

# PC MAGAZINE

DIGITAL EDITION

## HOW TO INSTALL WINDOWS 7

JULY 2009



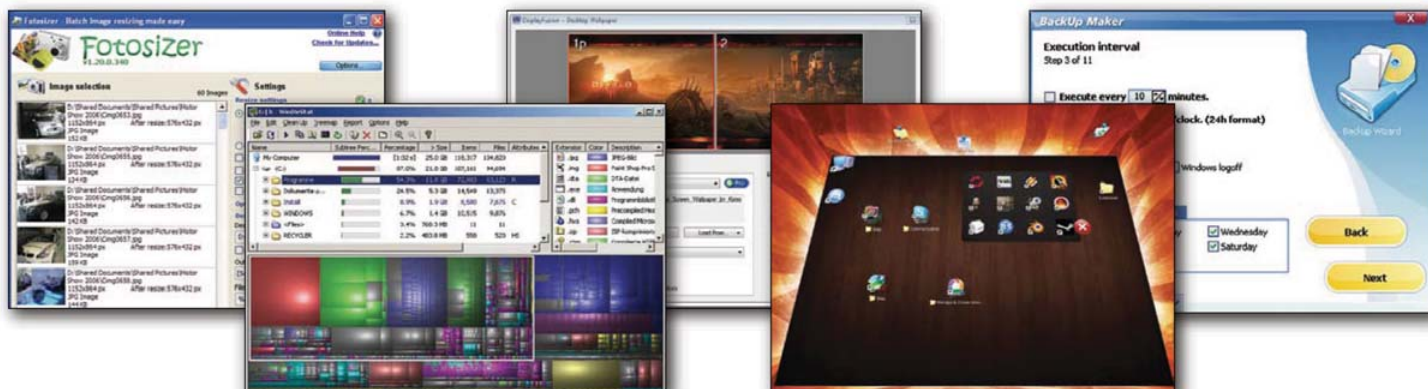
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# PC

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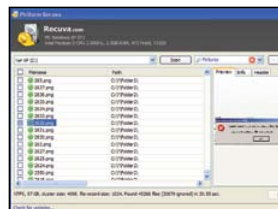
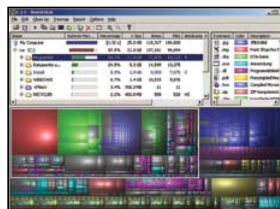
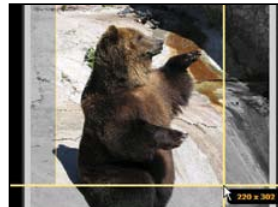
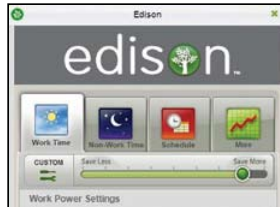
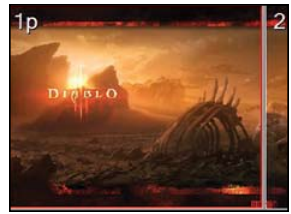
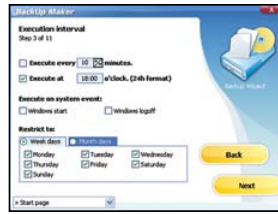
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**FIRST WORD** LANCE ULANOFF

# The Future of Robots Will Be Underwhelming

**T**he future of robotics will be much duller than we expected. Our dream of sentient automatons helping and nurturing us, entertaining our children, and brightening our lives grows more distant by the day. Don't get me wrong, the mid-21st century will be filled with robots, but they'll just be, for the most part, nameless, faceless, and coldly efficient. It's a crying shame.

## **Kids Love Pleo, Business World Doesn't**

I couldn't help having thoughts along those lines recently as I surveyed the faces of the youngsters assembled in a semicircle around me. I was a guest speaker at my daughter's school, where I gave a talk about robots to an audience of 10- and 11-year-olds. Accompanying me was a bag full of robots. As I talked, the kids passed around a Ugobe Pleo robotic camosaur. Each student had 30 seconds with the playful dinosaur, and I could tell that they all wanted more. I'd also brought with me Hasbro's program-

mable and voice-responsive R2-D2, as well as WowWee's Femisapien and Tri-bot, and a tiny bug bot. Although the students were doing their best to pay attention to what I was saying, they could not take their eyes off the robots.

I told them how Pleo was the most advanced robot of all those assembled before them and that it was also part of a dying breed. Ugobe has filed for Chapter 7 bankruptcy, and it is unlikely that anyone will buy the rights to Pleo. It's just one of a long line of impressive consumer entertainment robots that have disappeared from the landscape in the past decade. Sony euthanized its remarkable AIBO robotic dog in 2006, and Hasbro years ago abandoned the R2 bot I brought with me.

Most robotics enthusiasts know why the AIBO was so amazing and what was great and not so great about the Pleo. Each battery-operated robot was autonomous and responsive. Both could change over time, depending on user interaction. They could develop "personalities" and mimic

# I keep asking myself why robots like Pleo, R2-D2, and AIBO fail. Is it the price?

lifelike affection. Pleo, in particular, seemed to look at you with its big blue eyes—even though its single visual sensor was on its snout. AIBO's camera was also on its snout, but it could do something Pleo couldn't: let viewers see from its point of view via a desktop-based application. Overall, however, these were sophisticated robots with no real purpose beyond entertaining us and, perhaps, providing a little companionship.

## Why Do Fun Robots Fail?

During my talk, a number of the children asked me how they could buy a Pleo. I told them that it was very expensive, and now that Ugobe was out of business, it was unlikely they'd be able to get their hands on one. The kids seemed undaunted, and I imagine that there were a number of parents fielding Pleo requests that night. The kids were almost as enchanted with Hasbro's more affordable R2. The \$99 robot is programmable and offers a lot of neat canned responses to audio commands. It can even play a game called Follow, in which it follows you around the room. On the other hand, R2 can't charge itself or remember anything you did with it during playtime.

I keep asking myself why robots like Pleo, R2-D2, and AIBO fail. Is it the price? The relatively simple R2 was just \$99. Pleo, at \$349, cost considerably more, but it was nowhere near as expensive as the \$1,500 AIBO. Maybe it's the manufacturing cost, or perhaps that

in combination with niche-level sales. The only certainty is that intelligent entertainment robots fail in the marketplace. Yet, there we are still ogling the ASIMO, the Zeno, the HRP-2, the ZMP Nuvo, and posts about twitching robot trees. We love reading about this stuff and seeing videos, but consumers do not seem to love smart robots enough to want to buy them.

There are tons of other entertainment robots on the market, and I'm sure there are many people who will be satisfied with them. These products, however, are limited to canned responses and programming that goes only as far as the off switch. They have more in common with everyday toys than with complex robots like AIBO and Pleo.

## The Roomba Revolution

I told the kids about the most successful consumer robot—the iRobot Roomba. The robot vacuum continues to sell well, especially overseas. People dress up their Roombas, but let's face it, they have all the personality of a PBS pledge drive. Yet these are the kinds of robots that will populate these kids' adult lives. For some people, this is the true nature and most realistic future for robotics. They demand purpose-driven automatons. Entertainment bots seem pointless. Maybe they're right.

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# FeedBack

## Digital Edition on a Tablet

I came very close to cancelling my subscription to *PC Magazine* when you went digital. I finally got a chance to sit down with the electronic version this weekend, and I'm pretty impressed. The interface is very clean—and it's pretty convenient to have anytime, anywhere access to my *PC Magazine* "stash" (well, almost anytime, anywhere—reading it in the bathtub is totally out).

However, there was one look-and-feel aspect of the interface that I think is unintuitive. I read the two most recent issues using a Tablet PC, variously using the keyboard and the stylus to turn pages. Turning pages with the stylus looked and felt very natural—very different from turning pages using the forward arrows on the keyboard. This latter gesture resulted in no visual or sound effect, but the next page would appear after a small delay; I think I kept missing pages, because I would hit the key a second time when the first event would cause nothing to happen.—*Eva M. Fernández*

*According to Zinio Customer Support, your page-turning problem could be due to a couple of factors, such as low system resources*

*(to run the Flash animation) or reading the issue in a browser (which can be slower) instead of the Zinio Reader software. If your tablet has plenty of hardware resources (a decent processor, lots of RAM, etc.), then try to either download the issue and view it in the software or disable the page-flip animation by opening the software, going to Zinio Reader Options | Advanced and unchecking the Enable Page-flip Animation checkbox.—Erik Rhey, Senior Editor*

## Tech Is Boring now, but Just Wait

In regard to John Dvorak's column "Why Tech Today is Boring," boring tech is nothing new. The thing that allowed the PC to take off in the first place was a spreadsheet app (VisiCalc). Remember? Then, despite amazing hardware progress, everyone got bored for a long time. Everyone was asking, "What's the next killer app?" And no one had a clue. But then, finally, the Internet seemed to come out of left field, and it rejuvenated the industry.

So, yes, now that the Internet is mature we're bored again, and we've been bored for a long time. So perhaps the question should not be "Why are we so bored?" but "What's

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the next killer app?" Maybe something will once again come out of left field. Somebody out there is working on a big idea that will make tech interesting again.—*Eric S.*

### The Real Problem with Plasma

After reading Dan Costa's column, "Pulling the Plug on Plasma," I wondered how he can write an article about plasma technology without mentioning the brightness problem: The brightness of a plasma drops off as the screen gets older. And the brighter it operates, the faster the brightness declines.

I am not interested in buying a disposable 50-inch screen that will last maybe five to seven years before it gets so dim that the

colors are weak and faded. I don't think plasmas ever really burn out completely, but they can get so dark as to be unviewable in a brightly-lit room. Yes, you can preserve a plasma screen's life by turning the brightness down and closing the window shades, but I don't have room to build a pitch-black viewing cave for a plasma TV.

LCDs do not have the dimming problem. An LCD technically has unlimited lifespan, limited only by backlight parts replacement availability. The backlights are already rated for 30,000 to 50,000 hours of life, and don't cost too much to replace. A 50,000-hour lamp run for 8 hours a day can be expected to last 17 years.—*D. Mahalko*

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# Obama's Cyberspace Crackdown

**The president lays out new online security measures.**

This summer, President Obama is getting serious about cybersecurity. In June, he gave a sweeping speech that designated cybersecurity as a national security priority. In the speech, Obama announced plans to select a cybersecurity coordinator within the White House and released a 76-page cyberspace action plan.

"[The] cyber threat is one of the most serious economic and national security challenges we face as a nation," Obama said during a White House press conference.

According to the president, despite recent progress at the federal level, the U.S. is not adequately prepared to battle current cybersecurity threats. He attributed this to

## Despite recent progress, the U.S. is not prepared to battle current cybersecurity threats.

overlapping missions and lack of communication between federal agencies and the private sector. To overcome this, Obama said he will create a new office within the White House that will be led by a cybersecurity coordinator. The coordinator will be responsible for orchestrating and integrating all cybersecurity policies; working closely with the Office of Management and Budget to ensure agency budgets reflect those priorities; and, in the event of a major cyber incident or attack, coordinating our response.

The creation of such a position was one of the recommendations made in the cyberspace action plan—the result of a two-month study of the government’s cybersecurity plans, programs, and activities. The main recommendations in the report focus on coordination. The White House will also initiate a national campaign to promote awareness and digital literacy.

“It’s not enough for our children and students to master today’s technologies—

social networking and e-mailing and texting and blogging—we need them to pioneer the technologies that will allow us to work effectively through these new media and allow us to prosper in the future,” Obama said.

Obama was quick to point out that coordination with the private sector does not mean that the White House will tell companies like Google and Microsoft what to do.

“My administration will not dictate security standards for companies,” he said.

Also, Obama noted that the White House has no plans to monitor Internet traffic.

“Our pursuit of cybersecurity will not include monitoring private sector networks or Internet traffic. I remain firmly committed to Net neutrality so we can keep the Internet as it should be—open and free.”

Google voiced its support in a blog post: “Strong partnerships and open lines of communication between government and the private sector will be the key to protecting critical networks.”—*Chloe Albanesius*

### BEST OF THE INTERNET

#### DEALWAITER.COM

Simply tell this site the name of the item you’re looking to buy and how long you want the site to look, and DealWaiter will scrub various deal sites for a good price. When it finds one, DealWaiter will notify you so you can make your purchase.—*Alan Henry*

#### HAPPN.IN

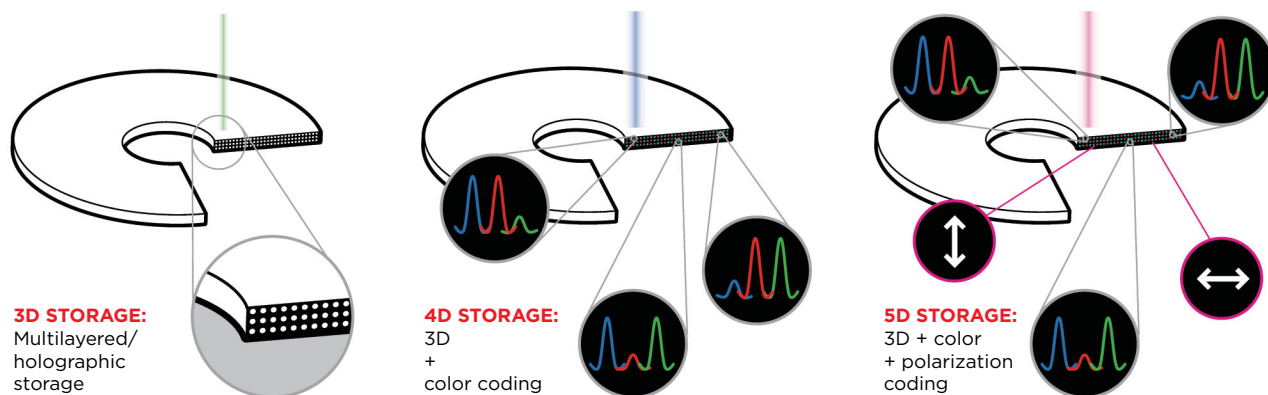
Happn.in shows you some of the most popular topics people are tweeting about at any given time in cities around the world. Predictably, a number of the most popular topics reflect the news of the day and are similar across cities.—*AH*

#### WRIDEA

Wridea is a perfect brainstorming tool: It lets you bounce your ideas off other members and friends, add details and steps, and organize your ideas by topic. And IdeasAccounts generate a custom URL where your ideas are visible to the world.—*AH*

# The Bottomless DVD

A new breakthrough could herald the 10-terabyte disc.



**WHAT'S IN STORE** The five-dimensional storage system developed by an Australian research team takes traditional 2D storage and adds multiple layers, color coding, and polarization of the light. The storage medium is a network of gold nanorods.

Imagine storing 10,000 standard-definition movies on one disc. Sound impossible? Not to a team of Australian researchers. The team recently published a report in the journal *Nature* in which it details its development of a “five-dimensional” storage medium that promises to store up 10 terabytes on a single disc.

Peter Zijlstra, James W.M. Chon, and Min Gu of the Swinburne University of Technology found a way to combine addressing data using wavelength, polarization, and three spatial dimensions, creating the so-called five dimensions of addressable space. The approach allows for a storage density of a terabit of information in just a cubic centimeter of space.

Mixing and matching different methods of addressing data has been tried using individual methods, the researchers said. In fact, writing data to a three-dimensional

storage medium has been one of the hallmarks of holographic storage. But for five-dimensional storage, the team projected information into the material using different color wavelengths. Additional information was then added by polarizing the light, first at a fixed orientation and then by rotating the filter 90 degrees. Data was read using a technique called “longitudinal SPR-mediated 2-photon luminescence.”

It’s difficult to say, however, how easily a solution like this might be moved into production, since the medium used to store the information is a network of gold nanorods.

“The major hurdle is the lack of a suitable recording medium that is extremely selective in the domains of wavelength and polarization,” the researchers wrote in an abstract. Nonetheless, companies such as Samsung have already expressed interest.

—Mark Hachman



# Let the Games Begin

At this year's E3 video-game conference in Los Angeles, everyone from stormtroopers to Ringo Starr was on hand. Here are some of the highlights from the show.



**MOVE OVER, WII** Sony stole the show with a demo of its new motion controller, which is similar to a Wiimote but with glowing orbs on the ends.



**THE GAME TO BEAT** Beatles Paul McCartney and Ringo Starr took the stage to help launch the new Beatles version of Rock Band for Xbox.



**IN THE FAST LANE** A gamer tries out Microsoft's Forza Motorsport 3, with a 60-fps graphics engine and lots of new features, such as an in-cockpit view and the ability to roll a car over if you wreck badly enough.



**FEEL THE BURN** Conference attendees try to burn off some of those junk-food calories with a session of Wii Fit-Plus at the Wii booth.



## BEST OF OUR BLOGS



### GEARLOG

#### Video Chat in 3D

The Novo Minoru is a little Wall-E/Johnny 5 lookalike that is claimed to be “the world’s first consumer 3D webcam.” It works with a number of popular chat programs, such as AIM, Windows Live Messenger, Skype, and OoVoo. The device can record 3D videos, which can be viewed with one of the five pairs of 3D glasses that ship with the camera. Videos captured with the Minoru can be uploaded to YouTube, and the camera can also take 3D snapshots. The Minoru clamps to the top of your monitor or can sit flat on your desk. It works with Windows XP and Vista.—*Brian Heater*

### @WORK

#### Payroll Point Simplifies Taxes for SMBs

Payroll—and figuring out payroll taxes—can be the bane of a small company’s existence. Luckily there’s a new tool to help. Payroll Point software lets you enter employees’ addresses and get an instant accounting of what taxes must be paid. The Lite Edition—free for personal use—tells you which payroll withholding taxes are valid based on the address you enter. The Pro Edition shows correct withholdings based on the home and work addresses entered. The software is currently in beta.—*Kathy Yakal*

### GOODCLEANTECH

#### Green a Go-Go

Piaggio has announced that its MP3 Hybrid three-wheeled scooter is now in production. The MP3 Hybrid is similar to the company’s MP3 500, but with two motors: a 125-cc gasoline engine paired with a tiny electric motor and lithium ion battery pack. Earlier reports have indicated that the MP3 Hybrid will be able to travel up to 12 miles without kicking in the gas engine, and that in typical driving, the three-wheeler could achieve fuel economy over 140 miles per gallon. Currently, the MP3 Hybrid is available only in Europe, but we expect it to hit the States soon.—*Jamie Lendino*



### SMART DEVICE CENTRAL

#### Get Facebook Anywhere

No matter what phone you use, there are three ways to access Facebook on the go: text messages, the mobile Web, and native mobile applications. If you’re going to go the native-app route, you can use Facebook for BlackBerry 1.5 or Facebook for Windows Mobile 1.0. For Web access, surf to [m.facebook.com](http://m.facebook.com) or [iphone.facebook.com](http://iphone.facebook.com). For text messages, use your PC to go to Facebook.com and click Settings -> Account Settings -> Mobile. Then enter your phone number and carrier.—*JL*



## Connected Traveler

# Devices You Can Get Dirty

**Take these rugged gadgets on your next camping, boating, or beach excursion this summer.**

Nothing spoils a romp in the great outdoors like a waterlogged cell phone or sand-encrusted camera. So before you tackle Mother Nature, make sure your gear is up to the challenge. Here are some of our favorite ruggedized tech products for any habitat.

For example, the **[1] Sonim XP3.20 Quest** (\$600 street) is claimed to be the world's toughest phone, and from what we can tell, that's not just talk. In our testing, we threw, dropped, and bounced the phone off concrete—causing no damage whatsoever. We even tied it to the back of a car and dragged it down a street, and it still held up. The XP3.20 measures 4.7 by 2.2 by 1 inch (HWD), weighs 6 ounces, and sports a 1.8-inch, 176-by-220-pixel color screen and a 2-megapixel camera.

The ruggedized laptop market is taking off, and Dell has now jumped into the fray, with the **[2] Dell Latitude XFR D630** (\$4,814

direct), the company's first fully rugged laptop. This super-tough notebook meets all the Department of Defense's MIL-STD 810F specifications. It is built with a thick die-cast magnesium-alloy chassis, a sealed keyboard, and port covers along the sides. It comes with a 14-inch widescreen that is outdoor-viewable and has built-in touch capabilities.

With the **[3] Kodak Zx1 Pocket Video Camera** (\$149.95 list), you can capture any event, no matter the weather. Resistant to rain, snow, sand, and dirt, it has rubberized doors protecting all ports. The Zx1 also features a 2-inch LCD, 720p high-def video





recording at up to 60 frames per second, slow-motion playback, and built-in video-editing software. And you can choose from red, blue, pink, yellow, or black.

Chances are good that you'll drop your point-and-shooter at least once, or leave it too close to the pool. But there's no worries with the [4] **Panasonic Lumix DMC-TS1** (\$399.95 list). This tough 12.1MP camera is waterproof to 9.84 feet, shockproof if dropped from a height of about 4.9 feet, and dust-proof. The TS1 records HD motion images with 1280-by-720-pixel resolution and uses the AVCHD Lite format, which

lets you shoot more minutes of HD motion images before running out of memory.

And if you thought Bluetooth headsets aren't built to last, think again. The [5] **Plantronics Explorer 370 Rugged** (\$38.95 list) is a lightweight, water-resistant Bluetooth headset with good sound and a rugged design. Just how rugged is it? After being left outside in freezing temperatures and drizzling rain, and after being run over twice with an SUV, it still worked!

