, Mississippi*



**OYS responds:** A GovConnection rep told us that GovConnection had mistakenly quoted to Bautista the wrong price for the extended warranties. The rep then made alternative arrangements, in which Bautista will get the standard Lenovo warranty for the first year,

Service Net will provide mail-in service with free shipping for the following three years, and GovConnection will supply two laptops

for use as spares. Bautista has received the two laptops, as well as new warranty documentation. The rep advised that consumers take time to become familiar with any base warranty and the terms and limitations of their extended service plan. We recommend doing so sooner rather than later—don't wait until you need help to find out which services you're entitled to.

### Unexpected Rate Increase

Martin Chetlen of Canoga Park, California, contacted us after noticing that the cost of his dial-up Internet service had jumped from \$9.95 per month to \$25 per month. When he called AT&T, the reps said that he had a business account. Though the reps he spoke to didn't know how to reclassify the account as residential, one did agree to give him a one-time refund of \$15.05.

After we contacted AT&T, a company rep made sure that Chetlen's information was corrected and that the rate for his dial-up service was updated. Chetlen's new residential rate—\$15.95 per month—still represents an increase, but it's much less than the business rate AT&T had begun to charge him.

We recommend studying bills carefully, at least every few months, to confirm that a company is billing you correctly. ●

ILLUSTRATION: HARRY CAMPBELL

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# Business Center

## Use the Cloud to Manage Your Customers

BY JAMES A. MARTIN

YOUR SMALL BUSINESS can't succeed if you don't put your customers first. But keeping your clientele engaged and coming back for more requires flexibility and creative thinking.

Today, customer relationship management (CRM) software is essential for staying in touch with clients. And for small companies, the best CRM products live in the cloud.

### Salesforce.com

A pioneer in offering small and midsize firms a CRM system in the cloud, Salesforce.com today offers tools such as the Salesforce Contact Manager service (for \$5 per month per user) to businesses of all sizes.

But Salesforce.com isn't the only cloud CRM tool for small businesses. Some options are free or very inexpensive. Others add social media components for following your customers' activities, interests, and needs online. And a few offer mobile versions for on-the-go customer data access.

### Free and Inexpensive Cloud CRM Systems

If you've never tried an online CRM system before, your best bet is to experiment with free or low-cost cloud tools.

Zoho CRM ([find.pcworld.com/70001](http://find.pcworld.com/70001)) has many CRM features and integrates with the Zoho suite of cloud apps for e-mail, Web conferencing, and more. Zoho CRM is free, albeit in a limited version and for no more than three users. Otherwise, the service costs a minimum of \$12 per user per month.

Free CRM ([find.pcworld.com/70002](http://find.pcworld.com/70002)) supports up to five users and up to 10MB of storage (which isn't a lot). Though it takes

a while to set up and learn, FreeCRM offers straightforward tracking of prospects, sales forecasting, and other features. Professional editions (\$15 per user per month and up) provide live support, unlimited data storage, and other features.

SugarCRM ([find.pcworld.com/70003](http://find.pcworld.com/70003)) and vTiger CRM ([find.pcworld.com/70004](http://find.pcworld.com/70004)) are free, open-source CRM apps that have some cloud components. Both have active development communities, so third parties can

add functionality and flexibility to the tools. SugarCRM is available in Professional (\$360) and Enterprise (\$600) editions with enhanced feature sets.

### Social CRM

Since many business relationships begin on the Internet, it makes sense to track and build them via cloud CRM services that monitor social networks.

LinkedIn Profile Organizer ([find.pcworld.com/70005](http://find.pcworld.com/70005)) adds CRM-like features (such as organizing contacts into folders and adding notes to profiles) to LinkedIn. The service requires a LinkedIn Premium Account (\$25 per month or more).

Gist ([find.pcworld.com/70006](http://find.pcworld.com/70006)), a free beta service, imports contacts from Facebook, LinkedIn,

Salesforce.com, Twitter, Outlook, and Gmail into one dashboard and ranks the importance of the people and companies in your contact databases according to your interactions with them. You can also see, at a glance, your most recent e-mail correspondence with each contact, along with notes you've made relating to them; their latest tweets; and so on.

BatchBook ([find.pcworld.com/70007](http://find.pcworld.com/70007)) combines contact management with tools for following contacts' social media posts, tracking customer communications, using forms to gener- »

Here's how to select and get started working with the best online customer relationship management service for your company.

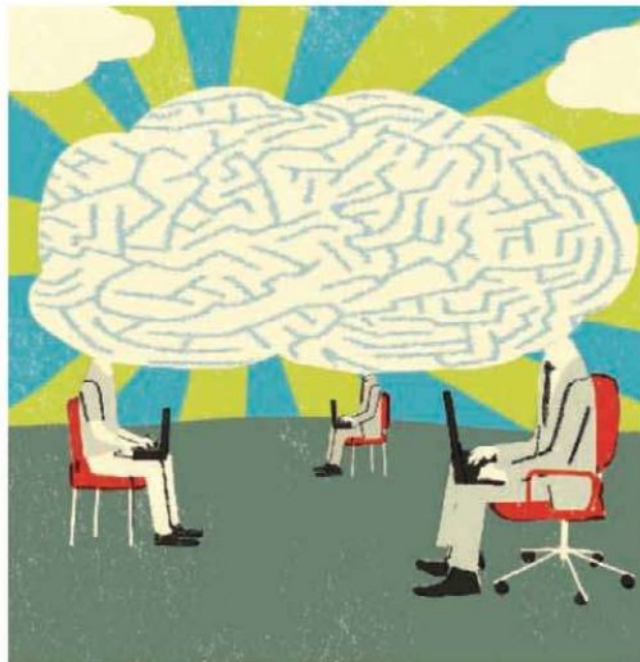


ILLUSTRATION: TATSURO KIUCHI

PCWORLD.COM

For the pros and cons of cloud computing, see "Should You Move Your Small Business to the Cloud?" ([find.pcworld.com/69999](http://find.pcworld.com/69999)); for advice on how to get started with cloud CRM, visit [find.pcworld.com/70000](http://find.pcworld.com/70000).





## NET WORK TONY BRADLEY

ate leads and conduct surveys, and creating various lists and reports. The service is available in a free limited version. Paid accounts cost \$10 to \$100 monthly.

HubSpot ([www.hubspot.com](http://www.hubspot.com)) is a one-stop shop that includes sales lead nurturing and tracking, integration with Salesforce.com, marketing analytics, and other CRM features—plus social media monitoring, blogging, Website hosting, and search engine optimization. This package of features comes at a fairly steep price, however: HubSpot costs \$250 per month and up.

Chatter ([find.pcworld.com/70008](http://find.pcworld.com/70008)), a service priced at \$25 per month per user or more, will add a social networking component to the Salesforce.com CRM environment when it becomes available sometime this year. Chatter will also enable subscribers to connect directly to Facebook and Twitter accounts. The service is currently in private beta.

### More Cloud CRM Choices

Here are three more cloud-based CRM options to consider in this growing field.

Microsoft Dynamics CRM ([find.pcworld.com/70009](http://find.pcworld.com/70009)) is a flexible system. You can install and use it on your local computers and servers or employ it as a cloud CRM system (for \$44 per user per month). The interface is similar to the one in Microsoft Office, so most users will find it familiar.

Infusionsoft Email Marketing 2.0 ([find.pcworld.com/70010](http://find.pcworld.com/70010)) emphasizes CRM integration with e-mail marketing. It's suitable for small businesses that have fairly complex marketing needs and want to track practically every part of a customer interaction. Plans range from \$199 to \$499 monthly.

Highrise ([find.pcworld.com/70011](http://find.pcworld.com/70011)) is a cloud CRM system that many small businesses like. Along with its CRM features, the system provides various third-party customer service apps, such as MailChimp, an e-mail marketing campaign service. Highrise offers a free plan for two users with up to 250 contacts. Beyond that ceiling, monthly plans start at \$24 for up to six users.

## Manage Your Windows Network via iPad

THE DEBATE OVER the role the Apple iPad will play in business is intensifying. Does the tablet device have the goods to prosper as a business tool? And what about the subversive notion that the Apple iPad might be an effective tool for remotely administering a Microsoft Windows network? (Our review of the device as a consumer item is on page 76.)

It may be scandalous to say so, but the iPad could be great for office use. One reason iPhone apps are such powerful tools for IT administrators is that the iPhone is almost always available. A laptop computer may not be handy when an IT administrator is having lunch with co-workers, attending a training conference offsite, or watching endless playoffs at home—but the iPhone is almost sure to be within arm's reach at all times.

The iPad can't match the iPhone in that respect, but it is thinner and lighter than a netbook, and has the instant-on capabilities of the iPhone, plus the display real-estate of a laptop—a powerful combination for remote networking.

### WinAdmin for iPad

One iPad app for Windows administrators is already available in the App Store: WinAdmin iPad Edition. Like its iPhone app equivalent, the iPad version of WinAdmin provides a Microsoft Windows RDP (remote desktop protocol) client to connect with remote Windows systems.

Using WinAdmin, an IT administrator can use the iPad to step into servers to troubleshoot and resolve issues, review logs, or change configuration settings. WinAdmin iPad Edition also gives administrators access to Windows desktops to run apps or access important files.

Business apps are flooding the App

Apple's new tablet device handles remote Windows network management capably.

Store alongside games and entertainment apps. However, Apple didn't build in much time between announcing the iPad and launching it. Developing apps that seamlessly and securely integrate with an enterprise network takes more time and testing than does producing iPad games.

The "business" version of the iPad—the

iPad with Wi-Fi and 3G networking—was slated to debut in May; and while consumers may be fine with Wi-Fi only, business professionals should invest the extra \$130 for a 3G-enabled iPad. With no contractual commitment, you can enable 3G access

as needed when Wi-Fi isn't available, and then cancel it as soon as you're done.

### Desktop Direct and iTeleport

One as-yet-unavailable app that shows promise for enabling the iPad to connect with Microsoft Windows systems is Array Networks' Desktop Direct. Members of the team at Array Networks say that they are hard at work on the iPad version of the app, but want to make sure that the final release fully capitalizes on the iPad's capabilities, rather than just being a bigger version of the iPhone app.

The iTeleport for iPad app essentially provides a streaming remote session to connect with a Windows- or Mac-based system over a Wi-Fi or 3G wireless network. The \$25 app provides VPN access and enables the iPad to connect with, access, and control computer systems halfway around the world.

When the 3G-enabled iPad arrives, robust business apps should be available—and IT administrators should take advantage of the device to manage Windows networks from wherever they are.







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## TECH AUDIT

### 'Desktop as a Service' Keeps Remote Workers Connected

BOSTON FINANCIAL Investment Management is a national leader in the low-income housing tax credit industry, with expertise in syndication services as well as asset and portfolio management. To keep pace with its customers' demands, the company needed a secure way to make its homegrown applications accessible to its employees in the field and in the office. Boston Financial called our team at Staples Network Services to install a virtualization system and a secure VPN to improve remote access to the company's internal software from any Internet-connected system.

#### The Old Way

Previously, Boston Financial employees would leave their workplace systems powered on and connect to them remotely over the company's VPN—an unstable, cumbersome arrangement that occasionally failed when employees tried to use it, and that in any event provided no access for external vendors. Desktops had to be set up and restricted individually for third parties accessing the network, and each workstation's power settings had to be configured to keep the system powered on 24/7. Doing so consumed substantially more power than a typical 9-to-5 workload.

#### The New Way

To create a stable configuration of a workstation for remote internal employees and for external vendors requiring access to Boston Financial's applications and networks, we selected VMware View 4.0. Its centrally managed, on-demand structure gives users the flexibility they need and yet allows IT staffers to control costs and increase availability. With VMware View's linked clone technology, IT specialists manage a single instance of the image and push down changes and updates to the clones efficiently.

How a 150-person company revamped its mobile workforce with virtualization services.



**HP'S PROLIANT DL380 G6 server, part of a three-host ESX 4.0 Update 1 cluster that Staples Network Services used in deploying View 4.0.**

We deployed the latest release of View 4.0 on a three-host ESX 4.0 Update 1 cluster consisting of HP ProLiant DL380 G6 servers with 72GB of RAM. A Dell EqualLogic SAN serves data over iSCSI. Remote users access the system through a SonicWall SSL VPN.

We configured View 4.0 with a nonpersistent pool of 30 virtual desktops, which are destroyed after first use. About 120 employees and external vendors have access to the system, and personal data is copied to and from the virtual desktops during logon/logoff. This arrangement permits a many-to-one relationship of users to desktops, which keep costs lower for both OS licensing and storage. A persistent pool would maintain user data locally but require additional licensing of Windows XP and VMware View.

#### The Payoff

Boston Financial has a number of internal .Net applications that are currently incompatible with Internet Explorer 8.0. The stable image of the View desktop, however, ensures the compatibility of all the applications used by employees and vendors.

Remote access was another key focus of the deployment. As noted earlier, users formerly had to leave their desktops on in the office and connect to them over VPN. With View in place, these machines can remain powered down or in sleep mode overnight, reducing power usage and costs significantly. In addition, whereas, in the past, users who left their office machines powered down couldn't work remotely, View provides an always-on connection point for them to remain productive at a time convenient for them.

Finally, in the View configuration we established, we enabled Thin Printing—a feature that allows users to operate any printer connected to their remote endpoint from the View desktop, thereby reducing demand on IT staff for assistance with this task.

—Eric Thompson, Staples Network Services

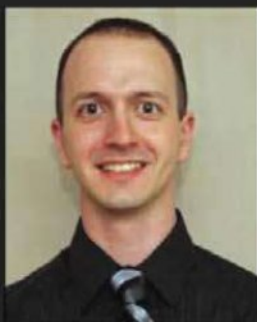
For more real-world tech solutions for small and midsize businesses (including cloud services, virtualization, and complete network overhauls), check out PCWorld's Tech Audit ([find.pcworld.com/64147](http://find.pcworld.com/64147)). ●

#### MEET THE PROS

### Staples Network Services

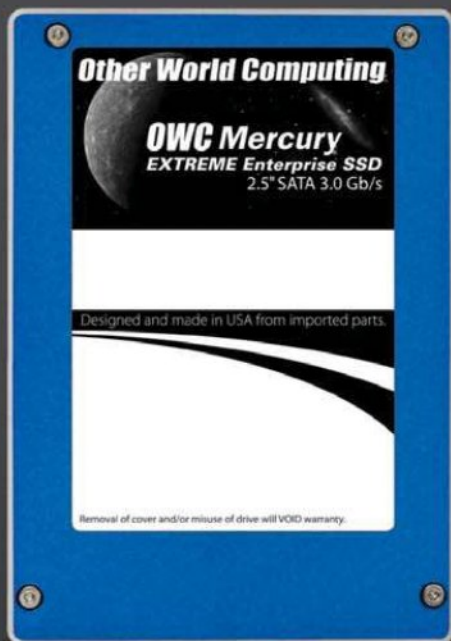
STAPLES NETWORK Services is a managed IT services provider targeting the SMB market. The company offers comprehensive IT services—including managed services, end-user remote support, technology consulting, and online backup and disaster recovery planning—tailored to specific industry requirements.

Eric Thompson, senior network engineer, is a VMware Certified Professional on vSphere 4 (VCP4) and has his MCSE certification from Microsoft in Windows Server 2003.





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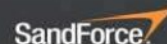
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# Security Alert

## Keep Your Personal Data Off the Market

BY TONY BRADLEY

IN 2003, AUTHOR and security pioneer Simson Garfinkel conducted a study of data he found on second-hand hard drives. On eBay, Garfinkel bought the hard drive from an old ATM machine; it held 827 bank account PINs. Another drive he purchased on eBay had previously been owned by a medical center and contained information on 31,000 credit card numbers.

That was seven years ago, and the amount of data found on used or resold machines isn't on the downswing. A study published last year by Kessler International found that nearly half of the drives purchased from eBay contained personal data such as e-mail, photos, and confidential documents.

### Data, Data, Everywhere

When Garfinkel did his study in 2003, desktop computers still ruled over notebooks; mobile phones were just phones; and gadgets like USB thumb drives, MP3 players, and digital cameras weren't as common as they are now.

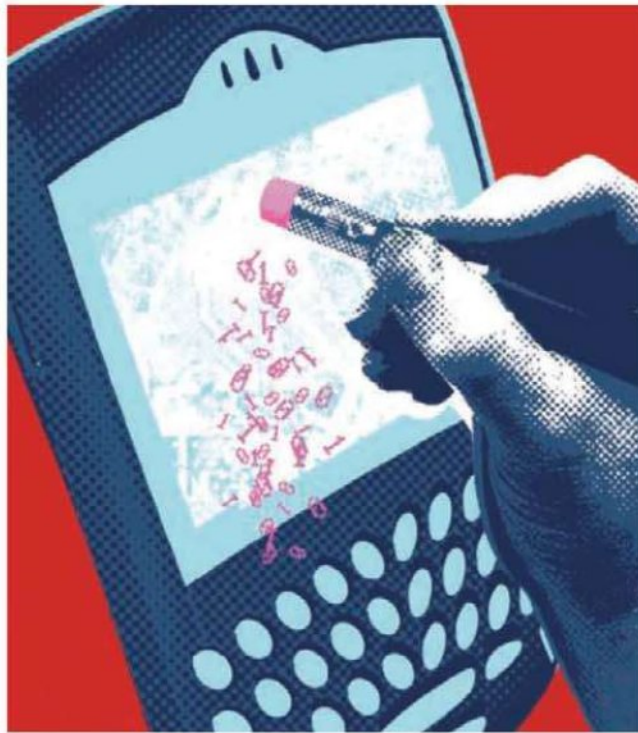
To be sure, hard drives remain a serious data security concern today, but your data may also be in places you may not have considered. Case in point: I recently bought a used Chrysler Town & Country minivan decked out with an array of bells and whistles, including a fancy MyGig entertainment system with a 20GB hard drive for storing MP3s and photos. When I began to load the MyGig hard drive with my vast MP3 music library, I discovered that the drive already contained files that the previous owner had failed to remove.

They were just music files—not even music I like—so no compromise of sensitive information existed in this case. However, had the previous owner loaded the MyGig with personal family photos, it could have been another story.

The point is that data resides almost everywhere these days, and you must be vigilant about removing such data before

you part with your PC, other gadget, or vehicle. Though excised data is almost always recoverable to some degree, you can take steps to ensure that the average individual buying your used equipment can't access your old files.

Looking to sell your old PC or other data-filled gadget? Here's what you need to know to keep your personal information safe.



### Wipe Your Data

At the moment, PC sales are up, thanks to a rebounding economy and Microsoft's Windows 7. An increase in sales also means an uptick in the disposal of old computers to make way for brand-new ones.

First, you should understand that neither deleting files nor reformatting your hard drive will suffice to eradicate data permanently. Both processes really just remove the information that the hard drive needs to find the data—sort of like smoothing out a dog-eared

corner that someone has folded down on the page of a book.

To ensure that your data is removed beyond anyone's practical ability to recover it, you must remove or scramble the data itself, not just the marker that points to it. And that means you need to use a wiping or erasing utility. These tools overwrite every sector of the hard drive with binary ones and zeros, and those that meet government security standards overwrite each sector multiple times for added protection. »

ILLUSTRATION: GARY NEILL

PCWORLD.COM

**Before disposing of an old PC, see tips on erasing its hard drive at [find.pcworld.com/69982](http://find.pcworld.com/69982). A classic security question: Should you run more than one antivirus app at once? Answer at [find.pcworld.com/69981](http://find.pcworld.com/69981).**



Tools like the \$30 CyberCide ([find.pcworld.com/69964](http://find.pcworld.com/69964)) can completely and securely obliterate the data on your PC or hard drive before you dispose of it. Many such utilities are available, and they employ multiple methods for wiping data—including those that meet U.S. Department of Defense standards for secure data removal.

Fewer tools exist for other gadgets. Removable storage devices such as SD cards can be plugged into a computer and wiped by the same utilities that work for computers and hard drives.

Devices like the Apple iPhone and the iPod Touch have storage capacities of up to 64GB built in. Before passing on your iPhone, go into the device's Settings and choose *General • Reset • Erase All Content and Settings* to clear your data.

Members of the latest generation—the iPhone 3GS, and the 32GB and 64GB iPod Touch devices introduced in 2009—have built-in hardware encryption. Select *Erase All Content and Settings* on these devices to delete the encryption key and render the data useless.

Older iPhones and iPods simply overwrite the data with a series of ones and zeros. The process can take hours, depending on the capacity of the device, but it at least ensures that the next owner of the iPhone won't have access to any of your personal information.

## Obliterate the Media

If all else fails, physically destroying the device will generally ensure that no one can access the data on it. Even physical destruction has to be done properly, however, to guarantee that the data cannot be recovered. An entire industry specializes in retrieving information from storage media that has been damaged in fires, floods, or other disasters.

Some firms ensure physical destruction by using a product like the Guardian Physical Drive Destroyer (see a video at [find.pcworld.com/69963](http://find.pcworld.com/69963)).

You could just use a sledgehammer, of course, but unless you do a very thorough job, it may still be possible to recover data from the drive platters.

## BUGS & FIXES

ERIK LARKIN

### Security Fixes for All Five Major Browsers

WHATEVER YOU USE to surf the Web needs a fix.

Chrome, Firefox, Internet

Explorer, Opera, and Safari all had important security patches come out recently.

Microsoft's cumulative IE patch closes a total of ten bugs, the most significant of which let bad guys invade a PC via IE 6 or IE 7 by using a malicious Web page.

IE 8 wasn't affected by this flaw, but it needed several other fixes present in the cumulative patch. Unless you use Windows Server 2003 with IE 6 or IE 8, or Windows Server 2008 with IE 8, this patch is critical. Pick up the fix via Windows Update; for more details see Microsoft's security bulletin at [find.pcworld.com/69972](http://find.pcworld.com/69972).

#### Unfixed IE Flaw

A vulnerability that lets specially crafted sites use VBScript to access unsafe Windows Help files through IE remains unfixed. But an attack must display a dialog box asking you to press the <F1> key to trigger it. So don't hit <F1>.

Windows Server 2003 is also affected, but Windows 7, Vista, and Server 2008 are not. Techie users can apply a workaround to "lock down the legacy Windows Help system." Go to [find.pcworld.com/69973](http://find.pcworld.com/69973) for the relevant instructions.

#### Last Gasp for Firefox 3.0

Mozilla pushed out patches for Firefox 3.0, 3.5, and 3.6. If you're still using 3.0, note that the 3.0.19 update will be the last. So head to [firefox.com](http://firefox.com) to pick up version 3.6. The 3.0.19 update closes five critical security flaws.

The 3.5.9 update closes the same five flaws, but the 3.6.2 patch adds one more critical fix for a flaw that affects only 3.6. For any Firefox version, head to *Help • Check for Updates* to ensure that you have the latest and greatest. And for more details on the 3.0.19 update, see

Essential patches popped up for all the big browsers. Here's what you need.

[find.pcworld.com/69969](http://find.pcworld.com/69969). The 3.5.9 notes are at [find.pcworld.com/69970](http://find.pcworld.com/69970); and for 3.6.2, see [find.pcworld.com/69971](http://find.pcworld.com/69971).

#### Chrome and Safari Updates

Google's Chrome update (4.1.249.1036) closes four high-priority security flaws, including one in how WebKit, Chrome's (and Safari's) browser engine, handles Javascript. Google sends out its browser updates behind the scenes, but to make sure you have the latest, click on the

wrench menu-bar icon and choose

*About Google Chrome*. And browse to [find.pcworld.com/69974](http://find.pcworld.com/69974) for more on

Chrome releases.

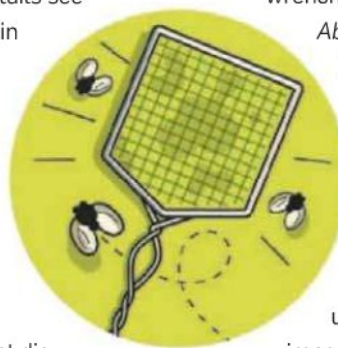
Safari's fixes for its ColorSync, ImageIO, and WebKit components head off potential attacks using a maliciously crafted

image, or poisoned code on the page, to run arbitrary code. Run Apple's Software Update utility on your Mac or PC to pick up the patch to version 4.0.5.

#### Opera's Fix

Version 10.51 closes two "highly severe" security flaws, one of which could be used to crash the browser and possibly run arbitrary code. The other might enable a bad guy to pull sensitive information from the browser's cache.

To confirm that you're using the latest version of Opera, click the red *O* icon in the upper left, and then choose *Help • Check for Updates*. See [find.pcworld.com/69975](http://find.pcworld.com/69975) for a full list of the changes.

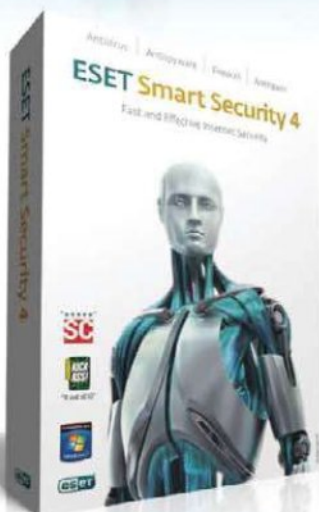


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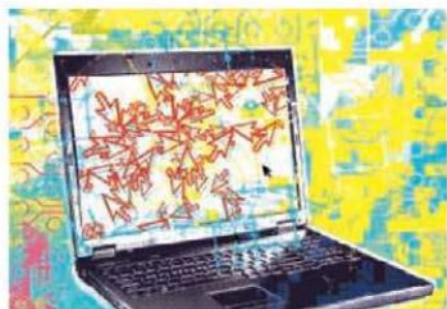
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## Is Next-Gen Clickjacking on the Way?

A COMPUTER SECURITY researcher has released a browser-based tool for studying next-generation “clickjacking” attacks and has released details of four new techniques of this type.

Clickjacking tricks a user into clicking parts of a Web page containing hidden buttons that perform malicious actions. The buttons are delivered by an invisible “iframe,” a window that brings other content into the target Website.

Clickjacking became well known in 2008 after researchers Robert Hansen and Jeremiah Grossman discovered a kind of attack involving Adobe Systems’ Flash application that could give an attacker remote access to a victim’s Web camera and microphone.

Subsequently, many Websites and browser makers shored up their defenses, but the vast majority of sites remain unprotected, Paul Stone, a security consultant with Context Information Security in the United Kingdom, says. At a Black Hat security conference in April, he revealed four new kinds of clickjacking attacks that are effective against most Websites and browsers.

Stone’s tool, which developers can use to try out the new clickjacking techniques, is available for download on his company’s Website.

Stone recently discovered a browser-specific clickjacking vulnerability in Internet Explorer and another in Firefox, both now patched. Browser makers are also working on clickjacking defenses.

—Jeremy Kirk

## PRIVACY WATCH

ERIK LARKIN



### New Threat: Undetectable Facebook Scams

I RECENTLY RECEIVED two Facebook e-mail notifications that set my security spider-sense tingling.

Nothing was obviously wrong with the e-mail messages, which said that my friend had tagged a photo of me and then commented on it. But something about a reference to an app named “Who stalks into your profile” just didn’t feel right.

So I checked it out. I dug into the e-mail header to make sure that it was from Facebook—it was. A search for the app’s name didn’t turn up any warnings. The app’s installation page didn’t give me any obvious clues, either. Still, I let my paranoia have its day, and I sat on the app.

Sure enough, it was a scam, and an ingenious one. When anyone installed the supposed stalker app, it first created a photo montage of friends’ images and then commented on that montage. Facebook duly sent out “your friend tagged a photo of you” messages, effectively advertising the scam app, which was created to generate illicit online ad revenue.

Facebook, with its millions of users, has become a major target for online crooks who try to use malicious apps for everything from phishing to spam to a first step toward installing more dangerous malware onto your PC. Facebook is by no means sitting still in the face of these threats, and it removed the profile-stalking app within a day after I received its e-mail lure (and this removal pulls it from all user profiles as well).

But because Facebook lets anyone with an account create and distribute apps, users must be on guard against the inevitable rogue apps to come. The alternative would be for Facebook to test programs before allowing its users to add

Your hard-earned security smarts may not be enough to identify rogue Facebook apps. But a little patience may help.

them, as Apple does with iPhone apps; but Facebook says it fears that vetting could inhibit the free and open atmosphere that led to its success, and it doesn’t have any plans to change its approach.