**TO VIEW MORE RUGGED DEVICES FOR YOUR SUMMER TRAVELS, CHECK OUT OUR ONLINE SLIDESHOW HERE.**





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# First

Acer Aspire 3935

## Acer's Budget Laptop Home Run



Acer has been delivering affordable systems for as long as the company has existed. The majority of those systems, however, have come with design trade-offs.

Often they were too thick, too heavy, or just plain ugly. The Aspire 3935 ushers in what we hope will be a new era for the company. The sleek metallic cover, the 1-inch-thick chassis, and the sheer portability of this system are qualities that customers have been yearning for but hadn't been able to get in such a sweet deal.

The 3935 is a huge departure from Acer systems like the Aspire 6930G and the Aspire One (10-inch) in that the thick plastic cases have been replaced by brushed aluminum on the lid. The 3935 is almost as thin as the Apple MacBook 13-inch (Aluminum) and weighs just 4.1 pounds. The 13.3-inch

widescreen is work- and media-friendly, and the small touchpad has multitouch features, though they were somewhat unresponsive. Arguably the most desirable feature on the 3935 is the built-in dual-layer DVD burner. The most glaring omission: an HDMI-out port. The 3935 is also GreenTech Approved, for meeting our criteria on materials, energy efficiency, and recyclability.

The 3935's most impressive performance feat was its battery life. Most of its competitors have bigger batteries but can't achieve the 3935's 4-hour 50-minute battery score.

It says a lot when a company can produce a gorgeous design at a price many would call a bargain. The metallic design and surprisingly good battery score alone are worthy of an Editors' Choice; we consider the speedy components, ample features, and GreenTech seal extra credit.—*Cisco Cheng*

[>>CLICK HERE FOR MORE](#)

**SPECS** 2-GHz Intel Core 2 Duo P7350 processor; 3GB DDR2 SDRAM; 250GB, 5,400-rpm hard drive; 64MB Intel Graphics Media Accelerator 4500MHD; 13.3-inch, 1,366-by-768 widescreen display; Intel WiFi Link 5100 802.11AGN; 4.1 pounds (4.9 pounds travel); three USB ports; 39-Wh, lithium ion battery; Windows Vista Home Premium (32-bit).



# Looks

## OUR RATINGS KEY:

- EXCELLENT
- VERY GOOD
- GOOD
- FAIR
- POOR

### Acer Aspire 3935

\$900 street



**PROS** Surprisingly good battery life. Beautifully designed. Very portable. Optical drive included. Very good processing power. Excellent typing experience. Tremendous bargain.

**CONS** Mouse buttons are too resistant.



### PERFORMANCE TESTS

▲ High scores are best. ▼ Low scores are best.  
Bold type denotes first place.

	MOBILEMARK 2007 ▲ hr: min	MULTIMEDIA TESTS		
		WINDOWS MEDIA ENCODER ▼ min:sec	CINEBENCH R10 ▲	PHOTOSHOP CS4 ▼ min:sec
<b>Acer Aspire 3935 (6504)</b>	<b>4:50</b>	<b>1:16</b>	4,115	<b>0:38</b>
<b>Apple MacBook 13-inch (Aluminum)</b>	N/A	1:23	<b>4,783</b>	0:52
<b>Gateway UC7807u</b>	3:22	1:21	4,076	0:41

RED indicates Editors' Choice. N/A—Not applicable: The product could not complete the test, or the test was not compatible.



**Dell Wasabi PZ310  
Mobile Photo Printer**

\$149 direct



**PROS** Highly portable. Photos are water- and scratch-resistant. Peel-off back turns photos into stickers.

**CONS** Photos are only 2 by 3 inches. Color quality is good enough for small photos, but less than ideal.



**Dell Wasabi PZ310  
Mobile Photo Printer**

# Dell's Pocket Photo Printer

**W**hen Dell gave the Wasabi PZ310 Mobile Printer its distinctive name, it clearly wanted to convey the none-too-subtle message that it's hot. Personally, I wish the folks at Dell had named it the Salsa, which would give me the choice of branding it mild, medium, or hot—in which case I'd call it medium.

The PZ310 is the second printer available in the U.S. to use ZINK technology (the first was the Polaroid PoGo Instant Mobile Printer). ZINK stands for zero ink, which translates to not needing a separate supply of ink. Instead, the technology embeds clear dye crystals in the photo paper, which also has a clear polymer overcoat to protect the

images. A peel-off layer covers a sticky back for pasting your photos wherever. The Wasabi is limited to 2-by-3-inch photos, which is no surprise considering the printer, at 0.9 by 4.8 by 2.9 inches (HWD) and weighing only 8 ounces, can fit into a jacket pocket.

In terms of speed and output quality, the Wasabi was a close match with the Polaroid model. Both take about 1 minute per photo. And as with the Polaroid's photos, some colors on the Wasabi's were noticeably off—flesh tones, for instance, were too yellow. This printer also works with all PictBridge cameras and some camera phones. Overall, the Wasabi is a fun and relatively cheap way to print and share your photos—or just stick them on your fridge.—*M. David Stone*

[>>CLICK HERE FOR MORE](#)

**Clickfree Traveler (16GB)**

\$79.99 list



**PROS** Slim as a credit card. Integrated USB cable. Automatic backup of files. Solid state storage. Mac compatible.

**CONS** No extension cable included. Smallish capacity. Extraneous packaging. First backup a little slow. Pricy on a dollar-per-GB basis.

**Clickfree Traveler (16GB)**

# Credit-Card Hard Drive

**T**he Clickfree backup concept is a sound one: Just plug in the drive and it automatically backs up all your data. Then the drive generates a report, and becomes safe to remove. That simple concept just got smaller with the introduction of the Clickfree Traveler (16GB), a credit-card-size solid-state drive (SSD) that can back up a maximum of 16GB. The Traveler should be part of any business commute kit, especially if you need an easy-to-use system to keep your docs safe.




The drive measures approximately 2.1 by 3.1 by 0.1 inches (HWD); note that it's about twice as thick as a credit card. The permanently attached USB ribbon cable slides

out of its storage slot easily and connects to a free USB port just as easily. Its auto-backup software looks for data files like DOC (Word), XLS (Excel), and MP3 (music) files. You can set it to back up files it doesn't recognize off the bat, but its built-in list is pretty comprehensive.



In testing, the initial backup took me over an hour, but subsequent changes were copied over in seconds. The Traveler gave me a report at the end of each backup session, and then dismounted itself automatically. Though this solution is a little pricey on a dollar-per-GB basis, remember that your data is the most valuable thing on your laptop.—*Joel Santo Domingo*

[>>CLICK HERE FOR MORE](#)



DESKTOPS		LAPTOPS		DISPLAYS		
						
<b>Dell Studio One 19</b> \$1,103 direct		<b>ASUS F6Ve-B1</b> \$1,250 street		<b>ViewSonic FuHzion LCD VX2265wm</b> \$349 list		
● ● ● ● ○		● ● ● ● ○		● ● ● ○ ○		
PROS	<ul style="list-style-type: none"><li>• Compact footprint</li><li>• Futuristic design</li><li>• 15-month McAfee anti-virus subscription</li><li>• User-upgradable hard drive and memory</li></ul>		<ul style="list-style-type: none"><li>• Fast processor</li><li>• Good gaming laptop</li><li>• Reasonably priced</li><li>• 4GB of memory</li><li>• Lightweight</li><li>• Excellent warranty</li></ul>		<ul style="list-style-type: none"><li>• 93 percent keyboard</li><li>• Big battery</li><li>• Excellent battery life</li></ul>	<ul style="list-style-type: none"><li>• Good color and grayscale performance</li><li>• Works well with Nvidia 3D Vision</li></ul>
	<ul style="list-style-type: none"><li>• Relatively low-resolution screen</li><li>• Wouldn't run our 3D tests</li><li>• Touch accuracy needs work</li></ul>		<ul style="list-style-type: none"><li>• Frame is boxy and not at all stylish</li><li>• Battery life takes a hit</li><li>• Available online only</li></ul>		<ul style="list-style-type: none"><li>• Pricey relative to other netbooks</li><li>• Smudge magnet</li><li>• Not much different from the NC10-14GB</li></ul>	<ul style="list-style-type: none"><li>• Single input</li><li>• Wobbly stand</li><li>• Limited image controls</li></ul>
BOTTOM LINE	The Studio One 19 is an attractive all-in-one PC with a well-designed touch screen. A low-res screen and a few nits keep it from scoring higher, however.		The F6Ve-B1 wields more power than any other 13-inch laptop, but it does so at the expense of style and battery life.		The N110 is a solid netbook (albeit a pricey one), but it doesn't bring any game-changing innovations.	The FuHzion VX2265wm produces good-quality color and delivers astounding 3D effects, but it lacks some key features.
SPECS	2.5-GHz Intel Dual Core E5200 processor; 4GB DDR2 SDRAM; 320GB SATA hard drive; 256MB Nvidia GeForce 9400 graphics; DVD±RW drive; 18.5-inch touchscreen monitor; Vista Home Premium 64-bit.		2.66-GHz Intel Core 2 Duo T9550 processor; 4GB DDR2 SDRAM; 320GB hard drive; 512MB ATI Radeon HD 4570 graphics; 13.3-inch display; 4.9 pounds; 53-Wh battery; Vista Home Premium 32-bit.		1.6-GHz Intel Atom N270 processor; 1GB SDRAM; 160GB hard drive; Intel GMA 950 graphics; 10.2-inch display; 2.8 pounds; 66-Wh battery; Windows XP Home.	22-inch LCD; 1,680 by 1,050 native resolution; 16:10 aspect ratio; DVI and DVI-D video inputs; 17.3 by 20.2 by 7.9 inches (HWD); 12.2 pounds.



	STORAGE	INPUT DEVICES	SCANNERS
			
<b>Westinghouse L2220HW</b> \$229 list	<b>Apricorn Aegis Mini (160GB)</b> \$230 street	<b>Targus Retractable Kaleidoscope Notebook Mouse</b> \$24.99 list	<b>Plustek BookReader V100</b> \$700 street
● ● ● ○ ○	● ● ● ● ○	● ● ● ○ ○	● ● ● ● ○
<ul style="list-style-type: none"> <li>• Good dark gray and color performance</li> <li>• Excellent text readability</li> <li>• Reasonably priced</li> </ul>	<ul style="list-style-type: none"> <li>• Tiny</li> <li>• Works with Mac and Windows</li> <li>• Very easy to use</li> </ul>	<ul style="list-style-type: none"> <li>• Retractable cord</li> <li>• Comfortable control</li> <li>• Far-out colors, man</li> </ul>	<ul style="list-style-type: none"> <li>• Can position books so pages lie flat</li> <li>• Scans, recognizes text, and starts speaking the text with a single command</li> </ul>
<ul style="list-style-type: none"> <li>• Lacks an HDMI port</li> <li>• Tilt-only stand</li> <li>• Considerable backlight bleed</li> <li>• Weak speakers</li> </ul>	<ul style="list-style-type: none"> <li>• No disk-wide encryption</li> <li>• Backup software doesn't work with 64-bit Windows</li> </ul>	<ul style="list-style-type: none"> <li>• No Back, Forward, or programmable buttons</li> <li>• No horizontal scroll</li> </ul>	<ul style="list-style-type: none"> <li>• Although the software translates text to speech reasonably well, it still falls short of a truly natural-sounding voice.</li> </ul>
The L2220HW offers full 1080p resolution in a 21.6-inch panel. Its color performance and text quality are very good, but it is short on features.	The Aegis Mini is a small-form-factor, full-featured alternative to a flash drive.	A built-in light show rescues the Kaleidoscope Mouse from being a run-of-the-mill low-price travel mouse.	The BookReader V100 is a complete solution for libraries that want to convert printed material to spoken form for the visually impaired.
21.6-inch LCD; 1,920 by 1,080 native resolution; 16:9 aspect ratio; DVI, analog VGA, and DVI-D inputs; 15.4 by 20.1 by 7.7 inches (HWD); 9.3 pounds.	External hard drive; 160GB capacity; 0.7 by 2.7 by 3.4 inches (HWD); 3.7 ounces.	USB; 28-inch cord; 2.0 by 3.5 inches; 2.3 ounces.	Flatbed scanner; 1,200-pixel maximum resolution; USB connection; 3.7 by 17.6 by 11 inches (HWD); 8.5 pounds.

Visit [pcmag.com](http://pcmag.com) for the full reviews of these and scores of other hardware products.



## Lenovo ThinkCentre M58p Eco Ultra Small

# Lean, Green Biz Machine



Business desktops aren't usually considered the sexy side of the PC industry, but studies show their sales far outweigh those of home PCs. The latest Lenovo ThinkCentre M58p is a compact business PC that will serve your small-to-mid-size business just as well as it serves a Fortune 500 company. It doesn't take up as much space as a traditional tower, but it does have a little expandability for companies that use specialized hardware. The M58p has a mix of forward-looking and legacy technology, so it could be the PC that helps your business bridge the old and the new. All these features come together to make a PC that earns our Editors' Choice nod in the business desktop market.

The M58p's look is true to the ThinkCentre line's corporate tradition. It's a compact machine, only about 3 by 11 by 9.5 inches (HWD). Yet it holds full-size optical and hard drives, an internal PCI card slot, an eSATA port, and Intel GMA 4500 integrated graphics. These specs are easily good enough for day-to-day business use; the M58p will be a lot faster than any single-core Pentium 4 systems you're replacing. It also comes with

## Lenovo ThinkCentre M58p Eco Ultra Small

\$1,089 direct



**PROS** Compact form factor. Quiet. Some expandability. Security (TPM). EPEAT Gold, Energy Star 4.0, and RoHS. DisplayPort. Uses full-size optical drives. Fingerprint reader in keyboard.

**CONS** DVI needs dongle. eSATA port is internal. Expansion is PCI only.

EPEAT Gold and Energy Star 4.0 certifications (Energy Star 5.0 hasn't been ratified yet), as well as Greenguard certification, which purports to work toward reducing indoor air pollution.

The system is a decent performer: It got a score of 4,740 on Futuremark's PCMark Vantage test, which is better than some quad-core systems, and finished the Windows Media Encoder test in 48 seconds—great for a dual-core. Basically, the M58p should be more than enough for the average clerical or professional worker.—*Joel Santo Domingo*

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**SPECS** 3.16-GHz Intel Core 2 Duo E8500 processor, 2GB 1,066-MHz DDR3 SDRAM, 250GB 7,200-rpm SATA hard drive, 128MB Intel GMA 4500 integrated graphics, dual-layer DVD±RW drive, eight USB 2.0 ports, Windows Vista Business.



## PERFORMANCE TESTS

▲ High scores are best. ▼ Low scores are best.  
Bold type denotes first place.

	PCMARK VANTAGE* ▲	3DMARK VANTAGE*	WINDOWS MEDIA ENCODER ▼ min:sec	CINEBENCH R10 ▲
<b>Lenovo ThinkCentre M58p Eco Ultra Small</b>	<b>4,740</b>	N/A	<b>0:48</b>	<b>6,626</b>
<b>Acer Aspire X1700-U3700</b>	3,692	2,523	1:16	4,816
<b>Apple Mac mini (Nvidia GeForce 9400M)</b>	3,094	<b>3,215</b>	1:22	4,545

RED indicates Editors' Choice. N/A—Not applicable: The product could not complete the test, or the test was not compatible. \* Resolution was set to 1,024-by-768 for this test.



Epson WorkForce Pro GT-S50

# Super Small-Biz Scanner

**E**pson has a long history of selling scanners—primarily photocentric flatbeds. The GT-S50 is different, as it's neither photocentric nor flatbed. It's small enough to fit on a desktop to use as a personal sheet-fed document scanner, yet heavy-duty enough—with a 75-page automatic document feeder (ADF)—to handle all of the scanning in a typical small office or workgroup. It's an impressive offering for the price, and a clear statement of how serious Epson is about its newfound interest in the small office.

Physically, the GT-S50 is typical for document scanners in its price range. It measures 8.4 by 11.9 by 8.0 inches (HWD) with the input and output trays closed. It also comes with a full set of drivers for Windows and Mac OS X, and Epson includes an assortment of programs, including Abbyy FineReader 6.0 Sprint Plus for optical character recognition, Nuance ScanSoft PaperPort Special Edition for document management, and NewSoft Presto! BizCard 5 SE for business cards.

The scanner itself, however, is far more impressive than the software. I timed it scanning to PDF image files at 22.7 ppm and 45.5 ipm. That's a little slower than I expected based on the ratings, but still fast enough to



## Epson WorkForce Pro GT-S50

\$499.99 direct



**PROS** Fast scans. Duplex scanning (both sides at once). ISIS and Twain drivers let it work with virtually any scan program.

**CONS** Customizing the scan utility is a bit hard to learn. Business-card scanning is below par.

earn lots of praise. Epson also merits praise for putting a 16-character LCD menu on the front panel. Although the software can be tricky to locate and use, the GT-S50 is still way more than you'll get from most scanners at this price.—*M. David Stone*

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**HP Officejet Pro 8500  
Wireless All-in-One**

\$399.99 direct



**PROS** Extraordinarily fast for business applications. High-quality graphics and photos. Low cost per page.

**CONS** Relatively slow for photos. Text quality merely par for an inkjet.



HP Officejet Pro 8500 Wireless All-in-One

# Wicked-Fast Biz AIO



As one of the few inkjet all-in-ones (AIOs) that are aimed squarely at the small office, the HP 8500 stands apart. In fact, its combination of speed and office-centric features makes it a competitor less to other inkjets than to inexpensive color laser AIOs. Small enough to serve as a personal printer in any size office, it offers more than enough capability for a shared AIO in a small office as well.

The 8500—at 13 by 19.5 by 18.9 inches (HWD) and 28 pounds—can print, scan, and fax, even over a network. And it works as a standalone copier, fax machine, and e-mail sender, complete with a 50-page automatic document feeder (ADF). Even better, both

the printer and ADF can turn a page over to print on or scan both sides. Despite its office emphasis, this printer also offers some photocentric features, including the ability to print directly from PictBridge cameras and memory cards, as well as preview photos on the 3.4-inch LCD before printing.

In testing, I timed the 8500 on our business applications suite at a total of 7 minutes 23 seconds—a new record for an inkjet AIO. Output quality is acceptable for text and impressive for graphics and photos. The 8500 is also one of the first printers to qualify for our GreenTech Approved seal, being RoHS and REACH compliant. Add up these attributes and you have an easy pick for Editors' Choice.—*M. David Stone*

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## HEAD-TO-HEAD

# Battle of the Budget D-SLRs

**F**or professional photographers, price is no object. But for the rest of us, price can be a giant immovable object. The high price of D-SLRs used to be the barrier that kept them out of the hands of hobbyists. But those days are past. A new generation of D-SLRs is here—and they're affordable. Which one is best for you? Here we compare two of the top affordable D-SLRs that we've put through their paces at PC Labs—the Canon EOS Rebel T1i and the Nikon D5000.

## Canon EOS Rebel T1i

Offering image quality and a robust feature set typically found in pricier prosumer-level D-SLRs, the T1i is a definite game-changer. For less than \$1,000, you get 15.1 megapixels and a big, high-res VGA screen, along with high-definition video capture.

The T1i measures a smallish 3.8 by 5.1 by 2.4 inches (HWD) and weighs just 1.6 pounds, but it feels sturdy nonetheless. And navigating the T1i's menu system is simple. The show stealer, though, is the stunning 3-inch LCD, packing 920,000 pixels.



## Canon EOS Rebel T1i (with EF-S 18-55mm IS lens)

\$899.99 list



**PROS** Excellent value. Stellar image quality. Fast performance. HD (720p30) video capture. Big, 3-inch high-res (VGA) screen. HDMI-out.

**CONS** Cannot continuously focus during video recording (user must hold down a button to refocus if subjects change their distance from the camera). Autofocus mechanism is audible in video recordings. Full HD 1080 video capture looks sluggish due to its low frame rate. No microphone input.

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## Nikon D5000

\$729.95 direct (body only)



**PROS** Excellent value. Stellar image quality. HD video capture. LCD screen rotates and swivels. HDMI out.

**CONS** Can't automatically refocus when shooting video. No micro-phone input. Low-res screen compared with competition. Proprietary USB port.

[CLICK HERE FOR MORE](#)

On our tests, the speedy T1i powered up and snapped off a picture in an average of 0.68 second, while the D5000 took a comparably lengthy 1.37 seconds on average. The T1i delivered stellar images in good lighting conditions, and there was no visible noise in photos taken in low-light situations. In fact, my only gripe about the T1i is the limited zoom of the included lens (18 to 55 mm). High-definition (720p30) video capture looked marvelous, but the T1i's video mode can be quirky. Still, the T1i is, overall, a big step up from entry-level D-SLRs and a great choice.

## Nikon D5000

The 12.3-megapixel Nikon D5000 is a terrific buy, offering the image quality of a more expensive D-SLR. Not only does this camera shoot beautiful images under most lighting conditions, but it can also capture high-definition video, and its LCD is mounted on a rotating, swiveling arm.

Although it's a bit smaller than a prosumer D-SLR, measuring 4.1 by 5 by 3.1 inches (HWD) and weighing 1.3 pounds, the D5000 looks and feels professional. Like the T1i, the D5000 comes with an 18-to-55mm VR lens. The 2.7-inch Live View LCD is versatile, but it's only 230,000 pixels. As for speed, the D5000 outpaces the T1i in some areas (such as capturing 4 frames per second instead of the T1i's 3.5 fps) but lags in others (such as boot time). Image quality was impressive, but the D5000 didn't do as well as the T1 on sharpness in low-light shots.

## The Winner

Both the T1i and D5000 are very solid cameras, offering features galore, beautiful images, and HD video for less than \$1,000. If you already own Nikon lenses, the D5000 is a no-brainer. But for those who don't have a brand allegiance, I have to recommend the T1i for its higher resolution and sharper LCD.—PJ Jacobowitz





### Samsung Alias 2 SCH-u750

\$79.99–\$259.99 list



**PROS** Innovative e-ink keypad technology. Flips two ways for easier dialing and texting. Solid call quality.

**CONS** Subpar e-mail app and Web browser. No user-customizable keypad shortcuts.



### Samsung Alias 2 SCH-u750

# Verizon's Magical Morphing Phone

**T**he Alias 2 texting phone is the first to use e-ink (the same technology used in the Amazon Kindle) to create a “magic” keyboard that automatically changes depending on what you’re doing. This is a huge breakthrough: It’s more usable than a touch keypad and more flexible than a fixed physical keyboard. If only Verizon’s texting, e-mail, and Web-browsing software were better, this would be a terrific Internet phone. As it is, it’s currently the best bet for heavy texters on Verizon.

The Alias 2 shares its wacky dual-flip design with Samsung’s original Alias, but otherwise, it’s better in every way. Still a huge phone at 2 by 4 by 0.7 inches (HWD) and 4.3 ounces, it’s now dressed in sober gray. On the front, there’s a 2-megapixel

camera and a dim but full-color 1.3-inch, 128-by-128-pixel screen with touch buttons below. Flip the phone open for a big 2.6-inch screen and a keypad, a four-by-ten-key grid of small, bubbled square keys that change depending on what you’re doing. The e-ink ensures they look perfect in any light. Close the phone and flip it open sideways: The grid is now ten across and four down, but the keys are right side up! Hit the ABC/123 button and the numeric keypad changes into a QWERTY keyboard.

Overall, the Alias 2 is a solid voice phone. It gets good reception, and the earpiece is loud and doesn’t distort. Thanks to its versatile e-ink keyboard, the Alias 2 is the best texting phone in Verizon Wireless’s lineup right now.—*Sascha Segan*

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**TomTom GO 740 LIVE**

\$369.95 list



**PROS** Integrated data connection for live traffic updates, weather, and fuel information. IQ Routes. Advanced lane guidance.

**CONS** Live services require a monthly subscription after three-month trial. Many voice functions also require touch-screen input. Relatively small internal POI database.

**TomTom GO 740 LIVE**

# TomTom's Connected GPS

**C**onnected devices, which integrate a cellular radio for up-to-the-minute data delivery, haven't had an easy time establishing themselves in the GPS market.

Take, for example, the Dash Express and TeleNav Shotgun. But TomTom's new GO 740 LIVE, the first connected device from a veteran manufacturer, remedies many of the problems of those earlier devices.

Arguably the most important component of the 740 LIVE, the built-in GPRS cellular radio provides a two-way data link without the need of an external antenna. This means the device can receive real-time data updates anywhere you can get a cell signal. The radio enables a number of features not possible on standalone devices, including

TomTom Traffic, fuel pricing data, Google Local Search, and weather data.

Like the 730, the 5-by-3.9-by-0.9-inch, 7.9-ounce 740 LIVE is equipped with a 4.3-inch screen. With the exception of the connected features, the interface and menu system are virtually identical to those found across the TomTom line. In addition to the live services, the 740 adds enhanced voice recognition, although you still have to use the touch screen with it, which is not ideal. Other premium features include a Bluetooth phone interface, a document reader, and a photo viewer. Connected devices are likely the next generation of GPS navigation, and the TomTom GO 740 LIVE integrates the live service features well.—*Craig Ellison*

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### Palm Pre (Sprint)

\$299.99 to \$549.99



**PROS** Excellent design. Very cool interface. Synergy feature consolidates e-mail, contacts, and calendars. Syncs with iTunes just like an iPod.

**CONS** Very few third-party apps at launch. So-so reception. Short standby battery life. Limited IM apps.

3.1-inch touch screen slides to reveal a QWERTY keyboard



### Palm Pre (Sprint)

# Palm's Comeback Kid



Palm is back—and with the coolest handheld device we've seen in a long time. The Palm Pre has the same exhilarating sense of possibility as the iPhone—and it's even worth switching to Sprint for. Palm's webOS is an innovative operating system that's benefited a lot by what the company has learned from Apple's smartphone successes.

A glossy black oval that fits perfectly into a medium-size hand, the 4.8-ounce Pre measures 3.9 by 2.3 by 0.7 inches (HWD). There's a home button at the bottom of the phone in a black "gesture area" where you swipe your finger to navigate. But most of the device's face is a very responsive 3.1-inch, 320-by-480-pixel touch screen. Slide up the Pre's screen to reveal the QWERTY keyboard. The

back of the phone houses the lens for the 3-megapixel camera and the speaker. And you get 8GB of internal storage.

Like the iPhone 3G, the Pre isn't the best voice phone ever, but it's good enough. And like other smartphones, the Pre lets you load a bunch of e-mail accounts at once. One of the Pre's standout features is Synergy, which syncs the Pre's contacts and calendar for Exchange and Google. The Web browser is quick, easy, and iPhone-esque—with an integrated address and search bar. On our tests, the Pre turned in 4 hours 45 minutes of talk time and 4:15 of video-playback time. Simply put, the Pre is the best multimedia phone since the iPhone.—Sascha Segan

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**Sony Bravia KDL-46XBR8**

\$3,999.99 list



**PROS** Stellar picture contrast. Excellent color thanks to multicolored LEDs.

**CONS** More expensive than LCD models of similar size. Wider than most same-size HDTVs. Limited network multimedia capabilities.

**Sony Bravia KDL-46XBR8**

# A Picture-Perfect HDTV



A uniquely styled, energy-efficient, LED-lit LCD HDTV, the 46-inch Bravia KDL-46XBR8 takes HDTV picture quality to new heights and sets high standards for picture contrast and color reproduction. Multimedia mavens may find the set's features lacking, and it's priced higher than the competition. Still, this set's awe-inspiring picture is about as close to perfect as I've seen.

With thin, side-mounted speakers embedded in clear plastic, this Bravia is almost as wide as a 50-inch model. The dedicated Theater button makes it easy to switch to Cinema display mode, which optimizes settings for viewing in dimly lit rooms. The set supports playback of JPEG images and

MP3 music files from connected USB storage devices, but JPEGs are the only media format you can stream without the optional Bravia Link modules.

On our tests, the Bravia displayed every pixel in 1080p without any loss of detail from overscan. Its 720p video input via HDMI was also overscan-free. While most LED LCD TVs use only white, the Bravia employs clusters of red, green, and blue (RGB) LEDs for improved color performance—and its range of color reproduction is among the widest I've seen. This set also has the highest contrast ratio for a dark viewing environment I've ever recorded from an LCD TV: 4,330:1. Simply put, the sublime picture on this Bravia can't be beat.—*Robert Heron*

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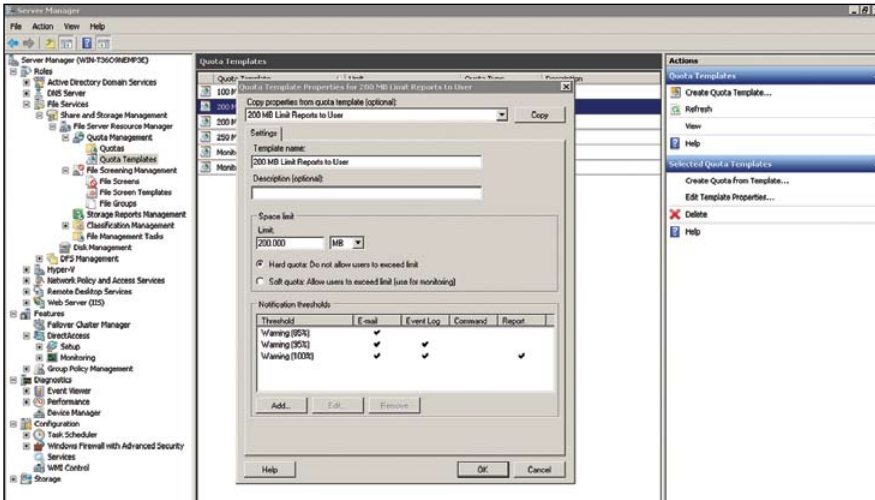
	SMARTPHONES	CAMCORDERS	STORAGE	MP3 PLAYERS
				
	<b>Nokia E71x</b> \$149.99 to \$299.99 direct ●●●●●○	<b>Pure Digital Flip UltraHD</b> \$199.99 list ●●●●○○	<b>Eye-Fi Explore Video (4GB)</b> \$99.99 direct ●●●●●○	<b>Samsung Q2</b> \$99.99 (8GB); \$129.99 (16GB) list ●●●●●○
PROS	<ul style="list-style-type: none"> <li>• Beautiful design</li> <li>• Excellent Web browser</li> <li>• Microsoft Exchange and document support</li> </ul>	<ul style="list-style-type: none"> <li>• Inexpensive high-definition recording</li> <li>• 8GB hard drive allows 2 hours of recording time</li> <li>• Sharp screen</li> </ul>	<ul style="list-style-type: none"> <li>• Lets you upload still images and video wirelessly from any SD camera</li> <li>• Simple setup</li> <li>• Intuitive software</li> <li>• Geotagging</li> </ul>	<ul style="list-style-type: none"> <li>• Excellent value</li> <li>• Touch-sensitive buttons are fast and very responsive</li> <li>• Well-designed, intuitive interface</li> </ul>
CONS	<ul style="list-style-type: none"> <li>• Poor camera</li> <li>• No 3.5mm headphone jack</li> <li>• No HTML e-mail support</li> <li>• AT&amp;T has removed many applications</li> </ul>	<ul style="list-style-type: none"> <li>• Captures only 720p HD video; no SD shooting setting</li> <li>• Relatively bulky</li> <li>• No expandable memory</li> </ul>	<ul style="list-style-type: none"> <li>• Pricey</li> <li>• Shortens camera battery life</li> <li>• Can sync with only one online account at a time</li> </ul>	<ul style="list-style-type: none"> <li>• Slightly large for a small-capacity player</li> <li>• Weak file support</li> </ul>
BOTTOM LINE	The beautiful and talented E71x is the best buy for a smartphone on AT&T, and it makes an excellent mobile office.	Like its smaller sibling, the Mino, the revolutionary Flip now shoots in HD. Not bad for less than \$200.	Taking a step past still-image uploads, Eye-Fi's Explore Video card offers beefed-up storage, video-sharing support, geotagging, and hotspot access.	If the Q2 offered more robust file support, it might really give the iPod nano a run for its money. Still, it's a great bargain.
SPECS	381-MHz processor; 2.4-inch, 320-by-240 LCD; 3.2MP camera; 4.4 by 2.2 by 0.4 inches (HWD); 4.4 ounces.	2-inch LCD; 8GB flash memory; 5.9 ounces.	Secure Digital; Wi-Fi enabled; WEP security.	Flash memory; FM radio; voice recording; FLAC, MP3, OGG, and WMA support; 2.4-inch screen; 3.9 by 2.0 by 0.4 inches (HWD); 2.0 ounces.
Product name in <b>RED</b> indicates Editors' Choice.				



HEADPHONES	BLUETOOTH	BLU-RAY PLAYERS	GADGETS
			
<b>Ultimate Ears MetroFi 170</b> \$49.99 list ●●●●○	<b>BlueAnt Q1</b> \$129.95 list ●●●○	<b>Sony BDP-S360</b> \$299.99 list ●●●●○	<b>GoWear fit</b> Armband only, \$199.95 direct ●●●○
<ul style="list-style-type: none"> <li>• Remarkable sound quality for the price</li> <li>• Strong bass response</li> <li>• Secure fit</li> </ul>	<ul style="list-style-type: none"> <li>• Attractive, minimalist style</li> <li>• Voice-controlled user interface</li> <li>• Effective noise canceling</li> </ul>	<ul style="list-style-type: none"> <li>• Excellent standard DVD upconversion</li> <li>• Very energy-efficient</li> <li>• GreenTech Approved</li> </ul>	<ul style="list-style-type: none"> <li>• Lightweight</li> <li>• Sophisticated sensors offer high accuracy</li> <li>• Detailed performance reports</li> <li>• Long battery life</li> </ul>
<ul style="list-style-type: none"> <li>• Can sound somewhat harsh in mid-to-high frequencies</li> <li>• Some cable thump; not the best choice for exercising</li> </ul>	<ul style="list-style-type: none"> <li>• Processed, unnatural voice timbre heard at the other end</li> <li>• Occasional UI glitches</li> <li>• Poor battery life</li> </ul>	<ul style="list-style-type: none"> <li>• Quick-start feature increases power draw</li> <li>• Optional memory required for BD-Live support</li> <li>• No streaming multimedia features</li> </ul>	<ul style="list-style-type: none"> <li>• Expensive</li> <li>• Monthly service fee is required to view results</li> </ul>
Ultimate Ears' latest earphones serve up solid sonic prowess, powerful bass response, and a secure fit—all for less than \$50.	The voice-controlled Q1 is a looker and a solid effort—but the competition has moved further ahead still.	Sony's most affordable Blu-ray player, the energy-efficient BDP-S360 delivers stellar picture quality with both high- and standard-definition discs.	When used in conjunction with diet and exercise, the GoWear fit system can help you get healthier—but it doesn't come cheap.
In-canal earbuds; passive noise canceling; 103-dB SPL maximum output; 0.4 ounce.	Voice recognition; 0.7 by 2.2 by 0.3 inches (HWD); 0.3 ounce.	Composite, component, HDMI, and Ethernet connections; supports up to 1080p24; 2.2 by 16.9 by 8.1 inches (HWD); 4.6 pounds.	USB connection; 1.6 ounces.

Visit [pcmag.com](http://pcmag.com) for the full reviews of these and other consumer electronics products.





## Windows Server 2008 R2

Free with Windows Server 2008 license; new R2 license pricing not yet announced.



**PROS** Huge enhancements in Hyper-V. New document management abilities in file services. Supports live migration of virtual servers.

**CONS** Making Clustering, Hyper-V, and DirectAccess could require advanced IT expertise.

## Windows Server 2008 R2

# A Significant Server OS Release



Typically, R2 server announcements represent the midpoint between major releases and thus are not very exciting. But this time, Microsoft has revealed several new features and big improvements in its release, including vastly improved Hyper-V support, an integrated document management system, the beginning of the end of the hated VPN, and much more granular backup support. These new features signal an aggressive move by Microsoft to entice companies of all sizes, and especially SMBs, to make the switch to Server 2008.

In R2, Microsoft has ramped up its Hyper-V virtualization to perform live migration so you can move virtual servers that are running in Hyper-V among multiple physical servers without dropping network connec-

tions or requiring any downtime. R2 now supports up to 256 logical processor cores and has enhanced its access to non-uniform memory access (NUMA) hardware, making it about 30 percent faster than the original release of Server 2008. There is also File Classification Infrastructure (FCI) document management technology, which can change the location of files or even delete them based on a classification that you define. R2 has replaced its VPN with DirectAccess (but only in a Windows 7 environment). And the backup feature has been enhanced to include individual files and folders, instead of only entire volumes (though there's still room for improvement here). All this adds up to an R2 release that's far from dull. In fact, it's an Editors' Choice.—*Mario Morejon*

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## Cisco Network Magic 5.5

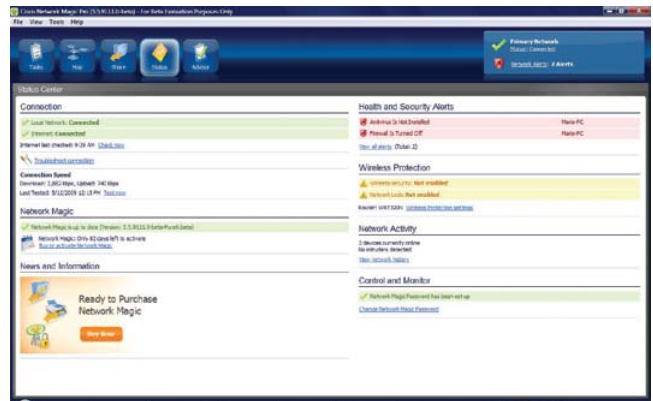
# Networking's Swiss Army Knife



Now in version 5.5, Cisco's Network Magic is an all-in-one solution for your home network. It provides information on all connected devices and helps prevent intruders from accessing your data or hogging your bandwidth. This new version integrates with some Cisco wireless routers and includes Trend Micro's Home Network Defender. Cisco has improved parental controls and has added support for 33 languages. This visually appealing and easy-to-use program does away with inscrutable techno-lingo and instead offers an accessible way to control your network. An added lure: Cisco has dropped the price by \$10.

As in previous versions, the software runs a scan of your network and displays a map of all connected devices. It also finds security weaknesses in your computer. The app's Map window displays potential intruder devices and maintains a history of disconnected devices. To the left of the Map, you'll find the Tasks tab, which offers simplified access to common Windows networking tasks, such as printer and file sharing.

The Status Center lets you view the health and security status of connected computers and track the activities of devices. The Status Center can also help troubleshoot net-



## Cisco Network Magic Pro 5.5

\$39.99 direct



**PROS** Excellent tool for learning about your home network. Easy way to share folders and printers. Displays a visual map of your network in real time.

**CONS** The router identification feature does not work with some routers, including some Cisco Linksys routers. The Help Center needs improvement.

work connections and even test the speed of your network on the Web. With Network Magic, you can also change your router's Wi-Fi security settings with the help of an HNAP (home network administration protocol) interface. Though HNAP is a good addition, there are still some bugs with this feature. But this is a small quibble with an otherwise excellent program that is well worth the price.—*Mario Morejon*

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Prevx 3.0

# Speedy, Tiny Prevx Detects More Malware



Most modern anti-malware utilities or suites include a large database of signatures to help them identify known malware. Some can't scan at all after installation until they perform a lengthy signature update. The database keeps growing as new malware appears at an ever-increasing rate. And, of course, zero-day malware may slip through before a signature becomes available. The better signature-based tools supplement their scanning with behavior-based detection of new threats. Prevx 3.0 turns this concept on its head. It relies on behavior-based detection as its first line of defense, and does a great job of it, too.

Since Prevx is only 800 KB, it downloads in a flash. Immediately upon installation, Prevx launches into a required "learning scan," which takes just a minute or so. During this scan, it checks the installed programs and other executables against the Prevx online database, identifying known good programs and flagging any malware. If the learning scan finds low-risk adware,

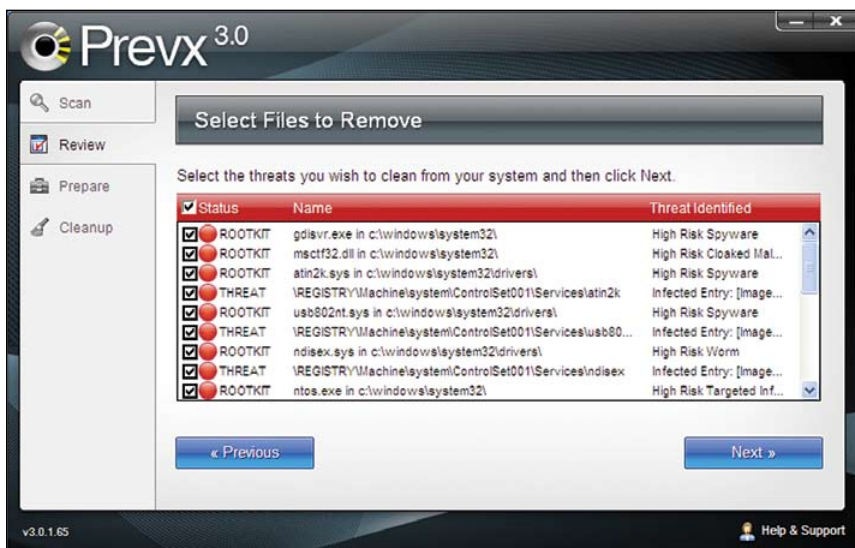
Prevx offers to clean it up for free. If it finds anything more serious, you have to purchase and enter a license key for a full scan. On a malware-infested system, this scan sometimes took 4 or 5 minutes. On a clean system, it ran in less than 2 minutes.

I installed Prevx on a dozen test systems infested with a wide variety of malware samples including viruses, Trojans, worms, adware, spyware, and scareware (rogue security software). In every case, Prevx required a reboot to finish cleaning up after the initial full scan. Prevx detected 94 percent of the threats, more than any other product tested with this same collection. On another test using commercial keyloggers, Prevx detected 90 percent of the threats.

Though designed to work comfortably with other security tools, it proved more effective overall than the top signature-based products. Its cloud-based malware detection is outstanding, though cleanup could be more thorough. Prevx 3.0 is our new Editors' Choice for antispware.—Neil J. Rubenking

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## SELECT FOR REMOVAL

With Prevx, you get the option to pick and choose which files the program should remove, but you'll almost always accept the default action of removing all.