Some simple measures can help you identify, or at least mitigate, the threats. For starters, Facebook has a security page—[facebook.com/security](https://www.facebook.com/security)—with advice and warnings about ongoing scams.

Also, be especially leery of any app that claims to let you do something that you can’t normally do—such as permit-

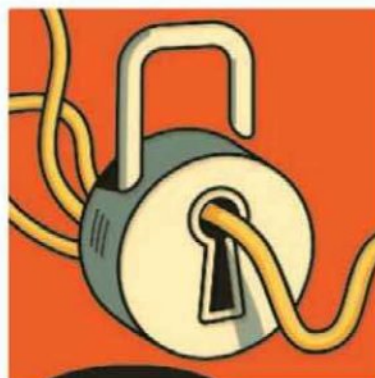
ting you to see who’s viewing your profile.

To help guard against a friend’s rogue app being able to harvest your profile data, head to *Account•Privacy Settings*, and then click *Applications and Websites*. Then click the settings for

‘What your friends can share about you’, and deselect anything you wouldn’t want a scammer to see. Keep in mind that an app can’t pick up your e-mail address without first asking your explicit permission: Be careful about what you approve.

Tips like these can help, but in the end, no hard-and-fast rules can positively identify all possible threats. And since the apps live on Facebook’s site, you don’t have a file on your hard drive to scan or upload to [VirusTotal.com](https://www.virustotal.com).

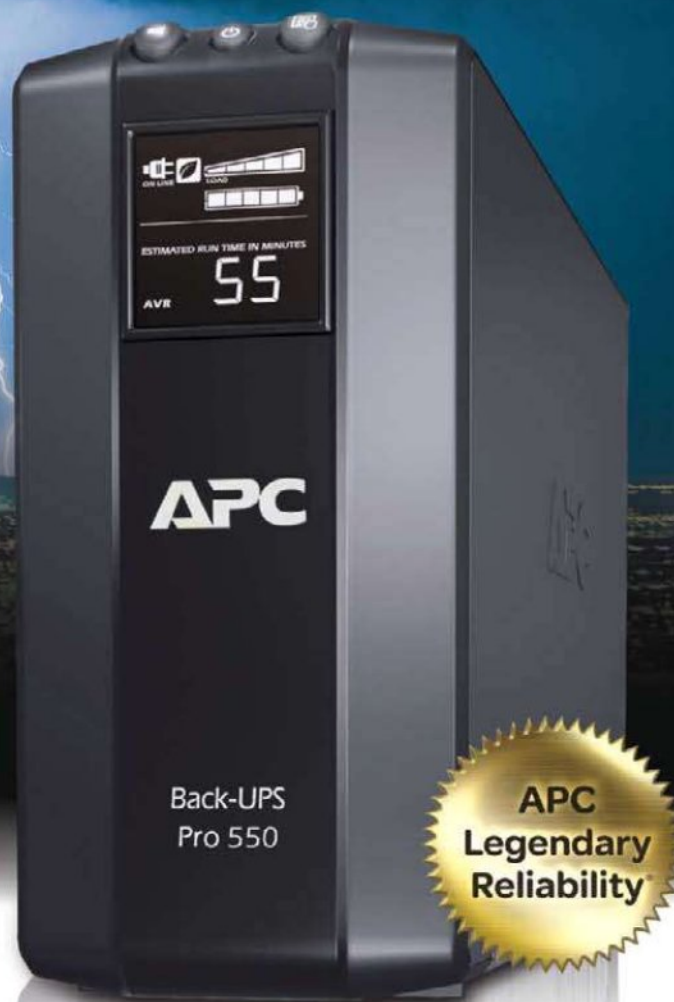
Still, you can simply wait. If you see a post, an e-mail, or even a photo-tagging comment pushing an app that you’d like to try out, and you can’t find anything definite about it, let it lie for a day or two. Facebook may pull it within that time, in part because of reports from users who didn’t have the same patience. ●





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### The reliable BE 525-RS

This unit features boost and trim AVR to accommodate unpredictable voltages. Auto shutdown software enables safe unattended shutdowns.

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- 46 Minutes Maximum Runtime
- Phone/Modem/Fax/DSL Protection



### The affordable BE 700-RS

Auto shutdown software comes with this unit, allowing unattended safe shutdowns. The unit automatically saves files before shutting down.

- 8 Outlets • 405 Watts/700 VA
- 65 Minutes Maximum Runtime
- Phone/Modem/Fax/DSL Protection



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# Reviews & Rankings



## The Coolest New In-Camera Features

BUYING AN EXPENSIVE digital SLR camera may ensure great image quality, but it isn't the only way to capture photos. In fact, if you want to get really creative with photography—without diving into an editing program like Photoshop (see page 52) or an advanced camera's complex array of manual controls—your best option may well be a new point-and-shoot camera with innovative built-in features.

Of course, letting your camera do such automated

Choosing a camera isn't always about image quality and battery life. These cameras have innovative extras for taking better pictures.

post-processing work has drawbacks. The major one: When you shoot using some of these specialized modes, the special effects are “hard-coded” into your images—you don't have a clean, effect-free source image you can futz around with later in photo-editing software. But the advantage is that you'll instantly achieve creative effects that are otherwise hard to get without heavy post-production work, lightning-fast shutter fingers, or specialized lenses.

So let's look beyond megapixels, optical-zoom ranges,

and battery life for a moment. Keep in mind that some of last year's more interesting in-camera modes—smile-triggered shutters, blink detectors, red-eye reduction, and high dynamic range—are now commonplace. Here are this year's most promising modes.

### Sony's Handheld Twilight and Advanced Scene Recognition Modes

**Good for:** Getting crisp low-light photos without a flash. Shooting in dark conditions without a DSLR normally

involves an image-quality compromise. If you use the camera's flash, you'll blow out foreground subjects while making the background pitch black. But if



**SONY'S CYBER-SHOT DSC-HX5V** has new modes for taking pictures in low-light environments.

you boost the ISO on a point-and-shoot camera with a small sensor to create an evenly lit photo, you will usually generate a noisy,

#### MORE ONLINE

For links to all the cameras mentioned in this story, browse to [find.pcworld.com/69967](http://find.pcworld.com/69967).

PHOTOGRAPHS: ROBERT CARDIN; DIGITAL COMPOSITION: MARC SIMON





**48 SPRING DESIGN Alex**  
eReader



**48 ALIENWARE M11X**



**60 HTC HD2**



**60 NVIDIA GEFORCE**  
GTX 480



**THE HANDHELD TWILIGHT** mode in some Sony cameras takes sharper, more-detailed images in low light than most pocket cameras do.



**CERTAIN CAMERAS FROM Canon and Olympus** have a scene mode that makes buildings look like scale models of themselves.

sometimes unusable image.

A couple of useful features in four of Sony's Cyber-shot cameras—the DSC-WX1, the DSC-TX1, the DSC-HX5V, and the DSC-TX5—offer solid alternatives for shooting in low-light conditions.

The Handheld Twilight mode takes up to six photos at different exposure settings in rapid-fire fashion, and then overlays or combines them to generate a smooth, noise-free low-light image. (It works best in extremely dark settings.)

The Advanced Scene Recognition mode is an alternative that lets you take two shots in quick succession—one with the flash on, and a second one using low-light-

optimized settings with the flash turned off—and then allows you to view the two pictures side by side.

### Olympus and Canon's Tilt-Shift Simulators

**Good for:** Making full-size objects look miniature

Think of your camera as a shrink ray, able to reduce



**CANON'S POWERSHOT SX210 IS** has a Miniature mode that gives buildings a toylike look.

large land masses and buildings to tiny scale models of themselves. Creating such a miniaturized look used to require a special tilt-shift lens or a bit of clever Photoshop editing, but Olympus's latest Micro Four-Thirds cameras (the Pen E-P2 and Pen E-PL1; see [find.pcworld.com/69968](http://find.pcworld.com/69968) for a description of this type of camera) and three new Canon Power-Shots (the SX210 IS, the SD1400 IS, and the SD3500 IS) put access to this trickery inside the camera itself.

Olympus's Diorama Art Filter and Canon's Miniature scene mode both choose a narrow horizontal plane of focus, blur the top and bottom of the image, and give

colors an artificial boost. The resulting images make big objects look really small, and this particular in-camera scene mode is one of the most addictive that you can find anywhere, period.

### Casio's High-Speed Shooting Mode

**Good for:** Super-slow-motion action shots

Casio's high-speed cameras have been available for a few years now, but the company's High-Speed Exilim cameras are growing in number and shrinking in size. The most enticing high-speed addition this year is the High Speed Exilim EX-FH100, a pocketable 10X-optical-zoom camera that can rat- >>



# Reviews & Rankings

tle off 40 stills and 1000 frames of video per second. The high-speed setting lets you take some amazing



**CASIO'S HIGH SPEED Exilim EX-FH100** can capture super-slow-motion footage.

super-slow-motion footage, record split-second moments of impact, and shoot fast-action sports scenes—all with a nicely pocketable megazoom camera that's built for everyday use.

## Fujifilm's Pet Detection Feature

**Good for:** *Snapping perfect portraits of your dog or cat*

It won't cure green-eye, but Fujifilm's new Pet Detection setting aims to put some pet-related photo problems on a short leash. Using an in-camera database of breeds registered by the American Kennel Club, the Cat Fancier's Association, and Federa-

tion Cyno Logique Internationale, the setting recognizes when your dog or cat is looking at the camera and automatically snaps a shot.

It's available in four of Fujifilm's FinePix cameras—the F80EXR, Z700EXR, JZ500, and JZ300—but it does need work. In hands-on tests with the JZ500, we found that it may not be useful for owners of active pets: The shutter often didn't fire fast enough to capture a pet while it was still looking at the camera.

## Canon's Wink Detection Feature

**Good for:** *Remote-controlling your camera without a remote*

One of the most interesting trends in digital photography is in-camera analysis of facial expressions. Some Nikon cameras have a Blink



**THE FUJIFILM FINEPIX JZ500** has a pet-detection setting for forward-facing shots of pets.



**SOME OF FUJIFILM'S** newer FinePix cameras have a setting that automatically snaps a photo when your dog or cat looks at the camera.



**NO REMOTE NEEDED:** Canon's new Wink Detection feature, found in some PowerShot models, snaps a photo after your subject winks.



**CANON'S POWERSHOT SD1400 IS** pulls the trigger for you when the picture's subject winks.

Warning setting that lets you know if someone in the frame has their eyes closed. Many models also have a smile-detection feature that fires the shutter when a subject in the frame grins—useful for taking a shot of yourself.

This year sees another threat to camera remotes and self-timers: Canon's Wink Detection function (found in the new PowerShot SX210 IS, SD1400 IS, and SD3500 IS) makes a camera snap a photo 2 seconds after someone in front of the lens winks. Your face is becoming an increasingly more complex wireless remote.

## Sony's Intelligent Sweep Panorama

**Good for:** *Taking the easiest panorama shots ever*

We rated Sony's Sweep Panorama mode as one of the coolest features in last year's

field of point-and-shoot cameras ([find.pcworld.com/69932](http://find.pcworld.com/69932)). For its 2010 lineup, the company has been fine-tuning the technology, but it still works the same way: You press the shutter button once, pan the camera from side to side as if it were a camcorder, and then wait just a second or two for the camera to create an instant, seamless panoramic image.

One reason for an update is that last year's Sweep Panorama mode had a problem with moving subjects—if anyone in your panoramic



**SONY'S CYBER-SHOT DSC-TX5** can make moving subjects appear still in panoramic shots.

shot moved, that person often looked as if they were stretched across the frame.

This year, the Cyber-shot DSC-TX5, Cyber-shot DSC-TX7, and Cyber-shot HX5V models offer a revamped >>



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**SOME SONY CAMERAS** this year offer an updated Intelligent Sweep Panorama mode that creates a wide-view picture as you pan a scene.

Intelligent Sweep Panorama mode that scans the scene for moving subjects and makes them appear still in the final panoramic image.

## Fujifilm's Motion Remover

**Good for:** *Deleting that fast-moving person who just ruined your beautiful photo*

It's a common problem: You take a perfectly composed picture of a landscape, landmark, or otherwise still scene, but someone dashes into the frame at the last minute, ruining the shot.

Fujifilm's 30X-optical-zoom FinePix HS10 solves that problem by erasing photo hijackers. The Motion Remover setting scans an image for subjects in fast motion—and removes them while preserving the back-



**THE FUJIFILM FINEPIX HS10** solves the problem of an unwanted person dashing into a frame.

ground behind the moving object. It worked well in my quick hands-on at the PMA 2010 photo trade show, retaining the background behind a moving person with impressive accuracy.

## Olympus's Live Guide

**Good for:** *Learning the ropes without reading a manual*  
Besides its interchangeable optics, compact size, big

sensor, and tilt-shift simulator (see page 43), the Olympus Pen E-PL1 Micro Four-Thirds camera offers a Live Guide feature for beginners. To help novice photographers master the camera, this on-screen setting—a kind of built-in manual or Help resource—offers quick tips for shooting different subjects (such as kids, pets, and flowers) and describes some of the more-complex in-camera settings (aperture, shutter speed, and exposure compensation, for instance) in plain English.

Creating a shallow depth of field by widening the aperture becomes 'Blur Background' in the on-screen help; adjusting the shutter speed becomes 'Express Motion'; and tweaking various exposure settings

becomes 'Change Brightness', 'Change Color Saturation', and 'Change Color'.

As a result, creative casual shooters can easily capture the look and feel they prefer, and then check the metadata for each image to see what



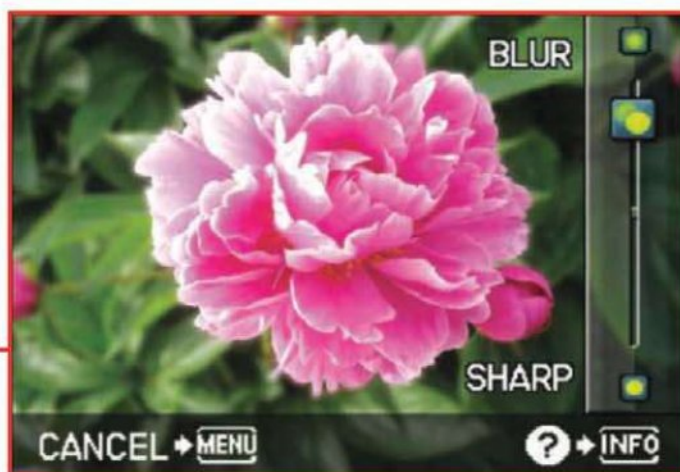
**THE OLYMPUS PEN E-PL1's Live Guide** offers extensive built-in help for beginning shooters.

settings they need in order to achieve a similar look manually when they take pictures on subsequent occasions.

—Tim Moynihan



**THE SHOOTING-TIPS SCREENS** in Olympus's Live Guide explain fundamental concepts and important settings in plain English.



**WITH OLYMPUS'S LIVE Guide**, beginners can, for example, create a shallow depth of field by raising the 'Blur' setting for the background.



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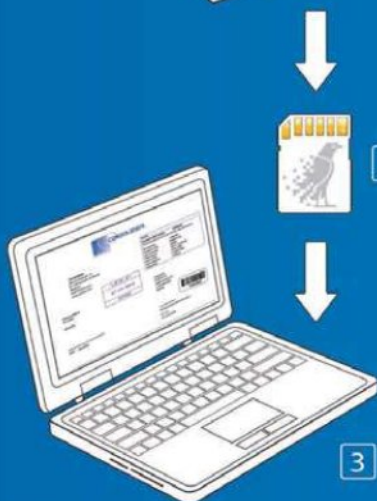
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## Alex Improves E-Book Reading

SPRING DESIGN'S Alex eReader offers a fresh take on the e-book reader experience. The \$399, dual-screen Alex costs more than competing devices, but delivers the best combination of electronic paper display and separate LCD screen I've seen.

The late-preproduction-run unit I tested was a pleasure to use, thanks to its solid construction, light weight, responsive and easy-to-press

buttons, excellent interface and navigation, and beautiful 3.5-inch Android-based LCD display. (Android also provides conveniences like e-mail and video playback.)

Alex lacks integrated 3G wireless, but you can connect the device to a PC via USB or to the Net via 802.11b/g wireless. Though the Alex doesn't yet offer an integrated bookstore to support on-unit shopping, it soon will.

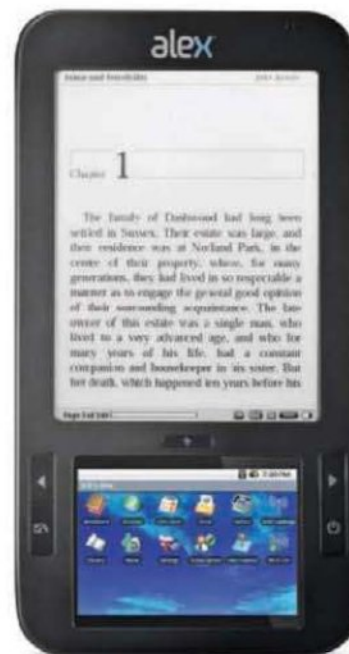
The Alex weighs 11 ounces and measures 4.7 by 8.9 by 0.4 inches. Surrounding the LCD are buttons for left and right page navigation, return, power, and synchronization of screen content.

The 6-inch, 600-by-800-

pixel, eight-shade grayscale E Ink display was easy to read text on, and the HVGA (320-by-480-pixel) LCD supports 16-bit color and has a capacitive touchscreen that shows 320-by-240-resolution video at between 15 and 30 frames per second.

A 600MHz Marvell CPU powers the unit. A buffer stores the current, previous, and next pages in memory, accelerating page turns.

The Alex supports ePub, PDF, TXT, and HTML text formats, as well as JPEG, GIF, and BMP graphics, MP3 audio, and MP4, 3GP, and FLV video. The unit has 2GB of internal memory for storing books, supplemented by



**THE MATTE BLACK case on our test unit enhanced readability.**

a 2GB microSD Card.

The Alex eReader is well designed and feature-rich, but it costs only \$100 less than a multifunctional iPad.

—Melissa J. Perenson

### Alex eReader | Spring Design

Beta product, not rated.

Innovative Android-based e-book reader delivers an intuitive design.

List: \$399

[find.pcworld.com/69965](http://find.pcworld.com/69965)

## Alienware's Gaming Laptop Is Easy to Take With You

PC GAMERS SICK of toting

8-to-10-pound laptops with bad battery life will love Alienware's M11x.

This 11.6-inch, 4.6-pound ultraportable has enough power to play today's titles, yet it's far more portable than a typical gaming notebook with a 15-inch screen. Prices start at \$799, but our review system had a \$1099 configuration.

The M11x overlocks its ultra-low-voltage

CPU, which was built to run at 1.3GHz, to 1.73GHz—and a one-year warranty fully backs that overclocked speed.

Our review system carried 4GB of RAM (up from the base configuration's 2GB), an Intel SU7300 processor (a \$100 option), and nVidia GeForce 335M graphics

with 1GB of video memory.

For storage, the default configuration has a 160GB, 5400-rpm hard drive, but our review system was loaded with a 500GB drive.

In our WorldBench 6 tests, the M11x earned a score of 77, one the best marks we've seen an ultraportable earn. And using the Intel integrated graphics, with the CPU in its overclocked state, the M11x drew about 7.5 hours of life from its eight-cell prismatic battery.

I had no trouble playing demanding games like Modern Warfare 2 and Battlefield: Bad Company 2 with good results, albeit not at maximum detail level.

The M11x's screen is only average. Its 1366 by 768 resolution is plenty for an 11.6-

inch display, but the color gamut is limited and a little washed out, and viewing angles are mediocre. The audio, however, is excellent for an ultraportable system.

Typing and pointing are above average, and I appreciated the laptop's generous array of ports. Both Bluetooth 2.1 and 802.11a/b/g/n networking are standard.

For gamers, the M11x may be a dream come true, filling a unique niche capably and at very reasonable cost.

—Jason Cross

★★★★★ SUPERIOR

M11x | Alienware

Full-featured notebook is a superb traveler and has great battery life.

List: \$1099

[find.pcworld.com/69966](http://find.pcworld.com/69966)



**THE M11X'S KEYS are soft but well-spaced and of good size.**





Your hard drive is holding you back.

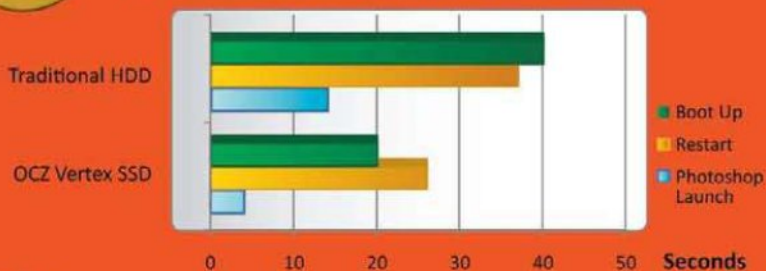


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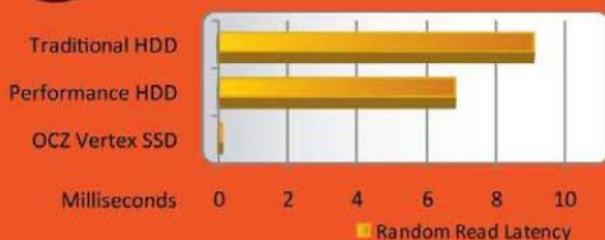
### SSDs are quieter, cooler, and lighter

With no moving parts, SSDs are able to stay cooler and quieter and because of their architecture weigh much less than hard drives.



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Systems with SSDs feel snappier thanks to their incredibly fast access latencies:



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## Top 10 Monochrome Laser Printers

Different models focus on print speed, text quality, paper handling, and cheap refills.

MODEL	Rating	Performance	Features and specifications
<b>1</b>  <b>BEST BUY</b> <b>Lexmark E460dn</b> <b>\$599</b> <a href="http://find.pcworld.com/62482">find.pcworld.com/62482</a>	 <b>VERY GOOD</b>	<ul style="list-style-type: none"> <li>Text quality: Superior</li> <li>Graphics quality: Very Good</li> <li>Tested speed: 24.3 ppm text/ 7.7 ppm graphics</li> </ul>	<ul style="list-style-type: none"> <li>Advertised speed: 40 ppm text</li> <li>300 sheets input (standard)</li> <li>1200-by-1200-dpi maximum true monochrome resolution</li> </ul>
▶ The E460dn's speed and print quality shine, but its pricey toner and skimpy standard paper capacity diminish its appeal.			
<b>2</b>  <b>Dell 3330dn</b> <b>\$599 NEW</b> <a href="http://find.pcworld.com/64137">find.pcworld.com/64137</a>	 <b>VERY GOOD</b>	<ul style="list-style-type: none"> <li>Text quality: Superior</li> <li>Graphics quality: Good</li> <li>Tested speed: 23.8 ppm text/ 7.5 ppm graphics</li> </ul>	<ul style="list-style-type: none"> <li>Advertised speed: 40 ppm text</li> <li>300 sheets input (standard)</li> <li>1200-by-1200-dpi maximum true monochrome resolution</li> </ul>
▶ Nearly perfect for a busy workgroup, the 3330dn offers speed, automatic duplexing, and modest (but upgradable) paper handling.			
<b>3</b>  <b>HP LaserJet P4014n</b> <b>\$899</b> <a href="http://find.pcworld.com/62457">find.pcworld.com/62457</a>	 <b>VERY GOOD</b>	<ul style="list-style-type: none"> <li>Text quality: Superior</li> <li>Graphics quality: Fair</li> <li>Tested speed: 22.6 ppm text/ 8.2 ppm graphics</li> </ul>	<ul style="list-style-type: none"> <li>Advertised speed: 45 ppm text</li> <li>600 sheets input (standard)</li> <li>1200-by-1200-dpi maximum true monochrome resolution</li> </ul>
▶ Buy this printer if you want powerhouse text printing on the cheap; unfortunately, its graphics quality is barely adequate.			
<b>4</b>  <b>Xerox Phaser 3600/N</b> <b>\$649</b> <a href="http://find.pcworld.com/62508">find.pcworld.com/62508</a>	 <b>VERY GOOD</b>	<ul style="list-style-type: none"> <li>Text quality: Superior</li> <li>Graphics quality: Good</li> <li>Tested speed: 22.9 ppm text/ 6.4 ppm graphics</li> </ul>	<ul style="list-style-type: none"> <li>Advertised speed: 40 ppm text</li> <li>700 sheets input (standard)</li> <li>1200-by-1200-dpi maximum true monochrome resolution</li> </ul>
▶ The Phaser 3600/N delivers a lot of good features for the price; shell out an extra \$100 to get the duplex-equipped model.			
<b>5</b>  <b>Lexmark T652n</b> <b>\$899</b> <a href="http://find.pcworld.com/62485">find.pcworld.com/62485</a>	 <b>VERY GOOD</b>	<ul style="list-style-type: none"> <li>Text quality: Superior</li> <li>Graphics quality: Fair</li> <li>Tested speed: 23.8 ppm text/ 7.0 ppm graphics</li> </ul>	<ul style="list-style-type: none"> <li>Advertised speed: 50 ppm text</li> <li>650 sheets input (standard)</li> <li>1200-by-1200-dpi maximum true monochrome resolution</li> </ul>
▶ The T652n is good at high-volume text printing, but you shouldn't count on it for graphics printing, except for very simple images.			
<b>6</b>  <b>Xerox Phaser 4510/N</b> <b>\$999</b> <a href="http://find.pcworld.com/62509">find.pcworld.com/62509</a>	 <b>VERY GOOD</b>	<ul style="list-style-type: none"> <li>Text quality: Superior</li> <li>Graphics quality: Fair</li> <li>Tested speed: 25.1 ppm text/ 7.5 ppm graphics</li> </ul>	<ul style="list-style-type: none"> <li>Advertised speed: 45 ppm text</li> <li>700 sheets input (standard)</li> <li>1200-by-1200-dpi maximum true monochrome resolution</li> </ul>
▶ Fast and built to last, the Phaser 4510/N uses very affordable replacement toner, but we wish we could get a decent graphic from it.			
<b>7</b>  <b>Oki Printing Solutions B6500n</b> <b>\$900</b> <a href="http://find.pcworld.com/70035">find.pcworld.com/70035</a>	 <b>VERY GOOD</b>	<ul style="list-style-type: none"> <li>Text quality: Superior</li> <li>Graphics quality: Fair</li> <li>Tested speed: 25.6 ppm text/ 7.3 ppm graphics</li> </ul>	<ul style="list-style-type: none"> <li>Advertised speed: 45 ppm text</li> <li>700 sheets input (standard)</li> <li>1200-by-1200-dpi maximum true monochrome resolution</li> </ul>
▶ The B6500n's text-printing speed is a big plus, but a printer this expensive really ought to deliver better graphics quality.			
<b>8</b>  <b>Brother HL-5370DWT</b> <b>\$300</b> <a href="http://find.pcworld.com/62505">find.pcworld.com/62505</a>	 <b>GOOD</b>	<ul style="list-style-type: none"> <li>Text quality: Superior</li> <li>Graphics quality: Very Good</li> <li>Tested speed: 16.7 ppm text/ 5.8 ppm graphics</li> </ul>	<ul style="list-style-type: none"> <li>Advertised speed: 32 ppm text</li> <li>550 sheets input (standard)</li> <li>1200-by-1200-dpi maximum true monochrome resolution</li> </ul>
▶ Inexpensive and versatile, but saddled with slow print speeds, this laser is best suited for home or small-workgroup use.			
<b>9</b>  <b>Ricoh Aficio SP 4210N</b> <b>\$649</b> <a href="http://find.pcworld.com/62718">find.pcworld.com/62718</a>	 <b>GOOD</b>	<ul style="list-style-type: none"> <li>Text quality: Superior</li> <li>Graphics quality: Good</li> <li>Tested speed: 21.6 ppm text/ 9.2 ppm graphics</li> </ul>	<ul style="list-style-type: none"> <li>Advertised speed: 27 ppm text</li> <li>600 sheets input (standard)</li> <li>1200-by-600-dpi maximum true monochrome resolution</li> </ul>
▶ A classic workhorse, the Aficio SP 4210N is built for speed rather than for print quality; the inexpensive toner is a big plus.			
<b>10</b>  <b>Kyocera Mita Ecosys FS-1350DN</b> <b>\$761</b> <a href="http://find.pcworld.com/62795">find.pcworld.com/62795</a>	 <b>GOOD</b>	<ul style="list-style-type: none"> <li>Text quality: Superior</li> <li>Graphics quality: Fair</li> <li>Tested speed: 18.6 ppm text/ 7.0 ppm graphics</li> </ul>	<ul style="list-style-type: none"> <li>Advertised speed: 32 ppm text</li> <li>250 sheets input (standard)</li> <li>1200-by-1200-dpi maximum true monochrome resolution</li> </ul>
▶ Haggle hard with the dealer over this basic unit, which has super-low-priced toner but printed pages rather sluggishly.			

CHART NOTES: All prices are as of 4/6/10. ppm = pages per minute; dpi = dots per inch.

**MORE ONLINE**

Visit [find.pcworld.com/70017](http://find.pcworld.com/70017) to see in-depth reviews, full test results, and detailed specs for all printers on this chart.



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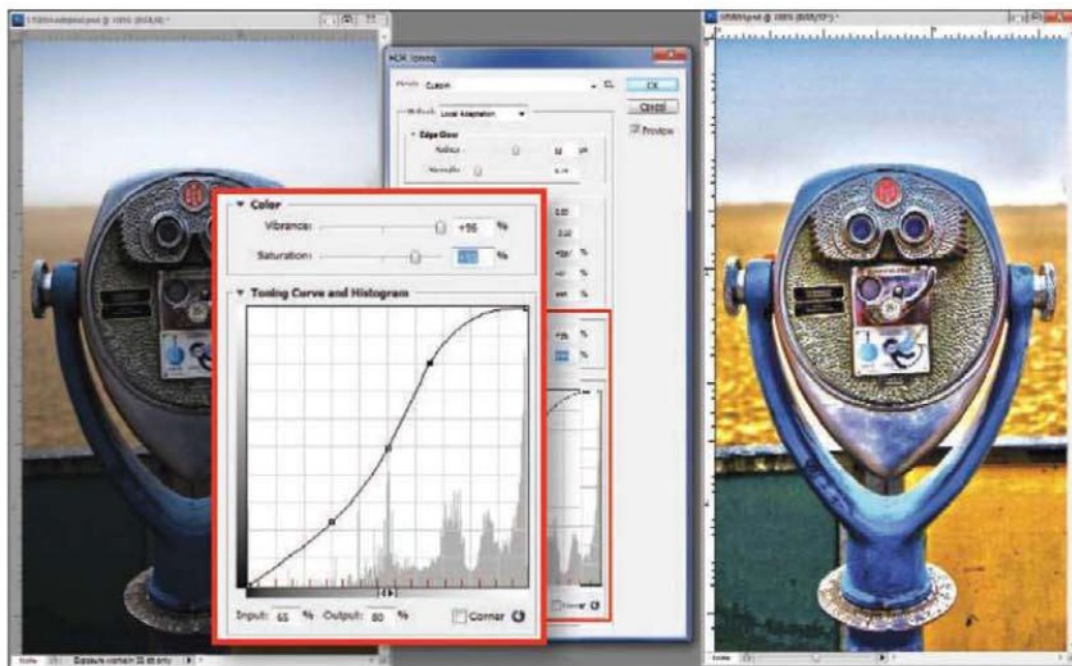
## Photoshop CS5: Refinements Abound

ADOBE PHOTOSHOP CS5 is available in numerous forms (see the sidebar below). We reviewed a beta version of CS5 Standard.

Photoshop CS5's interface is comfortably familiar, but a bit more efficient to use.

The most significant interface improvement is the Mini-Bridge—a palette within Photoshop that gives you full access to image files without your having to leave the program. Revised toolbox icons keep their old shapes, but they've been redrawn.

Photoshop's masking and selection tools, the workhorses of the program, are better, too. The redesigned Refine Edge dialog box permits more-accurate selections, especially of difficult textured edges; and Color Decontaminant helps remove excess background that may accidentally appear in a mask.



CS5 OFFERS two features—HDR-Pro and HDR Toning—to improve work with high-dynamic-range images.

Unfortunately, Refine Edge lacks Undo/Redo options; selecting Reset returns you to your starting point.

The new Content Aware Fill is like a magic eraser for deleting unwanted elements

(power lines, say, or an ex-boyfriend) from a photo. Content Aware, a Fill tool option, fills a selected area with data from the surrounding area, matching lighting, texture, and tonality.

your image, as though you were tying puppet strings to it. Then you can push and pull the shape as you wish.

You can define new Layer Effects defaults to suit your preferences. The Crop tool has a grid overlay that you can set to nine squares for a Rule of Thirds composition. And when you run a Save As operation, you can set the default to go to the last folder where you saved a file.

Photoshop CS5 has many little tweaks, enhancements, and improvements that add up to a smoother workflow, but going from CS4 to CS5 isn't essential for everyone.

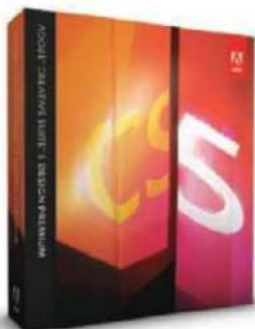
—Sally Wiener Grotta and Daniel Grotta

### PHOTOSHOP AND CREATIVE SUITE 5

## A Version for Every Need

ADOBE OFFERS PHOTOSHOP and Creative Suite 5 in various forms, including stand-alone Photoshop CS5 Standard (\$699) and Extended (\$999). Upgrading from Photoshop CS2, CS3, CS4, CS3 Extended, or CS4 Extended to Photoshop CS5 Standard costs \$199; upgrading to CS5 Extended, is \$349. From Photoshop Elements 4.0, 6.0, or 8.0 (Mac OS) or Elements 6.0, 7.0, or 8.0 (Windows) to Standard is \$599, and to Extended is \$899.

If you use at least two major Adobe programs, it may make sense to buy a Creative Suite box set. Photoshop CS5 is included in Creative Suite 5 Design Standard (\$1299). Photoshop CS5 Extended is part of four Creative Suite 5 sets: Design Premium (\$1899), Web Premium (\$1799), Production Premium (\$1699), and Master Collection (\$2599). To see which suite contains what, consult [find.pcworld.com/70036](http://find.pcworld.com/70036).



### Creativity Add-Ons

Adobe has boosted the customizability and responsiveness of Photoshop's Paint Brushes—especially with control over Bristles. The new Mixer Brush interacts with the colors on the picture. You can choose to work with (virtual) wet or dry paints, and wet or dry canvas; and you can set whether (and how much) color the brush loads from the canvas, and when the brush should remain clean.

Control over Bristle number, size, thickness, stiffness, and behavior supports a good range of styles.

The new Puppet Warp lets you place control points on

★★★★★ SUPERIOR

Photoshop CS5 | Adobe

Enhancements support smoother workflow and greater creativity. List: \$699 Standard, \$999 Extended [find.pcworld.com/69979](http://find.pcworld.com/69979)



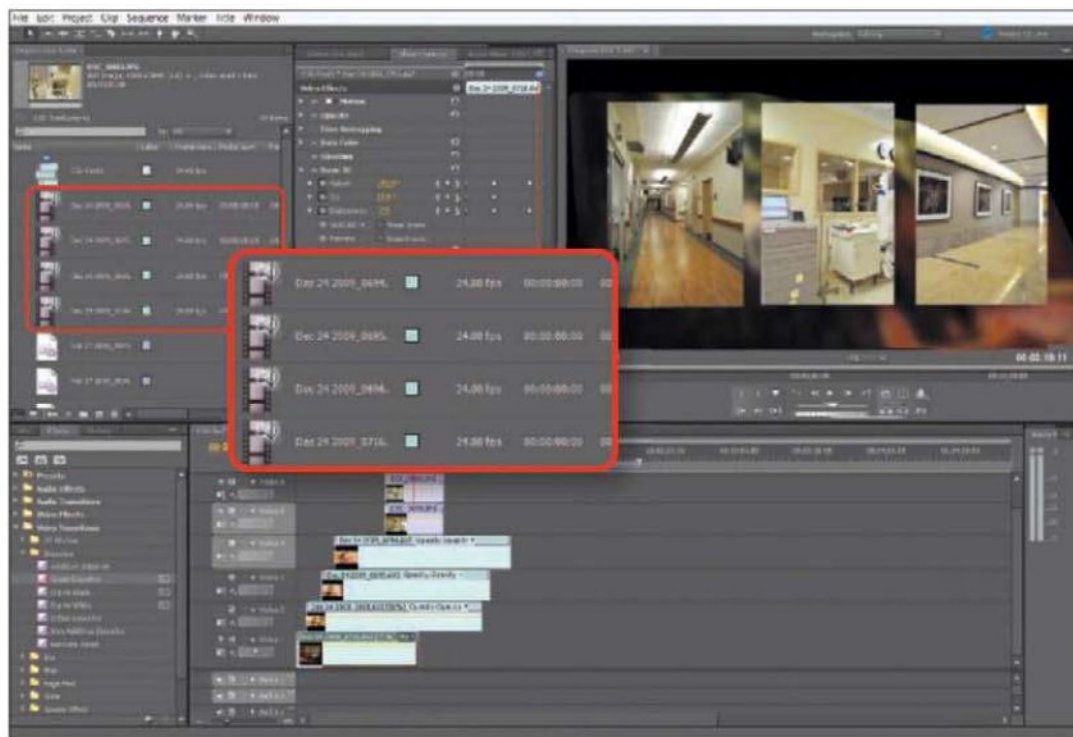
# Premiere Pro CS5: Faster Editing, Higher Demands

RAM IS CHEAP. Hard drives? Cheap. Big LCDs? Cheap. You may have most of the elements of a great video-editing setup, but for one thing: a video-editing app that can take advantage of all that inexpensive hardware. With Adobe Premiere Pro CS5 (\$799 stand-alone, \$1299 as part of Creative Suite 5 Design Standard), you'll have all the pieces to make even high-def video editing fly.

Well, almost all the pieces. Premiere Pro CS5 relies heavily on GPU processing. If you have one of a very select (and expensive) group of graphics cards, the application will greatly speed up both rendering and real-time playback, and leave your computer's CPU free to handle more-mundane tasks.

With the debut of CS5, Premiere Pro—along with its companion apps Media Encoder CS5 and Encore CS5, and the separate After Effects CS5—is now 64-bit native. That shift is long overdue, but I'm surprised that Adobe won't offer 32-bit versions of these programs at all; you must have a 64-bit OS to run them.

When I installed a beta version of CS5 on a dual-Xeon workstation running Windows 7 64-bit with 8GB of RAM, I did not notice a substantial improvement in rendering speed—but then, my workstation doesn't have one of the approved graphics cards. However, I had none of the RAM-related problems I've seen with Premiere Pro CS4—none of the slow reading and writing of data to the



**HIGH-DEF CLIPS FROM a digital SLR camera import into Premiere CS5 with no conversion necessary.**

hard drive instead of to RAM, and fewer playback and time-line scrubbing hesitations.

## Graphics Card Boost

One of the strengths of Premiere Pro CS5 is that it uses GPU power. Adobe says it can "solve many computational problems in a fraction of the time a CPU would take to perform the same task" and thus can render HD video much more quickly.

But Adobe has qualified just five graphics boards for use with the app. Four are Quadro workstation cards, ranging from \$800 to more than \$2000; the sole desktop card so far is the GTX 285, which is about \$400. Only the GTX 285 and one of the Quados work in a Mac. SLI setups aren't supported.

Adobe says it will also support cards from nVidia's new Fermi line, such as the GTX

470 and GTX 480 (see page 60). Regrettably, Premiere won't gain GPU-acceleration support for the GTX 480 until the third quarter of this year, and Adobe has said nothing yet about the GTX 470.

## Additional Features

Support for HD video from some Canon and Nikon digital SLRs is new. I imported HD video from a Nikon D5000, and Premiere needed no conversion—I simply dropped the clips into the source bin, and, from there, into the timeline. Premiere will now import unprotected asset files from a DVD, too.

A new tool finds gaps in videos on your timeline, and another lets you output a still frame from your video with the click of a button. The latter makes it much easier to generate a thumbnail image for your Website.

You can now set monitor playback resolution and pause resolution independently; that's useful if you're editing on an underpowered system. But as with many Adobe apps, Premiere's interface text is tiny, and you can't adjust the text size.

Adobe's move to a 64-bit-native app is a bold one. The number of graphics cards with which Premiere Pro will support GPU acceleration is very small; but if video editing is your job, you now have an upgrade path that is practically guaranteed to speed up your workflow.

—Alan Stafford

## Premiere Pro CS5 | Adobe

Not rated; beta software

64-bit video editor works best with certain expensive graphics cards.

List: \$799

[find.pcworld.com/70027](http://find.pcworld.com/70027)





## Top 10 Budget Desktop PCs

Fast, inexpensive models from Gateway and HP lead a charge of newcomers up the chart.

MODEL	Rating	Performance	Features and specifications
<b>1</b>  <b>BEST BUY</b> Gateway SX2840-01 <b>\$559 NEW</b> <a href="http://find.pcworld.com/69988">find.pcworld.com/69988</a>	★★★★★ SUPERIOR	<ul style="list-style-type: none"> <li>WorldBench 6 score: 118</li> <li>WorldBench 6 rating: Superior</li> <li>Overall design: Fair</li> </ul>	<ul style="list-style-type: none"> <li>2.93GHz Core i3-530</li> <li>6GB RAM; 1TB storage</li> <li>Intel integrated graphics</li> <li>DVD±RW</li> </ul>
► Despite offering limited connection options and upgradability, the SX2840-01 is a speedy little monster with a budget price.			
<b>2</b>  HP Compaq 6005 Pro Small Form Factor PC <b>\$899</b> <a href="http://find.pcworld.com/69989">find.pcworld.com/69989</a>	★★★★☆ VERY GOOD	<ul style="list-style-type: none"> <li>WorldBench 6 score: 128</li> <li>WorldBench 6 rating: Superior</li> <li>Overall design: Fair</li> </ul>	<ul style="list-style-type: none"> <li>3.0GHz Phenom II X4 B95</li> <li>4GB RAM; 400GB storage</li> <li>ATI Radeon HD4200</li> <li>DVD±RW</li> </ul>
► This business-centric system is speedy for its smallish size, though it omits some details that we regretted not having.			
<b>3</b>  HP Pavilion p6330f <b>\$599 NEW</b> <a href="http://find.pcworld.com/69990">find.pcworld.com/69990</a>	★★★★☆ VERY GOOD	<ul style="list-style-type: none"> <li>WorldBench 6 score: 118</li> <li>WorldBench 6 rating: Superior</li> <li>Overall design: Fair</li> </ul>	<ul style="list-style-type: none"> <li>2.93GHz Core i3-530</li> <li>6GB RAM; 1TB storage</li> <li>Intel integrated graphics</li> <li>DVD±RW</li> </ul>
► The Pavilion p6330f's performance is strong and its price is right, but it doesn't provide advanced connectivity options.			
<b>4</b>  Dell Inspiron 580s <b>\$529 NEW</b> <a href="http://find.pcworld.com/69991">find.pcworld.com/69991</a>	★★★☆☆ GOOD	<ul style="list-style-type: none"> <li>WorldBench 6 score: 119</li> <li>WorldBench 6 rating: Very Good</li> <li>Overall design: Fair</li> </ul>	<ul style="list-style-type: none"> <li>2.93GHz Core i3-530</li> <li>4GB RAM; 320GB storage</li> <li>Intel integrated graphics</li> <li>DVD±RW</li> </ul>
► Storage space is lacking, and the case leaves much to be desired; still, you can't argue with the performance or the price.			
<b>5</b>  Acer Veriton X480G <b>\$599 NEW</b> <a href="http://find.pcworld.com/69992">find.pcworld.com/69992</a>	★★★☆☆ GOOD	<ul style="list-style-type: none"> <li>WorldBench 6 score: 120</li> <li>WorldBench 6 rating: Superior</li> <li>Overall design: Fair</li> </ul>	<ul style="list-style-type: none"> <li>3.1GHz Core 2 Duo E7600</li> <li>3GB RAM; 640GB storage</li> <li>Intel integrated graphics</li> <li>DVD±RW</li> </ul>
► Acer's Veriton X480G matches up with most budget PCs pretty well, but the best competing models leave it in the shade.			
<b>6</b>  Gateway LX6810-01 <b>\$800</b> <a href="http://find.pcworld.com/63278">find.pcworld.com/63278</a>	★★★☆☆ GOOD	<ul style="list-style-type: none"> <li>WorldBench 6 score: 105</li> <li>WorldBench 6 rating: Very Good</li> <li>Overall design: Good</li> </ul>	<ul style="list-style-type: none"> <li>2.3GHz Core 2 Quad Q8200</li> <li>8GB RAM; 640GB storage</li> <li>nVidia GeForce GT120</li> <li>DVD±RW</li> </ul>
► Though its gaming performance is mediocre, in other respects the LX6810-01 delivers strong general performance for the price.			
<b>7</b>  eMachines ET1831-07 <b>\$390 NEW</b> <a href="http://find.pcworld.com/69993">find.pcworld.com/69993</a>	★★★☆☆ GOOD	<ul style="list-style-type: none"> <li>WorldBench 6 score: 101</li> <li>WorldBench 6 rating: Good</li> <li>Overall design: Fair</li> </ul>	<ul style="list-style-type: none"> <li>2.7GHz Pentium Dual-Core E5400</li> <li>4GB RAM; 750GB storage</li> <li>nVidia GeForce 7050</li> <li>DVD±RW</li> </ul>
► Combining capable performance and a stellar price tag, the eMachines ET1831-07 rates as a great all-around value.			
<b>8</b>  Acer Aspire AX1301-B1812 <b>\$530 NEW</b> <a href="http://find.pcworld.com/69994">find.pcworld.com/69994</a>	★★★☆☆ FAIR	<ul style="list-style-type: none"> <li>WorldBench 6 score: 96</li> <li>WorldBench 6 rating: Good</li> <li>Overall design: Good</li> </ul>	<ul style="list-style-type: none"> <li>2.7GHz Athlon II X2 215</li> <li>3GB RAM; 640GB storage</li> <li>nVidia GeForce 9200</li> <li>DVD±RW</li> </ul>
► The AX1301-B1812 offers many features, but whether it's a good deal depends on how much you like the bundled display.			
<b>9</b>  Gateway SX2800-01r <b>\$500</b> <a href="http://find.pcworld.com/69995">find.pcworld.com/69995</a>	★★★☆☆ FAIR	<ul style="list-style-type: none"> <li>WorldBench 6 score: 98</li> <li>WorldBench 6 rating: Good</li> <li>Overall design: Fair</li> </ul>	<ul style="list-style-type: none"> <li>2.3GHz Core 2 Quad Q8200</li> <li>4GB RAM; 640GB storage</li> <li>Intel integrated graphics</li> <li>DVD±RW</li> </ul>
► As long as you aren't an inveterate upgrader or a committed gamer, you'll find a lot to love in the Gateway SX2800-01r.			
<b>10</b>  Lenovo ThinkCentre M58p <b>\$1050</b> <a href="http://find.pcworld.com/63275">find.pcworld.com/63275</a>	★★★☆☆ FAIR	<ul style="list-style-type: none"> <li>WorldBench 6 score: 117</li> <li>WorldBench 6 rating: Superior</li> <li>Overall design: Fair</li> </ul>	<ul style="list-style-type: none"> <li>3.16GHz Core 2 Duo E8500</li> <li>2GB RAM; 250GB storage</li> <li>Intel integrated graphics</li> <li>DVD±RW</li> </ul>
► Aimed squarely at business users, Lenovo's ThinkCentre M58p packs impressive raw speed into a compact, no-frills chassis.			

CHART NOTES: Prices are as of 4/14/10.

**MORE ONLINE** Visit [find.pcworld.com/70016](http://find.pcworld.com/70016) to see in-depth reviews, full test results, and detailed specs for all of the PCs on this chart.

PHOTOGRAPHS: ROBERT CARDIN



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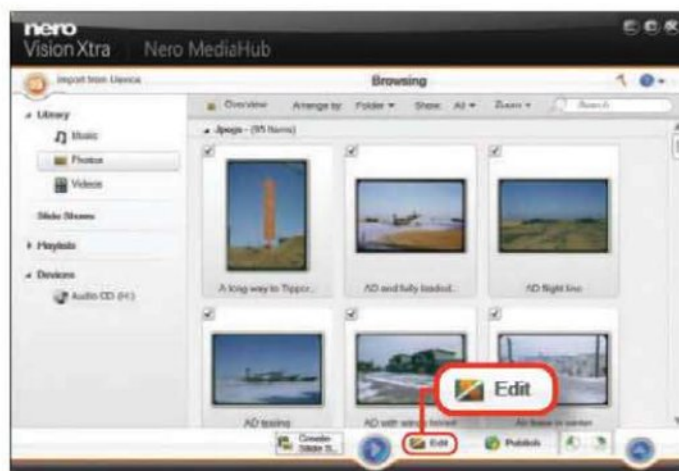
## Nero Multimedia Suite Has Power, Lacks Finesse

WITH MULTIMEDIA Suite 10 (\$100), Nero has begun to address what its robust burning suite has always lacked: easy creative options. Regrettably, the interface still has one foot in the past.

The new MediaHub—an organizer, player, and slide-show creator—is friendly and has extensive file sup-

port. It also offers an inline photo editor for tweaking, correcting, and even adding special effects. Nero stumbles, however, by not providing similar inline editors for music and video.

The suite's Nero Vision 10 component has received a major upgrade. The timeline editor is vastly improved, with a new look, more tracks, and easier-to-use tools. In addition, you may now produce Blu-ray content without buying a plug-in, and apply themes (effects, transitions, and titles) to a whole movie. Unfortunately, the



NERO'S MEDIAHUB includes several photo-editing functions.

dialog boxes still suffer from an old, amateurish interface.

The long-standing Nero Burning ROM component has finally acquired the ability to span discs for data jobs. Its other improvement is the Burn Now button, which saves you a step by bypassing the options dialog box.

Other suite components remain largely unchanged. In spite of its improvements, Nero Multimedia Suite 10 retains the discombobulated feel of a product that has changed directions multiple times. Let's hope Nero takes MediaHub and runs with it.

—Jon L. Jacobi

★★★★★ VERY GOOD

Multimedia Suite 10 | Nero

Interface challenges hamper this powerful disc-burning package.

List: \$100

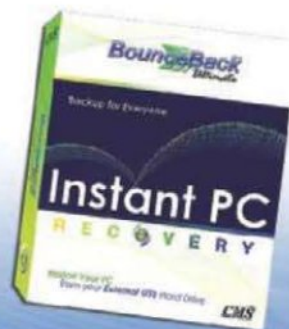
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# Iomega iConnect: Easy-to-Use Network Storage

DO YOU HAVE USB drives lying around that you wish you could access over your home network? The \$100 Iomega iConnect Wireless Data Station will let you do that and more. It's basically a network-attached storage box without drive bays. Inside is a DLNA-certified Universal Plug-and-Play media server; the box even lets you

attach printers and cameras to any of its four USB ports. It offers no RAID-style redundancy, but that's understandable for a device that relies on removable storage.

You may connect to and configure the unit via IP address and a browser, or by installing client software. Either way, you wind up at the same easy-to-navigate HTML configuration pages.

Once configured, the iConnect worked perfectly, although it often required reboots after configuration changes. I attached several USB drives to the box, and it found them immediately. The client software can map



**YOU CAN PLUG up to four USB drives into the Iomega iConnect.**

the drives, or you can do so.

I used Windows 7 and Media Player 11 to test the UPnP server. Streaming on my admittedly very fast gigabit network was flawless, even with 1080p video. The unit also transferred files from my digital camera auto-

matically when I attached it.

Note: My test unit's reset button didn't work. Return the device if you don't feel a slight click when you press the button. Instead I used a reset function that I found in the configuration pages.

—Jon L. Jacobi

★★★★★ VERY GOOD

## iConnect Wireless Data Station Iomega

Affordable device capably turns USB drives into a full NAS setup.

Street: \$100

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## Top 10 Ultraportable Laptops

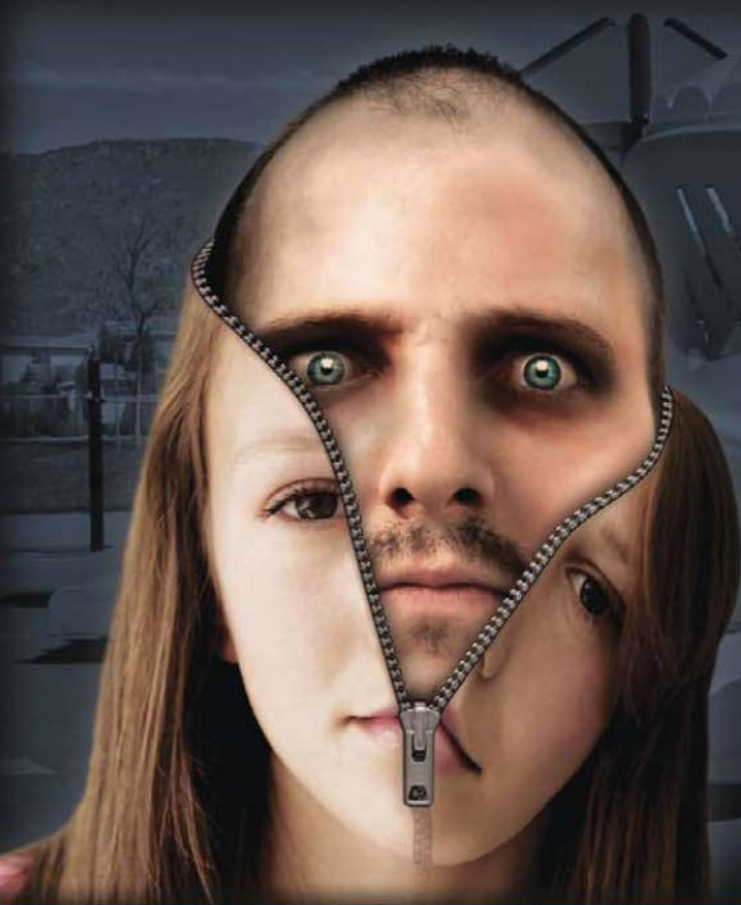
Alienware's attractive and reasonably priced M11x is a compact gaming powerhouse.