## Prevx 3.0

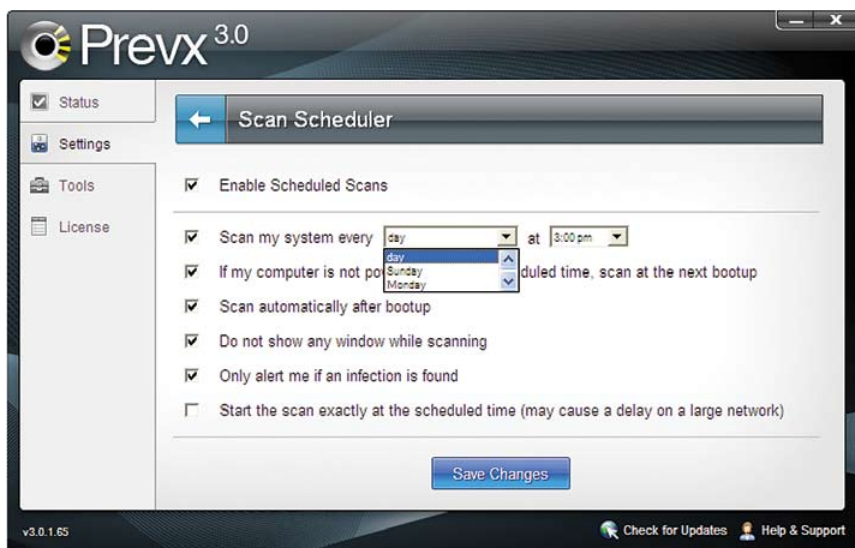
\$29.95 direct per year



**PROS** Minuscule download. Instant installation. Blazingly fast scan. Repeats scan until verified clean. Uses cloud-based behavioral malware detection. Replaces damaged system components. Detected the most malware in testing.

**CONS** Cannot function without an Internet connection. Cleanup left behind many file and Registry traces.

Hostname	Infection Details	Determination	Date Detected First Seen	File Size	Agent Volume				
Prevx3	MYNABSETUP(n).EXE	B	May 6 20:40	172,309		U			
	%cache%\		May 6 20:40	0					
Prevx3	TRQJAN.AGENT.GEN	B	May 6 20:40	173,277		U			
	SETUPPV(n).EXE		May 6 20:40	0					
	%cache%\		May 6 20:40	82,944		U			
Prevx3	Generic Dropper.xCodec	B	May 6 20:40						
	CBEVTSVC.EXE		Jul 21 16:21, 2006	2					
	%windir%\system32\		May 6 20:40	182,541		U			
Prevx3	EX_SETUP(n).EXE	B							



**SIMPLE SCHEDULE** In its default configuration, Prevx runs a full scan at each boot-up and daily at 3:00 p.m. You can change it to a weekly scan if desired.

# *World's first Core 2 Quad All-in-One PC.*



*iOne-GX31*

**To order your space saving iOne-GX31™ LCD PC Risk Free, call us at 888.834.4577.**

SPECIFICATIONS: 17" or 19" display | Intel® Core™ 2 Quad CPU | Up to 4GB DDR2/667MHz | Up to 750GB SATA HDD | 2x1Gb LAN | Internal Wireless LAN | Optional Touch Screen | Optional built-in Webcam | For a complete list of specifications, please visit our web site at [www.cybernetman.com](http://www.cybernetman.com).



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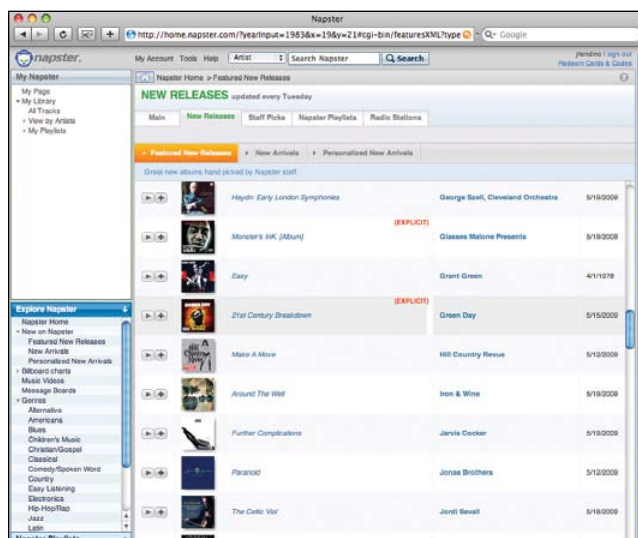
Napster (Spring 2009)

# Another Napster Makeover

After years of half-baked redesigns and a checkered history, Napster has relaunched yet again. This time you may find its offer difficult to ignore. For just \$5, you get a month's unlimited desktop music streaming *and* five DRM-free MP3 downloads. But before you jump ship for Napster, note that there are a few downsides, such as lackluster sound quality and lack of portable player support. Even so, this is easily the company's best offering yet.

To use Napster, you no longer need a downloadable client or plug-in for Windows Media Player; your account and music "collection" now both live online. There's no free trial, but the five MP3 downloads included in your \$5 per month mean that the streaming is in effect free. Longer plans—three months, six months, and a year—don't offer a price cut but do throw in bonus MP3s.

The interface hews closely to what you'd expect from an online music store, with a home page showing new arrivals and top 10s. The My Library | All Tracks view shows everything in your collection, and your playlists. The Explore Napster pane lets you browse artists, songs, and albums, as well as oodles of additional content. Alas, to play your music stream on an MP3 player, you'll



## Napster (Spring 2009)

\$5 direct per month



**PROS** Slick site redesign. Unlimited desktop music streaming with no playback restrictions. Five DRM-free MP3s per month. Plenty of music discovery options.

**CONS** Streaming sound quality could use improvement. Music streaming is heavily DRM'd and confined to desktop PCs. Some minor UI gaffes.

need to sign up for the more expensive Napster To Go service—\$14.99 per month. Also, the sound quality of streaming songs left much to be desired. But still, Napster has created an unlimited online music sandbox. If you don't need support for an iPod or other device, it's a killer deal.—*Jamie Lendino*

[>>CLICK HERE FOR MORE](#)



MOBILE APPS		SECURITY		
	<div>Google Sky Map (for Android)</div> <div>Free</div> <div><div><div></div><div></div><div></div><div></div><div></div></div></div>	<div>Peggle (for iPhone)</div> <div>\$4.99 list</div> <div><div><div></div><div></div><div></div><div></div><div></div></div></div>	<div>ThreatFire 4.5</div> <div>Free for personal use; \$29.95 direct for business</div> <div><div><div></div><div></div><div></div><div></div><div></div></div></div>	<div>Panda Cloud Antivirus 0.9 Beta</div> <div>Free</div> <div><div><div></div><div></div><div></div><div></div><div></div></div></div>
PROS	<ul style="list-style-type: none"><li>• Lets you scan the night sky with your phone</li><li>• Contains layers showing major celestial objects</li><li>• Search function helps you locate desired targets in the sky</li></ul>	<ul style="list-style-type: none"><li>• Easy to learn, hard to master</li><li>• Controls are very precise</li><li>• Saves and replays your best shots</li></ul>	<ul style="list-style-type: none"><li>• Fast install</li><li>• Fast scan removes root-kits</li><li>• Blocks malware by analyzing its behavior</li><li>• Works alongside existing anti-malware to enhance protection</li></ul>	<ul style="list-style-type: none"><li>• No signature database required</li><li>• Lightweight</li><li>• Attractive, simple user interface</li><li>• Detected almost all malware samples</li><li>• Effective against scareware</li></ul>
CONS	<ul style="list-style-type: none"><li>• Can be funky to navigate in auto mode</li></ul>	<ul style="list-style-type: none"><li>• Game play quickly drains the battery</li></ul>	<ul style="list-style-type: none"><li>• Makes user decide whether to allow potentially malicious unknowns</li><li>• Not enough information about behavior of unknowns</li><li>• Rootkit scan didn't clean up completely</li><li>• Can't detect social-networking attacks</li></ul>	<ul style="list-style-type: none"><li>• Can cause problems when suppressing malware that has hooked into valid programs</li><li>• Ineffective against root-kits</li><li>• Some user interface problems</li></ul>
BOTTOM LINE	Google Sky Maps is a neat piece of technology that turns your G1 Android phone into a detailed window on the night sky.	Games often lose something when they're ported over to a handheld platform, but Peggle only gets better.	This standard signature-based anti-malware utility catches most things that attack your computer.	This lightweight, attractive, free anti-malware tool uses no signatures. All malware detection occurs online. Panda still has a little work to do on this beta.



	PHOTOS		GAMES
<b>K9 Web Protection 4.0</b> Free 	<b>Fotki</b> Free; Premium, \$2 per month 	<b>Webshots</b> Free; Premium, \$19.99 per year 	<b>Donkey Kong Jungle Beat (Wii)</b> \$29.99 list 
<ul style="list-style-type: none"> <li>• Small, fast install</li> <li>• Cloud-based filter blocks objectionable sites</li> <li>• Full weekly scheduler for Internet access</li> <li>• Browser-independent and tamper-resistant</li> <li>• Filters HTTPS sites. Logs and categorizes all Web sites visited</li> </ul>	<ul style="list-style-type: none"> <li>• Visitor statistics</li> <li>• Geotagging</li> <li>• Free photo hosting for other sites</li> <li>• You can make money from your photos</li> <li>• Decent slideshows</li> </ul>	<ul style="list-style-type: none"> <li>• User interface is mostly well designed</li> <li>• Generous storage for free accounts</li> <li>• Download professional stock photography</li> <li>• Social-networking features</li> </ul>	<ul style="list-style-type: none"> <li>• Fun, fast-paced action</li> <li>• Inexpensive</li> <li>• New levels</li> <li>• Game play actually changes markedly from one level to the next</li> </ul>
<ul style="list-style-type: none"> <li>• No per-user configuration</li> <li>• Hard-to-read log omits username</li> <li>• Weak phishing protection</li> <li>• No IM control or monitoring</li> <li>• No e-mail notification</li> <li>• No remote management</li> </ul>	<ul style="list-style-type: none"> <li>• No editing software</li> <li>• No face recognition</li> <li>• No video uploads</li> </ul>	<ul style="list-style-type: none"> <li>• Ads in free accounts</li> <li>• No face tagging or geotagging</li> <li>• No image editing beyond rotate and crop</li> </ul>	<ul style="list-style-type: none"> <li>• No bongos!</li> <li>• The game is pretty easy to beat and doesn't seem worth the effort to try to max out the points</li> </ul>
<p>This parental-control utility lacks many features found in the competition, most notably the ability to define different settings for different users. But what it does do, it does well. If you can live within its limitations it's a good, free choice.</p>	<p>Fotki is a good place to host photos for your craigslist or eBay listing. It also offers a photocentric social network and photo contests.</p>	<p>Webshots is more about using your own and professional photographers' images to create extra-cost "projects" and connecting in a photo social network than about presenting and perfecting your own photos.</p>	<p>Even without its trademark bongo controller, Donkey Kong Jungle Beat is fun, and at this price it's a great deal.</p>

Visit [pcmag.com](http://pcmag.com) for the full reviews of these and scores of other software products.





JOHN C. DVORAK

# The Search Economy and the Tower of Babel

**S**ince the first Web crawlers appeared, it was obvious that the usefulness of the Internet would fully depend on whether you could actually find things there. We have enough trouble finding things on our own hard disks, sifting through hundreds of gigabytes for a memo. With the Internet, we're sifting through mountains of data scattered throughout the world.

Unfortunately, it's still not so easy to find what we need. It seems as if a reorganization of some kind would solve the problem, but one is not forthcoming.

What we need is a Dewey Decimal or LOC categorization methodology for the Net, and sometime soon. I only say this because at some point, no matter what Google and the other search companies think, the amount of information will overload their ability to search for it. And I do not mean in a small way.

Google manages to cache the entire Internet on boatloads of PCs and searches within the cache to find what you want. All

its methods are not obvious and most are proprietary, but the system was modeled after Alta Vista, with a few twists. The company has arguably the most Web crawling robots, constantly scanning everything it can find and storing it someplace or other where it can be more quickly searched.

Anyone can kind of do this with various spiders and crawlers available online. Just spidering one elaborate site can take hours. It's actually amazing what the big three—Google, Yahoo, and Microsoft—have accomplished regarding this sort of activity.

But we have to ask ourselves: At what point does the information overload all the systems within the crude framework used today by the search companies?

The fact is, there is nothing on the search horizon that can solve the developing problem of page overload. Today when I search for something other than a playoff schedule of sporting events, I always assume that I am not getting the definitive result—that piece of information lurking on some .edu site that would answer my question precisely.

# There is nothing on the search horizon that can solve the developing problem of page overload.

I just know the results from any given search nowadays are second-rate.

And this problem is being further hampered by Google, specifically, trying to outguess me with built-in assumptions if I happen to be signed in to the site for whatever reason. Microsoft bribes you to sign in with a cash bonus. Then it mucks about with the search results, assuming that the only reason anyone goes on the Internet is to buy something.

Then again, perhaps the search engines may as well throw in the towel and focus on merchandising. Why not? It's hopeless because of another, less-discussed fact of life: information redundancy. I've been pointing out to newspaper executives whenever I can the real reason news organizations are failing: redundancy. One thousand newspapers with the exact same story is not a sustainable business model for 1,000 companies.

The Internet is where redundancy runs amok. If you wanted to read a definitive history of the Civil War, how would you find it? Someone would have to tell you the author in advance and then maybe you'd at least find a reference. But if you had the name of the author already you probably would not be needing the search engine except perhaps to narrow down a detail about the book. Even this is difficult today as commentators about the book clog up the results.

And let me stop here to say, I do not have an answer to this problem or I'd be working on it in my spare time. I think the library science folks—aka librarians—have a shot at fixing this since they've done it before. But I'm not hearing much coming from that camp. Perhaps they have a solution ready but cannot shout loud enough.

The irony to all this information overload and background noise is that we now must depend on one of the most old-fashioned and limited mechanisms to get information: the encyclopedia. In the case of our world this means the self-generating Wikipedia—an elaborate, self-policing mechanism that can only be defined as a fantastic resource and repository for much of the world's knowledge and a source of information that simply cannot be trusted.

And while it can't be trusted, it is right most of the time. What a fine mess we've developed for ourselves.

As the mountains of useless details, spam, and redundant data grow and grow, it's apparent that it will all blow up and we'll have access to less, not more real information.

In short, we are witnessing the Tower of Babel phenomenon right before our eyes. And note that the Tower of Babel story did not turn out all that well for the participants.

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**DVORAK LIVE ON THE WEB** John's Internet TV show airs every Wednesday at 3:30 ET on **CrankyGeeks.com**. You can download back episodes whenever you like.





# Dvorak's In

**Will It Ever End Dept.:**  
**W** Every time I think about getting some new hot flat-panel TV, I read about yet

**another variation** in the connectivity game. Now it's HDMI 1.4. I thought HDMI was done already. I must now assume that there will be an HDMI 1.5, HDMI 2.0 and eventually an HDMI 3.0. Who needs this aggravation? It's a TV set!

This new standard will, among other things, allow for the transference of **3D content**, which many experts think will be the next big thing in home entertainment. Since I'm old enough to have seen 3D come and go and come again as a fad, I'm not convinced. I do not like the idea of wearing special glasses to view 3D, and the standalone (no glasses required) technology is blurry and kind of creepy.

**Here comes the latest iteration of power-line networking.** It's the 1-Gbps G.hn now promoted by the HomeGrid forum. This time it may all come together. Until now a slew of **incompatible technologies** have been working against each other, thus preventing any real traction with home power-line networking.

Essentially power-line networking has tried to use the home power wiring to overlay network signaling. But the various

technologies from PNA to HomePlug (and the HomePlug-incompatible variations) have simply confused users. And, more often than not, if you try to mix and match the technologies, **it all stops working.**

The HomeGrid Forum and the ITU (International Telecommunications Union), the official developers of the G.hn standard, hope to **unify all the technologies** before year's end. This will include a very high speed with automatic frequency notching to accommodate any nearby ham radio folks who have, until now, complained bitterly about all the network signaling noise that emanates from electrical wiring. This is specifically in the 2-to-30-MHz frequencies used by these systems. The HomeGrid folks will not only fix the power-line issues but hope to **consolidate all wired networking** from coax to Ethernet under the same unified umbrella, somehow.

G.hn should make home networking more ubiquitous, allowing for **HD media distribution** and home automation. **Intel is all over the G.hn scene** in hopes of selling its chips, and it looks as if it is going to make **processors for mobile phones**, too. Once the Apple iPhone showed everyone that a new platform had emerged, a market for phone CPUs opened up. Right now ARM owns the market, with Qualcomm appearing too.



# sideTrack

Current mobile phones are selling at a clip of about **1.2 billion phones per year** (cripes!), and most observers believe smartphones will soon sell at a 500,000-handset-per-year rate. That's a lot of CPUs.

If you are trying to analyze the direction Intel is taking, look no further than its **acquisition of Wind River**, the embedded software company. Wind River has much of its team working on Android. Intel is headed into the **Android camp**. Whether it can bump the ARM chip from the iPhone remains to be seen.

The long-term question remains whether or not the **handset of the future** will have any relationship to the x86 instruction set. Personally I hope not, but I'm betting that at some point **AMD will do an x86 phone CPU** if Intel does not.

Historically, and ironically, AMD **has been the actual keeper of the x86 faith**. Intel would have loved to have seen the x86 die with the original Itanium but could not manage it since the x86 legacy is so powerful a force. It's like the uncle who overstays his welcome.

Meanwhile, both ARM and Qualcomm are doing what they can to **get onto netbooks**. Intel won't like that, either. And now it looks as if **Microsoft will tolerate only so much diversity** and has made it clear that Windows 7 will not be coded to run on a

netbook with an ARM chip. Do you recall the era when Microsoft was trying to have Windows NT run on any chip, including the DEC Alpha? I guess those days are over.

**Computex Redux.** Just as Intel settles a dispute with Psion over the term *netbook*, a bunch of competitive chip makers including Freescale, ARM, and Qualcomm have decided that they will **coin the term smartbook** and hope to differentiate it from netbooks. The smartbook, a term that I doubt will catch on since the public is still absorbing *netbook*, will be smaller, lighter, and cheaper and will have a longer battery life. It also will run Linux.

The problem with the term *smartbook* is that it doesn't work on a lot of levels. First of all, **the word smart is a throwback to the 1990s**, when suddenly there were "smart phones" and "smart cars" and magazines with "smart" in their titles. Whoever dreamed this up should check the calendar. So now we have a smart book? What does that even mean? And what the heck makes it "smart" in the first place, and what makes it smarter than a laptop? Worse, I keep **thinking of the Kindle** when I hear it used. That actually is a smartbook.

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**WANT MORE DVORAK?** John writes a weekly column for our Web site, too. Log on to [go.pcmag.com/dvorak](http://go.pcmag.com/dvorak). You can also e-mail him at [john\\_dvorak@pcmag.com](mailto:john_dvorak@pcmag.com).





SASCHA SEGAN

# I Want My Meme TV

**B**roadcasters are all over the airwaves talking about the new digital TV conversion, but they are leaving out the best part of the story: It makes TV a lot more interesting. Unlike most New Yorkers, I don't have cable. I have a Winegard SS-3000 antenna connected to my TiVo, which brings me beautiful high-def programming over the air, including lots of subchannels you won't get without digital. (All free of monthly subscription fees, by the way.) Before the switch, I watched a half-hour FOX public service spot on the digital TV transition. It didn't mention the enhanced channel options once. That's a pity.

Broadcasters are selling themselves short by downplaying their digital subchannels, a by-product of the DTV transition that could let them compete more aggressively with cable and the Internet. Digital TV is much more efficient than analog TV. So where you used to have just Channel 13, you can now have 13.1, 13.2, and 13.3.

## Using the Subchannels

Digital subchannels are controversial among video geeks because without them,

broadcasters could offer a single stream of super-duper HD quality. That's true, but I think having one decent HD channel plus some new, experimental ED/SD programming options is even more exciting.

In some cities, broadcasters are using these extra channels to add network TV that those metros never had before. Wheeling, West Virginia, is getting its first ABC station on a digital subchannel. In Texas, some channels broadcast high school football on their digital subs. PBS uses the subchannels well to offer multiple streams of programming. The ION TV channels (such as 31 here in New York City) carry Qubo, a 24-hour kids' programming channel. And some stations will be using a digital sub next year to broadcast TV to mobile devices using the new Mobile DTV standard.

But few stations advertise these new channels. Even worse, many stations squander their digital subchannels. Some use valuable spectrum to carry dull, static 24-hour weather feeds, banal infomercials, or mind-numbing home-shopping networks.

Broadcasters could use the digital subs to offer a wider range of programming. To some extent, they're handicapped by pro-

## Broadcasters could use digital subchannels to offer a wider range of programming.

grammers' arrangements with cable companies—nobody's going to offer ESPN free when people are already paying for it. But that just means broadcasters should get creative. And it means the Internet can finally give back to television.

Broadcasters should start by sponsoring a broadcast-friendly, subscription-free DVR box, something like the Dish Network DTV-Pal, but one that works.

### Bring the Web to the Airwaves

As an experiment, let's give 4chan a TV channel. If you don't know 4chan, it's a set of message boards that have been the source of way too many Internet memes, including lolcats, Rickrolling, and various other creative image and video pranks. Hire some adult supervision to prevent crippling FCC fines, but let's stream some memes over the airwaves. Why not? After all, the runner-up on this year's America's Next Top Model was originally famous on the meme-breeding Web site. Internet culture and pop culture aren't far apart at all.

If that's too edgy for you, Fox owns MySpace. The MySpace Music Channel could have 24 hours of videos from unsigned folks with MySpace pages, broadcast on Fox-owned TV stations. That could draw in some big-name competitors: The YouTube Channel, even CollegeHumor.

Networks have extra content for their shows that they put online as Webisodes.

Let's broadcast them. The BBC caught on to the whole broadcasting-Webisodes idea years ago, when it started putting "making of Doctor Who" specials on BBC3 right after the main program aired on BBC One. We should follow.