MODEL	Rating	Performance	Features and specifications
<b>1</b>  <b>BEST BUY</b> Alienware M11x <b>\$1099 NEW</b> <a href="http://find.pcworld.com/69966">find.pcworld.com/69966</a>	★★★★★ SUPERIOR	<ul style="list-style-type: none"> <li>WorldBench 6 score: 77 Good</li> <li>Overall design: Very Good</li> <li>Tested battery life: 7:27</li> </ul>	<ul style="list-style-type: none"> <li>1.73-GHz Core 2 Duo SU7300</li> <li>11.6-inch widescreen</li> <li>4.6 pounds</li> <li>500GB hard drive</li> </ul>
▶ In the M11x, gamers finally have access to a fully capable laptop that's easily portable and offers great battery life (see page 48).			
<b>2</b>  Sony VAO VGN-Z598U/B <b>\$4450</b> <a href="http://find.pcworld.com/62161">find.pcworld.com/62161</a>	★★★★☆ VERY GOOD	<ul style="list-style-type: none"> <li>WorldBench 6 score: 107 Superior</li> <li>Overall design: Good</li> <li>Tested battery life: 4:46</li> </ul>	<ul style="list-style-type: none"> <li>2.533-GHz Core 2 Duo P9500</li> <li>13.1-inch widescreen</li> <li>3.8 pounds</li> <li>250GB solid-state drive</li> </ul>
▶ Sony's high-powered business multimedia machine is compelling, yet with all the extras it costs as much as a used car.			
<b>3</b>  HP ProBook 5310m <b>\$899</b> <a href="http://find.pcworld.com/69436">find.pcworld.com/69436</a>	★★★★☆ VERY GOOD	<ul style="list-style-type: none"> <li>WorldBench 6 score: 99 Superior</li> <li>Overall design: Very Good</li> <li>Tested battery life: 4:56</li> </ul>	<ul style="list-style-type: none"> <li>2.26-GHz Core 2 Duo SP9300</li> <li>14.0-inch widescreen</li> <li>3.8 pounds</li> <li>300GB hard drive</li> </ul>
▶ The ProBook 5310m's slim, stylish case impresses—and so do its quick-booting, business-friendly applications.			
<b>4</b>  Lenovo ThinkPad X200 <b>\$1094</b> <a href="http://find.pcworld.com/69437">find.pcworld.com/69437</a>	★★★★☆ VERY GOOD	<ul style="list-style-type: none"> <li>WorldBench 6 score: 88 Very Good</li> <li>Overall design: Good</li> <li>Tested battery life: 8:54</li> </ul>	<ul style="list-style-type: none"> <li>2.4-GHz Core 2 Duo P8600</li> <li>12.1-inch widescreen</li> <li>3.0 pounds</li> <li>160GB hard drive</li> </ul>
▶ The X200 is an appealing ultraportable with full-featured performance, great battery life, and a good keyboard to boot.			
<b>5</b>  Lenovo ThinkPad Edge <b>\$799</b> <a href="http://find.pcworld.com/69438">find.pcworld.com/69438</a>	★★★★☆ VERY GOOD	<ul style="list-style-type: none"> <li>WorldBench 6 score: 65 Good</li> <li>Overall design: Very Good</li> <li>Tested battery life: 6:30</li> </ul>	<ul style="list-style-type: none"> <li>1.3-GHz Core 2 Duo SU7300</li> <li>13.3-inch widescreen</li> <li>3.9 pounds</li> <li>320GB hard drive</li> </ul>
▶ A welcome refresh, the Edge improves the ThinkPad look and feel without sacrificing the features that make this line so loved.			
<b>6</b>  Lenovo IdeaPad U150 <b>\$799 NEW</b> <a href="http://find.pcworld.com/69829">find.pcworld.com/69829</a>	★★★★☆ VERY GOOD	<ul style="list-style-type: none"> <li>WorldBench 6 score: 66 Good</li> <li>Overall design: Good</li> <li>Tested battery life: 6:20</li> </ul>	<ul style="list-style-type: none"> <li>1.3-GHz Core 2 Duo SU7300</li> <li>11.6-inch widescreen</li> <li>3.2 pounds</li> <li>320GB hard drive</li> </ul>
▶ Lenovo's IdeaPad U150 is a nice-looking machine that finished exactly in the middle on our performance benchmarks.			
<b>7</b>  Acer Ferrari One <b>\$599</b> <a href="http://find.pcworld.com/69439">find.pcworld.com/69439</a>	★★★★☆ VERY GOOD	<ul style="list-style-type: none"> <li>WorldBench 6 score: 51 Fair</li> <li>Overall design: Very Good</li> <li>Tested battery life: 4:52</li> </ul>	<ul style="list-style-type: none"> <li>1.2-GHz Athlon X2 Low-Voltage</li> <li>11.5-inch widescreen</li> <li>3.2 pounds</li> <li>250GB hard drive</li> </ul>
▶ Excellent design and features compensate for lackluster performance in a cool little laptop that will tempt netbook buyers.			
<b>8</b>  HP EliteBook 2530p <b>\$2599</b> <a href="http://find.pcworld.com/69440">find.pcworld.com/69440</a>	★★★★☆ GOOD	<ul style="list-style-type: none"> <li>WorldBench 6 score: 89 Very Good</li> <li>Overall design: Good</li> <li>Tested battery life: 6:48</li> </ul>	<ul style="list-style-type: none"> <li>1.86-GHz Core 2 Duo SL9400</li> <li>12.1-inch widescreen</li> <li>4.0 pounds</li> <li>80GB solid-state drive</li> </ul>
▶ Pricey but worth it, the HP EliteBook 2530P lives up to its name with extras not ordinarily found on an ultraportable.			
<b>9</b>  Samsung X360-34P <b>\$2299</b> <a href="http://find.pcworld.com/69441">find.pcworld.com/69441</a>	★★★★☆ GOOD	<ul style="list-style-type: none"> <li>WorldBench 6 score: 73 Good</li> <li>Overall design: Very Good</li> <li>Tested battery life: 7:36</li> </ul>	<ul style="list-style-type: none"> <li>1.4-GHz Core 2 Duo U9400</li> <li>13.3-inch widescreen</li> <li>3.2 pounds</li> <li>128GB solid-state drive</li> </ul>
▶ Samsung provides solid competition for Lenovo's X200 with sleeker looks and a crisper image, but lower performance.			
<b>10</b>  Asus UL30 <b>\$789</b> <a href="http://find.pcworld.com/69443">find.pcworld.com/69443</a>	★★★★☆ GOOD	<ul style="list-style-type: none"> <li>WorldBench 6 score: 67 Good</li> <li>Overall design: Good</li> <li>Tested battery life: 8:56</li> </ul>	<ul style="list-style-type: none"> <li>1.3-GHz Core 2 Duo SU7300</li> <li>13.3-inch widescreen</li> <li>3.9 pounds</li> <li>500GB hard drive</li> </ul>
▶ An attractive design, a low-voltage processor, and a huge keyboard make Asus's UL30 an ultraportable worth a second look.			

CHART NOTE: Ratings are as of 4/13/10. Tested battery life figures are expressed in hours:minutes.

**MORE ONLINE** Visit [find.pcworld.com/69510](http://find.pcworld.com/69510) to see in-depth reviews, full test results, and detailed specs for all laptops on this chart.

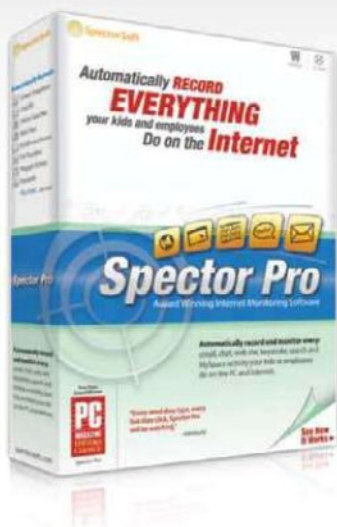




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a 42 year old man posing  
as a 15 year old girl online.

**"Susan" and your 13 year  
old just made plans to  
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## HTC HD2: Superb Phone, Outdated OS

WITH A BEAUTIFUL design, a speedy processor, and a knockout 4.3-inch display, the HTC HD2 (\$200 with a two-year T-Mobile contract) seems to be the ideal smartphone. But it has the almost-obsolete Windows Mobile 6.5 operating system—and when Windows Phone 7 arrives at year end, the HD2 won't be upgradable.

In its hardware, though, the HTC HD2 is the best

★★★★★ VERY GOOD

HD2 | HTC

Gorgeous hardware runs the nearly obsolete Windows Mobile 6.5 OS. Street: \$200 (two-year contract) [find.pcworld.com/69958](http://find.pcworld.com/69958)

Windows Mobile phone currently available. Its minimalist design and its stainless-steel and soft-black-rubber body give it a classy look.

The HD2 measures 4.7 by 2.6 by 0.4 inches. Five oblong hardware buttons (Talk, Home, Windows Start, Back, and End/Power) lie below the brilliant, 480-by-800, 4.3-inch WVGA display.

The HD2 has both Internet Explorer and Opera Mobile. Browsing the Web is superb: The multitouch display is large enough to view pages without extensive scrolling.

The 5-megapixel camera also impressed me. Its dual-LED flash lit up my indoor shots without blowing out

too much detail (though colors were a bit washed out). My outdoor shots were even better, with vivid colors and sharp detail. Video clips ran smoothly, with little blurriness or image noise.

Powering the HD2 is Qualcomm's 1GHz Snapdragon processor, the same chip that the Google Nexus One uses. Apps launched quickly, and scrolling in menus and lists was fluid with no stuttering. I also noticed little delay while running multiple apps.

Call quality on T-Mobile's network was generally pretty good. I heard some background static on one call, but parties on the other end of the line heard only my



THE HD2 RUNS HTC's Sense interface over Windows Mobile.

voice. Audio had ample volume and sounded natural.

If Android phones don't interest you, the HD2 will certainly make you happy—but you might feel buyer's remorse when HTC's Windows Phone 7 lineup debuts.

—Ginny Mies

## nVidia GTX 480 Offers High-End Graphics Performance

AT LONG LAST, nVidia's first DirectX 11



graphics board is here—and for better or worse, it's quite a beast. Based on nVidia's new Fermi architecture, the \$500 GeForce GTX 480 has over 3 billion transistors, and it strongly emphasizes geometric realism.

We compared our GTX 480 reference board with ATI's Radeon HD 5870, which can be found for about \$400, as well as with MSI's R5870 Lightning, a \$500, factory-

GeForce GTX 480 | nVidia

Not rated; reference board  
Graphics board slightly outpaces rivals, but consumes a lot of power. Street: \$500 [find.pcworld.com/69959](http://find.pcworld.com/69959)



THE GEFORCE GTX 480 uses nVidia's new Fermi architecture.

overclocked HD 5870.

We conducted all tests at 1920-by-1200 and 2560-by-1600 resolutions at the highest available settings on a 30-inch display, alternately disabling and enabling anti-aliasing. We ran synthetic benchmarks and real-world gaming tests; see the online version of this review for the details. Across our real-world

gaming tests, we generally saw a 15 to 20 percent performance gap, with the GTX 480 leading on most of them.

When you factor in your electric bill, though, the cost of this new card skyrockets. With the GTX 480, our PC used 140W of power when idle; the regular HD 5870 used 106W, while the over-

clocked MSI R5870 used 118W. Under load, the GTX 480 demanded 365W, versus 256W and 276W for the HD 5870 and the overclocked MSI board, respectively.

There's a lot to like in the GTX 480—the Fermi architecture offers big benefits, particularly where antialiasing or tessellation are concerned. The ATI HD 5870, however, has a lower power draw and can offer comparable speed for less money; it also provides perks (powering three displays on a single GPU) that nVidia has yet to address. Until more games take advantage of Fermi technology, we advise weighing the performance, power, and price benefits before handing over your credit card.

—Nate Ralph



She accidentally deleted her photos.



She has Carbonite Online Backup.

**Carbonite** makes it easy and affordable to securely back up your computer files – and get them back if they're ever lost. Your files are automatically encrypted and saved to our secure, offsite data centers. Carbonite works on your Mac or PC. Setup is simple. And with our remote access feature, you can retrieve your files from anywhere – even on your iPhone with Carbonite's free app. Try Carbonite Online Backup FREE for 15 days at [Carbonite.com](http://Carbonite.com).

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Try it **FREE** at **Carbonite.com**

Use offer code "PCWorld610" to start your trial and get a FREE month upon purchase.

It happens all the time.  
Your hard drive crashes.  
Or you suddenly realize a file is missing.  
Your pulse races. Hours of lost work.  
Years of photos. Your favorite music.  
Gone, in an instant.  
Unless you have Carbonite.

**CARBONITE**™  
Back it up. **Get it back.**™



## DivX 8: Good Playback, Encoding

DIVX HAS REVISED its video suite to version 8, and the improvements are noticeable. In particular, the DivX Plus Player looks to be a reasonably competent rival to QuickTime and Windows Media Player—once a minor bug is worked out. The suite also includes the DivX Web Player, the DivX Codec Pack, and the DivX Plus Converter.

The player's main improvements are in its functional details. For instance, burn functions have moved to a separate menu dialog box and have been replaced with a 'Transfer to' pane for turning your PC DivX videos into their DVD, Blu-ray, and TV-compatible formats.

Unfortunately, the player gave me some slight problems. It played every supported file format just fine—except for 1080p WMV files.

DivX has always been very good at encoding video. After 15 days, you must pony up \$20 to continue encoding to DivX, and another \$10 to convert from MPEG-2 (DVD).

If you have DivX-certified devices (a Sony PlayStation 3, or an HDTV or Blu-ray player that plays DivX), this suite is a worthwhile investment.

—Jon L. Jacobi

★★★★★ VERY GOOD

DivX Plus 8 | DivX

Video suite has an improved player and support for more file formats. List: \$20 (\$10 for MPEG-2 import) [find.pcworld.com/70015](http://find.pcworld.com/70015)

## DOWNLOAD THIS

### Free Files Bring the Future to Your Desktop

THESE THREE FREEBIES offer new ways to master your PC. An attractive program launcher lets you dial up shortcuts with the mouse wheel. A handy utility brings networking information out of the command line and into a graphical interface. And if you really want to show your PC who's boss, log in with face-recognition software instead of with a password.



**SLIDERDOCK'S RINGS OF shortcuts allow you to find and launch programs with your mouse wheel.**

#### SliderDock

With this simple and good-looking program launcher, you can create one or more rings of shortcuts. You can pack plenty of icons into a given ring, and then use your mouse wheel to rotate the one you want to the front. To get started, drag and drop files or shortcuts onto a small circle called the IconSeeker. Your first icon sits in the middle of the IconSeeker, while additional ones begin to form a ring around it. The rearmost icons shrink in size to create a nice perspective effect. Rotating the ring pulls a different icon into the IconSeeker, where you can then launch it with a double-click or a configurable hotkey. [find.pcworld.com/69996](http://find.pcworld.com/69996)

—Erik Larkin

#### NetRouteView

Advanced network configuration often entails examination of routing tables. Windows includes the command-line program route.exe for this

purpose. If you prefer a graphical interface, try NetRouteView, which displays your routing table and allows you to change and delete routes. The application lists all of the information from route.exe, including the destination, mask, gateway, and metric. Routes are arranged in a grid and are sortable by any field. After opening the properties for a route, you can copy any of the values for later pasting. If you don't mind the command line, you might not need NetRouteView, but the extra convenience is certainly worthwhile. [find.pcworld.com/69997](http://find.pcworld.com/69997)

—Gabe Gralla

#### Luxand Blink

This free face-recognition program enables a PC equipped with a Webcam to scan your visage during login. If the scan matches a previously saved template, you log in to the machine, without having to use a password. This function is



**WITH LUXAND BLINK, you can log on to Windows using your face instead of a password.**

most useful on laptops with built-in Webcams, or on desktop PCs with cameras that are almost always mounted above the monitor. Despite lacking a few nice-to-have features, Luxand Blink works very well. [find.pcworld.com/69998](http://find.pcworld.com/69998)

—Steve Horton ●

Destination	Mask	Gateway	Interface IP	Metric	Type	Protocol	Age in Sec...	Interface Name
0.0.0.0	0.0.0.0	192.168.100.1	129.84.219.226	71	Indirect	Static Route	170,252	Intel(R) Wireless WiFi Link 5100
0.0.0.0	0.0.0.0	128.84.218.1	128.84.219.226	30	Indirect	Static Route	4,114	Intel(R) Wireless WiFi Link 5100
127.0.0.0	255.0.0.0	127.0.0.1	127.0.0.1	306	Direct	Static Route	264,083	Software Loopback Interface 1
127.0.0.1	255.255.255.255	127.0.0.1	127.0.0.1	306	Direct	Static Route	264,083	Software Loopback Interface 1

**NETROUTEVIEW LETS YOU control your routing table—without having to use a command-line interface.**





## High Definition video calls keep your business moving from anywhere... even home!

faceVtion HD video call/chat solutions give remote workers a real presence. With ultra-clear 720p full motion HD video, faceVtion HD camera and express card solutions for desktops and laptops deliver a video call experience so realistic, its just like being there.

- 2-way, 720p 30 fps PC-optimized HD video communications
- Industry-leading video clarity and smoothness
- Live sharing of HD video over the Internet



**FVexpress™ Combo**



**FVTouchCam™ NI**



**FVexpress™ Pro**

**faceVtion™**

[www.facevotionusa.com](http://www.facevotionusa.com)

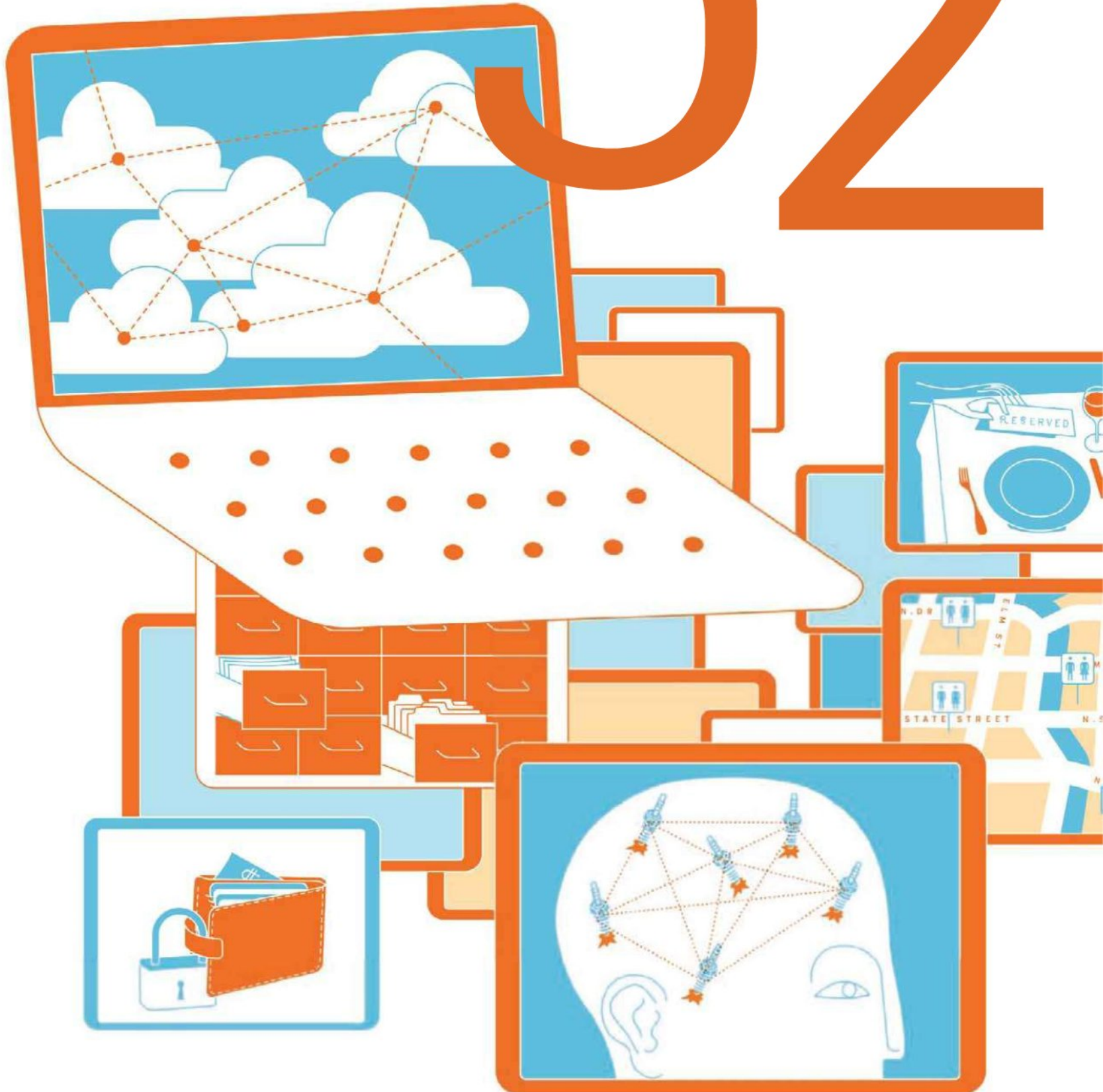
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**PCConnection  
EXPRESS**

**PCConnection**



# 52

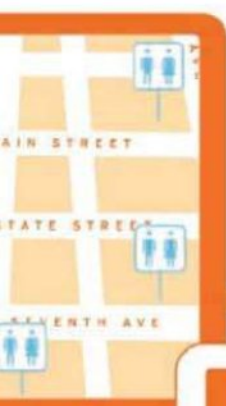




BY ROBERT STROHMEYER • ILLUSTRATION BY OTTO STEININGER

# Incredibly Useful Sites

Edit your photos, manage your business, even find the nearest public restroom. These down-to-earth sites deserve a permanent spot on your bookmark list. »





**YOU KNOW ALL ABOUT** Google's smorgasbord of Web tools, but have you tried Measy, Topicfire, or Yammer? While a few big names seem to dominate the Internet, the Web continues to flourish with a never-ending stream of incredibly useful new sites and services. *PCWorld's* editors never stop scouring the Internet for the best and most creative new ideas we can find. Here are 52 phenomenally cool Web services that you may not have heard of, but definitely need to try.

## Productivity

### Better To-Do Lists

Most to-do programs are little more than static lists of pending responsibilities. **Teux Deux**, though, is a slick, simple, and free online task manager that visually groups your upcoming chores by date, giving you a clear view of what you need to accomplish in the coming week.

The site's interface works particularly well with the popular Getting Things Done method for enhancing productivity. Each date acts a bit like a folder, keeping all of the tasks for the day contained and compartmentalized, so you can focus on what matters most in the moment. Tasks with no specific due date linger in a 'Someday' box on the main screen, so you can put them off without forgetting about them. [teuxdeux.com](http://teuxdeux.com)

### Remember Everything

**Evernote** allows you to capture ideas, images, or audio clips from your PC or phone, and then sync them to the cloud for easy retrieval and organization. It even works with handwritten notes, turning your chicken-scratch marks into searchable text. [evernote.com](http://evernote.com)

### Remember Specific Things

Like Evernote, **Springpad** helps you organize your information—but it doesn't focus on just notes and Web clippings. Instead, Springpad offers unique templates for organizing data about your personal life, from recipes to your music collection to your favorite movies, wines, and restaurants.

The recipe features are particularly cool. First, enter a recipe into the template, or link to an online recipe to import it automatically into your Spring-

pad recipe collection. Later, when you want to cook the recipe, click 'Add to shopping list', and all the ingredients will appear on your shopping list. You can even search for coupons from the local supermarket. In addition to basic information storage, Springpad offers task lists and reminders to help you keep your life on track. [springpad.it](http://springpad.it)

### Tag Anything

**Stickybits** is an especially slick way to add an online résumé or company Web site to a business card, or to add lost-and-found info to your mobile gadgets.

In fact, you can add photos, data files, Web URLs, or messages to any physical

object. Download a Stickybits bar code and slap it on anything, and then link the bar code to any digital file or Web address. When someone scans the bar code with their phone's camera, they'll see your linked data. [stickybits.com](http://stickybits.com)

### Learn Anything Fast

Whether it's learning conversational Japanese, memorizing capital cities, deciphering the periodic table of elements, or mastering the fictional language of the Na'vi, the no-cost, goal-oriented online courses at **Smart.fm** can get you up to speed in no time. [smart.fm](http://smart.fm)

### Hey, Wake Up

You don't have to stay in some fancy two-star motel to get a wake-up call. **Wakerupper** lets you schedule wake-up or reminder calls to any phone at any time, for 5 cents a call, complete with a snooze option. If you type in a reminder message, you'll hear an oddly disquieting computer voice read it back to you during the call. [wakerupper.com](http://wakerupper.com)



**STICKYBITS** bar codes let you link objects to online data, such as videos or Websites.

**SPRINGPAD** provides lists and templates to help you organize your life.





## Send Payments via Twitter

Strange as it sounds to use a public social network like Twitter to send money, **TwitPay**'s PayPal-driven payment system is a great way to drum up buzz around a fundraiser or to kick-start an office pool. [twitpay.com](http://twitpay.com)

## Control Your Spending

Would you spend \$3 per month to get your finances under control? The simple **PearBudget** online budgeting app offers a drag-and-drop interface for organizing expenses and tracking them against your income. You can create custom categories, enter receipts, and review your spending from any PC. PearBudget also lets you print what it calls GoCards, 3-by-5-inch cards that you can toss in your wallet to keep track of how much remains in your budget for any given expense category. It's a great way to avoid overspending, with no high-priced gadgets required. [pearbudget.com](http://pearbudget.com)

## Manage Your Finances

For a more complete set of money-management tools, try **Mint**. This free financial powerhouse—from the people who make Quicken and TurboTax—automatically syncs with your bank accounts, tracks spending, and presents detailed graphs that show where your money comes from, where it's going, and how you can save more. [mint.com](http://mint.com)

## Run Remote PCs

Want to drive your home or office PC from any Internet-connected computer you happen upon, or even from an iPhone? **LogMeIn** remains supreme for free remote access. [logmein.com](http://logmein.com)

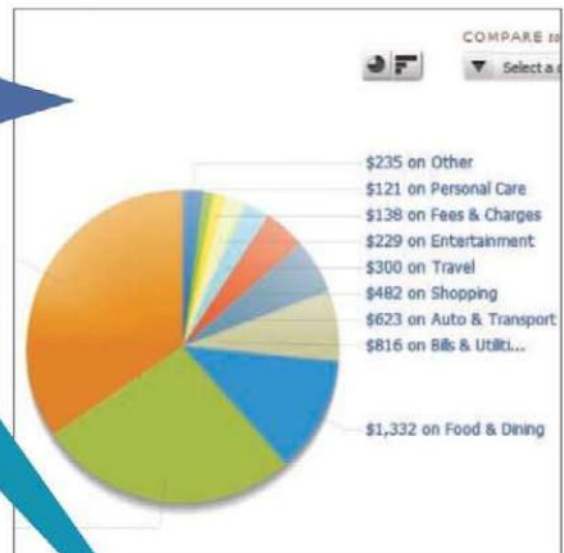
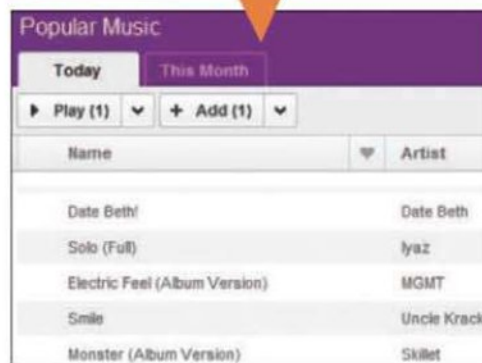
## Spark Your Creativity

Brainstorming can be difficult. **Bubbl.us** takes the hassle out of getting your ideas down with free mind-mapping tools that are dead simple to use. You can easily map out your thoughts with colorful drag-and-drop diagrams, and then share the results with colleagues and friends, print them out, or embed them on your site. [bubbl.us](http://bubbl.us)

**MINT'S** graphs detail your financial situation and break down your spending habits.

**PEARBUDGET** allows you to set up custom categories for tracking your regular expenses.

**GROOVESHARK** offers music from all genres and has extensive sharing and playlist features.



## Find the Right Zip Code

You know what city you're sending something to, but you don't have the zip? The U.S. Postal Service's **Zip Code Lookup** is a must-use for getting packages to their destination. [zip4.usps.com](http://zip4.usps.com)

# Entertainment

## More Music, Please

We've had some heated debates here over which music site is the best. Even though we love Lala ([lala.com](http://lala.com)), Pandora ([pandora.com](http://pandora.com)), and Slacker ([slacker.com](http://slacker.com)), **Grooveshark** rises to the top of the heap for its robust-yet-unobtrusive social features, slick interface, and excellent smartphone integration. [grooveshark.com](http://grooveshark.com)

## Get Out, Get Noticed

Whether you're promoting your band's latest gig, hosting a community crab feed, or just looking for something to

do tomorrow night, **Eventful**'s location-based listings of concerts, clubs, movies, festivals, and events make it easy for you to find your scene. [eventful.com](http://eventful.com)

## Snip Any Tune to Ringtone Size

Sure, your smartphone can make a ringtone out of any song in your music library, but will it jump to your favorite line? Nope. But **CutMP3** lets you upload any song to its music editor and then trim it down to the portion you want for your ringtone. Once you've picked your clip, just save the track to your phone and set it as your ringer. Easy-peasy, and totally free. [cutmp3.net](http://cutmp3.net)

## Book Bonanza

Free e-books are now abundantly available, but audiobook lovers typically pay top dollar for readings of their favorite works. **Librophile.com** offers a massive library of free audiobooks, from classics to sci-fi to fairly recent fiction. ➤





**LIVEAGE** offers a way to stream and share audio or video, as well as to host videoconferences.

**LIVE MESH**, part of Microsoft's online-app selection, supports both file sharing and remote PC access.

**DROPBOX**, which supplies 2GB of space, can sync the files you store there with all your PCs.



share those folders with colleagues.

What separates Live Mesh from simpler services like Dropbox is its ability to remotely access your other PCs via Microsoft's Remote Desktop service, as if you were sitting in front of them. Install Live Mesh on each PC you want to access, and then leave the systems on to keep them available. When the computers are turned off, their synced files and folders remain available through the Web-based Live Desktop. [mesh.com](http://mesh.com)

## Media Sharing and Editing

### Stream Your Life

Podcasters, vodcasters, and other Internet exhibitionists can jump on the live-streaming bandwagon for free with **Liveage**. This streaming service allows you to stream video or audio either publicly or privately, and gives you the embed code you need to add your stream to your own Website; it also provides you with the option of tacking on a PayPal button to raise funds.

Additionally, groups and companies can use Liveage for free videoconferencing; the service supports up to ten users at a time. [liveage.com](http://liveage.com)

### Stream From Anywhere

If you really want to share your life with the world, you want to do it wherever you happen to be. **Qik** gives you the tools to stream live video straight from your iPhone, Android handset, BlackBerry, or nearly any other smartphone model. Your friends and fans can watch your broadcasts live on your own site or on Qik.com, or they can come back later to watch the recording. [qik.com](http://qik.com)

### Super Slideshows

Creating basic photo slideshows is easy enough with most image-editing programs, but making your slideshows sing takes a lot of work. The **Animoto** automated slideshow creator turns your photos and videos into stunningly

While the site itself is hideous, the selection of books is immense. You can search by author, genre, or title, and then download a book as a zipped set of MP3 files or subscribe to its chapters on an iTunes RSS feed.

In addition to the free audiobooks, Librophile.com sells a wide assortment of premium audiobooks for prices starting as low as \$7. [librophile.com](http://librophile.com)

## File Sharing and Online Storage

### A Single Spot for All of Your Important Stuff

**Dropbox** gives you 2GB of free online storage and a utility that syncs that space with a folder on all your desktop PCs, as well as on your phone. Drop a file in from one machine, and it will update on all the others. [dropbox.com](http://dropbox.com)

### Anonymous Sharing

Whenever you need to share a large file—or a collection of files—with someone, you could always use the tried-and-true YouSendIt ([yousendit.com](http://yousendit.com)) service. We prefer **Drop.io**, however, for its ability to create anonymous drop boxes of up to 100MB for free, complete with user-defined expiration dates and password protection. [drop.io](http://drop.io)

### A Really Big Drive

**Humyo** offers an impressive 10GB of free online storage. Sweet. [humyo.com](http://humyo.com)

### Easy Sync and Remote Access

If you spend your days shuttling from one computer to another, Microsoft's **Live Mesh** is just about the easiest way to keep your important files in sync. Providing 5GB of free storage, Live Mesh lets you create synced folders that you can access from any connected PC or via a Web interface. You can also



cool slideshows complete with music and impressive transition effects that look professionally made.

You upload your images and video clips, and then upload music or choose from the site's fairly limited selection of songs. Give your slideshow a title, and a few minutes later you'll receive an e-mail telling you that the show is ready to view. You can share your video on social networks, e-mail the link to your contacts, embed it on a blog, or send it to YouTube. For \$5, you can upgrade it to a high-res MP4 that you can take anywhere, or burn it to a DVD.

Animoto limits free slideshows to just 30 seconds; for \$3 per slideshow, however, you can create a full-length video worthy of presenting at, say, a wedding, a family gathering, or a business conference. [animoto.com](http://animoto.com)

### Prettier Pictures

Not everyone can be a brilliant photographer, but with the right tools you can look as if you know what you're doing. For robust online photo editing, it's pretty hard to beat the power of Photoshop.com. However, if you simply want to pop open a picture quickly and make changes without having to sign up for an account, check out **Citrify**.

Citrify's free, no-hassle photo editor allows you to upload an image and start editing it immediately. Add cool effects and captions, adjust the colors as necessary, and then click 'Save' to put the finished product back on your computer's hard drive. [citrify.com](http://citrify.com)

### Easy Movie Editing

What Photoshop.com is to pictures, **Pixorial** is to home movies. This service gives you 10GB of storage space for your video files, as well as the ability to upload 800MB of AVI, FLV, MP4, MPEG, DV, and WMV files at a time.

Once you upload your video, you can use the simple online editor to assemble your footage in a storyboard and to merge clips together. You then add some transitions and titles, and choose how you'd like to share the result; you

can download the movie as a high-res or low-res file, post it to a social network, or order it on DVD. [pixorial.com](http://pixorial.com)

## Business

### Manage Projects

Web-based project management systems are hard to come by, and free ones are scarce. Then there's **Huddle**. This scalable online project manager starts you off with one manager account and 100MB of online storage in its ad-supported free version; the next version is 1GB for one manager for \$8 a month. Other levels cost more. [huddle.net](http://huddle.net)

### Get Things Done Together

Unless you live and work alone, chances are you depend on the actions of other people to finish projects (and they probably depend on you, too).

**Stacks** gets your whole team on the same page with brilliantly designed task-management tools for groups.

Offering pricing plans starting at

\$20 per month for a group of up to five users, Stacks organizes tasks by person and project, and gives detailed reports on the status of everything that's in the works. You can easily see what needs to be done and by whom, and track your group's progress toward common goals. Also cool is Stacks' 60-day free trial period, which gives you ample time to decide whether the service really fits your company's needs before you shell out any coin. [usestacks.com](http://usestacks.com)

### Get a Virtual Receptionist

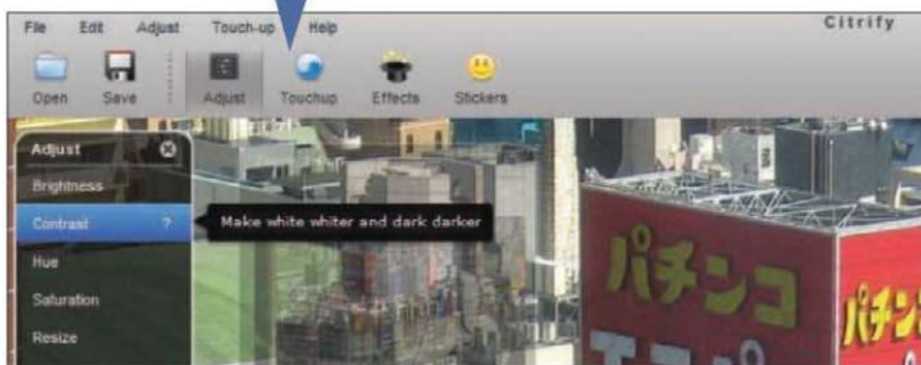
In these tight economic times, who can afford to hire a secretary? You can, if you check out **GenBook**. This free service lets you embed a 'BookNow' button on your company's Website, giving your customers a quick and easy way to make an appointment with you. Meanwhile, the Web interface lets you track your schedule and confirm appointments.

If you want to collect payments at the time of booking, to send SMS notifications out to your clients, to sync your appointments to another calendar, >>

**HUDDLE** can help your workgroup collaborate, share files, hold discussions, and manage projects from start to end.

**CITRIFY'S** straightforward image-editing tools let you make tweaks and add effects to your photos, quickly.

The screenshot shows the Huddle web interface with tabs for Whiteboards, Tasks, Discussions, Files, and Meet. The 'Meet' tab is active, displaying a form for a meeting titled 'brainstorming meeting'. The description is 'let's get together and discuss our options on t project'. The location is 'conference room / phone'. The start time is 06/10/2010 at 04:15 PM, and the end time is 06/10/2010 at 04:30 PM.





or to build a comprehensive customer database for your business, the premium service (starting at \$20 per month) will do all of that and more. [genbook.com](http://genbook.com)

### Intraoffice Social Network

**Yammer** is like Twitter for your company or workgroup. It's great for quick updates on projects, or just finding out what everyone's up to. [yammer.com](http://yammer.com)

### Sound Bigger Than You Are

Perhaps your company isn't big enough to warrant an expensive VoIP or PBX phone system, or maybe you just want to get started on the cheap. **Phonebooth** offers 200 minutes per month of free calling, an auto-attendant and dial-by-name directory, and separate extensions for each of your employees.

Similar to Google Voice, Phonebooth translates voicemail messages to text and drops them in your e-mail inbox; it also forwards calls to any phone. If you need more talk time, upgrade to Phonebooth OnDemand for \$20 per month and enjoy unlimited local and long-distance calling. [phonebooth.com](http://phonebooth.com)

### Run Your Business on the Web

By now you already know about Google Docs. But if you run a small business, you really should check out the massive collection of **Zoho** online business tools. Whether you need inventory management assistance, accounting tools, human-resources software, or a CRM system, Zoho's cloud-based services are a great way to level the playing field when you're taking on companies twice

your size. Better still: For very small companies, many of Zoho's enterprise-quality applications are free. [zoho.com](http://zoho.com)

### Build a Better Résumé

Nothing says "I left my skills back in the 20th century" quite like a paper résumé. **JobSpice** walks you through the résumé building process with ease, helping you flesh out your goals and experience and show off your qualifications. When you're done, you can save the file as a PDF, share it as a link, or—if you really can't help yourself—print it out on some dead trees. [jobspice.com](http://jobspice.com)

### Collaborate Without Confusion

Coordinating with your colleagues on complex documents can sometimes make you wish that you worked alone. For \$10 per month, **TextFlow** will merge all of the various versions of any document, complete with every little change and suggestion your coworkers have made, into a single version. You can then easily make executive decisions about which changes to retain, and which ones to undo. [textflow.com](http://textflow.com)

**JOBSPICE'S** easy-to-use templates help you craft a compelling résumé for posting online or printing.

**YAMMER** allows group members to pass along updates and comments via microblogging.

**ZOHOO** has an extensive array of robust online apps that any small business will appreciate.

## Shopping

### Find the Products You Want

Looking around for an obscure item can be frustrating. **TheFind** will scour the Web for any product, uncovering sales, coupons, and shipping deals to get you the best bargain. [thefind.com](http://thefind.com)

### Nerdy Wish Lists

Having trouble keeping track of all the hot gadgets you've been lusting after? **Droolr** gives you socially driven shopping lists of the wildest, weirdest, and coolest gear on the Web. [droolr.com](http://droolr.com)

### Tech Shopping Assistant

If you're struggling with choosing a new digital camera, start by reading **PCWorld's** camera buying guide ([find.pcworld.com/69947](http://find.pcworld.com/69947)). If you're still stuck after that, give **Measy** a whirl. Though this quiz-based decision maker isn't »





User Name  
jsmith  
Password  
johnny45

Is This Your  
Password System?  
**Ours is Better!**



- ✓ Remembers your usernames and passwords.
- ✓ Logs you into all your favorite websites.
- ✓ Reduces your many passwords to just one.
- ✓ Increases security and helps protect your identity.
- ✓ Fills long forms and so much more!

RoboForm has earned prestigious recognition including PC Magazine Editors' Choice, CNET's Best Software of the Year, and PC World's **"25 Products We Can't Live Without."**

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exactly scientific, it can help you weigh the factors that matter most to you and zero in on a good selection. [measy.com](http://measy.com)

### Worldwide Coupon Clipper

So you know what you want, and you know where to buy it. Let **RetailMeNot** close the gap between your shopping cart and your bank account by looking up coupon codes for more than 50,000 stores. If the product you're buying has a discount available anywhere, this site will probably find it. [retailmenot.com](http://retailmenot.com)

### Move Up to Free Shipping

When you're 87 cents away from getting free shipping on your Amazon purchase, you need a filler item. **Filler Item Finder** will help you find a cheap but useful item to push your purchase total over the top. [filleritem.com](http://filleritem.com)

## Dining

### Get a Table Anywhere

Don't waste time calling every restaurant in town to make a reservation for a date night or business lunch. **OpenTable** will save you a spot at some 12,000 restaurants around the world. [opentable.com](http://opentable.com)

### Know What You're Eating

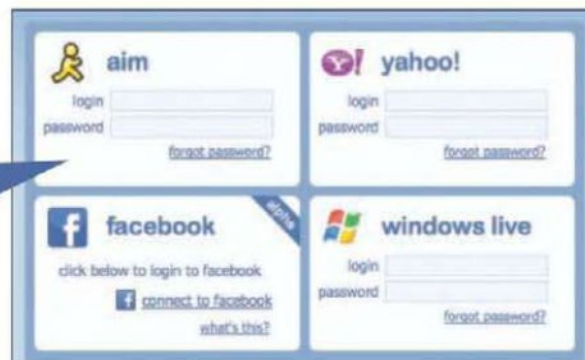
Do you have any idea how much fat is in the burger you're eating? If you log on to **Nutrition Data**, you can find out in seconds. The site offers nutrition information for most major fast-food chains, and makes analyzing recipes for nutrient content easy. Plus, you'll get a healthy serving of expert blogs and commentary to slice through the latest health-food fads. [nutritiondata.com](http://nutritiondata.com)

## Travel

### Frugal Fuel Finder

If you just pull into the closest service station whenever your tank runs low, you're probably burning money as well as gasoline. Simply punch your current location into **GasBuddy.com**, and you'll

**MEEBO** gets you in touch with buddies on all of the major instant messaging services, as well as on social networks.



**GASBUDDY.COM** lists the gas prices currently available in your area and shows the stations on a map.

Alabama Avg 2.727 Prices Rising		
Regular Gas	Midgrade	Premium
Search Gas Prices Show Search Options		
City, State or Zip...		
Lowest Regular Gas Prices in the Last 36 Hours		
Price	Station	Area
2.58	QV 1710 S Broad Ave near E 16th St	Lanett
2.58	Murphy USA 3505 20th Ave near 35th St (Wal Mart)	Valley
2.58	Valley 1 Stop 5502 20th Ave near 62nd St	Valley

**SIT OR SQUAT** may have an unsubtle name, but it offers a practical service in displaying the restrooms closest to you.



get a list of gas prices for filling stations near you, sorted by price and updated within the last 36 hours. [gasbuddy.com](http://gasbuddy.com)

### Bathroom Locator

When you gotta go, don't settle for just any old commode. **Sit or Squat** helps you locate the nearest clean, accessible restroom to your location. [sitorsquat.com](http://sitorsquat.com)

### Get the Best Seat on Any Plane

Unless you're willing to spend big bucks, any airline seat you occupy is bound to leave you with some aches and pains. But you can improve your odds of having a comfortable trip if you arm yourself with a little knowledge in advance. At **SeatExpert** you can key in your travel information to find the best seat locations for nearly any flight. [seatexpert.com](http://seatexpert.com)

## Communication

### Instant Messages to Everyone

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# Tech Services

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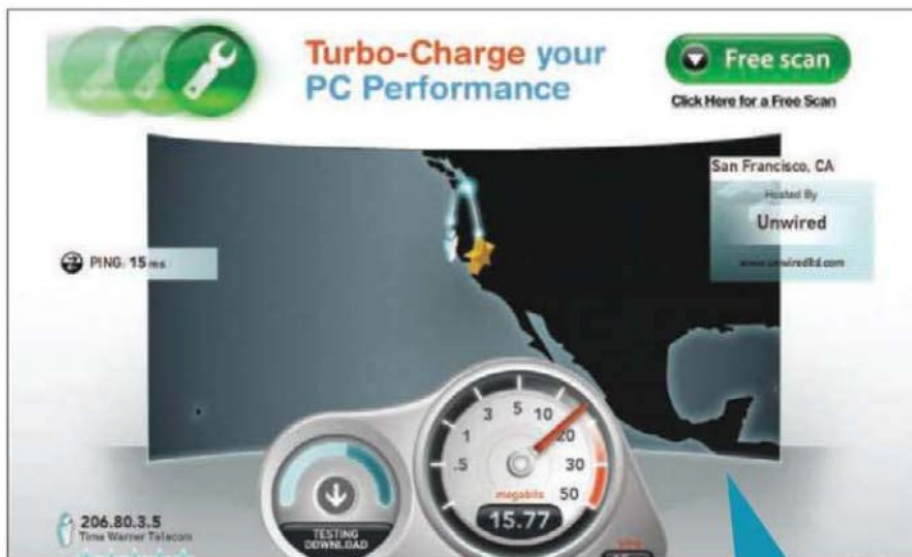
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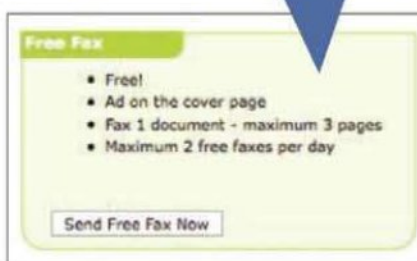
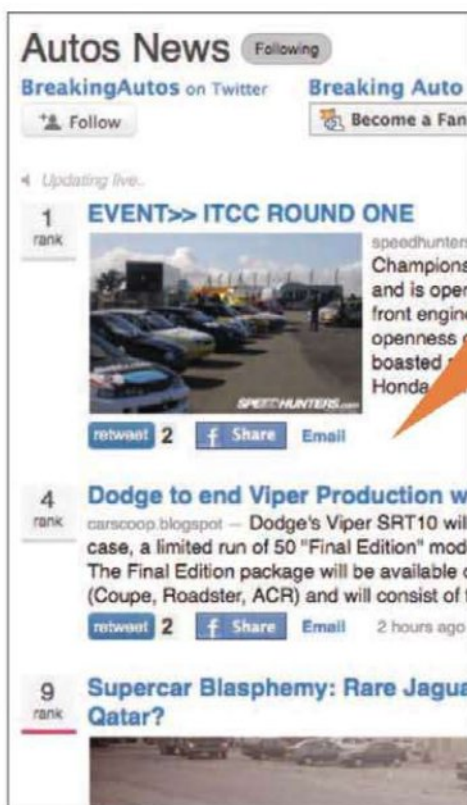
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# iPad vs. Everything Else

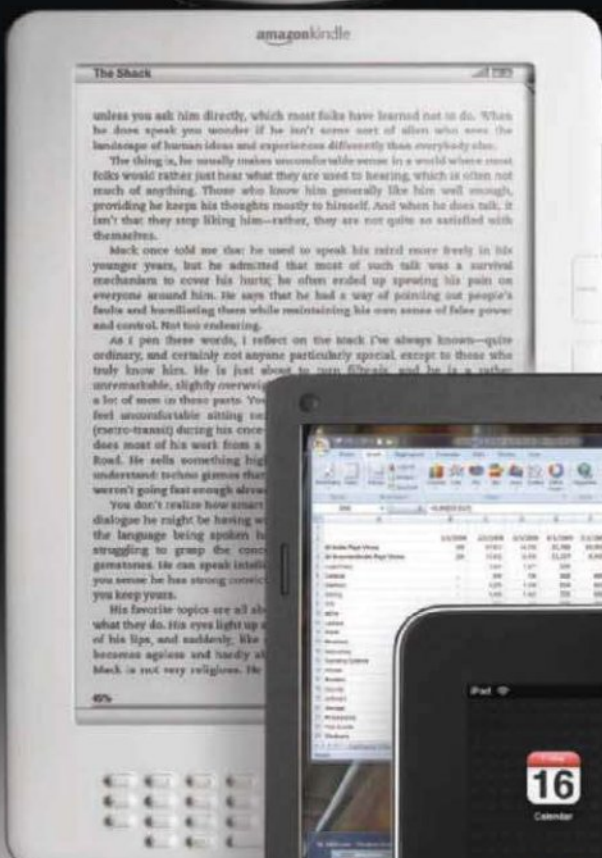
Can Apple's much-hyped tablet replace your notebook, e-reader, smartphone, audio player, magazines, or gaming device? Here's the verdict from our experts. »



BY HARRY McCracken

PHOTOGRAPHS: ROBERT CARDIN







# What, precisely, is the iPad?

Compared with its iconic ancestors, the iPod and the iPhone, that's a surprisingly tough question to answer. It runs the same operating system as the iPhone—but you can't make phone calls on it. It has been hailed as the gadget that may save the publishing industry—though its e-reader software, which isn't preinstalled, does not display magazines and newspapers. It features a bevy of games—but it's neither an Xbox 360-killer nor a handheld device like a Nintendo DSi.

Most paradoxically of all, the iPad takes on the Windows world of netbooks and even more full-featured PCs, though it doesn't run all Web apps. Or print. Or provide a file system that lets you get to all your documents in any app. Those shortcomings would make the very concept of competing with PCs laughable, if weren't for the way its small size, touch interface, and impressive battery life add up to one of the best devices ever built for consuming content of all kinds, from Web pages to books to feature films. It's both more fundamentally limited than a PC and an exciting sneak peek at where interfaces are likely to go—which is why it makes much more sense as a supplement to the other computers in your life than as a replacement for any of them.

In short, Apple's tablet competes with an array of existing devices without mimicking any of them. And the best way to figure out whether it's a plausible alternative to a PC, an e-reader, a game console, or any other better-established gizmo is to give it a whirl. So we did—read on to see what we found. (For more coverage, browse to [go.pcworld.com/ipad](http://go.pcworld.com/ipad).)

## The iPad vs. the PC

Let's state the obvious: The iPad isn't going to be your only computer. It tells you that yourself the first time you turn it on, when it asks to be connected via USB cable to a PC or a Mac running iTunes. Even if you don't want to buy music, movies, and apps on a computer and transfer them to the iPad, you'll want to sync from time to time, especially since that's the only way to back up an iPad.

So the question isn't whether you want an iPad *instead* of a computer—it's whether you want both. If you're happy with PCs in their current form, you may find the iPad's limitations crippling, especially if you're creating content rather than consuming it. The on-screen keyboard is probably the best ever created, but it's still no match for a real, tactile



QWERTY board when it comes to comfort and typing speed.

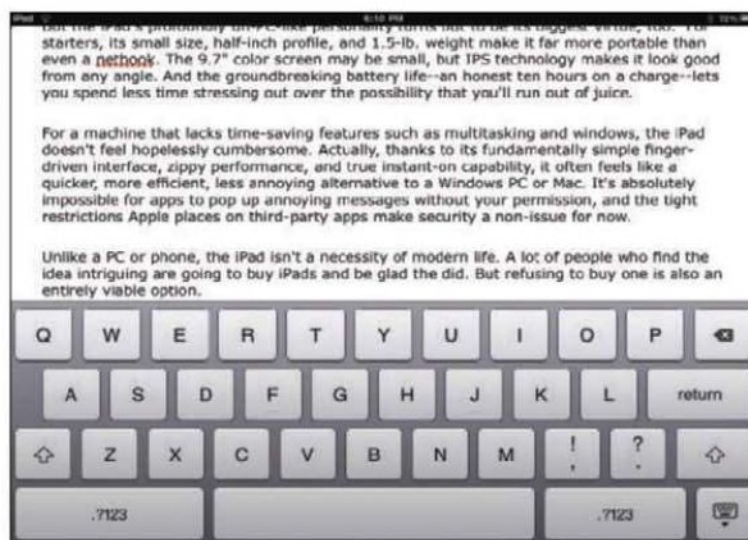
Everything operates in full-screen mode, and with few exceptions only one app runs at a time—a shocker if you're used to leaping between browser, word processor, spreadsheet, and e-mail. The iPad can't run standard desktop productivity applications, and you can't always find adequate substitutes among the Apple-approved choices in the App Store. The device doesn't even have a solid office suite yet (see "Does the iWork Suite Work? Not Yet" on page 80).

The list goes on: It has no camera, no support for Adobe's Flash browser plug-in, no direct way to print, and no slot for your digital camera's memory card. (Several good iPad photo editors are already available, but the simplest way of getting images off a camera and onto the tablet requires a \$29 adapter.) The roomiest iPad has only 64GB of storage, compared with the 500GB found on even some inexpensive laptops.

But the iPad's profoundly un-PC-like personality turns out to be its biggest virtue, too. For starters, its small size, half-inch profile, and 1.5-pound weight make it far more portable than even a netbook. The 9.7-inch color screen may be small, but its IPS (In-Plane Switching) technology makes it look good from any angle. And the groundbreaking battery life—

an honest 10 hours on a charge—lets you spend less time stressing out over the possibility that you will run out of juice.

For a machine that lacks timesaving features such as multitasking and windows, the iPad doesn't feel hopelessly cumbersome. And actually, thanks to its fundamentally simple finger-driven interface, zippy performance, and true instant-on capability, the device often feels like a quicker, more efficient, less annoying



**THE IPAD'S ON-SCREEN QWERTY keyboard is probably the best of its kind, but many people will still miss having a hardware keyboard.**



alternative to a Windows PC or Mac. It's absolutely impossible for apps to pop up annoying messages without your permission, and the tight restrictions that Apple places on third-party applications make security a nonissue for now.

Unlike a PC or phone, the iPad isn't a necessity. Many people who find the idea of it intriguing are going to buy an iPad and be glad they did. But refusing to buy one is also a viable option. So is biding your time as an interested bystander. As usual in tech and in life, good things will come to those who wait: The library of iPad apps will only get richer, and iPhone OS 4.0 (see page 13), due this fall for the iPad, will bring multitasking and other benefits. And chances are that roughly a year from now, Apple will release a second-generation iPad that sports at least some of the features most obviously missing from the first model.

**VERDICT:** PCs are better at being PCs than the iPad is. But the iPad is something new, useful, and important—and you shouldn't dismiss it until you've tried it.

## The iPad vs. the Kindle

When Amazon.com shipped its first Kindle in 2007, the innovative e-reader seemed to be the future of books. Side-by-side with the iPad, however, the Kindle now looks a tad retro. Apple drives the point home when you download its iBooks app by tossing in a free e-book with a feature that the Kindle can't match: color pictures of Winnie the Pooh and pals.

True, the iPad doesn't render the Kindle irrelevant. Amazon's \$259 gadget costs only slightly more than half as much as a base-model iPad—and that price includes wireless broadband that allows you to download books without paying a monthly service fee. And, at least at the moment, some Kindle

books are a few bucks cheaper than their iBooks equivalents.

Thanks in part to its 6-inch screen, the Kindle is far smaller and lighter (at 10.2 ounces) than the 18-ounce iPad. The Kindle's use of E-Ink technology lets it run for two weeks on a charge and keeps it readable in direct sunlight; in contrast, the same sunlight will wash out the iPad's LCD screen. And some e-reader users find E-Ink to be easier on the eyes.

But the E-Ink screen is also the Kindle's most striking liability. It's monochromatic—dark gray text on a light gray background—and the lack of backlighting makes it hard to read in murky lighting. Photos and other images tend to look as if they were drawn on an Etch-a-Sketch, and screen updating is inherently sluggish.

The iPad? It sports one of the nicest color displays of any portable device; it has crisp black text on a white background; and you can flip through e-book pages as fast as your fingertip allows. In short, it's more like a real book.

Apple's iBooks Store launched with 60,000 titles, just one-sixth of the selection that Amazon provides for the Kindle. But on the same day that Apple started selling iPads, Amazon released an app that lets Apple's tablet *become* a Kindle, giving users access to all

480,000 digital tomes that are offered in the Kindle store.

In addition, the iPad allows access to thousands of free books in ePub format, a format you can't read on the Kindle.

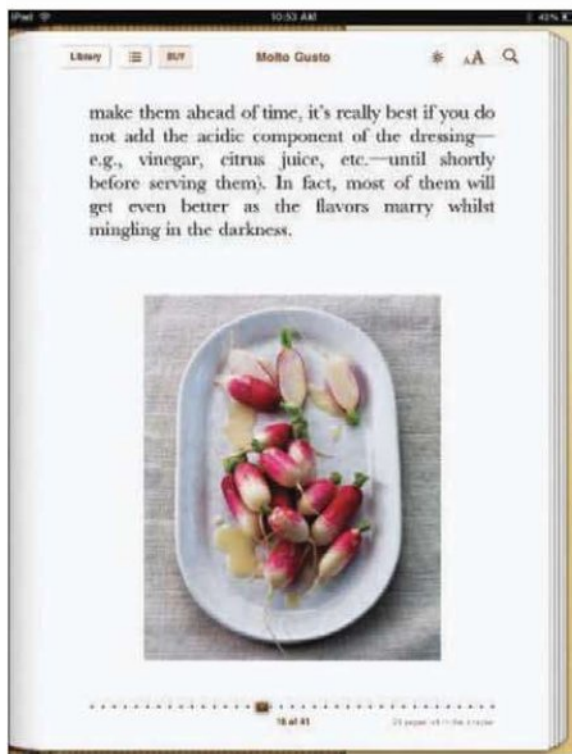
Did we mention that third-party apps let the iPad do thousands of things besides reading books? Or that it may be the best device ever made for kicking back and reading the Web? (The Kindle's browser is so rudimentary that Amazon still calls it "experimental," two-and-a-half years after its debut.)