### Open the Gate

Is none of that appealing? Let's throw the gates open to public access. Make the broadcasters their own YouTube; anyone who submits a video file gets a chance on the air. Glorious randomness. So how do we make the good stuff bubble to the top? We introduce voting.

The goal here is for everyone to win. Broadcasters can start fighting back against the wealth of options offered by cable and the Internet. Consumers would get free programming options with no subscriptions required.

Right now, many TV stations are offering the worst of all possible worlds—HD channels transmitting at less than the maximum bit rate, with lackluster subchannels nobody really wants to watch. As broadcasters adapt to the most revolutionary change in TV since the late 1940s, let's have them embrace a revolutionary, pioneering spirit in television programming as well. I want my Meme TV!

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**STAY PHONE-SMART** Keep up with the latest on smartphones by reading Sascha's column at [go.pcmag.com/segan](http://go.pcmag.com/segan).





DAN COSTA

# It's a Great Time to Be in Publishing!

**D**espite reports to the contrary, this is a great time to be in publishing. I don't mean to make light of the countless media layoffs, paper-thin magazines, anemic advertising revenue, risk-averse book publishers, or a once-venerable newspaper industry that seems to be printing more pink slips than papers these days. And, yes, I too am worried about my media job. Still, when I think about the vast array of new opportunities—the e-book platform, on-demand publishing, customized editorial, mobile commerce platforms, and an ever-growing global audience of sophisticated readers—I see a thriving industry in the making. Publishing will survive. It just won't look anything like what we're used to.

## **E-Books: Books, but Better**

My love of books is what drives my interest in e-book readers. There's no denying the appeal of the clarity of the printed word, the crisp sound of a page turning, or the musty smell of an old edition. Still, e-ink is an

impressive technology, and e-book readers are superior to traditional tomes.

Being able to store, carry, search, and annotate an entire digital library has had a huge impact on how we read. What's the one book you would want on a desert island? Since most desert islands have electricity and Sprint EV-DO these days, I'd just bring a Kindle loaded up with 1,500 titles.

## **People Read More than Ever**

It seems as if we've been reading about the decline of reading for years. It simply isn't true. People read more now than ever, and they write more, too. I grant that we're probably reading fewer newspapers and novels. And, sure, this is a bad thing. People just don't read the same way they once did; Stanza for the iPhone has been downloaded more than a million times, and that's just one of many e-book reader apps for one device.

Computers have made interacting with text an increasingly large part of our lives. No longer do we need to run to the newsstand, slap down some cash, and pick up a



# It seems as if we've been reading about the decline of reading for years. It simply isn't true.

publication. Now, we simply go to the Web site, where the same content is often free. In fact, we're rarely *not* reading: On my train commute this morning, eight out of every ten people were reading. So what if the majority of them were doing it on a phone? It still counts. And the new publishing industry (authors, editors, Web producers, and designers) is providing the content.

## Digital Distribution Is Cheap

Every time I talk to print publishing folks, they tell me how awful it is that words and text move around the Web so easily. Rarely do I hear any appreciation for how many more readers words reach in this way. While I'm writing this, the top story on Google News about Supreme Court nominee Sonia Sotomayor is from New Jersey's *Star-Ledger* newspaper. It will be read by hundreds of thousands of readers across the globe, in addition to a few thousand in the paper's home state. Going from regional paper to global publisher has a huge upside.

## There's Money to Be Made

Not long ago, I wrote about my firm belief in the free Web. That *Star-Ledger* story would be practically invisible and largely irrelevant if it were locked away behind a pay wall that requires users to buy a subscription. But that doesn't mean that publishers have to give up on making money. Targeted advertising works, but there are other options. Nar-

row, premium niches could still be served by subscriptions: I could imagine paying for the *New Yorker* but probably not the *New York Times*, since I can get the same news online from any number of outlets. And publishers don't have to be absolutist in this regard. Successful tech blog GigaOM just announced it will offer GigaOM Pro, a premium, \$79-per-year service. Some niches can have it both ways.

## More than Ever, We Need Filters

Above all else, the publishing industry needs to embrace its role as a filter. Anyone who reads on the Web is exposed to thousands of links every day. Throw in RSS feeds, news aggregators, and a few Google searches, and we're swimming in a sea of information.

Despite the length of this column, every word that comes into my head doesn't get published; my editor curbs my verbosity, and even then, my time on the PCMag.com home page is limited. The digital world may be awash in information, but there's huge demand for editing, curating, and artful presentation. In other words, publishing. Author and blogger Steven Johnson has suggested this filtering service could save the newspaper industry, but that's just a start.

If the economic crisis has taught us anything, it is that the media business, like most businesses, could use a little editing.

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**TALK BACK TO DAN** E-mail your thoughts to [dan\\_costa@pcmag.com](mailto:dan_costa@pcmag.com).



# 2009 Windows Utility Guide

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**W**indows, in its myriad forms, remains the most used operating system around. So it's no wonder that an enormous number of developers create utilities for it—programs that improve on, replace, or insert functions that Windows got wrong or completely lack. Not to mention all the functions that can be done on data, from documents to photos to music to videos.

We've gathered our favorites of the year here, most of which cost nothing. And many of them are also portable, so you can easily put them on a USB flash drive to use on any Windows system, anywhere you go. All of them work with XP and Vista unless noted, and many claim to work with Windows 7, too. If your favorite was left off our list, visit our AppScout blog to let everyone know!—*Eric Griffith*



Make your Windows desktop look like a regular three-dimensional desk, complete with piles (representing files) you can toss around or flip through and walls you can stick things to. Works with Windows XP, Vista, and 7. [Free; Pro edition, \\$29](#)

back and forth from menus to ribbon whenever you want. [Free](#); [\\$13.50 for businesses](#)

**Vista Start Menu** [www.vistastartmenu.com](http://www.vistastartmenu.com)

Vastly improve the look of the Start Menu in Windows and get faster access to just about all aspects of the OS with this replacement menu tool. It's also accessible from the system tray. [Free](#); [Pro edition, \\$19.99](#)

**WinRoll** [www.palma.com.au/winroll](http://www.palma.com.au/winroll)

Right-click the title bar of any window and you can roll the window inside of it, and do the same to all open windows at the same time. [Free](#)

## BACKUP/SYNC

**Carbonite** [Carbonite.com](http://Carbonite.com)

Carbonite monitors important files and backs them up online for future restoration, should you need it. It also provides remote file access, so you can access your data from any computer. [\\$54.95 per year for unlimited space](#)

**Cucku Backup** [www.cucku.com](http://www.cucku.com)

Why back up to extra storage or online when you can stash files with friends? This social-backup tool sends encrypted files to storage you share on your buddies' PCs using Skype's file transfer abilities (without Skype, Cucku handles only local storage). You, of course, should share back. [Free](#)

**DrivelImage XML**

[www.runtime.org/driveimage-xml.htm](http://www.runtime.org/driveimage-xml.htm)

This utility will create a disk image even

while the PC is in use (using Microsoft's Volume Shadow Services feature). Later you can restore a drive entirely, or browse that image to retrieve select files. [Free](#)

**DriverMax** [www.innovative-sol.com/drivermax](http://www.innovative-sol.com/drivermax)

Use it to back up hardware drivers, then restore them after a fresh nuke-and-reinstall of Windows. DriverMax will even check for driver updates. [Free](#)

**Dropbox** [www.getdropbox.com](http://www.getdropbox.com)

The darling of the world of online sync is Dropbox: Put all your files in the My Dropbox folder and they're immediately stored online; set up the software on other computers (even Macs and Linux PCs) and the files synchronize whenever changed. [Free for up to 2GB; Pro plan, \\$9.99 per month or \\$99 per year for 50GB](#)

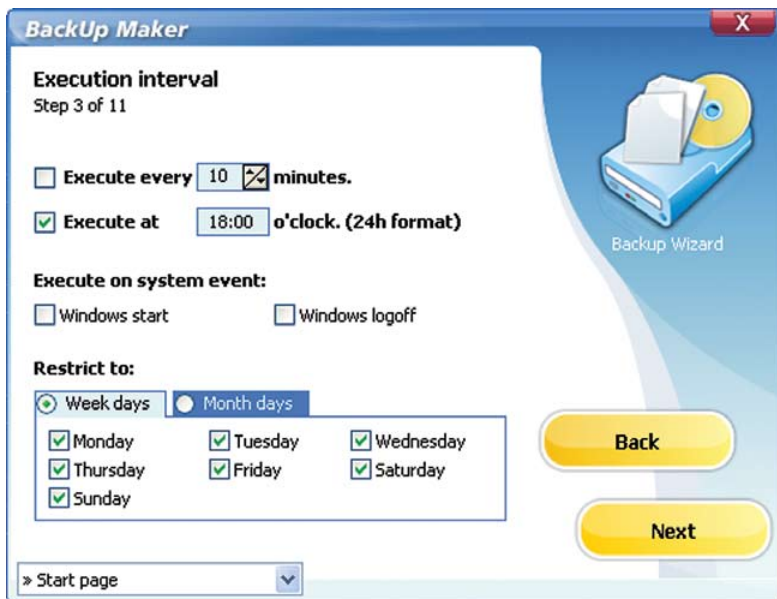
**HDHacker** [dimio.altervista.org/eng](http://dimio.altervista.org/eng)

On start-up, your PC looks for the master boot record (MBR), typically the first sector in the first partition of the disk. The MBR reads the partition table that tells your PC where the OS is—it's essential to booting properly, in other words. Make sure your PC's MBR is backed up so the PC is always bootable. HDHacker will back up and restore the MBR instantly when you're in Windows. [Free](#)

**MozyHome** [mozy.com/home](http://mozy.com/home)

Running completely in the background, MozyHome monitors folders you specify, and when all is idle on your PC, it backs up





BACKUP/SYNC

## BackUp Maker

[www.ascomp.de/index.php?php=prog&prog=backupmaker](http://www.ascomp.de/index.php?php=prog&prog=backupmaker)

This simple interface might make all the difference for average users saving their data. It sends files to another drive (including USB drives), a CD/DVD, or an FTP site. It also handles file restoration if you lose something. Works with Windows 7. [Free](#)

those files into the cloud. Dead simple. [Free for 2GB; \\$4.95 a month for unlimited space](#)

## OffiSync [offisync.com](http://offisync.com)

If you're a big user of Google Docs and Apps but can't get away from Microsoft Office (or vice versa), OffiSync combines both worlds. Manage and open all your Google Docs files from Office apps, and store all new Office documents online so you can access them anywhere with Google Docs. [Free](#)

## SyncToy 2.0

[www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=c26efa36-98e0-4ee9-a7c5-98d0592d8c52](http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=c26efa36-98e0-4ee9-a7c5-98d0592d8c52)

A Windows XP PowerToy that also works fine with Vista, SyncToy does a good job of making sure folders on your system are synchronized with their counterparts on external drives or network-attached storage. [Free](#)

## SyncBackSE [www.2brightsparks.com](http://www.2brightsparks.com)

A perennial fave, SyncBackSE is the mid-

range utility in 2BrightSparks' line of backup tools, complete with file versioning, smart two-way sync between folders, auto-start at log-in, and more. If you want even more features, like backup to single or multiple CDs or DVDs, try the Pro version. [\\$30; Pro version, \\$49.95](#)

## COMPRESSION

### 7-Zip [7-zip.org](http://7-zip.org)

Compress files in ZIP or 7z format (and get AES-256 encryption), *and* get support to compact or unpack formats from CAB to RAR. [Free](#)

### PortableApps.com AppCompactor

[portableapps.com/apps/utilities/appcompactor](http://portableapps.com/apps/utilities/appcompactor)

If you like running apps from a USB flash drive but your drive doesn't have lots of room, turn to the AppCompactor. This program will compress apps as much as possible (how much varies depending on the app) to fit your drive and still function. [Free](#)

### **SecureZIP Desktop** [www.pkware.com](http://www.pkware.com)

This PCMag.com Editors' Choice is all about the ZIP format, because it's from the creators of the ZIP format. It does everything an archive manager should, such as integrating with MS Office and Outlook. **\$39.95**

## **DISK UTILITIES**

### **Defraggler** [www.defraggler.com](http://www.defraggler.com)

Why defragment an entire drive? Defraggler is one of the few tools that allow drag-and-drop of individual files or folders for defrag work. **Free for home or business**

### **Easeus Partition Master Home Edition**

[www.partition-tool.com/personal.htm](http://www.partition-tool.com/personal.htm)

Resize, copy, or create new disk partitions from within Windows (2000 up to Vista, 32-bit only with Home Edition). It can convert existing partitions from FAT to NTFS on drives up to 1.5 terabytes in size. **Free for home use**

### **FileAlyzer** [www.safer-networking.org/en/filealyzer](http://www.safer-networking.org/en/filealyzer)

Learn just about every property of files on your system when FileAlyzer analyzes them. Seriously, it's a lot of info. **Free**

## **DISPLAYS**

### **Edgeless** [www.fxc.btinternet.co.uk/assistive.htm](http://www.fxc.btinternet.co.uk/assistive.htm)

Why let the cursor stop at the edge of your display? Edgeless lets it wrap from one side to the other, even when using multiple monitors. **Free**

### **Fences** [www.stardock.com/products/fences](http://www.stardock.com/products/fences)

Easily unclutter your desktop shortcuts and

icons with Fences. It groups the items on your desktop into transparent containers you can hide or unhide at will. Works with Windows 7, too. **Free**

### **MaxTo** [www.maxto.net](http://www.maxto.net)

On a big monitor with a lot of screen real estate, it just doesn't make sense to run every application full-screen. MaxTo segments a display into regions so that you can easily tile windows as you see fit. It works with Windows 7. **Free**

### **MaxiVista** [www.maxivista.com](http://www.maxivista.com)

Turn your laptop (or any second computer with a monitor) into a second monitor for your main system. What you're really doing is controlling as many as four computers on your network using one keyboard and one mouse, to extend your primary computer's desktop space. (Issues with Vista and Windows 7 are still being worked out.) **Free 14-day trial, then \$29.95**

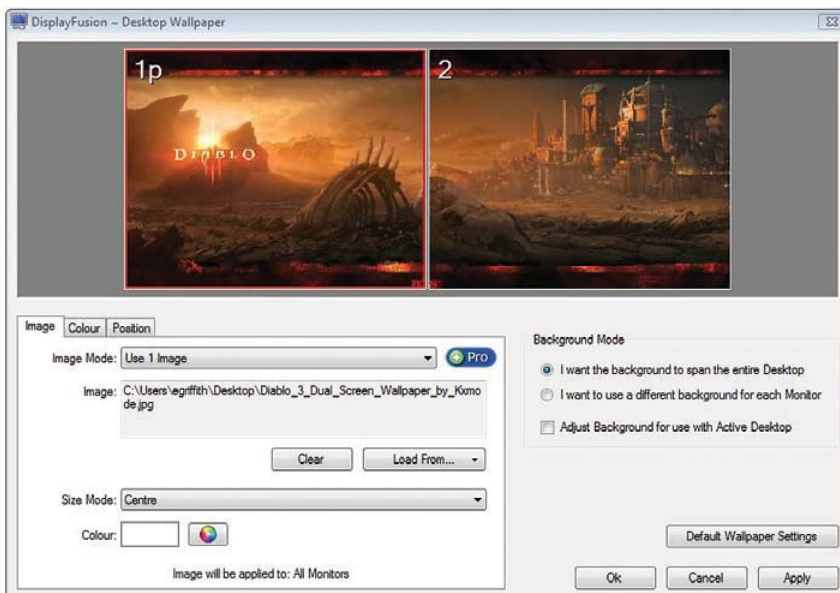
### **PowerResizer**

[sourceforge.net/project/platformdownload.php?group\\_id=258095](http://sourceforge.net/project/platformdownload.php?group_id=258095)

Dock windows to the edges of the screen, and when you resize them with PowerResizer, they stay docked. If you put the windows side by side or atop each other, dragging one to resize will also resize the other so they never overlap. **Free**

### **Switcher** [insentient.net](http://insentient.net)

Exposé on the Mac instantly shows you the desktop, or all your open windows in vari-



## DISPLAYS

### DisplayFusion

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

Give each of your monitors its own Windows taskbar or wallpaper, span one long wallpaper across displays, move windows to new screens with a single click, and more. DisplayFusion is ready to work with Windows 7. [Free](#)

ous views, when you invoke a keystroke. Switcher brings that same function to Windows, and it works with a multi-monitor setup. The utility runs only on Vista, however. [Free](#)

### UltraMon [www.realtimesoft.com/ultramon](http://www.realtimesoft.com/ultramon)

UltraMon is all about multiple monitors: It adds icons to title bars to make moving windows from one screen to another faster (no dragging), creates shortcuts that open programs on the monitor you prefer, and puts separate wallpaper images or screensavers on each display. And there are even more tools to handle all that real estate. [\\$39.95](#)

### VirtuaWin [virtuawin.sourceforge.net](http://virtuawin.sourceforge.net)

Add up to nine virtual desktops to your system, on computers running Windows 98 all the way up to Vista. Access the other desktops via an icon in the system tray. [Free](#)

### WinSplit Revolution [winsplit-revolution.com](http://winsplit-revolution.com)

Split your big screen into multiple smaller

“monitors.” Drag program windows around with the mouse while holding Ctrl-Alt to bring up a shaded area—that’s the grid section that the window will snap to when released. If there are multiple targets, pick one with the mouse scroll wheel. [Free](#)

## ENCRYPTION

### File & Folder Unlocker

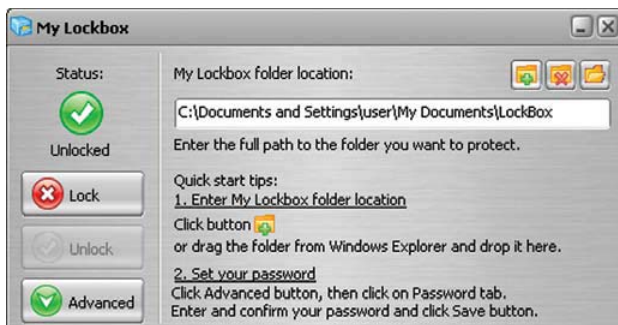
[www.diamondcs.com.au/freeutilities/fileunlocker.php](http://www.diamondcs.com.au/freeutilities/fileunlocker.php)

A locked file on Windows isn’t encrypted, but it can be a pain to work with. Unlocker will change files from locked to unlocked so you can manipulate them again without getting errors. [Free](#)

### FreeOTFE [www.freeotfe.org](http://www.freeotfe.org)

OTFE stands for “on-the-fly encryption,” and that’s just what FreeOTFE does, creating a virtual disk where copied files are instantly encrypted and stored. It’s portable and works on thumb drives, and FreeOTFE has its own Explorer to access encrypted files without installing software. [Free](#)





## ENCRYPTION

**My Lockbox** [www.fspro.net/my-lockbox](http://www.fspro.net/my-lockbox)

This utility locks down or hides a special folder, not just from snoops on the same PC (even those with admin privileges) but also from any kind of remote access, all with a single password. [Free](#)

**TrueCrypt** [www.truecrypt.org](http://www.truecrypt.org)

A granddaddy in disk-encryption software, TrueCrypt will encode an entire drive—even a thumb drive—for security in real-time. Wizard software provides help with decisions like how big the virtual drive should be (just one file or the whole hard disk). [Free](#)

## ERASE AND DELETE

**Autodelete**

[cyber-d.blogspot.com/2005/10/cyber-ds-auto-delete-101.html](http://cyber-d.blogspot.com/2005/10/cyber-ds-auto-delete-101.html)

Set time limits for folders on your drive and Autodelete will automatically delete files that are too old. It's great for getting rid of older backup archives taking up space. [Free](#)

**Darik's Boot And Nuke** [www.dban.org](http://www.dban.org)

Download DBAN, write the software to a bootable CD, and then use the disc to completely and utterly erase the contents of a hard drive. After that, those files will never come back. [Free](#)

**DeleteOnClick**

[www.2brightsparks.com/onclick/doc.html](http://www.2brightsparks.com/onclick/doc.html)

Rather than send an unwanted file to the recycle bin for “deletion”—where it can potentially be recovered—this utility securely deletes the space the file took up, making it

impossible for you to get it back. [Free](#)

**DoubleKiller**

[www.bigbangenterprises.de/en/doublekiller](http://www.bigbangenterprises.de/en/doublekiller)

Remove duplicate files across your local and network drives, including pictures and music. DoubleKiller compares size, name, date, and content to see what files may be a bit too similar. The Pro version supports multiple languages and can search on extra criteria. [Free](#); Pro edition, \$19.95

## IMAGES

**IrfanView** [www.irfanview.com](http://www.irfanview.com)

A compact classic dating back to 1996, IrfanView can view any kind of image thrown at it (some video and audio too), plus convert and edit it. [Free](#)

**JPEGsnoop**

[impulseadventure.com/photo/jpeg-snoop.html](http://impulseadventure.com/photo/jpeg-snoop.html)

Wondering if that beautiful-looking JPG file you're viewing is an original right off the digital camera? JPEGsnoop looks at the metadata inside to see if the file has been modified, and if so, how it's changed. [Free](#)

**RIOT** [luci.criosweb.ro/riot](http://luci.criosweb.ro/riot)

Radical Image Optimization Tool (RIOT) reduces image size—not the dimensions,



but the actual file size. Smaller GIFs, JPGs, and PNGs on Web pages mean faster load times. RIOT will display old and new side by side for comparison. It's also an IrfanView plug-in. [Free](#)

## NETWORKING

**Comodo EasyVPN** [easy-vpn.comodo.com](http://easy-vpn.comodo.com)

Secure the connection between you and other computers with this simple-to-install virtual private network. [Free for personal use](#)

**GoToMyPC** [www.gotomypc.com](http://www.gotomypc.com)

We all know this one: GoToMyPC makes connecting to a PC remotely almost as easy as using it live. Download the free trial to access one PC for 30 days. [\\$19.95 per month to access one PC, \\$29.95 per month to access two PCs](#)

**Leaf for Windows** [www.leafnetworks.net](http://www.leafnetworks.net)

Get ready for peer-to-peer network sharing, to stay connected to your network on the road (even through Facebook), share data with friends, or even set up Xbox and Xbox360 consoles for head-to-head games. Leaf's client is free for Windows, and coming soon to Linux. [Free](#)

**LogMeIn Hamachi**

[secure.logmein.com/products/hamachi/vpn.asp](http://secure.logmein.com/products/hamachi/vpn.asp)

With LogMeIn Hamachi, you can put multiple remote computers on a virtual private network (VPN) so that they all appear to be in the same building—perfect for remotely sharing files. With the free version, one user



## IMAGES

**Fotosizer** [www.fotosizer.com](http://www.fotosizer.com)

Three steps are all it takes: Pick a bunch of digital photos, select resize settings, and let it rip. All the images are reduced, replacing the original images or duplicating the source, as specified. [Free](#)

can join 256 Hamachi networks, each of them able to handle 16 users; networks can handle 50 users if registered with the Pro version. [Free; commercial license, \\$4.95 per month per PC](#)

## ORGANIZATION

**Advanced Renamer** [aren.hulubulu.net](http://aren.hulubulu.net)

There are eight different ways to create batch-renaming jobs for your files with Advanced Renamer, including adding extra characters, changing the case of letters in the filenames, and changing the files' attributes and timestamps; it also supports ID3 functions to work with MP3 audio files. [Free](#)

**AutoHotkey** [www.autohotkey.com](http://www.autohotkey.com)

Set up macros to automate just about

everything you can imagine doing in Windows, using prearranged keystrokes and mouse clicks or just about any input button.