Ultimately, both the Kindle and the iPad are nifty gadgets, but only the nerdiest, most well-heeled tech freaks would consider buying and using both. And ounce for ounce and dollar for dollar, the iPad provides you a better return.

**VERDICT:** For an e-reader and more, it's advantage iPad—unless you're on a tight budget or are an E-Ink devotee.

## The iPad vs. Magazines and Newspapers

Amazon's Kindle lets you subscribe to 58 magazines and 120 newspapers, with free wireless delivery. But the drab, plain-text presentation isn't much different from CompuServe circa 1990. In theory, the iPad should change everything. Publishing executives—who started giving their content



**UNLIKE THE KINDLE, the iPad's iBooks application can render a book's full-color illustrations beautifully.**





away for free on the Web 15 years ago and have regretted that blunder ever since—are giddy over the new possibilities that this tablet format offers.

Apple's iBooks application and Amazon's Kindle app for the iPad don't do magazines or newspapers, so every publisher of periodicals has to figure out the iPad for itself. *Time's* app fills the screen with photos, makes you scroll down to see text, and puts selected online (Time.com) items in a separate section. *GQ* turns pictures into slideshows, and turns captions off by default. Other magazines—including *PCWorld*—are available on the iPad via



**USA TODAY'S DIGITAL version for the iPad adapts well to the format, with extra online-style features such as graphs and polls.**

the Zinio app, which downsizes print layouts to fit onto the iPad's smaller-than-a-magazine screen.

None of these approaches, however, decisively improves on good old ink-on-dead-trees, a technology that still works beautifully for both skimming and deep reading. Moreover, some computer-based features that print just can't match—such as full-text

search—generally aren't available in iPad e-publications.

Three national papers—the *New York Times*, *USA Today*, and the *Wall Street Journal*—are all on the iPad, and all three do ➤

## PRODUCTIVITY

# Does the iWork Suite Work? Not Yet

WHEN APPLE UNVEILED its tablet at a press event back in January, it also introduced three unexpected flagship applications: iPad versions of the Pages word processor, the Numbers spreadsheet, and the Keynote presentation package that make up its iWork office suite for the Mac. On stage, they looked irresistible, with ingenious interfaces that made finger-driven productivity look not just possible but also fun. And they were priced at a reasonable \$10 each.

Interface-wise, the versions of the iWork apps that Apple shipped in April for the iPad remain standouts—once you've positioned an image in a document by slipping it into place with your fingertip, any other method is clunky by comparison. And while the list of features in the three apps doesn't rival that of Microsoft Office or the Mac version of iWork, that's not a huge issue given the relatively simple tasks you're likely to undertake on an iPad.

But Pages, Numbers, and Keynote all have one gigantic, overriding problem: Their support for document exchange with the non-iPad world is dismal. If you start a message in Mail, you have no way to attach



**THE IWORK SUITE'S apps for word processing, spreadsheets, and presentations don't import or export well.**

an iWorks document. You also can't hook up your iPad to a computer via USB and simply drag documents back and forth. Instead, you must export documents from within iWork—as attachments, using iTunes as a conduit, or via the not-nearly-as-useful-as-it-sounds iWork.com.

All three apps claim to open Office documents, but some such documents appear garbled, and others—such as the multiple PowerPoint files I tried—produce only a cryptic error message. The programs strip out formatting that they don't understand; as a result, that formatting disappears if you try to move the file back to a desktop suite. And you might not even be able to do that: Pages can export Word files, but Numbers can't save in Excel format, and Keynote doesn't do PowerPoint. (If you happen to use iWork on a Mac, the situation is only slightly better.)

These issues are so ugly for iWork, and for the iPad in general, that it's hard to imagine they won't get fixed. But suite users may not have to wait for Apple: iPad versions of the Quickoffice suite for handhelds and DataViz's similar Documents to Go are in the works. Both of those mobile productivity packages have long histories of handling documents that were created elsewhere with panache. And they might turn out to be better options than the current version of iWork even if they aren't as elegant.

—H.M.



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among the best jobs of translating paper into digital form in the iPad's dimensions. They reformat themselves on the fly for portrait or landscape reading, artfully weave words and photos, and don't try to become too clever. (If you can figure out *Popular Science's* interface, drop us a line.)

iPad periodical pricing models, like user interfaces, are still works in progress. And some publishers tend to charge quite a bit. *Time* wants \$4.99 an issue, and every copy is a separate app. Full access to the *WSJ* is \$3.99 a week, even if you already pay for the print and/or online versions. The *New York Times's* Editors' Choice app is free, but includes only a smattering of stories—call it Some of the News That's Fit to Print.

Of course, with certain exceptions such as the bulk of the *WSJ*, most of the content in iPad apps is also available for free via the iPad's Safari browser—usually updated more frequently and with extra features such as the ability to leave comments. If publishers are going to convince users to pony up for iPad periodicals, they must produce ones that are clear improvements not only over paper but also over the Web.

**VERDICT:** The iPad does have the potential to do for magazines and newspapers what the iPod did for music. But first, publishers will have to create products that take full advantage of the iPad's display and interface. We're not there yet.

## The iPad vs. the BlackBerry

On mobile devices, movies, music, and social networking are all very well; but the classic mobile application remains ungla-morous, invaluable e-mail. And RIM's BlackBerry phones are still synonymous with mobile e-mail. Is the iPad—which includes Mail among its handful of bundled apps—a plausible substitute for a BlackBerry device? Definitely not, if you're the archetypal jittery CrackBerry addict who is always checking messages.

The iPad is best used when you are sitting down, and it does not lend itself to quick, inconspicuous peeks at your inbox. Furthermore, while every BlackBerry is an always-on data device that provides access to e-mail anywhere you have a cell signal, only the 3G iPads—due in late April—will match that feature. With the Wi-Fi-only models, you'll need to hunt for a hotspot or invest in a portable router such as the MiFi.

For relatively unhurried mail access, though, the iPad is certainly okay—and is faster than booting up a laptop and diving into Outlook. For my money, the



**THE IPAD'S MAIL app beats BlackBerry devices when it comes to handling longer messages, but it also has some limitations.**

roomier display and the on-screen keyboard together beat the BlackBerry for reading and writing messages that are more than a few paragraphs long, and the built-in file viewers work well for checking out Office and PDF documents. Gmail users can choose between Apple's Mail app and Google's outstanding browser-based Gmail client, which provides you with instant access to gigabytes of mail.

The iPad's Mail app does have some limitations. For instance, while you can set up multiple e-mail accounts, you can't merge them into one inbox, and you can have only one Microsoft Exchange account at a time. You also can't open file attachments in anything except the file viewers and Apple's

own iWork apps. Apple says that it will fix these issues when it upgrades the iPad's software in the fall. Here's hoping Apple also improves the search feature, which doesn't look within message text (it checks only the To, From, and Subject lines).

**VERDICT:** Even if you like the Mail app, you won't be tempted to ditch your BlackBerry. Or your iPhone, or your Droid, or any other pocketable e-mail device.

## The iPad vs. the iPod

iPad skeptics are fond of slugging the tablet for being nothing more than a humongous iPod Touch. When it comes to playing music and movies, they have a point—the iPad *does* feel a lot like a Touch with a 9.7-inch display. That's not an entirely bad thing, however.

For many people—such as ➤



**YOU CAN'T SLIP the device into your pocket, but the iPad does give you everything you could get on any iPod.**





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those who opt for the pinky-size iPod Shuffle—the iPad’s heft alone is reason to eliminate it as an iPod replacement. A gizmo you can’t slip into a pocket or strap to your arm is one you’re not going to take on a stroll or to the gym. You can even make a case that the venerable Click Wheel on the iPod Nano and iPod Classic is superior to the iPad’s on-screen controls for music navigation. (Oddly, the iPad’s iPod app

doesn’t even have Apple’s signature Cover Flow view for browsing through albums.) But wait: With the exception of the Shuffle, all iPods have long done video as well as audio—and the iPad’s comparative Jumbotron of a display makes it the best “iPod” for movie-watching yet. It’s the first one that two or more people can comfortably watch together, at least if they’re in close quarters, such as in adjacent airplane »

## FUN AND USEFUL

# Our Eight Favorite iPad Applications

**USA TODAY:** *USA Today*’s free app is the best of the daily-newspaper entries, with a lay-out that closely mimics the dead-tree version while adding cool interactive slideshows, graphics, and polls.

**Netflix:** Putting Netflix’s impressive stable of streamable movies on the iPad’s brilliant screen is a no-brainer (you’ll need a Wi-Fi connection). The app is free, but you must pay at least \$9 a month for a Netflix account to stream movies.

**Sketchbook Pro:** If what you miss most from kindergarten is finger painting, then download this \$8 app. The controls are easy to master, but are still sophisticated enough to create real beauty in the right hands.

**IMDb:** You’ll find no better way to settle a barroom bet over which of the Baldwins



**MARVEL’S COMIC-BOOK APP** moves you automatically from frame to frame of an illustrated story with merely the flick of a finger.

was in *The Usual Suspects* (Stephen, BTW) than to turn to this free app, which allows you to dig deep into the well-known online treasure trove of cinematic trivia.

**Magic Piano:** Play traditional keyboard

classics such as “Für Elise” and “Flight of the Bumblebee” through this \$1 app’s fun, Guitar Hero–like interface.

**Marvel:** This free app presents the adventures of masked avengers in a whole new way.

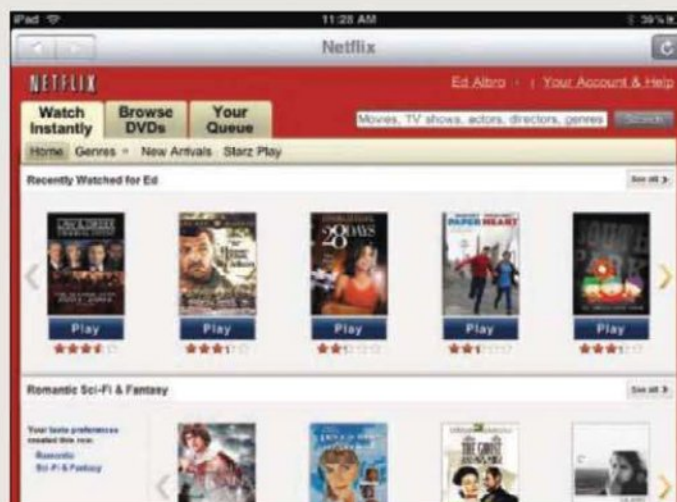
**Epicurious:** If you don’t mind a few sauce splatters on your iPad, the free Epicurious app is a near-perfect kitchen companion, and you can search through hundreds of recipes. The app puts together a shopping list for selected recipes and provides easy-to-read instructions.

**Instapaper:** Perfect for people with a Wi-Fi-only iPad. If you come across an interesting article, click Instapaper’s ‘Read Later’ bookmarklet in your computer’s browser. Instapaper (\$5) strips out the ads and sends it to your iPad.

—Edward N. Albro



**THE EPICURIUS APP** conveniently puts cookbooks on the iPad tablet (just be careful to avoid spilling chicken broth on the screen).



**THE NETFLIX APP** is free, but you’ll have to pay a monthly fee for a Netflix account to stream movies to the iPad’s gorgeous screen.



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seats (and if they have the device nicely propped up). In fact, the iPad may be the best in-flight entertainment system ever designed, with enough battery life to keep you entertained from New York to Athens. And around the house, the tablet can serve as a sort of portable TV/boom box—its built-in speaker may be mono, but it's loud and clear.

When it comes to content, the iPad gives you everything

that you can get on any iPod, plus more. And even if you don't feel like buying your entertainment from iTunes, a wealth of stuff to see and hear is available, thanks to impressive iPad apps from ABC, Netflix, NPR, and others.

**VERDICT:** The iPad is not an iPod substitute—it's really a different critter. But on its own terms, it's one of the most entertaining entertainment devices since the original iPod. ●

## CONSOLE REPLACEMENT?

# iPad Gaming: Compelling—and Awkward

AS A GAMING device, the iPad has lots going for it. The display is large and gorgeous, the processor is snappy, and the multi-touch interface allows for innovative ways to play. Plus, the App Store is a model of instant gratification: You can snap up relatively cheap games wirelessly. But don't toss out your Nintendo DS or Sony PSP yet.

The first question for iPad gamers is this: How the heck are we supposed to hold this thing? At 1.5 pounds, it might seem light, but holding it aloft for extended play sessions can be tiring. Trickier still is playing when you can't get a seat or are in a crowd: Try flailing your arms around to steer that sports car while you're standing on a packed bus.

And then there's the button issue. Steve Jobs hates them, but buttons are an impor-



**YOU CAN SNAP up lots of games wirelessly and inexpensively, but the iPad is not yet a complete replacement for a gaming device.**

tant reason why the Nintendo DS and Sony PSP work so well: If you need to reload your weapon in a first-person shooter, your thumb can find that button easily while you concentrate on ducking behind a wall.

The iPad's controls are frequently just

on-screen icons or arbitrary tapping patterns. It's no fun being fragged because your thumb is a half-inch off the trigger.

For some game genres, however, the iPad shines. The device is big enough to be shared, making board games like Scrabble feasible. Strategy and tower-defense games benefit from the large space; the interface makes it simple to place structures and issue blanket orders to large groups. Micromanagement is still tricky without a keyboard and mouse, but the iPad's implementation of such

games is superior to anything consoles—portable or otherwise—have attempted.

**Verdict:** The iPad is a game-changer for some genres, but most mobile gamers will still want to hold on to their DS or PSP.

—Nate Ralph



**PLAYING A RACING game on the iPad for an extended time can get tiring—and using the on-screen controls may be frustrating.**



**THE IPAD'S RELATIVELY large screen makes controlling a larger number of units significantly easier in many strategy games.**



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BY CRAIG ELLISON  
ILLUSTRATION BY  
ISTVAN BANYAI

# Many Ways to Find Your Way



## Don't get lost!

We compared five best-of-breed navigation systems—in your phone, on your dash, or built right into your car—to **see which ones do the best job** of pointing you in the right direction. »





#### IPHONE SMARTPHONE

iPhone with RoadMate

91

#### ANDROID SMARTPHONE

Nexus One with CoPilot

92

#### SERVER-BASED DEVICE

BlackBerry with Navigator

93

#### DEDICATED DEVICE

Garmin Nuvi 265WT

94

#### CONNECTED DEVICE

TomTom XL 340S Live

96

## Need to find your way?

You probably have a cell phone in your pocket that can help you with navigation. But will your cell phone do the job clearly and conveniently, or should you still consider using a dedicated GPS device?

I ran five navigation alternatives through the day-to-day challenges of guiding me along my way: smartphone navigation apps for the Apple iPhone and the Google Nexus One, variations of the TeleNav server-based navigation service for smartphones and standard phones, the Garmin Nuvi 265WT GPS device, and the two-way connected TomTom XL 340S Live GPS device (two-way connected devices provide access to live traffic info and to up-to-date local fuel prices, weather, and Google local search).

My conclusion: If you use any of these methods, you don't have to put up with getting lost anymore. Excellent turn-by-turn navigation with spoken street names is available via products and services ranging from simple cell phones to expensive dedicated devices. All of the devices I tried gave me very similar routes, and all of them successfully directed me to my test destinations. (That's hardly surprising, since the various devices rely on mapping databases supplied by either Navteq or TeleAtlas.)

So how do you choose the right GPS device?

Which approach is best for you depends on your circumstances and your tolerance for compromise. Dedicated GPS devices have several advantages, including larger screens, no monthly fee, and continuous availability. Moreover, a dedicated GPS product is better for people who conduct calls and navigate at the same time; most smartphones interrupt navigation to handle a phone call. Today you can get an acceptable dedicated device for less than \$200, but that's still more than you'd pay to use your existing smartphone.

If you have a smartphone already and you

rarely need help finding your way, buying a navigation app for the phone makes a lot of sense. But you'll lose the use of your phone for most other purposes while you use it for navigation, and you'll have to cope with a smaller screen.

If you're allergic to monthly bills, you won't be thrilled by server-based navigation systems or by two-way connected devices, both of which charge \$10 a month for data services. Server-based navigation doesn't impose any up-front costs, but the service is limited and can be a hassle to use with a no-frills phone. Two-way connected GPS devices cost \$200 or more, but offer many more features than server-based systems.

## in-dash car navigation

IF YOU'RE CONSIDERING buying a new car, you may have the option of specifying a factory installed, "in-dash" navigation system. Those big screens are attractive, but they're expensive and they don't age well.

Many navigation systems are sold only as part of an option package that may cost between \$2000 and \$5000. Also, in many systems, all of the maps and points of interest reside on a DVD; upgrading the data typically costs more than buying a good dedicated GPS device would.

GPS technology is advancing so fast that, in four years, today's state-of-the-art navigation system will likely be a dinosaur at trade-in time.

Still, in-dash units have several advantages, including larger screen size, superior reliability, and more-secure installation in your car. They offer tight integration with an in-car Bluetooth speakerphone, storage capacity for your music, and voice-recognition controls. They may also tie in to the car's speed and direction sensors, ensuring that you'll retain basic navigation functions even if you lose your satellite connection.

Another option is to buy an aftermarket in-dash system, though such systems usually require professional installation.





# Smartphone iPhone

**BEST FOR:** People who need occasional navigation help and don't mind losing access to phone calls while using the device for direction information.

**Hardware tested:** Apple iPhone

**Navigation app tested:** Magellan RoadMate 2010 NA \$60 (United States and Canada)

[find.pcworld.com/70018](http://find.pcworld.com/70018) The iPhone gives users instant access to a navigation system that offers many of the features of dedicated GPS devices (including the live traffic and weather information that two-way connected devices deliver).

The iPhone's built-in Google Maps app can provide directions, but it lacks interactivity and turn-by-turn directions. That's why, to maximize the iPhone as a navigation device, you need a specialized navigation app.

A smartphone makes a convenient navigator, since it's likely to always be with you. But using a smartphone as a navigation device has drawbacks, too. With the screen constantly on, your phone's battery can quickly exhaust its charge; in my testing of an iPhone equipped with navigation software, the device's battery life dropped by about 70 percent in just over an hour. At a minimum, you'll need to have a charger on hand to support this method of navigation.

In order for the iPhone to get a clear signal from GPS satellites, it needs to sit in a cradle on your car's dashboard or windshield. Basic mounts cost \$30, but specialty mounts can improve the iPhone's performance as a navigation device. Both Magellan (for \$130) and TomTom (for \$120) sell mounting docks that provide power, an amplified Bluetooth speaker to serve as a speakerphone and to issue audio directions, and an auxiliary GPS receiver to complement the iPhone's GPS chip and improve signal reception. But when you add the cost of the mount to the cost of the app, the total expenditure approaches what you'd pay for a dedicated device with a larger screen.

Another drawback: Smartphones tend to be smart about

check these, too

PRICES FOR iPhone navigation apps range from \$25 to \$80, but they don't require any monthly subscriptions; so far, all of the upgrades released for such apps have been free.

**NAVIGON'S MY REGION** version (\$25) is the cheapest on-board navigation application available for the iPhone, but it restricts you to choosing maps for approximately one-third of the United States (a full complement of maps costs \$80).

**TOMTOM 1.3** for the iPhone (\$60 for the United States only, \$70 for the United States and Canada; mount accessory, shown above, is \$120) neatly integrates Google local search. The IQ Routes routing method considers historical traffic and speed data.



TOMTOM 1.3

just one operation at a time. Whenever I fielded an incoming call, the navigation application had to shut down; it would relaunch and resume navigation only after I completed the call. If you frequently travel to unfamiliar places, you'll be better off with a dedicated GPS device.

The app I tested, the Magellan RoadMate 2010 NA (\$60), includes many features that Magellan provides on its personal navigation devices, such as the Maestro 4700. Although RoadMate 2010's screen layout is similar to that of dedi-

cated GPS versions of the software, the display and button sizes are optimized for the iPhone. To store the location of your vehicle, you simply touch a car icon—great for finding it later in a big parking lot. And you can navigate to contacts in your iPhone or

store up to 24 favorites in One Touch locations.

Unlike its competitors from ALK Technologies, Navigon, and TomTom, the Magellan iPhone app does not include Google local search. (You can search through the iPhone's browser, of course, but doing so requires you to leave the navigation app.) It doesn't provide live traffic information either, though this capability may come soon in an in-app upgrade, according to the company.



MAGELLAN'S IPHONE APP provides turn-by-turn directions, a speakerphone option, and information about necessary lane changes.



# Smartphone Android

**BEST FOR:** Owners of Android-based smartphones who have unlimited data plans, want a well-rounded navigation experience, and don't mind doing without niceties like advanced, GPS-friendly car mounts.

**Hardware tested:** Google Nexus One

**Navigation app tested:** ALK CoPilot Live 8, \$30

[find.pcworld.com/70019](http://find.pcworld.com/70019) Like an iPhone, an Android smartphone carrying navigation software can guide you, with certain limitations: An incoming call will interrupt navigation until you are done talking, and you'll have a tough time viewing the phone's directions unless you buy a mounting dock for it.

Currently, Android-based navigation offers fewer app alternatives than the iPhone (neither Magellan nor TomTom has an Android app, for example) and fewer mounting options. Since the Android operating system is available on many different devices, each with far fewer users than the iPhone has, manufacturers haven't poured money into designing mounts for each handset. For instance, the first car mount for the Google Nexus One (the Android phone that I used in my tests) didn't appear until four months after the handset's debut—and it came from Google itself.

But you may not need a separate navigation app, depending on the version of Android that your handset uses. Android 1.6 includes a version of Google Maps that provides text-to-speech, turn-by-turn directions. And unlike the basic Google Maps implementation that the iPhone 3GS uses, the one built in to Android 1.6 moves your routing map with you to keep your position on the map.

To deliver maps and street views, however, Google Maps must maintain a 3G or Wi-Fi network connection. If you should lose your data connection, you lose your navigation.

Available from the Android Market, a dedicated navigation

check these, too

ANDROID DOESN'T have a plethora of turn-by-turn navigation applications—yet.

**INTRINSYC'S DESTINATOR 9** offers on-board map data, 2D and 3D views, weather reports, lane guidance, and speed-limit information. The full version costs \$70. An Android app from Navigon is expected later this year.



INTRINSYC DESTINATOR 9

app stores data locally on your smartphone, so you have access to navigation information even if you drive out of 3G range (you will, however, lose live traffic updates, local fuel prices, and the extended capabilities of Google local search).

ALK Technologies' CoPilot Live 8 (\$30) is the lowest-cost full-featured navigation app for Android that has complete maps of the United States and Canada. The premium version (\$20 more) includes fuel-price updates and live traffic data that is very similar to what you'd find

on Google Maps; both applications take traffic into account when calculating routes.

CoPilot Live 8 lets you navigate to an address, a point of interest, a contact, a point on a map, an intersection, a location defined by GPS coordinates, or one defined by a geo-tagged photo. The program's voice-recognition capability simplifies

**COPILLOT LIVE 8** takes full advantage of an Android phone's Internet connection.

data entry, and you can choose from four route options (quickest, shortest, no expressways, or economical)—a feature that Google Maps doesn't offer.

Overall, CoPilot Live 8 performed well on the Nexus One. At times the touchscreen response within the app felt a little sluggish; but CoPilot calculated my route in two-thirds of the time Google Maps did, and in approximately one-seventh of the time the Garmin Nuvi took. The navigation experience resembled that of a dedicated GPS device, though I missed the larger screen and menu layout of the latter.





# Server-Based Navigation

**BEST FOR:** People with basic navigation needs who don't use smartphones and would rather pay a monthly fee than buy a dedicated device for \$200 or more.

**Hardware tested:** RIM BlackBerry Bold  
**Service tested:** AT&T Navigator 2.0 (via TeleNav)  
 \$10 per month or \$99 per year  
**Hardware tested:** Samsung Highlight  
**Service tested:** TeleNav GPS Navigator 5.2.9  
 \$10 per month

[find.pcworld.com/70020](http://find.pcworld.com/70020) and [find.pcworld.com/70021](http://find.pcworld.com/70021) A standard cell phone using a cloud-based navigation service can provide good turn-by-turn, voice-prompted navigation. But with some handsets, the hassles involved may outweigh the benefits.

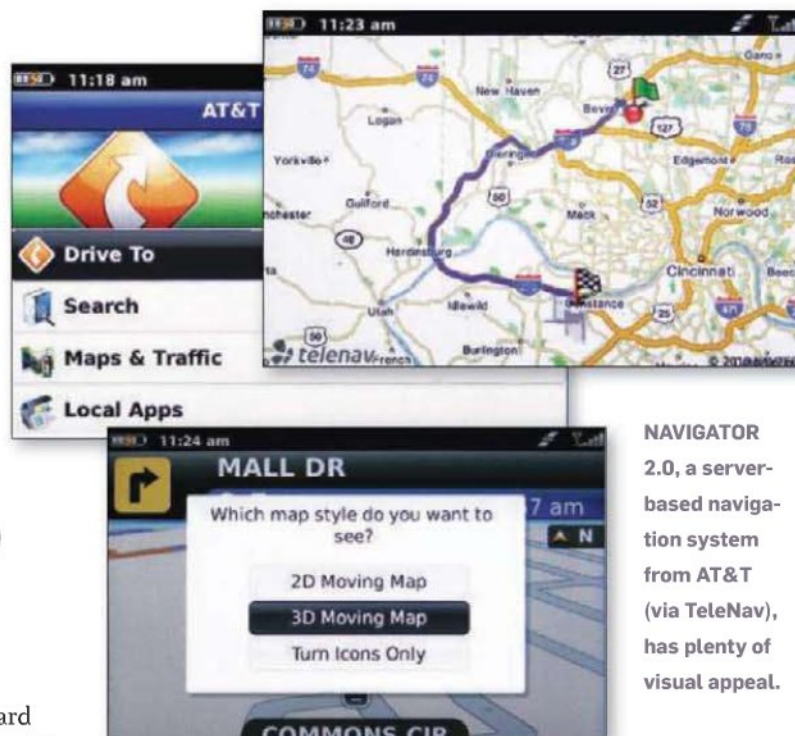
The software needed to connect to a cloud-based service comes preinstalled on many cell phones. To activate the service, you pay your carrier a subscription fee—typically \$10 per month or \$100 per year for unlimited usage.

The main advantage of “cloud-based” navigation is the constant automatic updating of maps and points of interest. And because the maps reside on the service's server, using these live features doesn't tax your phone's memory or CPU. But since the route calculation and tracking occur remotely, away from the phone, many services require a constant data connection for navigation. Your handset acts as a dumb terminal that displays the graphics the remote server sends.

I tried cloud-based navigation services on two phones: AT&T Navigator 2.0 (powered by the latest TeleNav 6.0 service) on a RIM BlackBerry Bold, and a light version of TeleNav's GPS Navigator 5.2.9 on a Samsung Highlight, a fairly basic touchscreen phone. Both services got me where I wanted to go, but the experience on the BlackBerry Bold was far superior to that on the Highlight.

Because the Bold's AT&T Navigator 2.0 downloads the entire route—including surrounding map data—onto your handheld, it can supply directions even when you lose your data connection. On my test route, I continued to receive turn-by-turn instructions despite driving out of data coverage and missing multiple turns. The TeleNav service on the Samsung Highlight couldn't navigate without a data connection.

Voice directions on the BlackBerry were full and often gave compound instructions when turns followed in close succession. The Highlight's service seemed to be trying to issue compound instructions, but often the second part cut off after “and then”; it also left off many street suffixes, neglecting to say “Parkway” or “Street.” The BlackBerry's service was more explicit in announcing highways, too. It said to enter “Route 3



East”, whereas the Highlight's service said only “Route 3.”