Free

[CLICK HERE FOR MORE](#)

**CubicExplorer** [www.cubicreality.com/ce](http://www.cubicreality.com/ce)

This file viewer and Windows Explorer replacement is portable and relatively uncomplicated, supporting tabs for multiple browsing sessions to take place at once.

Free

**Free Commander** [www.Freecommander.com](http://www.Freecommander.com)

Get dual panes of data (side by side or stacked) with this Windows Explorer replacement, plus features like FTP, tabs, file-renaming tools, and compressed archive support. Free

**Gladinet** [www.gladinet.com](http://www.gladinet.com)

Get access to your online files—such as those in Google Docs or Windows Live Skydrive—as if they’re stored locally. Gladinet mounts the services like network drives that are accessed from Windows Explorer. Free (for now)

**Portable Snowbird**

[Imadhavan.com/software/snowbird](http://Imadhavan.com/software/snowbird)

Snowbird is built for speed as well as portability (run it from a USB flash drive on any Windows system). The main window has the typical tree on the left, breadcrumbs at the top, and a list of recently visited files—but what it lacks in features it makes up for in performance. Free

**xplorer2** [zabkat.com/x2lite.htm](http://zabkat.com/x2lite.htm)

You want two panes of file listings, a folder tree, tabs, and FTP access? That’s just the beginning with this longtime favorite Windows Explorer replacement. The free version also comes in a portable version. Pro adds individual folder settings, “hyperfilters,” scrap containers, duplicate cleanup, and more. Free; professional version, \$29.95

## RECOVER AND RESTORE

**AntiFreeze** [www.resplendence.com/antifreeze](http://www.resplendence.com/antifreeze)

We all know the Ctrl-Alt-Delete salute to get out of a borked computer (or to get to the running processes list and kill an offending program). But AntiFreeze may offer a better way. It waits in the background for trouble, and when called, it displays all running processes, suspending most without killing them until necessary. Free

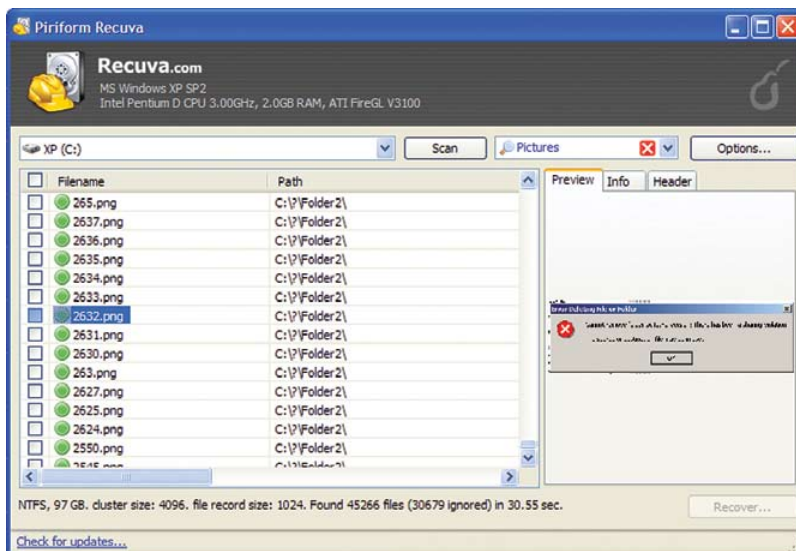
**GoneIn60s**

[www.donationcoder.com/Software/Skrommel/index.html#GoneIn60s](http://www.donationcoder.com/Software/Skrommel/index.html#GoneIn60s)

If you closed an application within the last minute, you can open it up again without losing anything by right-clicking the icon in the system tray—but only if your PC is already running GoneIn60s. Free (donationware)

**UndeletePlus** [www.undelete-plus.com](http://www.undelete-plus.com)

No matter the volume type (FAT12 on up to NTFS5), UndeletePlus promises to restore files you’ve junked but want back. Great filtering makes it easy to find one file among the many you’ve deleted. Free trial, then \$29.95 per year



## RECOVER AND RESTORE

**Recuva** [www.recuva.com](http://www.recuva.com)

Pronounced “recover” (what accent are they using?), Recuva has one goal: to bring back files you accidentally trashed (or that were trashed by crashes and other errors) using a simple-to-grasp interface. [Free \(donation-ware\)](#)

## SCREEN CAPTURE

**FastStone Capture**

[www.faststone.org/FSCaptureDetail.htm](http://www.faststone.org/FSCaptureDetail.htm)

Capture and annotate whatever is on your screen with this little toolbar, then send it to a file, printer, e-mail, Web site via FTP, or to another application (like Word or PowerPoint). [\\$19.95](#)

**SiteShoter**

[www.nirsoft.net/utls/web\\_site\\_screenshot.html](http://www.nirsoft.net/utls/web_site_screenshot.html)

Good in any version of Windows from XP to 7, SiteShoter works with IE to take grabs of entire Web pages, even the areas you’d have to scroll because they aren’t visible on screen. [Free](#)

**SnagIt** [www.techsmith.com](http://www.techsmith.com)

TechSmith (which is also behind Jing, next page) has upped the price of SnagIt by \$10 this year, but this perennial PCMag favorite is worth the money. Version 9 is completely rewritten and includes new features like a live preview, a mini-toolbar (like the one for

formatting selections in Word 2007), and software stamps you can slap into captured images. [30-day free trial, then \\$49.95](#)

## SEARCH

**Copernic Desktop Search** [www.copernic.com](http://www.copernic.com)

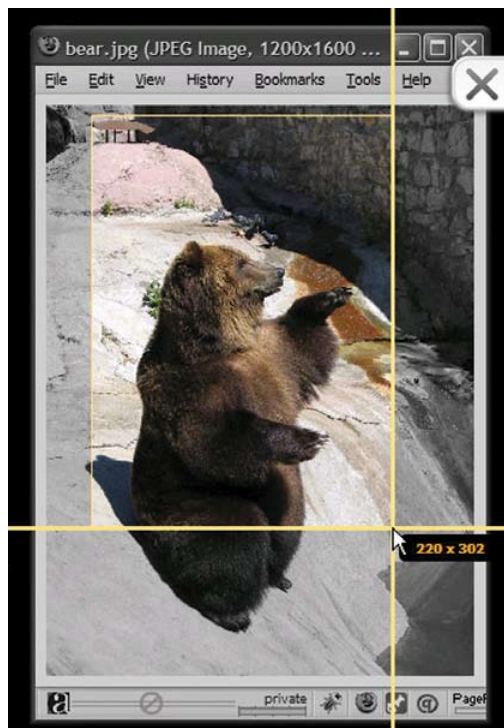
An old hand at indexing and searching your files, Copernic continues to look inside 150 different types of files so you can search their contents. Now you can search the Web via the same interface, and even make Copernic a default Web search engine. [Free; Professional version, \\$49.99](#)

**Everything** [www.voidtools.com](http://www.voidtools.com)

For NTFS drives only, this program promises to search, well, everything, and fast. Really fast. It’s for NTFS format only because it uses the drivers for the hard drive to create its index. It also comes in a portable version, and will work with Windows 7. [Free](#)

**Google Desktop** [desktop.google.com](http://desktop.google.com)

Integrate your Web searches with your hard-disk searches, throw in a gadget engine



#### SCREEN CAPTURE

**Jing** [www.jingproject.com](http://www.jingproject.com)

You can do more than take a picture of your screen and annotate it with Jing; it will also record video of actions you take on the computer. Using social networking to show people how to do stuff on the PC, it integrates quick ways to share your captures via IM, e-mail, or on a blog. [Free](#)

hibernating to displaying text to running a program. It can even simulate the press of a specific key on the keyboard, or take a screen grab, or grabs, one after the other. [Free](#)

**WinPatrol 2009** [winpatrol.com](http://winpatrol.com)

WinPatrol does a lot—it is a security monitor alerting you to changes you may not have made, and it even comes in a (slightly less powerful) portable version. Where it excels is in assisting your Windows system at start-up, delaying or deactivating processes as you see fit. [Free](#); [Plus edition, \\$29.95](#)

### SYSTEM CLEANERS

**CCleaner** [www.ccleaner.com](http://www.ccleaner.com)

It's no secret that the first C in this program stands for "crap," and that's exactly what it goes after, in the browser, the Registry, and all the other spots in Windows where flotsam like temp files and log files accumulates. Its creator, Piriform, updates the app frequently and promises it is malware-free. [Free](#)

**Little Registry Cleaner**

[sourceforge.net/projects/littlecleaner](http://sourceforge.net/projects/littlecleaner)

Another portable tool for the USB flash drive arsenal, this app checks the Registry for unneeded items and cleans them—a must for tackling your family's and friends' computer issues. It also has options for speeding start-up and creating restore points. [Free](#)

**Norton Removal Tool**

[service1.symantec.com/support/tsngeninfo.nsf/docid/2005033108162039?Open&docid=2004030411260104](http://service1.symantec.com/support/tsngeninfo.nsf/docid/2005033108162039?Open&docid=2004030411260104)

for the thousands of widgets available for iGoogle, and you've got a four-star product. [Free](#)

[CLICK HERE FOR MORE](#)

### SHUTDOWN/BOOT

**Marxio Timer**

[www.marxio-tools.net/en/marxio-timer.htm](http://www.marxio-tools.net/en/marxio-timer.htm)

Marxio Timer can perform any action (or actions) you preset for a select time, everything from shutting down to logging off to



Symantec's Norton products are super-popular but not always perfect. Getting rid of one to try a different security suite is so hard with the built-in Windows tools that even Symantec had to admit it and built this tool with only one job: Uninstall Norton 2003 to 2009, and a few other titles like SystemWork and Norton 360. [Free](#)

## SYSTEM MONITORS

### Disk Usage Analyzer

[www.extensoft.com/?p=free\\_disk\\_analyzer](http://www.extensoft.com/?p=free_disk_analyzer)

This program does one thing: It creates a list of all the files on your hard disks and tells you which are taking up the most room. Put it to use when running out of disk space, to quickly determine what should get tossed, or at least given permanent berth on a backup drive. [Free](#)

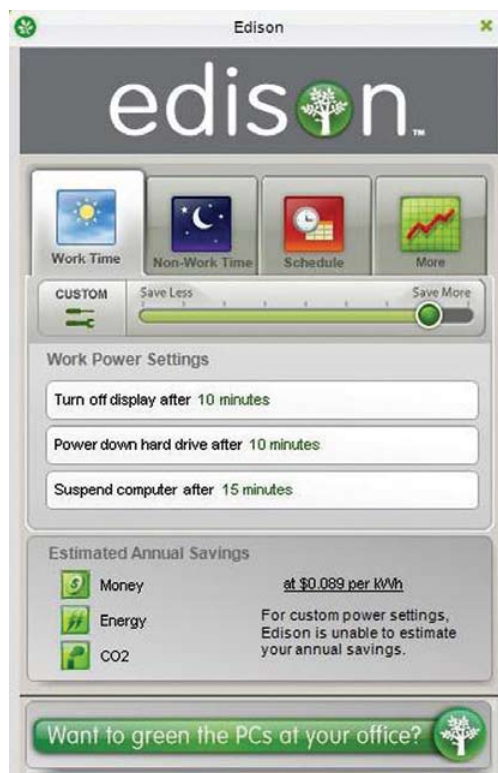
### FreeMeter [www.tiler.com/freemeter](http://www.tiler.com/freemeter)

When monitoring performance, your performance monitor should not impact performance. FreeMeter's 888KB free version fills the bill, looking at drive space, CPU usage, memory usage, system up time and five more stats; the Pro version has 19 different monitors. [Free](#); [Pro version, \\$22.95](#)

### Process Explorer

[technet.microsoft.com/en-us/sysinternals/bb896653.aspx](http://technet.microsoft.com/en-us/sysinternals/bb896653.aspx)

This extra from Microsoft is a major step up from the Windows built-in Task Manager, especially for power users. Rather than just show processes alone, it also displays han-



## SHUTDOWN/BOOT

### Edison [www.verdiem.com/edison.aspx](http://www.verdiem.com/edison.aspx)

A truly green utility, Edison helps you adjust the power settings and schemes for XP SP2 and Vista, so your hard drive, monitors, and CPU all power down after a certain amount of inactivity. It will also calculate how much you'll save, in money and energy. [Free](#)

dles or DLLs in use by that process. Use the search to find problem areas, or to skip out to Google and look up what a listed process does. Once you've downloaded it, it's fully portable, or you can run it right from the Web. [Free](#)

### SpyMe Tools

[www.lcibrossolutions.com/spyme\\_tools.htm](http://www.lcibrossolutions.com/spyme_tools.htm)

Sometimes things happen to the Windows



Registry that shouldn't—such as changes made by malware. SpyMe dumps a copy of the Registry from before and after a change, so you can restore the older version if you detect something amiss. It'll also make Registry backups. [Free](#)

### **Xinorbis** [freshney.org/xinorbis](http://freshney.org/xinorbis)

You can analyze one folder, one drive, or multiples—even network drives—in a single report. What you get is graphs galore, all of which can be saved for report comparison at a later date. [Free](#)

## TWEAKERS

### **Game Booster**

[www.iobit.com/gamebooster.html](http://www.iobit.com/gamebooster.html)

Get more out of your game by making it the most important thing on your computer. Game Booster will do that by temporarily shutting down background processes, cleaning up leaky RAM, and giving the game processor priority. Works with Win 7. [Free](#)

### **Ultimate Windows Tweaker**

[www.winvistaclub.com/uwtf.html](http://www.winvistaclub.com/uwtf.html)

Ready to tweak Windows 7? So is Ultimate Windows Tweaker, building on the vast array of what it can do for Vista and the IE Web browser. [Free](#)

### **XdN Tweaker** [xenomorph.net](http://xenomorph.net)

It doesn't offer as many tweaks as the paid tweak tools, but XdN makes up for it with a price that can't be beat. It requires Windows .NET to run on XP; .NET is a given with Vista

and Windows 7, both of which XdN supports. [Free](#)

## UPDATERS

### **FileHippo Update Checker**

[www.filehippo.com/updatechecker](http://www.filehippo.com/updatechecker)

Run this utility once in a while and it will compare installed apps against the vast collection at FileHippo.com, even against updates still in beta. The results come up in a Web page where you can download new versions to install. [Free](#)

### **Update Notifier**

[cleansofts.org/view/update-notifier.html](http://cleansofts.org/view/update-notifier.html)

Linux users know the joys of having not only their OS kept up to date, but also third-party software that never gets old. Windows users have to work at that. Update Notifier helps: When a new version of a third-party program you're running becomes available, it makes it easy for you to download and install it. [Free](#)

## UNINSTALLERS

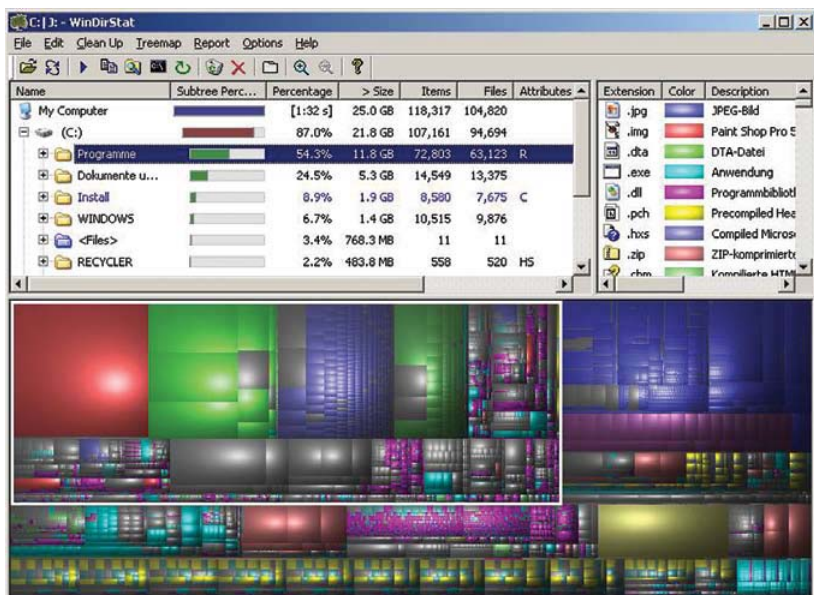
### **PC Decrapifier** [www.pcdecrapifier.com](http://www.pcdecrapifier.com)

If you got a new PC at retail, chances are it came preinstalled (read: bogged down) with extra unwanted and unneeded software. PC Decrapifier should be the first item you install, as it knows what to look for on those PCs and deletes them, en masse. [Free](#)

### **Remove Empty Directories**

[www.jonasjohn.de/lab/red.htm](http://www.jonasjohn.de/lab/red.htm)

Afraid you've got a bunch of empty folders



## SYSTEM MONITORS

### WinDirStat [windirstat.info](http://windirstat.info)

Need to know how much space on your disk is in use, and what's using it? Windows Directory Statistics (WinDirStat) eliminates the guesswork, providing multiple views—including some graphically beautiful color-coded views—that spell it out for you. [Free](#)

on your Windows system? You won't have them after this utility has its way. (Just don't delete any temp directories needed by your other programs.) [Free](#)

### Revo Uninstaller [www.revouninstaller.com](http://www.revouninstaller.com)

Maybe the perfect replacement for Windows' own uninstaller list, Revo chucks programs with the usual built-in uninstall routine, but follows up with a check of the hard drive and the Registry for anything left behind. It comes in a portable version for USB flash drives. [Free](#)

## VIRTUAL PCS

### Portable Ubuntu

[portableubuntu.demonccc.com.ar](http://portableubuntu.demonccc.com.ar)

Want to try Ubuntu? Install a full-blown version of the popular Linux distro as an application within Windows. It can even be installed on a USB flash drive, so it can be your portable OS—any changes you make to Portable Ubuntu stick with it. Windows will just treat it like any other application. [Free](#)

### Returnil Virtual System 2008 Personal

[www.returnilvirtualsystem.com/returnil-virtual-system-personal](http://www.returnilvirtualsystem.com/returnil-virtual-system-personal)

If you have a system with XP, Vista, or 2003 server, you can mirror it completely on the same system, entirely in system memory. Why do that? So your software runs entirely on the virtualized side. If something goes wrong, your primary installation is still okay. It's a great way to experiment with software you might otherwise be nervous about. [Free for personal use](#)

### VirtualBox [www.virtualbox.org](http://www.virtualbox.org)

Install open-source VirtualBox on just about any OS that runs on x86 chips (even Mac, Linux, and OpenSolaris) and you can run a "guest" OS inside it—including those above plus Windows NT, 2000, XP, Vista, and 7. It'll even load a 64-bit OS inside a 32-bit host OS. [Free for personal use](#)

**FOR EVEN MORE OF OUR FAVORITE UTILITIES, CLICK HERE**

# How to Install the Windows 7 Release Candidate



**Tired of just reading about the Windows 7 Release Candidate? Start using it instead! Here's how to install the new OS safely and easily, step by step. *By Jeremy A. Kaplan***



**W**ith a smaller footprint, better performance, multitouch support, and even some eye candy, the Release Candidate of Windows 7 is garnering tons of praise. In my hands-on analysis of the OS (also referred to as build number 7100), I wrote “Quicker to install, more polished and customizable, and easier to use than earlier builds, the Windows 7 Release Candidate (build 7100) is a nice step towards finalization of the operating system.”

But enough talk. You're ready and eager to give it a try yourself. So how to get started? Let me walk you through the decisions you need to make before installing the new operating system, and the steps you need to take to ensure a seamless, trouble-free experience.