The BlackBerry Bold's AT&T Navigator service lets you use speech to enter an address or to search for a local restaurant or gas station. The voice-recognition feature needed no training and was quite accurate. On the Highlight, I had to input data via the numeric keyboard—a tedious, time-consuming task that was too distracting to attempt while driving.

The services I tried on the Samsung Highlight and the BlackBerry Bold provided a good text-to-speech navigation experience, but the AT&T Navigator service on the BlackBerry did better, thanks to a more powerful platform and new software and features. To see what services are available for your phone, consult the feature matrix ([find.pcworld.com/70022](http://find.pcworld.com/70022)) and list of supported devices at TeleNav's site ([find.pcworld.com/70023](http://find.pcworld.com/70023)). >>

## check these, too

YOU HAVE (at most) three choices for cloud-based navigation: Google, Networks in Motion, and TeleNav. Your cell phone provider may offer only one service for the device you own. **NETWORKS IN MOTION** products are available exclusively through carriers, and sometimes carry brand names other than NIM. TeleNav's products may be branded as TeleNav or with the carrier's name. The **VERIZON VZ NAVIGATOR** and **SPRINT**

Detour		
Around road:		
<input checked="" type="checkbox"/>	I-405 NORTH	5 min
<input type="checkbox"/>	Ramp	15 min
<input type="checkbox"/>	I-5 SOUTH	0 min
<input type="checkbox"/>	Ramp	0 min
<input type="checkbox"/>	Alicia Pkwy	--

VERIZON VZ NAVIGATOR

**AAA MOBILE** services rely on Networks in Motion's technology, while AT&T Navigator, Sprint Navigator, and T-Mobile TeleNav GPS Navigator work with TeleNav. Google Maps is free to use on supported handsets.



# Dedicated GPS Device

**BEST FOR:** People who regularly need navigation help and want a large screen and an intuitive interface.

**Hardware tested:** **Garmin Nuvi 265WT**, \$170 (street [find.pcworld.com/70024](http://find.pcworld.com/70024)) You can save money by using a smartphone instead of a dedicated GPS device for navigation, but you may not save much. For less than \$200, you can purchase a dedicated device with a 4.3-inch screen—the most common size for such devices, and significantly larger than the screen on any smartphone—treated with an antiglare coating that makes reading text on it easier than reading the material on a phone screen. Even better, you can make a phone call and obtain directions simultaneously. And you may not have to pay for an ongoing subscription (though real-time traffic data may involve a recurring fee).

A dedicated GPS device mounts on your vehicle's dashboard or windshield. All of the maps and points-of-interest data reside on the device—either on an SD Card or in memory that the manufacturer builds in to the device—so you do not have to maintain a data connection. Most GPS devices

## check these, too

**MAGELLAN'S ROADMATE 1445T** (\$160) offers free lifetime traffic information and directs you to the proper lane for the next turn. **TOMTOM'S XL 340S** (about \$150) features IQ Routes, which uses historical traffic and speed data to calculate an optimal route. To receive live traffic on the XL 340S, however, you must purchase an optional traffic receiver.

Each of those products carries a 4.3-inch screen. Similar products with 3.5-inch screens cost less.

**GARMIN'S NUVI 265T** (\$160) is identical to the 265WT except for a smaller screen; likewise, the **TOMTOM ONE 140S** (\$130) is essentially a 3.5-inch version of the XL 340S. **MAGELLAN'S ROADMATE 1340** (\$150) closely resembles the 1445T—and also has a 3.5-inch screen—but lacks a traffic feature.



MAGELLAN ROADMATE 1445T



A DEDICATED GPS device such as the Garmin Nuvi 265WT can display content like 3D maps.

support text-to-speech for delivering turn-by-turn directions.

Dedicated devices do have a few drawbacks, though. A GPS app on your cell phone may download updates over your data connection; but with a dedicated GPS unit, you must download updates on your PC and then load the data onto your device. Also, whereas updates for phone apps are usually free, manufacturers of dedicated devices often charge for updates.

High-end dedicated GPS devices include premium features such as a Bluetooth speakerphone interface, real-time traffic information, 3D buildings and landmarks, and speech recognition. But the speech recognition on these devices is less accurate than the technology on either the Nexus One platform or the BlackBerry Bold's AT&T Navigator service. The Bluetooth phone interface on a dedicated GPS device may not be able to read contacts from your cell phones, either, in which case you'll have to enter your contacts manually. In contrast, smartphone apps take advantage of the handset's phone book, so you never have to reenter phone numbers.

The \$170 Garmin Nuvi 265WT that I tested came equipped with a 4.3-inch, 480-by-272-pixel-resolution touchscreen that I found easy to read, even in direct sunlight. Some entry-level models come with 3.5-inch screens; more-expensive models may have 4.7-inch, 5-inch, or 7-inch screens.

The Nuvi 265WT offers access to a database of 6 million points of interest, searchable by name or category. Many categories have subcategories to help you refine your search. You can search for points of interest in your current location, in a different city, or along your route.

Garmin ships the Nuvi 265WT with complete Navteq maps for the United States and Canada, and as part of the deal you also get free lifetime traffic updates.

The Nuvi 265WT's Bluetooth phone interface—a premium feature—won't read the contacts stored in your cell phone, but it will dial points of interest directly. In my informal tests, both incoming and outgoing calls sounded good on it. ➤➤



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# Two-Way Connected Device

**BEST FOR:** People who don't have a smartphone but want navigation help, live traffic, weather, and search information.

**Hardware tested:** TomTom XL 340S Live, \$240 (street [find.pcworld.com/70025](http://find.pcworld.com/70025)) A two-way connected GPS—known in the technology industry as a portable navigation device, or PND—makes sense only if you need connected services such as weather data, advanced traffic updates, fuel prices, and Google local search, and if you can't use a smartphone to get the information. Connected GPS units are more expensive initially than other dedicated GPS devices, and they require you to pay for a monthly data subscription.

Standard GPS devices, which get traffic information from signals broadcast by commercial FM stations, can only receive data. Connected GPS models can initiate requests for data as well as receive it. Such two-way communication supports real-time traffic updates, weather information, and local fuel prices. Some two-way products can also identify scheduled movie showtimes at nearby theaters, as well as airline flight arrival and departure information. In addition, you can use Google local search to identify and obtain addresses for restaurants or stores that aren't included in the GPS device's points-of-interest database.

The greatest disadvantage of a connected GPS device is its cost. The price of TomTom's XL 340S Live is \$80 higher than that of the similarly featured but unconnected XL 340S; and even so, it covers only three months of data service. Subsequently, you'll pay \$10 per month for the accompanying live services—a steep price when you consider that the money could be going toward something significantly more versatile, such as a smartphone data plan.

The XL 340S Live's fuel-prices feature lets you select a fuel grade and then search for the cheapest source nearby or in a wider area. Alternatively, you can search by price area-wide,

check these, too

CURRENTLY, four connected GPS devices are available: the XL 340S Live that I tested; the larger and more expensive

**TOMTOM GO 740 LIVE** (\$350); the **GARMIN NUVI 1690** (\$400); and our Best Buy, the **INSIGNIA NS-CNV43** (\$200). Like TomTom's devices, the Insignia NS-CNV43 comes with three months of free data. Thereafter, plans for continued coverage range from \$5 for three days of service to \$99 for a year of service. The unit's two-way connectivity covers movie times and an interface to Twitter—features not found on either Garmin or TomTom products.



GARMIN NUVI 1690

by distance, or by cheapest price along the planned route. I checked local fuel prices along my route as I drove, and the TomTom-reported prices appeared to be up-to-date.

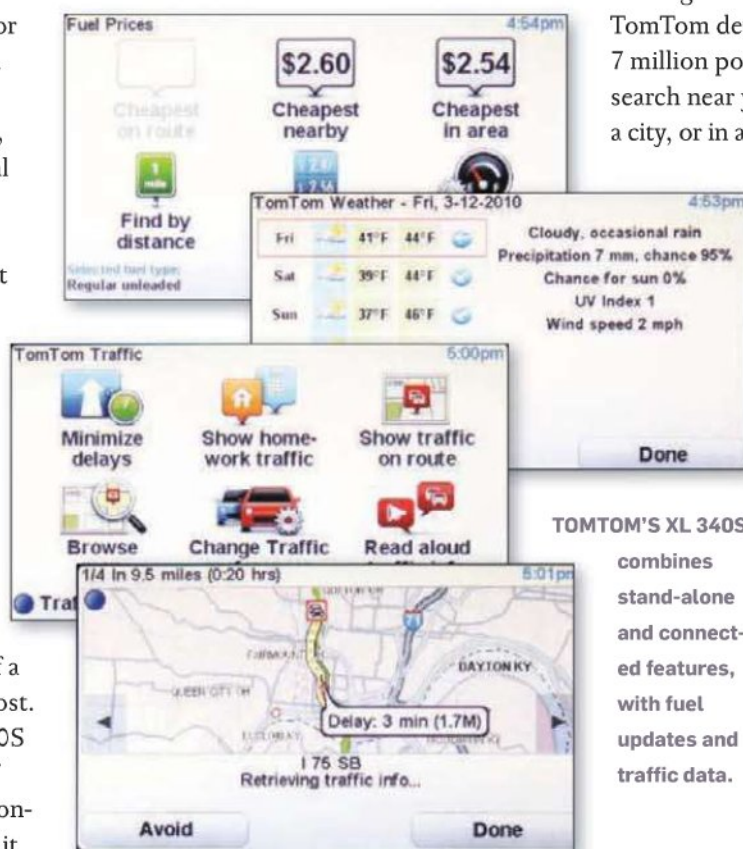
Google local search supplements the TomTom device's internal database of 7 million points of interest, letting you search near your current location, within a city, or in another location. If you choose

'another location', you can use any of the Navigate To search options, including home, address, favorites, recent destinations, points of interest, current location, point on a map, GPS coordinates, or the position of the last stop. When you select a point of interest that Google local search suggests, you can add it as a favorite, show the location on the map, or navigate to it. The Live connection also provides live traffic data. You can browse traffic incidents on a map, show traffic on

a planned route, and (if you set locations

for home and work) check traffic on your daily commute—more options than most other traffic services offer. The XL 340S Live can read traffic updates aloud, too.

If you aren't already paying for a smartphone with an associated data plan, the XL 340S Live might make sense for you. But consider the long-term cost before you commit to it or to any other two-way connected GPS unit. ●



TOMTOM'S XL 340S

combines stand-alone and connected features, with fuel updates and traffic data.





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Pizza Ordering Screen



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# Here's How

## Banish Seven Bad Tech Habits

Here's how to improve your computing life by changing the way you use your computer.

BY RICK BROIDA

YOU FLOSS DAILY, rotate your tires regularly, file your taxes on time, and exercise at least twice a week. In other words, you have lots of good habits. But when it comes to technology, well, we need to talk. You know all the icons cluttering your desktop, the passwords you keep in Notepad, and the half-baked backup you make once a month? They're the result of bad habits—and they're not the only ones.

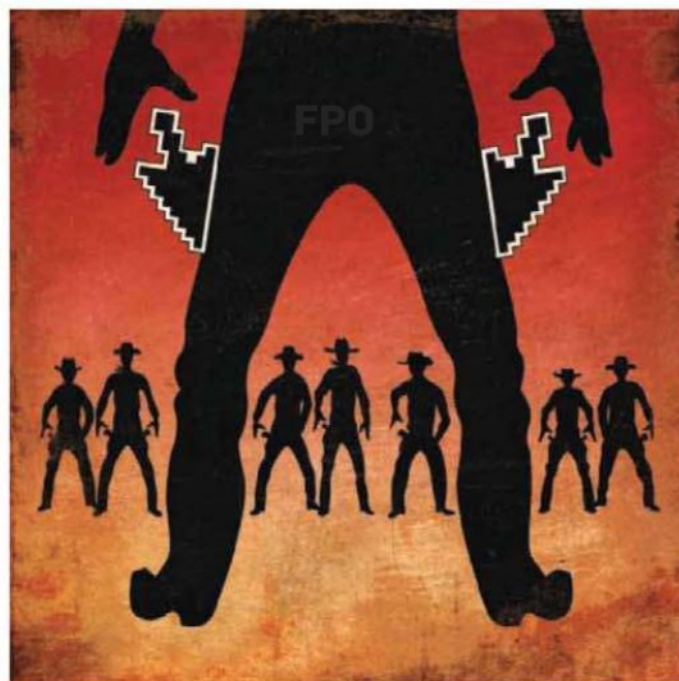
Fortunately, it's easier than you might think to correct bad tech behavior, and to learn how to handle your computer with the same care and wisdom that you

employ in safeguarding your gums. To help you get started, I'll identify seven such bad habits and what you can do to break them.

### No. 1: Creating Too Much Desktop Clutter

Your Windows desktop looks like the inside of a junk drawer, with icons stretched from one end of the screen to the other. How can you find anything in that mess?

For a good way to organize everything, try Stardock's Fences ([find.pcworld.com/69935](http://find.pcworld.com/69935)). This free utility corrals icons into semitransparent desktop pens, thereby reducing clutter and improving organization. Best of all, the first time you run



it, Fences offers to sort and “fence” your icons automatically. It's like having a maid sweep your desktop clean!

And for the ultimate in desktop decluttering, just double-click in any open area, and watch as Fences hides all of your icons—or leaves only a select few visible. Another double-click brings everything back. Now you can enjoy your pretty Windows wallpaper without having to sweep your icons into the Recycle Bin.

### No. 2: Using the Power Button to Shut Down

When you're done using your laptop, your impulse might be to press the power

button for shutdown. Not so fast: On many systems, the power button's default function is to put the PC into Sleep mode. That's not necessarily a bad thing—a “sleeping” PC resumes operation in a matter of seconds, which is quite handy. But this still constitutes a bad habit, for two reasons.

First, because Sleep mode is not the same as Off, your laptop will continue to consume battery power. So unless it's connected to an AC outlet, you may return to a drained, dead PC—one that took any unsaved work with it when it gave up the ghost. Second, if you rely exclusively on Sleep mode,



**STARDOCK'S FENCES HELPS you organize your desktop and (paradoxically) leaves you with more open range than you had before.**

ILLUSTRATION: THOMAS FUCHS





**PRESSING THE POWER button should mean shutdown, not sleep, right? A quick trip to the button-settings screen will make the fix.**

your PC rarely gets a chance to reboot—and rebooting is essential to keeping Windows running smoothly.

To fix the problem, simply change the function of your power button so that it actually shuts down the PC. Browse to [find.pcworld.com/63539](http://find.pcworld.com/63539) for directions.

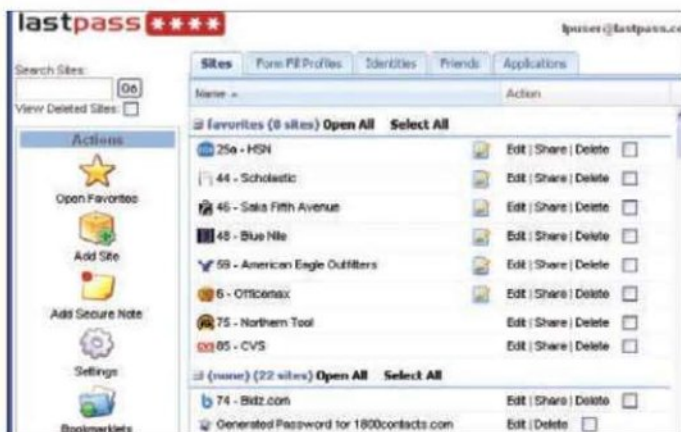
(Pressing, and firmly holding, the power button will always turn off your system, but you should do this only when the system is locked up and you have no other way of resetting it.)

### No. 3: Storing Passwords Unsafely

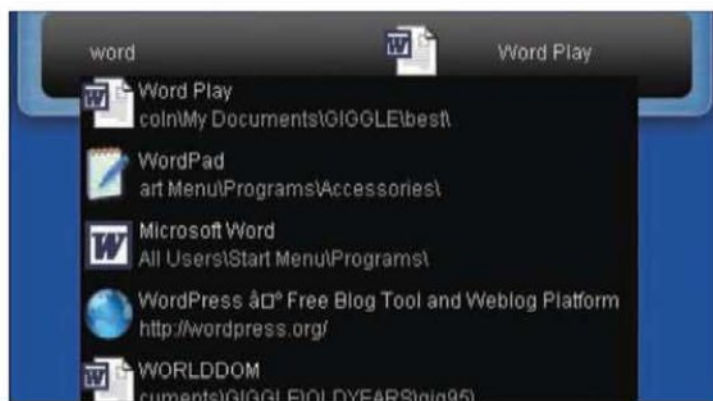
Oh, the irony: You come up with a hackproof password to use on your banking site, and then you store a copy of that password in an unpro-

tected spreadsheet, Outlook note, or smartphone memo. Good-bye, protection.

What you need is a password manager—a heavily fortified database for important data such as passwords, PINs, and Social Security numbers. I'm partial to LastPass ([find.pcworld.com/64108](http://find.pcworld.com/64108)), a utility that generates secure passwords, applies them when you visit various Websites, organizes any and all private data you care to store, and also syncs across multiple platforms and devices so that you always have access to your passwords anytime, anywhere. Amazingly, LastPass is free, though you'll have to upgrade to the Pro version (at a mere \$1 per month) if you want to use the com-



**LASTPASS IS A password manager that generates secure passwords and keeps them—and other data—safe and organized.**



**LAUNCHY, A KEYBOARD-POWERED program launcher for Windows XP, ties the <Windows> key and number keys to icons on your desktop.**

panion Android, BlackBerry, iPhone, Palm, and/or Windows Mobile apps.

### No. 4: Mousing to Launch Programs

Old habits—like reaching for the mouse every time you want to run a program—die hard. Here's a little-known but much faster alternative: In Windows 7 (and Vista, if you enable the Quick Launch toolbar), you can launch any program to the right of the Start button by pressing the <Windows> key and a number.

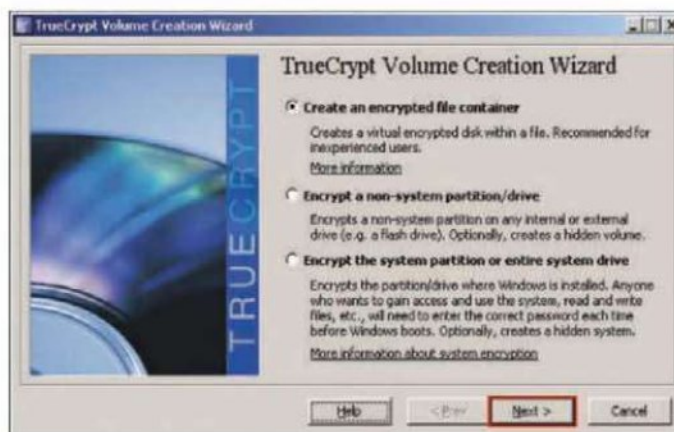
For example, the icon in the taskbar that sits closest to the Start button (usually Internet Explorer) is linked to '1'. By pressing <Windows>-1, you can launch that program directly from

your keyboard. Pressing <Windows>-2 is like clicking the second icon, and so on. This method works for the first nine icons that are pinned to the Windows 7 taskbar (or to the Vista Quick Launch toolbar).

Still running XP? Try Launchy ([find.pcworld.com/69936](http://find.pcworld.com/69936)), a terrific keyboard-powered launcher that enables you to open programs, files, and even Web favorites with a few keystrokes.

### No. 5: Carrying Unencrypted Flash Drives

Flash drives are great for transporting data, but they are easy to lose, which could mean big trouble for your private information. You can correct this vulnerability (and overcome the bad >>>



**TRUECRYPT SETS PASSWORD protection for the data you've loaded on a flash drive and encrypts and decrypts the data as you access it.**



# Here's How

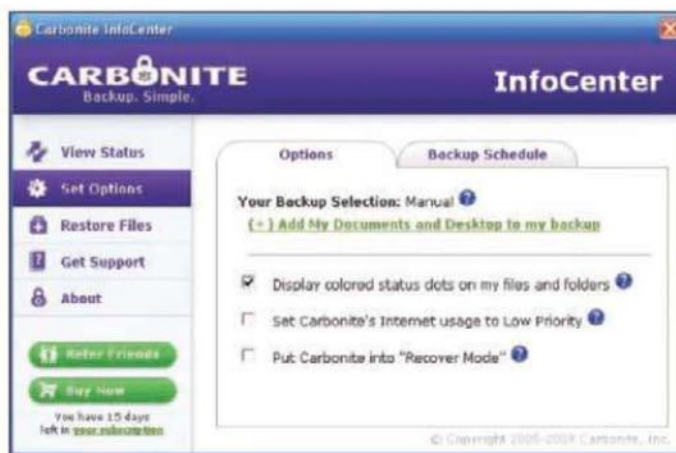
habit of leaving yourself open to jeopardy) by installing TrueCrypt ([find.pcworld.com/69937](http://find.pcworld.com/69937)), an open-source encryption utility that sets password protection for the data on your flash drive.

TrueCrypt works on the fly—that is, it encrypts and decrypts data as you access it. (The software also works with individual files and hard drives, in case your bad habit extends to your laptop.) If you don't supply the correct password or encryption key, your data remains locked tight, thanks to a variety of secure encryption algorithms. TrueCrypt is pretty easy to use and is entirely transparent once it's up and running; get started with the beginner's tutorial at [find.pcworld.com/69938](http://find.pcworld.com/69938).

## No. 6: Blindly Clicking 'Next' When Installing Software

Ever wonder by what means mysterious new icons appear on your desktop? Why unfamiliar toolbars appear in your Web browser? How spyware manages to sneak onto your PC? One possibility: You gave them permission.

If you've installed more



**CARBONITE IS AN online backup service that can archive your important data—automatically, and in the background as you work.**

than a few programs in your computing life, you likely have a habit of automatically clicking every 'Next' button that an installer throws your way. Big mistake.

During the setup process, some programs ask if you also want to install, say, trial versions of the company's other programs, or maybe a new search tool for your browser. If you blindly click your way through the setup screens, approving things left and right, you'll miss your chance to opt out of these offers—and you'll end up with stuff that you probably don't want.

So slow down, speedy. Take a few extra seconds to read the fine print, and avoid unwelcome surprises.

## No. 7: Relying on One Backup Method

I'm not going to harangue you yet again about the importance of making backups. But backing up intelligently does bear some haranguing.

Most users who take the trouble to back up rely on a single method, and usually a sloppy one—dragging the contents of their My Documents folder to a blank DVD, say, or running a backup program without knowing how to use it to restore files in the event of disaster.

You need a diversified backup system that covers all your bases, not just one or two. First, use an external hard drive to clone your primary drive, and pair it with software (like Casper 6.0;

[find.pcworld.com/69939](http://find.pcworld.com/69939)) that will perform the operation regularly. Next, sign up for an online backup service—such as Carbonite ([find.pcworld.com/63820](http://find.pcworld.com/63820)) or Mozy ([find.pcworld.com/61957](http://find.pcworld.com/61957))—that automatically archives important data (documents, photos, financial records, and the like) in the background while you work.

Now it's time to get more granular. Install Xmarks ([find.pcworld.com/62799](http://find.pcworld.com/62799)) to synchronize your browser's favorites (and passwords, if you like) to the Web and/or to another PC. Use Google's free Google Calendar Sync ([find.pcworld.com/64295](http://find.pcworld.com/64295)) to make an online backup of your Outlook calendar; or spend \$15 on gSyncit 2.0 ([find.pcworld.com/69940](http://find.pcworld.com/69940)) to sync Outlook's contacts, calendars, and tasks to your Google account.

Finally, a mere \$5 per year buys you 20GB of online Picasa Web Albums storage ([find.pcworld.com/69941](http://find.pcworld.com/69941)), enough to hold (and preserve) any modest family-photo collection. Bottom line: The more you use automated methods to back up, the better off you'll be.



**HERE'S AN EXAMPLE of what bad habit 6 can bring you: If you're not alert, this media software will automatically install a Yahoo toolbar.**



**XMarks, A FIREFOX add-on, lets you synchronize bookmarks and passwords across multiple PCs—a useful step in making backups.**



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## Make Your Computer a Man-Cave Media Center

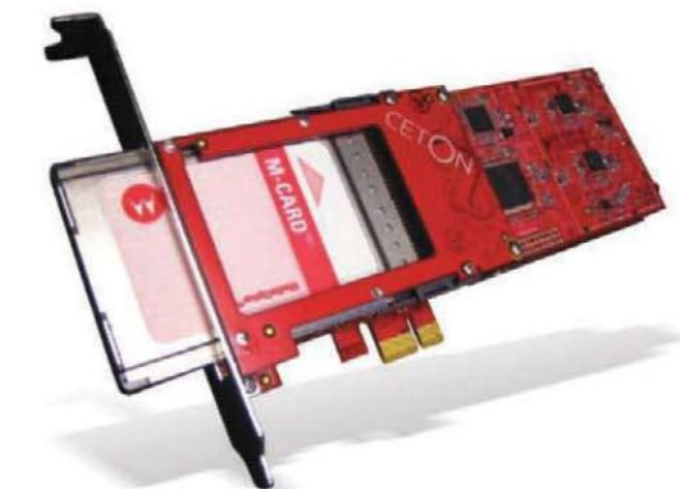
Your Windows 7-powered system is equipped to anchor an awesome entertainment center. Here's everything else you need.

PRACTICALLY ANY modern PC can handle the functions of almost every piece of hardware in a typical home theater, such as a cable box, a DVR, a Blu-ray player, and even a stereo amplifier. Plus, the PC can do things that no cable box can—streaming Netflix movies, playing your music and photo libraries, burning recorded TV shows to DVD, and much more.

It all starts with a having a system that runs any version of Windows 7 other than Starter; all such versions of the operating system include Microsoft's powerful Windows Media Center software—a couch-friendly home-theater interface that beautifully complements your HDTV. Once you've made the necessary connection (see [find.pcworld.com/69942](http://find.pcworld.com/69942) if you're not sure how to do this), you have the makings of a killer entertainment center. Now you need just a few accoutrements, as described in what follows.

### Add a CableCard for Cable TV

Windows Media Center has always had an Achilles' heel: It can't tune in premium or HD cable channels. Enter CableCards—compact cards that give you all the functionality of a cable box when you slip one into a special



**CETON'S DIGITAL CABLE Quad-Tuner Card** is a PCI Express card that lets you record up to four shows at once, including premium channels.

tuner. Until recently, however, finding one of those tuners for a PC wasn't easy.

But things are changing. Some vendors, such as Ceton and Silicondust, are starting to roll out user-installable CableCard tuners. Ceton's \$399 Digital Cable Quad-Tuner Card ([cetoncorp.com](http://cetoncorp.com)), for example, lets you record up to four shows at once, including premium channels. Because it's a PCI Express card, your PC must have an expansion slot available, and you'll need to feel comfortable venturing inside the case with a screwdriver.

We're also jazzed about the Silicondust HDHomeRun CableCard ([silicondust.com](http://silicondust.com)), a \$249 external dual-tuner device that connects to your home network, enabling you to share premium-cable goodness with all the Windows 7 PCs in your home.

While you're waiting for these tantalizing products to reach local store shelves,

you can tune in to over-the-air HD and/or basic cable channels by using any of a number of available tuners from AverMedia and Hauppauge. Two good choices: the AverMedia AVerTV Hybrid Volar Max ([find.pcworld.com/69943](http://find.pcworld.com/69943)) and the Hauppauge WinTV-HVR-950Q ([find.pcworld.com/69944](http://find.pcworld.com/69944)).

### Grab a Blu-ray Drive

Windows 7 lacks native support for Blu-ray movies, but that doesn't prevent you from installing a Blu-ray drive. A couple of caveats, though: Your PC's video card must have both the

horsepower to run smoothly at 1920-by-1080 resolution and either an HDMI port or an HDCP-compliant DVI port. Otherwise, Blu-ray movies won't play.

Also needed: suitable software. Both Corel WinDVD Pro 2010 (\$60; [find.pcworld.com/69951](http://find.pcworld.com/69951)) and the new CyberLink PowerDVD 10 Ultra 3D (\$100; [find.pcworld.com/69952](http://find.pcworld.com/69952)) offer Windows Media Center integration, meaning that they add a Blu-ray option to the standard menu system—you won't have to resort to your mouse or keyboard and shut down Media Center just to play a Blu-ray movie.