## Step 1: Make a Plan

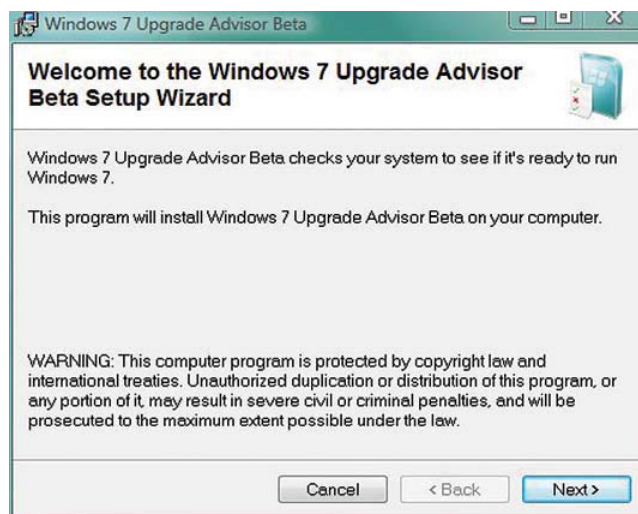
Before all else, make sure you know where you'll be installing the OS and how you plan to do so. There are three common scenarios: Installing fresh on an older PC, partitioning your hard drive and setting up dual booting, or upgrading a Vista (or earlier Win7 beta) partition. Do you have an older PC that you want to play around with? Or will you be making space on your current PC? Let's look at each scenario.

**CLEAN INSTALLATION** If you've got an older system, it's probably running Windows XP, and you're probably planning on erasing that system and starting from scratch. Good plan. A clean install is the most trouble-free

option and should cause you the fewest problems.

**UPGRADE** You can't upgrade an XP installation, only a PC running Windows Vista. And you can't upgrade an existing Windows partition if you boot from the Windows 7 disc. Instead, you'll boot and run the Windows disc from within your current partition, following the instructions in the auto-run app.

**PARTITION** To enable the partitioning features built into the Windows 7 Release Candidate installer, you need to boot from the disc. But be forewarned: You can't simply shrink your current partition using the tool (although you can partition from within Windows Vista). The Windows 7 partition tool is really designed to work with raw disk space, meaning it will let you delete and recreate partitions, not resize existing ones.



**INSTALL THE UPGRADE ADVISOR BETA** Once you've figured out where you're going to install the OS, this is your next step. The Upgrade Advisor will make sure there are no compatibility issues or any other potential problems with your hardware.





**PREPARE TO RUN THE UPGRADE ADVISOR** The Upgrade Advisor will make sure your CPU, RAM, hard drive, and graphics card all meet the minimum system specs.

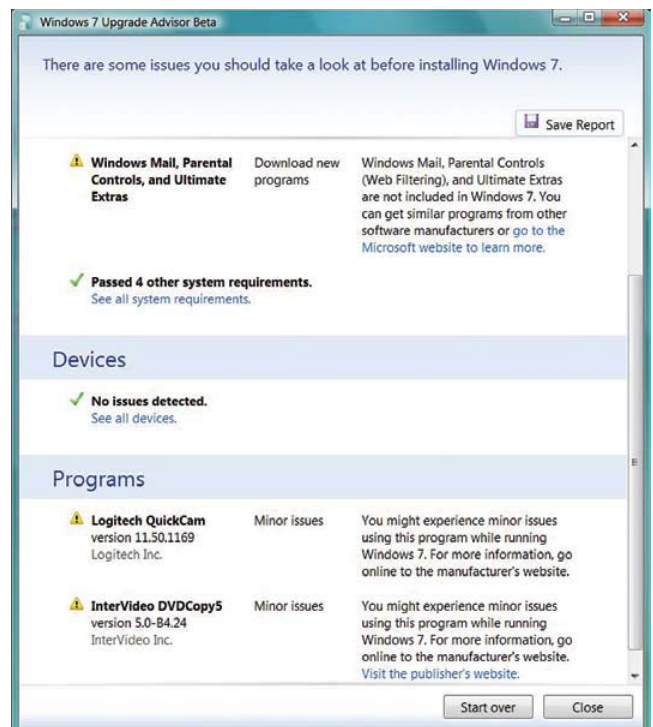
Alternatively, you can use third-party software to resize a partition; I like Paragon Partition Manager, but there are several options available.

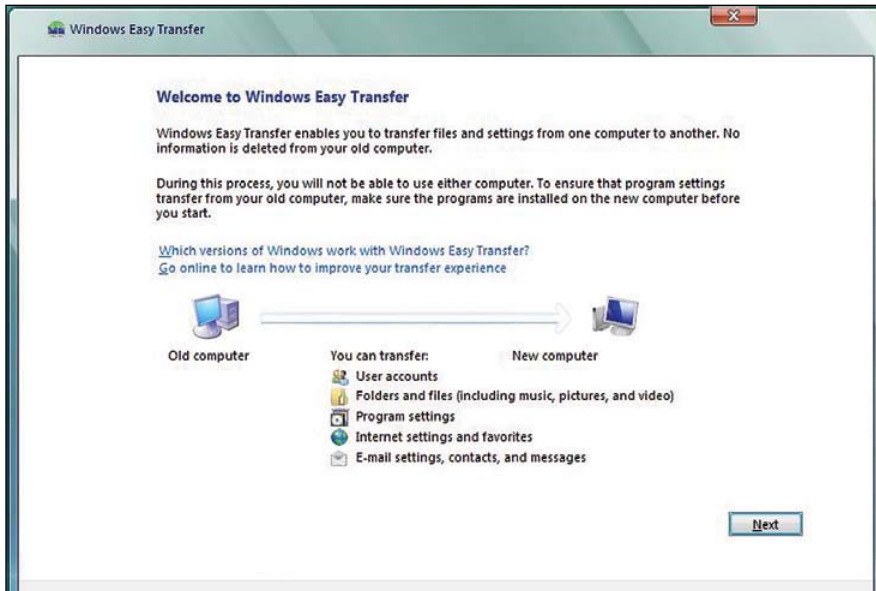
Stop to think about your time frame here as well. The Windows 7 Release Candidate will stop running on June 1, 2010, at which point you're going to be forced to buy the darn thing. But don't worry about writing that date down: Microsoft warns that "starting on **March 1, 2010**, your PC will begin shutting down every 2 hours. Windows will notify you two weeks before the bi-hourly shutdowns start. To avoid interruption, you'll need to install a non-expired version of Windows before **March 1, 2010**." Some people would label this "annoyingware." But can you really fault the company for giving you a full year of free usage?

**WINDOWS UPGRADE ADVISOR RESULTS** The Upgrade Advisor's useful "Programs" section lets you know of any potential software problems. You might want to consider replacing software listed here to make sure Windows 7 runs smoothly.

## Step 2: Prepare

Now, download and run the Windows 7 Upgrade Advisor Beta: It will check your hardware to ensure compatibility and let you know about any potential problems you may encounter. You'll have to accept a User Account Control prompt before installing (and running) the tool, of course; the





**RUN THE EASY TRANSFER UTILITY** This utility allows you to move your files and settings from an old PC to an external hard drive, a network drive, or a USB flash drive.

Upgrade Advisor will suggest a path to Windows 7, be it an upgrade or a clean install, and will test your CPU, RAM, hard drive, and graphics card to make sure they meet the minimum system specs:

I'm an enthusiast—and my PCs are backed up several ways—so I have no prob-

#### Windows 7 Minimum Requirements

<b>CPU</b>	1 GHz or faster 32-bit (x86) or 64-bit (x64)
<b>RAM</b>	1GB RAM (32-bit) / 2GB RAM (64-bit)
<b>Storage</b>	16GB available disk space (32-bit) / 20GB (64-bit)
<b>Graphics</b>	DirectX 9 GPU with WDDM 1.0 or later driver

lem installing beta software. Even so, I'm leery of installing an unfinished operating system on my main PC; you should be as well. For this reason, you'll probably find the Upgrade Advisor's section on "Programs" the most useful to you. Here's where you can see anything that may present problems for you; in my case, the suspect programs were Logitech's QuickCam software and an outdated copy of Corel's DVDCopy. If you see anything crucial, now's the time to think about replacing the software or fig-

uring out some way to make it work.

If you're upgrading from Windows Vista or installing onto an older PC that you don't use often, I suggest you try out the Windows Easy Transfer Utility. It lets you migrate your files and system and app settings from that old PC to an external hard drive, network drive, or USB flash drive. Later on you can port all that data and customization back onto your new Windows 7 system. You can search for the Easy Transfer Utility on Vista's Start menu, or in XP find it under **Accessories | System Tools**. The utility is pretty simple to muddle through, but for detailed directions, follow along with the step-by-step instructions on Microsoft TechNet.

#### Step 3. Download and Burn

You can download the Release Candidate and get your own product key through July. To do so, head over to Microsoft's Windows 7 download page. Follow the download links and enter a Windows Live ID (or sign up for one); the site will generate a new key





## DOWNLOAD THE RELEASE CANDIDATE

Once you've entered a Windows Live ID or signed up for one, Microsoft will generate a new key, which will activate Windows 7 on up to three PCs.

especially for you. The key will activate Windows 7 on up to three PCs. I've knocked the last five characters off my key in the screenshot—you'll have to get your own! And for once, Microsoft hasn't restricted the download site to IE users only; users of Firefox can get there as well.

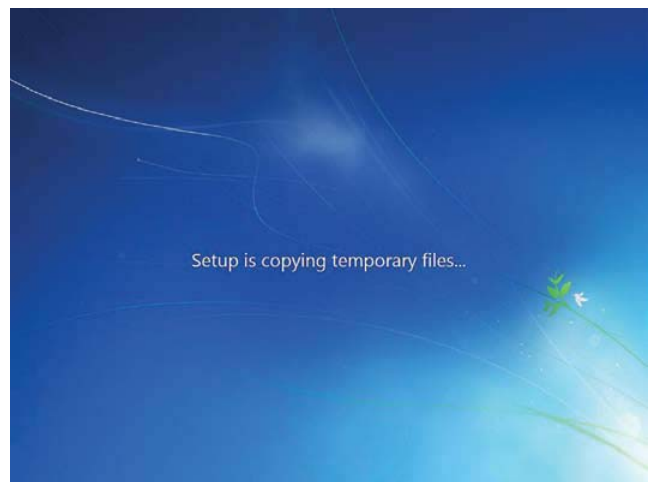
The RC is a giant file, of course; the 32-bit version is called "7100.0.090421-1700\_x86fre\_client\_en-us\_retail\_ultimategrclcu\_lfrer\_en\_dvd.iso," and it's 2.36GB. So to download it, Microsoft uses a Java-based download manager from Akamai Technologies. This is handy, because it means that if the download is interrupted, you'll find a "Start Download Manager.html" icon on your desktop. You can click it to restart the download, and it will pick up where it left off.

Once you've downloaded the file, which comes as a disc image called an ISO, you'll need to turn it into a DVD. I'm a fan of ImgBurn, a lightweight, easy-to-use tool for turning disc images into actual discs. It's fairly self-explanatory software that should be part of everyone's standard utility toolkit. When you've finished burning the disc, fire up your PC and run the installer.

Alternatively, you can copy the files to a USB thumb drive and install the OS from there. This lets you circumvent the whole

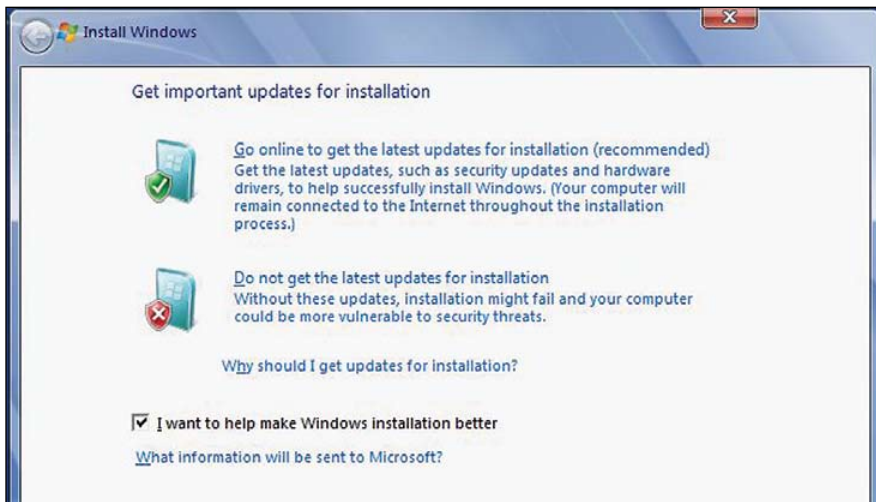
"burn a DVD" stage, and in theory, the installation from flash memory should be slightly quicker than installation from an optical disc.

But in our experience, the process is more complicated than necessary. After all, DVDs are quite inexpensive. Instead, burn a disc with the ISO file and copy the Windows 7 RC to your thumb drive straight off the optical media: It will have all the files necessary to let you boot from the flash drive and will work just as smoothly as a DVD.



**SETUP IS STARTING** The Windows 7 Release Candidate will install the Ultimate edition of the operating system, but Microsoft will likely release various versions of Windows 7, just as it did with Windows Vista. You have the option of "unlocking" the other versions of the operating system, which are hidden on the ISO that you just downloaded.





## GET IMPORTANT UPDATES

The installer will ask whether you want to go online to download any updates. It will then actually find the updates for you and download them.

## Step 4: Installation

The Windows 7 Release Candidate is designed to install the Ultimate edition of the operating system, even though Microsoft will probably release as many versions of Win7 as there were of Windows Vista. If you'd like, you can "unlock" the other versions of the operating system, which are hidden on the ISO you just downloaded. ZDNet's Ed Bott points out that to do so, you simply open the Sources folder, find the file Ei.cfg, and delete it.

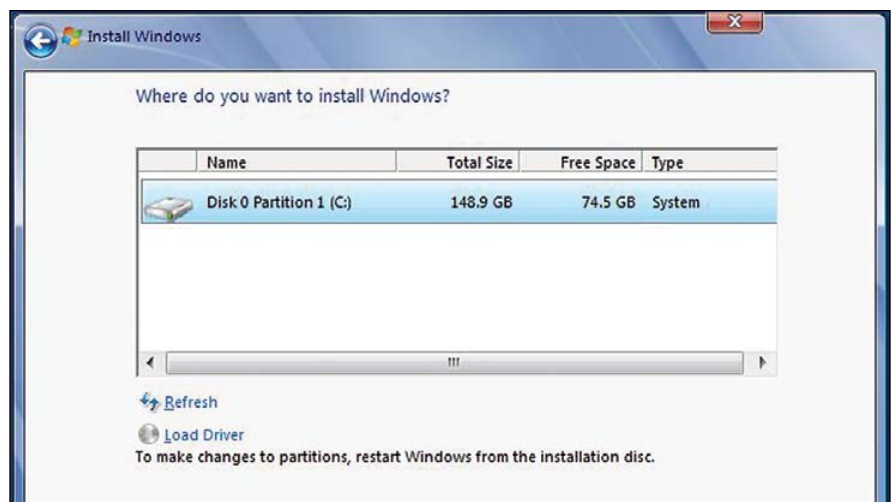
Once you've fired up the installer, it will ask whether you'd like to go online to download any updates, and then it will go and

actually find the updates you need—what a shock! Vista asks the same question—as did XP, if memory serves—but it never actually seems to download anything. Accept the license agreement and you are ready to rock.

The installer will reboot once or twice, and then it will ask you for information about your network, but the process is more or less unattended. Once you've finished, you're free to configure your desktop, set up your libraries, play songs anywhere with Play To, pin apps and documents to your jumplists, and explore all the other cool new features. Enjoy! ■

## START FROM DISC TO REPARTITION

To enable the partitioning features built into the Windows 7 Release Candidate installer, you'll need to boot from the disc. But you can't simply shrink your current partition using the tool.



# Solutions

**BUILD IT:**

## A PC for \$400

**Our DIY Recession Special is a surprisingly robust system, using parts considered bleeding-edge two years ago. *By Dan Evans***

I had a lot of fun last month building a \$4,000 desktop for Adobe CS4 power users—a big hit with designers for whom money is no object. But let's face it, most of us are looking for a good deal in this dismal economy. So my DIY project this month is a hearty desktop that won't break the bank.

As I scoured the Web for parts, I discovered that you can put together a decent machine (not including monitor, mouse, or keyboard) for well under \$500—if you're willing to look hard. Parts that were on the bleeding edge two years ago may seem mundane today to power users, but you can use that hardware to build a new machine that works just fine as a home computer, perfect for simple tasks such as word processing, surfing the Internet, or storing photos. But it's also powerful enough to run advanced applications like Photoshop (as long as you don't go nuts on the number of layers) and even do duty as a home media server.

Let's start with the motherboard. I went with the ASUS M2A-VM because it gives you a lot of bang for your buck. Since I'm cutting costs by doing without a graphics card, I wanted a pretty solid integrated GPU. The motherboard's ATI Radeon X1250 GPU should be more than enough for standard use. I also like that the M2A-VM has both a DVI and a VGA port in case you eventually feel rich enough to add an extra monitor. For a few extra bucks you can even get a version of this board with HDMI output.

### **An AMD Athlon 64 for 60 bucks**

Once I decided on a motherboard, I had to find a matching CPU, and I went with the AMD Athlon 64 X2 Dual-Core 5600+, a 2.9-GHz chip that was at the forefront of AMD's dual-core push and can still hold its own. A few years ago it would have cost you around \$800, but you can snap it up now for as little as \$60. If you can spend a little more, think about stepping up to the next level, the AMD Athlon 64 Black Edition. But a word of cau-

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### COMPONENTS

**Case and power supply:**  
**Cooler Master Elite 360 with Thermal Master 350**  
\$59.99 direct

**Motherboard:**  
**ASUS M2A-VM** \$70 street

**Processor:**  
**AMD Athlon 64 X2 Dual-Core 5600+** \$60 street

**Memory:**  
**Kingston ValueRAM 2GB (KVR667D2N5K2/2G)**  
\$20 street

**Graphics card:**  
**None (integrated on motherboard)**

**Hard drive:**  
**Western Digital Caviar Blue 750GB (WD7500AAKS)**  
\$70 street

**Optical drive:**  
**ASUS DRW-2014L1 DVD3R/RW**  
\$35 street

**Operating system:**  
**Microsoft Windows Vista Home Basic** \$90 street

tion: Even though you can overclock the Black edition (it's unlocked), I wouldn't try it with a computer configured like this one.

When I was putting this system together, Cooler Master had a great deal: the midsize Cooler Master Elite 360 tower case and a

350W power supply for only \$59.99. I know that some people will question the PSU's low wattage, but this isn't the kind of system that will be pushed too hard, since it's not meant for serious gaming and, as I said before, I'm not adding a graphics card. The

case doesn't have much in the way of bells and whistles, but it has room for a full-size ATX motherboard.

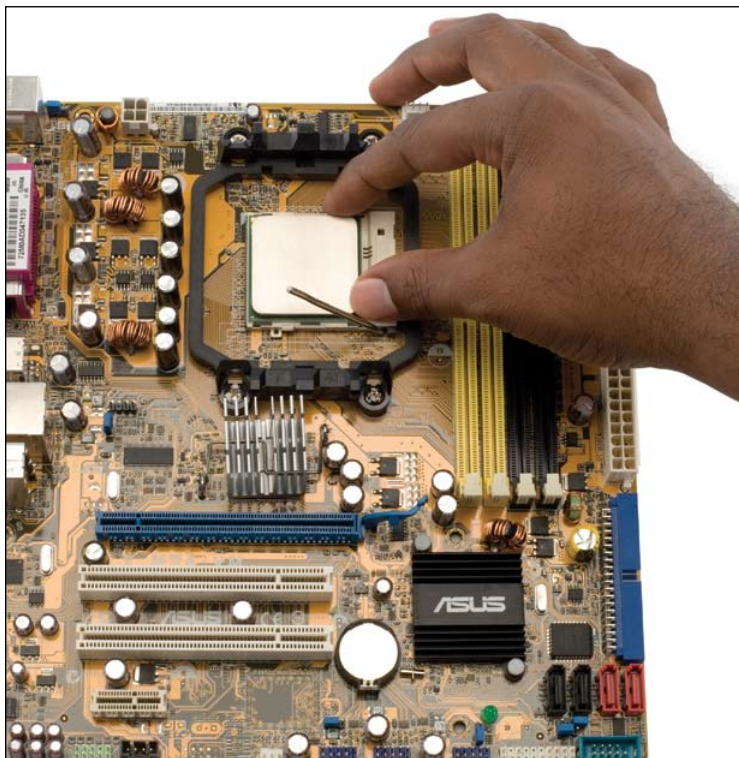
As for storage, I wasn't thinking about specs such as disk rpm—I just wanted to find a reliable drive with a lot of room. Home computers usually end up as a repository for all your photos and music. And despite what we tell readers, casual consumers rarely buy another hard drive to back up their data until the one they're using is either full or broken. I, too, decided not to spend the extra money on another drive for a RAID setup.

I settled on the Western Digital Caviar Blue 750GB (WD7500AAKS), a roomy drive that's never given me any problems. Three-quarters of a terabyte for \$70 strikes me as a pretty good deal. I'm sure if you look hard online you can find cheaper OEM drives, but I like the security of a name-brand drive, especially if I'm not setting up a RAID system that builds in data protection. For the optical drive, I chose the ASUS DRW-2014L1 (a DVD3R/RW), but you can find many good options online that are also under \$40. Memory was a pretty easy choice. There was no need for anything fancy, and I've always had good luck with Kingston's low-end memory, so I went with the company's ValueRAM 2GB (KVR667D2N5K2/2G).