As for the Blu-ray drive itself, internal models are available from the likes of LG, Lite-On, Plextor, and Sony for less than \$100. Any of those drives should be able to replace the DVD drive already installed in your PC. If you'd rather go external, drives from Plextor (such as the PX-B310U shown below) or Velocity Micro are good bets; they plug easily into a USB port. Plan on spending close to \$200 for an external model.



**THE PLEXTOR PX-B310U** is an external Blu-ray Disc drive that plugs into a USB port.

### Don't Skimp on the Speakers

No man-cave home theater is complete without a world-class (well, den-class) audio system. Traditional speakers are okay

for smaller rooms, but a larger room needs an amplifier/speaker combination. Either way, make sure that your computer has an S/PDIF ➤



# MacMania 11

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# Here's How



**THE LOGITECH Z-5500** surround-sound system for PCs consists of five satellite speakers, a subwoofer, and its own remote.

output so that you'll be able to enjoy true digital sound.

If it can't handle S/PDIF, consider upgrading your sound card—an operation that can be as simple as inserting a Turtle Beach Audio Advantage Amigo II USB sound card (\$25; [find.pcworld.com/69953](http://find.pcworld.com/69953)), which adds a digital output to any PC.

If you're outfitting a smallish room, the plug-and-play convenience of PC speakers such as the Logitech Z-5500 (\$400; [find.pcworld.com/69954](http://find.pcworld.com/69954)) is pretty compelling. This 5.1-channel setup (translation: five satellite speakers and a subwoofer) pumps out an amazing 505 watts

receiver—and of course, speakers to go with it. We don't have space here to look at the endless options and permutations available, but you should be able to find the gear and the advice you need at your local home-theater store. (Note: Any modern receiver you buy will have S/PDIF inputs, the one essential for making a media-center connection.)

## Extend Windows Media Center With Your Xbox 360

If you'd rather not make a big, bulky desktop PC a permanent part of your living-room décor, consider working instead with the Xbox 360 that you may already have there. Out of the box, Microsoft's game console can double as a Media Center Extender, reproducing the entire Media Center experience—TV, music, photos, and all.

The interface looks and operates exactly as if you were sitting at your PC. The only overhead is the one-time setup procedure linking the Xbox 360 and the PC.

Unfortunately, you won't be able to watch Blu-ray (or even DVD) movies via your

Xbox 360. (Thanks, DRM.) Also, you can't use PC speakers with the console—so if you want killer audio, your only practical option is to add a receiver to the mix. And finally, your Xbox 360 will need a wired connection to your home-network router; wireless just doesn't cut it, especially for streaming high-definition video.

## Don't Forget the Remote Control

Ready to hit the couch? You still need one crucial accessory: a remote. We've long been partial to the Logitech Harmony One ([find.pcworld.com/69955](http://find.pcworld.com/69955)), which incorpo-



**THE HIPPOREMOTE PRO** iPhone app lets your phone control Windows Media Center.

rates a color touchscreen for performing multiple activities (such as turning on the TV while switching the receiver to the proper mode). It works especially well with Windows Media Center—many of its buttons map perfectly to that interface.

If your PC lacks an IR receiver, however, you'll need to add one. Our advice: Head to eBay and search for "Windows Media Center remote." For as little as \$15, you should be able to find a bundle that includes both a remote and a receiver. You can use the former if you want or stick it in a drawer as a backup.

Finally, if you own an iPhone or an iPod Touch, you can go the app route. For just \$5, HippoRemote Pro ([find.pcworld.com/69956](http://find.pcworld.com/69956)) provides full control over Windows Media Center. So you don't even need an IR receiver—just this small Windows utility that permits your Apple device and your PC to communicate over your home's Wi-Fi network.

—Rick Broida



**TURTLE BEACH AUDIO** Advantage Amigo II USB sound card.

of surround-sound power—more than enough to blow your hair back (and forward again) during screenings of *Inglourious Basterds*.

If you want more power and versatility, you'll have to spring for a home-theater



**LOGITECH'S HARMONY ONE** remote control works well with Windows Media Center PCs.



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# SmileTrain

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**A Healthy Diet During Pregnancy Can Help Prevent Birth Defects And Clefts.** Diet is an important part of pregnancy. Eat a healthy diet that contains lots of fruits and vegetables and foods fortified with folic acid. According to the U.S. Government, women who plan to have a child should be sure to take sufficient levels of folic acid (400 micrograms per day) during pregnancy to help prevent neural tube defects and reduce the risk for cleft lip and palate. When folic acid is taken one month before conception and throughout the first trimester, it has been proven to reduce the risk for neural tube defects by 50 to 70 per cent. Be sure to receive proper prenatal care, quit smoking, and follow your health care provider's guidelines for foods to avoid during pregnancy. Foods to avoid may include raw or undercooked seafood, beef, pork or poultry; delicatessen meats; fish that contain high levels of mercury; smoked seafood; fish exposed to industrial pollutants; raw shellfish or eggs; soft cheeses; unpasteurized milk; pâté; caffeine; alcohol; and unwashed vegetables. Smile Train is a 501 (c)(3) nonprofit recognized by the IRS, and all donations to Smile Train are tax-deductible in accordance with IRS regulations. © 2010 Smile Train.



## Taking Care of Your Laptop in Six Simple Steps

YOU'RE MORE LIKELY to damage a laptop than a desktop PC, and laptops are harder and more expensive to repair. So follow these care tips.

### 1. Keep the battery cool:

Avoid heat and use the battery as little as possible. If you're going to be running on AC power for awhile, shut down or hibernate the laptop, remove the battery, and work without it.

**2. Be careful about eating and drinking:** Spilling coffee on your laptop's keyboard could short out the motherboard. (I keep my tea as far from the electronics as the table I'm sitting at allows.)



### 3. When working at your desk, plug in a full-size monitor, keyboard, and mouse:

This protects items far more valuable than your laptop—your arms, hands, and eyes. You can't set up a proper, ergonomic working environment with a small keyboard attached to a small monitor.

**4. For travel, find the right carrying case and pack the laptop properly:** Depending on your carrying preferences, look for a carrying case, backpack, or shoulder bag with a padded section designed especially for a laptop.

**5. Clean the keyboard the correct way:** Shut down the PC. Keep it open as you turn it upside-down and very gently tap on the back so that crumbs fall out. Then use a can of compressed air, available from any computer store for a few dollars, to blow out whatever is still stuck. (But read the instructions on the can, first.)

**6. Clean the screen when required:** Start with a dry microfiber cloth (you can buy them at photo and computer stores). Wipe in circular motions. Be gentle, but apply slight pressure on particularly stubborn spots.

If necessary, make your own cleaning solution by mixing distilled water (make sure it's distilled) and white vinegar in equal proportions into a spray bottle. Make sure your laptop is off. Spray this mixture lightly onto the microfiber cloth—not onto the monitor. Wipe as described above, and then wait 10 minutes before you boot up.

—Lincoln Spector

### ANSWER LINE

### ASK YOUR QUESTION AT FORUMS.PCWORLD.COM

## What kind of PC do I need to purchase for a home-theater setup?

—Kurt, PCWorld.com forums

IF YOUR PC will stay in the home theater, buy a desktop. Price and expandability will be more important than portability.

Beyond that, pretty much any medium-priced desktop should pack enough power. At the very least, get a PC with a Windows 7 Windows Experience Index of 3.5 (mine is 3.7). To find a PC's index in Windows 7, click *Start*, right-click *Computer*, and select *Properties*. Click the *Windows Experience Index* link.

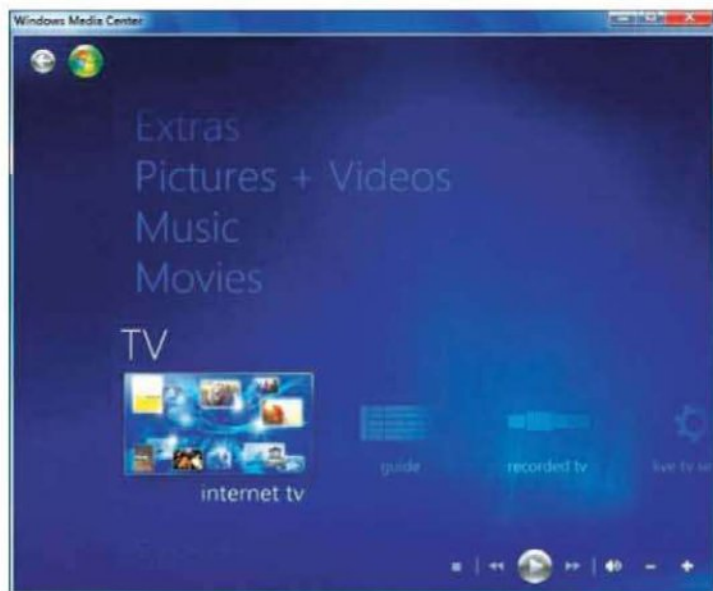
One feature your PC should have: an HDMI connector.

Make sure the operating system, such as Windows 7 Home Premium, has Windows Media Center. Offering a very TV-like interface, it gives you a DVR, Netflix-on-demand, television programming from assorted Internet stations, and other goodies.

You'll need a PC remote control. This is usually a three-piece affair: the remote itself, a USB-based receiver you plug into the computer, and software. If you stick strictly to Windows Media Center, you probably don't need the software.

What else you need depends on what you want to do. A USB tuner and a Blu-ray drive are two possibilities. Read "Make Your Computer a Man-Cave Media Center" on page XX to learn about these and other add-ons you may want for your home-theater PC.

Or consider this: A great many of the new Blu-ray players support various Internet video services. Generally you can watch You-



**WITH A VERY TV-like interface, Windows Media Center gives you a DVR, television programming from Internet stations, and more.**

Tube, Netflix-on-demand, and one or two pay-per-view services. Some Sony players offer support for all sorts of services, many of which you've never heard of. For these reasons, you might want to buy one of these players instead of a PC; you won't get every Internet video source, as you would with a browser, but a player is cheaper and much easier to set up and use with a remote control.

—Lincoln Spector



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## Five Ways to Recover Your Lost or Missing Files

DELETED A FILE by mistake? You may be able to retrieve it (though there's no guarantee). Don't use your PC except for your recovery efforts until you've either succeeded or given up—every time you write to your hard drive, you lessen the chances of recovery.

I list these options in order of ease and expense. Try the first. If that doesn't work, go to the second, and so on.

**1. Check the Recycle Bin:** Deleted files arrive here first. Double-click its icon on your desktop and look for the lost file. If you see it, right-click it and select *Restore*.

**2. Restore it from your backup:** If you have a good, regu-

lar backup routine, you can't possibly lose more than one day's work. And if you don't back up your files, you have just learned an important lesson the hard way. See [find.pcworld.com/69433](http://find.pcworld.com/69433) for some help on good backup habits.

**3. Try free recovery software:** To avoid writing to your hard drive when you're trying to recover lost files, you need not only a file-recovery program, but a *portable* one that you can run from a flash drive without installation.

I recommend Recuva Portable ([find.pcworld.com/64318](http://find.pcworld.com/64318)). It's free, fast, and simple, it can preview image formats, and it usually works reliably.

But one caveat: When us-



**YOU CAN RUN Recuva Portable, a free file-recovery program, from a flash drive without installation (which avoids overwriting lost files).**

ing *any* recovery software, do not restore the files to their original location, or even their original drive. Restore them to another drive, such as the flash drive you're running the software from.

**4. Pay for some software:** File-Rescue Plus (\$40; [find.pcworld.com/69945](http://find.pcworld.com/69945)) can do deep scanning of your hard drive. Try the free demo first;

it can recover up to five files.

**5. Go to a professional:** The most highly regarded data-recovery companies, On-track ([find.pcworld.com/58394](http://find.pcworld.com/58394)) and DriveSavers ([find.pcworld.com/69946](http://find.pcworld.com/69946)), are very expensive. If your drive still works, look first for a nearby computer repair shop with a good data-recovery reputation.

—Lincoln Spector

### ANSWER LINE

## How do I save an entire Web page (with images) for offline viewing?

Rwiringa, PCWorld.com forums

**YOU HAVE** A number of options. The first is just to save the page and its image files. Most current browsers make this very simple.

In either Firefox or Chrome, press **<Ctrl>-S** to bring up the Save As dialog box. In the 'Save as type' field, select *Web Page Complete*, and then save the file this creates to your desired location.

In Internet Explorer, select *Page* (near the upper-right corner),



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### ASK YOUR QUESTION AT FORUMS.PCWORLD.COM

then *Save As*. Next, you'll see that IE's 'Save as type' menu offers two Webpage options. Pick *Webpage complete (\*.htm; \*.html)*.

In saving a page, all three browsers create an .htm file, plus a folder containing the images; the code in the .htm file has been altered to look for image files in that folder. But heavily coded pages may not render properly, and some images may be missing.

Another problem: If the .htm file and the folder get separated, or if you change the folder's name, the page won't find its images.

An alternative in Internet Explorer is Web Archives. Select *Page>Save As*. For 'Save as type,' select *Web Archive, single file (\*.mht)*. Note, however, that you can view these archives only in Internet Explorer, and that they still drop a lot of images.

Or save the page as a PDF file. They're compact, they don't have to travel with a folder of images, they're readable with a free app that almost everyone has, and they show all the images on the page.

But how do you convert a Web page to a PDF? Plenty of programs can do it for you. Many of them install as print drivers, so anything you can print can be converted. I'm currently using the free Bullzip PDF Printer ([find.pcworld.com/69948](http://find.pcworld.com/69948)).

An even easier way to convert a Web page into a PDF file: Copy the URL to the clipboard, go to [pdfmyurl.com](http://pdfmyurl.com), paste the address into the appropriate field, press **<Enter>**, and save the file.

My thanks to forum regular Oldschooljohnny for this last tip.

—Lincoln Spector





## Three Tips for a Better, More Productive Windows 7 Experience

THIS MONTH I have three tips for Windows 7 users: one to help with presentations and double-monitor displays, another for managing your desktop, and a third for syncing your system's clock.

### Easily Switch Between External Displays

A certain technology challenged relative, who shall remain nameless, repeatedly calls to ask the same question: "I just connected my projector to my laptop. How do I make it, uh, go?"

I recognize that the procedure for making a projector (and/or a second monitor) "go" after connecting it to your PC isn't immediately obvious. After all, displays aren't plug-and-play devices.

If you are a Windows 7 user, however, all you have to do is remember the letter *P*—as in "Projector." Specifically, pressing <Windows>-*P* invokes a new display-switch toolbar that makes it a snap to switch between various display modes.

By default, the mode is set to 'Computer only'. Click *Duplicate*, and Windows will clone your screen to whatever secondary display is connected, be it a monitor or a projector.

If you're using a second monitor, however, I recommend clicking 'Extend', which expands the desktop so that you can open additional windows (a common example would be to run your Web browser on one screen and your word processor on the other).

Finally, 'Projector only' turns off your laptop's LCD, effectively transforming the projector into a monitor. If you want to preserve laptop battery life while giving a presentation, this option will help.

**Note:** If you're still running XP or Vista, you'll need to find your laptop's external-display toggle (usually a combination of the <Fn> key and a function key), or delve into the Control Panel, bring up the display settings, and fiddle until you get the right combination.

### Resize Win 7's Taskbar Preview Thumbnails

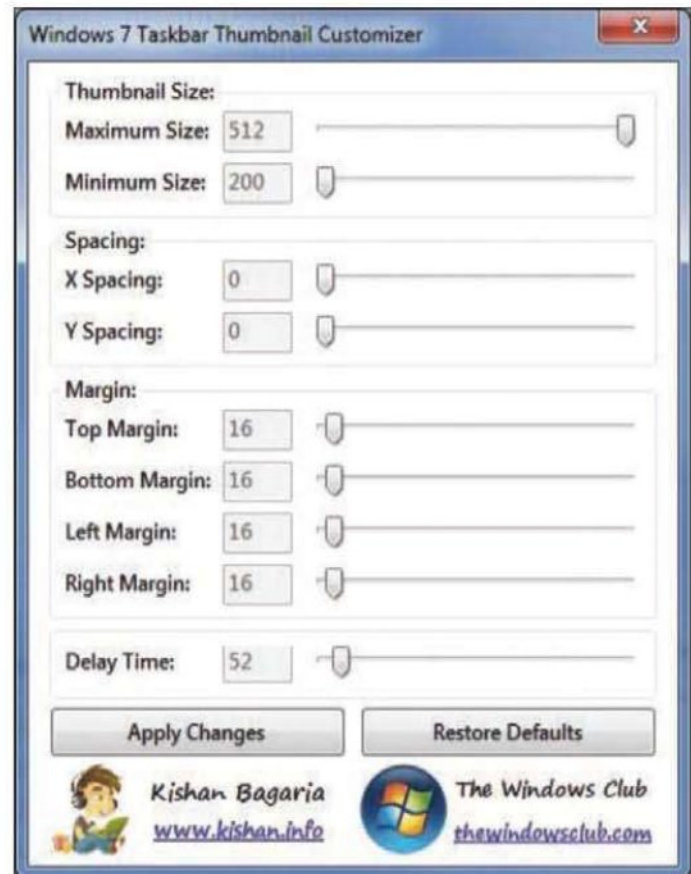
Much as I love the idea behind Windows 7's window-preview thumbnails—which pop up when you hover your pointer over any running program in the taskbar—I find the thumbnails themselves almost useless. Why? Because they're too small.

This is especially true on systems equipped with large, high-resolution monitors. The thumbnails on my 22-inch LCD display, for instance, rarely give me a clue as to what is actually inside the program. So what's the point of having them?

Fortunately, I've discovered the awesome Windows 7 Taskbar Thumbnail Customizer 1.1 (W7TTC for short; [find.pcworld.com/69949](http://find.pcworld.com/69949)). This free utility lets you shrink or enlarge thumbnails to practically any size you want. You don't have to install anything; you just run the program, and then drag the Maximum Size slider somewhere north of its default. (I tried doubling it to 400, and then I went all the way up to the maximum of 512.) Click *Apply Changes*; then mouse over a running taskbar to see the results.

Yay! I've been waiting for a sensible utility like this. As you can see in the screenshot at upper right, W7TTC additionally offers

Switch between different display modes; resize preview thumbnails; and make the Windows 7 clock sync properly—and keep better time.



**WINDOWS 7 TASKBAR thumbnail Customizer 1.1 is a handy freebie that lets you enlarge those annoyingly tiny thumbnail previews.**

several other taskbar adjustments, too, including spacing, margins, and delay time (the wait before the thumbnails actually appear).

Amazingly, this little app was developed by 12-year-old Kishan Bagaria. He just made this 41-year-old Windows user very happy.

### Fix the Windows Clock So It Syncs Properly

Windows 7 may be the best Windows yet, but its clock doesn't keep good time. That's because the default time server that Windows uses to fetch the current time, well, bites. Ah, but there's a fix. If you want your system to keep better time, try this:

1. Right-click the taskbar clock, and choose *Adjust date/time*.
2. Click the *Internet time* tab and the *Change settings* button.
3. Erase what's in the Server field; then enter **pool.ntp.org**.
4. Click *Update now*. In a few seconds, the clock should sync.
5. Click *OK* and then *OK* again, and you're done.

Your mileage may vary, but so far, this alternative time server has worked like a charm for me. ●



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# The Back Page

## Secondhand Soap

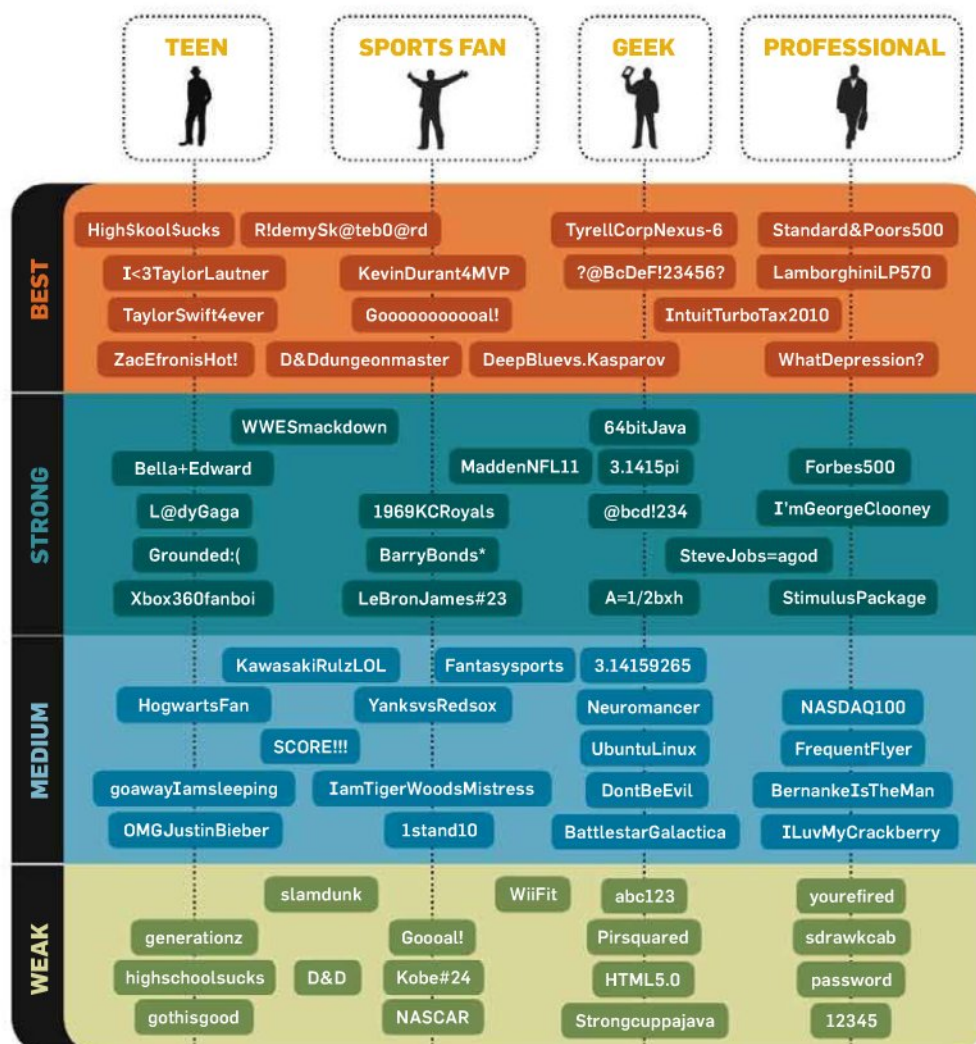
**KEEPING IT CLEAN:** Well-scrubbed reader John Pilge was scouring Amazon.com when he spotted this offer for a 14-pack of Dove soap. Nothing unusual there... except for the small type, which touted a used version of the beauty bars. Sorry, but we're holding out for refurbished toothpaste and preowned chewing gum.



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## Building a Better Password

What kinds of passwords, from weak all the way up to ironclad, do four types of users—teenagers, jocks, geeks, and professionals—favor? Inspired by our buddies at cxo.eu.com ([find.pcworld.com/70013](http://find.pcworld.com/70013)), we put a passel of hypothetical passwords through Microsoft's password checker ([find.pcworld.com/70014](http://find.pcworld.com/70014)). How do your passwords stack up?



## Plugged In



**Sleep Tweets** According to a study conducted by Retrevo, 48 percent of social media users sign in to Facebook or Twitter from bed. According to our own analysis, 99 percent of those people are sleeping alone.



**Coffee Talk** Steve Jobs is spotted having coffee with Google CEO Eric Schmidt. Jobs is okay with Java, you see, as long as there's no Flash.



**Budget Crunch** The season finale of TV series *House* was filmed with a \$2500 Canon DSLR camera. They used the "Hide Middle-Aged Actors' Wrinkles" shooting mode.



**Windows What?** Microsoft shortens the name of its new phone OS from "Windows Phone 7 Series" to "Windows Phone 7." The decision came straight from M.S. Bob, the company's VP for Snappy Names.

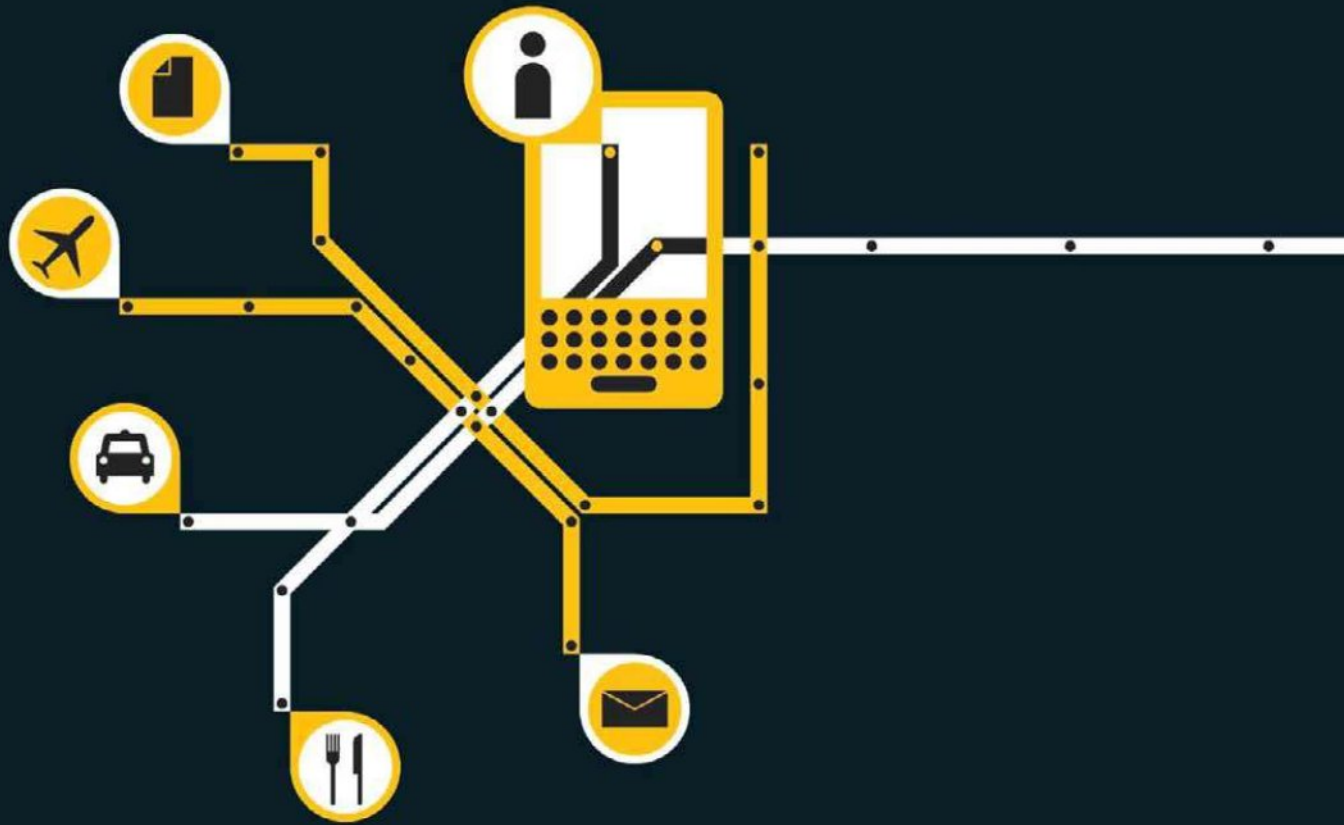


**Makes No Census** Census takers are visiting homes that didn't return a form by mail. What a waste of cash. Couldn't they just ask Google?

—JR Raphael and Steve Fox

Have an idea for a Back Page item, from an offbeat screenshot to a wild Windows hack? Send your suggestion to [TheBackPage@pcworld.com](mailto:TheBackPage@pcworld.com). You'll earn a small slice of fame, our undying gratitude, and a nifty PCWorld mug.





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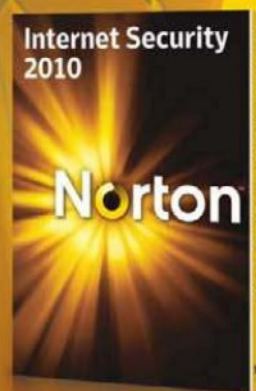
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