Doubtless your configuration will be slightly different from mine, as deals change daily. But you still should be able to cobble together a system totaling roughly what I paid: a mere \$405. The parts are rounded up, so let's get to work. This is a simple build and shouldn't take you very long.

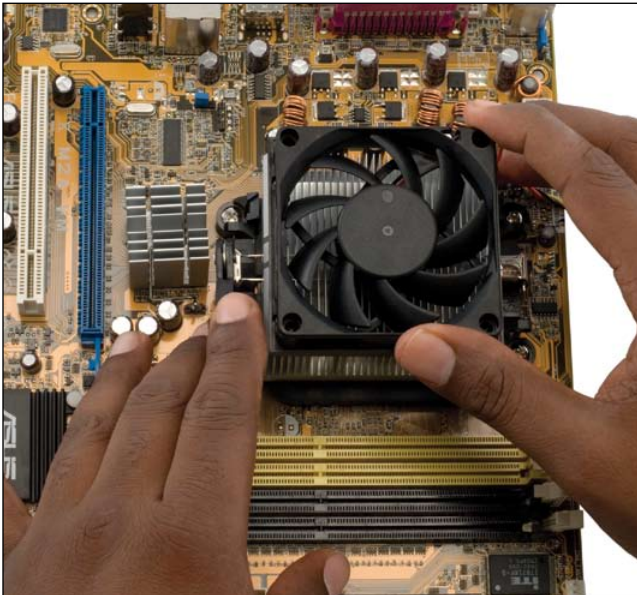
## The Recession Special PC: Step-by-Step Instructions

- 1** Open up the side of the case. Set the case on its side on a flat surface.
- 2** Insert the seven motherboard risers into the case.

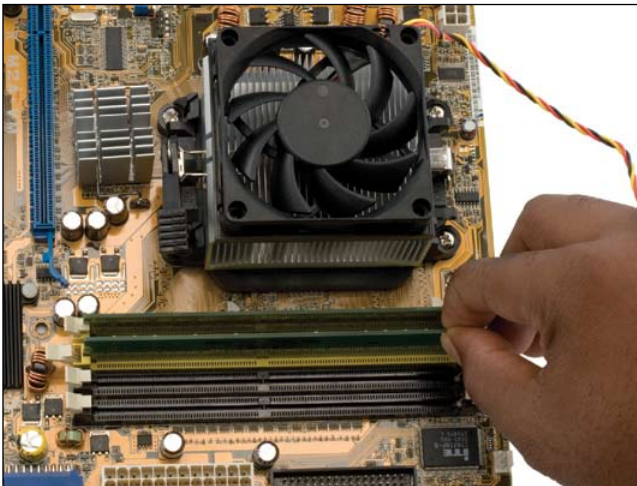


- 3** It's time to install the CPU. First, release the socket lever by moving it slightly sideways, then raise it to a 90-degree angle. Line up the chip with the golden triangle in the upper right-hand corner, but don't force the chip into place. When you have the CPU lined up, bring the lever down and lock it back into place to make sure that the CPU is held securely.
- 4** Place a dollop of thermal paste on top of the chip. The compound conducts heat well and increases cooling efficiency by filling in the small spaces between the CPU and the surface of the heat sink.





- 5** Install the cooler on top of the CPU, and clip it onto the motherboard.



- 6** Insert the RAM. The memory slots you use (you'll see several) will depend on your memory configuration, so consult the manual before you install the sticks. The RAM modules are designed so that you can't put them in backward—if one isn't going in, don't force it.

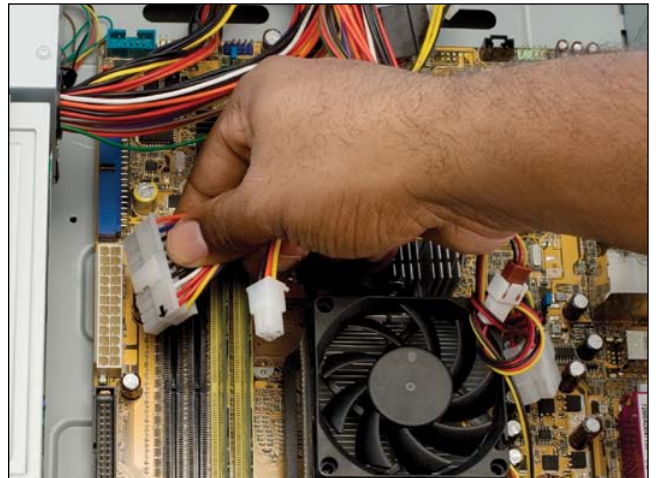
- 7** Set the motherboard on the risers, and screw it into place.

- 8** Remove the front panel of the case, and then take out the temporary face plates.

- 9** Snap the rails onto the sides of your optical drive and hard drive.



- 10** Slide your hard drive into the drive bay. Then slide your optical drive into the front of the case.



- 11** All the hardware is installed, so it's time to start wiring. Find the 20-pin power socket on the motherboard, and plug in the matching power-supply connector. Do the same with the power plug that mates with the four-pin socket near the CPU. Finally, connect all of the leads from the external USB ports, indicator lights, the status display, and audio jacks to their appropriate motherboard partners. Next, do the same with the leads from the internal drives.

Your work assembling the hardware is done!

# Incorporation: The Web Can Help

**Setting up a business as a corporation or an LLC can be a key step toward success, but doing it the right way is very important.**

**The Web provides many resources. *By Kathy Yakal***

**T**oday's precarious economic conditions have prompted more and more people to start their own small businesses. For both new and existing small businesses, setting up the business as a corporation or an LLC (limited liability company) can be a key step toward success, but doing it the right way is equally important.

Every small business is unique, so identifying the best way to do business requires more than a little planning. It may be important to involve an accountant or an attorney, but it's also possible that you can complete the whole process in a few Web sessions. Online incorporation simply involves making a few decisions, filling out some online applications—and paying some fees.

## The Online Advantages

Unless you need the help of an attorney or an accountant, the Web is the best place to do your incorporating. There are several reasons:

- All of the paperwork is electronic. You can even apply for your Federal Tax ID online.
- You can comparison-shop. Many incorporation companies run occasional specials, so even if you're thinking of going with a particular resource, you could stumble on a deal elsewhere that changes your mind.
- Telephone contact with the incorporating company may be limited to business hours, but online you can usually check on the status of your incorporation 24/7.
- You can get information about your individual state's incorporation requirements on its individual site.
- You can learn about the differences between LLCs and other kinds of corporations, and understand their advantages and disadvantages before you make a decision.

## Going for It

There are two types of corporations: the C corporation and the S corporation (named



## MYCORPORATION.COM

This site from Intuit is a must for anyone or any group forming an LLC or corporation.

for the subchapters of Internal Revenue Code under which they're taxed). For most small businesses, the C corporation option isn't in play, given its complexities and required reports and other filings, along with corporate taxes.

The simpler S corporation is much more suitable for the small business. For sole proprietors and small partnerships, an LLC is often a good fit.

Once you've made the decision to form your S corporation or LLC, you can make it happen pretty quickly, thanks to numerous Web sites that specialize in incorporation. They can usually incorporate you or form an LLC in any state. One caveat: They will try to sell you a lot of additional services that you may or may not want or need, or that you can easily handle yourself (like obtaining your Federal Tax ID number).

### MyCorporation

This is a service of Intuit, makers of accounting, personal finance, and tax software. The

MyCorporation site is a tremendous place to start—and maybe end—your quest. It provides an enormous amount of information about starting LLCs and corporations.

For example, it helps you decide what kind of incorporation would be best for you via a free online guide, comparison chart, and newsletter. In fact, there's an entire online library that outlines the process.

You'll need to select a name, and MyCorporation will check to see if it's available, if you use its service to file. Other tasks that the site helps with include a Registered Agent service (\$169/year) and getting a Federal Tax ID number (also known as an EIN, or Employer Identification Number). MyCorporation walks you through the whole process, making sure that you've followed all the required steps and filing the paperwork for you after you've completed an application.

At this writing, on top of all of the online assistance it offers, MyCorporation is also one of the most economical resources. In



**LEGALZOOM.COM** This site's FAQ and glossary are helpful for those just starting the process of incorporating.

fact, its service (normally \$149) is being offered free with an online coupon, and it comes with QuickBooks Simple Start Free Edition, a company Web site for one year, and a copy of corporate resolutions. You'll still be on the hook for state filing fees (they vary), the Registered Agent service, and shipping and handling.

## LegalZoom

This service offers business formations in all states for all types of businesses. It offers less guidance than MyCorporation, but it does help you determine which kind of legal entity you should apply for, and it includes an education center with FAQs, a glossary, and a wealth of information about the incorporation process.

LegalZoom will run a name search for you. Service fees start at \$149 for an LLC and \$139 for a corporation; higher-priced packages include things like rush service, an official company seal, and custom stock cer-

tificates. Additional entities covered include nonprofits, limited partnerships, and DBA/business names.

## The Company Corporation

The Company Corporation specializes in Delaware and Nevada incorporations, but files in all states. It accommodates LLCs, nonprofits, S and C corporations, and professional corporations.

The site includes a good amount of information on the topics and also offers an economical \$99 option, which includes expedited completion and filing of the articles of formation, six months of Registered Agent service, company name search and reservation, and unlimited phone support. This is a good deal.

## BizFilings

From a link on its front page, BizFilings will give you a quick quote, laying out its three levels of service. The no-frills Basic service costs as little as \$95 (on a current promotion) for LLC filing, name check, and six months of Registered Agent service. If you filed in Delaware, the state fee would be \$90, so you'd get it all done for less than \$200.

Extras here include Federal Tax ID procurement, overnight shipping, and a business license application package. Some extras are offered free in the most senior service (currently \$195, not including state fees). An intermediate service is \$175 plus state fees. Extra services may be purchased à la carte. ■



# Beyond Numbers: Manipulating Text in Microsoft Excel

Excel is great for crunching numbers, but it's also a simple database solution for many. Luckily, with a few handy formulas, Excel can learn to crunch your alpha-bits too. *By Ben Z. Gottesman*

Common wisdom is that word processors are for text and spreadsheets are for numbers. The reality, however, is that while spreadsheets such as Microsoft Excel let you work with numbers in every imaginable way, they're also quite adept at manipulating text. This ability comes in very handy, and Excel is often used as a lightweight database to manage a wide variety of data lists.

Unfortunately, the text in your spreadsheets often won't be stored in a manner suitable to your needs. For example, you might have a list of people's names where each name is stored as **firstname lastname** (for example, John Doe) in a single cell. That's not conducive to sorting by last name. Or you might have a list of e-mail addresses and want to extract the domain names so you have a better idea of where your mail is going. Here I'll show you how you can use

Excel's functions to take control of the text in your spreadsheets.

## LEFT, RIGHT, MID

As their names imply, the LEFT, RIGHT, and MID functions let you extract the left, right, or middle portion of a string. The syntax for the left and right functions is the same:

`LEFT(text, num_chars)` and `RIGHT(text, num_chars)`

So if you enter the formula,

`=LEFT("pcmag",2)`, the result is "pc." Similarly, `=RIGHT("pcmag",3)` resolves to "mag."

pc	<code>=LEFT("pcmag",2)</code>
mag	<code>=RIGHT("pcmag",3)</code>

Typically, however, you want to use cell references instead of typing text directly into the



formula. So, if cell A1 reads “pcmag,” you’ll get the same results as above using the formulas `=LEFT(A1,2)` and `=RIGHT(A1,3)`.

pcmag	
pc	<code>=LEFT(A1,2)</code>
mag	<code>=RIGHT(A1,3)</code>

The MID function requires that you specify where in the middle of a string you want to start extracting text. The syntax is:

`MID(text,start_num,num_chars)`

So, if cell A1 contains the phrase “The Independent Guide to Technology,” you can extract the second word using the formula `=MID(A1,5,11)`.

The Independent Guide to Technology	
Independent	<code>=MID(A1,5,11)</code>

LEFT, RIGHT, and MID will likely be your most frequently used functions, but rather than specifying the number of characters as a constant, you’ll use a formula along with the functions below to calculate how many characters to extract.

### Finding Domain Names

Let’s suppose you have a list of e-mail addresses. Perhaps they’re people you plan to mail for a marketing campaign. You want to extract the domain names from each address so you can see which domains you’re mailing to. For example, here’s a small subset of our list:

one@pcmag.com  
two@ziffdavis.com  
three@appscout.com  
four@gearlog.com

We want to implement a formula to find **pcmag.com**, **ziffdavis.com**, **appscout.com**, and **gearlog.com**. We know that we’ll need the RIGHT function, but because the domain names vary in length, we won’t be able to use a constant for the number of characters. However, we know that the domain name appears after the @ symbol. We also know that the length of the domain name is equal to the length of the entire e-mail address minus the length of the local part (left side) of the address, including the @ symbol. Therefore, if we can find that symbol, we’ll find the domain name. To accomplish this, we’ll use Excel’s FIND and LEN commands.

Excel’s FIND command finds a string within another string. The syntax is `FIND(find_text,within_text,start_num)`. The **start\_num** parameter is optional. Use it if you don’t want to start searching from the first character in the **within\_text**. `LEN(text)` calculates the length of a text string.

If cell A1 contains our address, **one@pcmag.com**, then `=FIND("@",A1)` returns **4** because the @ symbol is the fourth character in the string; and the domain begins with the fifth character. `=LEN(A1)` returns **13** because the entire e-mail address is 13 characters long.

To find the domain name, we just take our three formulas, RIGHT, LEN, and FIND:

=RIGHT(A1,LEN(A1)-FIND("@",A1))

In other words,=RIGHT("one@pcmag.com",13-4) or RIGHT("one@pcmag.com",9). The domain name is the last nine characters in the cell: **pcmag.com**.

## Finding Filenames

Let's take this a little farther and introduce the SUBSTITUTE function. Suppose you have a list of JPEG photos on your computer and you want to figure out if there are any duplicates. Since the list contains the full path to the file, you need to extract just the filename. For example, if cell A1 contains the string:

**C:\Documents and Settings\Ben\My Documents\My Pictures\IMG\_1234.jpg**

you want to extract **IMG\_1234.jpg**. To do so, you're going to use the RIGHT function you just learned, along with a few additional functions. The formula is:

=RIGHT(A1,LEN(A1)-  
FIND("^^",SUBSTITUTE(A1,"\\",^^",LEN(A1)-  
LEN(SUBSTITUTE(A1,"\\",")))))

Obvious, right? Probably not, but what this formula is doing is figuring out how many backslashes (\) are in the cell, and then it's extracting the text to the right of the last backslash. SUBSTITUTE will help perform that extraction. SUBSTITUTE(*text*,*old\_text*,*new\_text*,*instance\_num*) replaces a **specific instance** of a string within a cell

with another string—the first time, or second time, or fiftieth time a string appears in the cell. If the **instance\_num** is omitted, all instances of **old\_text** will be replaced. Here are a few simple examples of how to use the function:

SUBSTITUTE("To be or not to be","be","see") results in **To see or not to see**.  
SUBSTITUTE("To be or not to be","be","see",2) equals **To be or not to see**.

So let's get back to the formula:

=RIGHT(A1,LEN(A1)-  
FIND("^^",SUBSTITUTE(A1,"\\",^^",LEN(A1)-  
LEN(SUBSTITUTE(A1,"\\",")))))

On the right side, LEN(A1)-LEN(SUBSTITUTE(A1,"\\",")) subtracts the length of the path, not including backslashes, from the actual length of the string. This tells us that there are five backslashes in the path.

LEN(A1) equals LEN("C:\Documents and Settings\Ben\My Documents\My Pictures\IMG\_1234.jpg") equals 67 characters.

LEN(SUBSTITUTE(A1,"\\",")) equals LEN(C:\Documents and Settings\Ben\My Documents\My Pictures\IMG\_1234.jpg), which equals 62 characters.

Now you have to figure out the length of the text to the right of the fifth backslash. By subtracting the position of this backslash from the length of the entire string, you'll have the length of the filename.

We know that the fifth backslash is the last backslash, but we don't yet know its



position within the full string. As you'll recall, the FIND function locates a search string's position within a string, but unfortunately, FIND is unable to search for a specific instance of a search string. It always finds the first instance after the designated starting position. That being the case, you need to make the final instance of the backslash different from the other backslashes so that the FIND function can identify its position and not that of one of the other backslashes. To do this, use the SUBSTITUTE function to change the last backslash to something unique—I chose two caret symbols (^ ^)—and then have FIND locate this unique text:

`=RIGHT(A1,LEN(A1)-FIND("^",SUBSTITUTE(A1,"\\", "^ ^",67-62)))` or `=RIGHT(A1,LEN(A1)-FIND("^",SUBSTITUTE(A1,"\\", "^ ^",5)))`

`=SUBSTITUTE(A1,"\\", "^ ^",5)` replaces the fifth instance of a backslash in the path with the string ^ ^.

`=FIND("^",SUBSTITUTE(A1,"\\", "^ ^",5))` finds the string ^ ^ within the new string that you've created. In other words:

`FIND("^", "C:\Documents and Settings\Ben\My Documents\My Pictures^^IMG_1234.jpg")` or 55.

The formula is now:

`=RIGHT(A1,LEN(A1)-55)`. As you recall, the length of your complete string is 67 characters, so this formula simplifies to:

`=RIGHT(A1,67-55)`, which equals:

`=RIGHT(A1,12)`. Thus the formula is telling Excel to return the 12 characters on the right side of the string, or **IMG\_1234.jpg**.

As you can see below, my formula works with any filename, no matter how far down in the OS's hierarchy it resides. If you're searching for filenames from a Mac, or Web addresses, just substitute a forward slash (/) for the backslash in the formula (see below).

(Note that you can use the SEARCH command instead of FIND. SEARCH is not case-sensitive, and it allows wildcards.)

c:\Documents and Settings\Ben\My Documents\My Pictures\IMG_1234.jpg	IMG_1234.jpg
C:\Documents and Settings\Owner\Desktop\Wedding\img010-1.jpg	img010-1.jpg
C:\Documents and Settings\Owner\Desktop\Wedding\img017 (10).jpg	img017 (10).jpg
C:\Documents and Settings\Owner\Desktop\Wedding\img017 (2).jpg	img017 (2).jpg
C:\Documents and Settings\Owner\Desktop\Wedding\img017.jpg	img017.jpg
C:\pending\IMG_10017.jpg	IMG_10017.jpg
D:\My Pictures\2009\New Year's\pic153979_lg.jpg	pic153979_lg.jpg
D:\My Pictures\2009\New Year's\DSCF2976.JPG	DSCF2976.JPG
C:\Wedding Photos\Album Photos\IMG_6701.jpg	IMG_6701.jpg
C:\Wedding Photos\img017.jpg	img017.jpg
C:\Wedding Photos\Album Photos\IMG_6936.jpg	IMG_6936.jpg
E:\photos\IMG_0539.jpg	IMG_0539.jpg



## Four-Digit ZIP Codes

Quite often when I receive a spreadsheet that contains ZIP codes, the ZIPs have been interpreted as numbers and leading zeroes are therefore dropped. For example, 07726 would appear as 7726. This can introduce errors, and if you planned to use the spreadsheet to create mailing labels as part of a mail merge, it will definitely be a problem.

The TEXT function converts numeric cells to strings in the format of your choosing. The syntax is TEXT(*value*, *format\_text*). Excel provides an incredibly rich set of options for defining nearly any number format imaginable. But for an example, I'll just use:

```
=TEXT(A1,"0####")
```

This tells Excel to make the cell value a string that's five characters in length, even if the leading character is a zero. So, =TEXT(7726,"0####") equals **07726**.

Conversely, there may be times when you open a spreadsheet where numbers are being interpreted as strings, preventing you from doing math on them. To convert a string to a number, use the VALUE function. The syntax is simply VALUE(*string*). =VALUE(07726) becomes 7,726.

## Stringing Strings Together

Sometimes you'll want to combine multiple strings together. To do so, you can use either the ampersand (&) symbol, or the CONCATENATE function. Choosing between the two comes down to personal preference.

Suppose you have a list of ten-digit

phone numbers such as 2125551212. Excel will interpret this as the cardinal number 2,125,551,212. Using LEFT, MID, and RIGHT, and a concatenation tool, you can turn this into something that looks like a proper phone number:

If you want the format to be ###-###-####, the formula is:

```
=LEFT(A1,3)&"-"&MID(A1,4,3)&"-"&RIGHT(A1,4)
```

or

```
=CONCATENATE(LEFT(A1,3),"-",MID(A1,4,3),"-",RIGHT(A1,4))
```

If you want parentheses around the area code, change the formulas to:

```
=("("&LEFT(A1,3)&")"&"("&MID(A1,4,3)&")"&RIGHT(A1,4)
```

or

```
=CONCATENATE("("&LEFT(A1,3)&")",MID(A1,4,3),"-",RIGHT(A1,4))
```

Either will return (212) 555-1212.

## Even More Text Functions

If the functions explained here just whetted your appetite, check out Excel's Help for a list of text functions. Most of them aren't limited to Excel, either. If you use Zoho Sheet to create and edit spreadsheets in your browser, you'll be able to use all these same functions. You can also use them in Google Spreadsheet, though it doesn't currently support leading zeroes in the TEXT function. ■



# Five Simple, Free Security Hacks

**Security software is the lock on your PC's front door, but you can also make that door less attractive to crooks. *By Matthew D. Sarrel***

**L**et's talk about security hacks—simple yet clever ways to protect yourself and your PC that cost little or nothing.

Here are my five favorites. It should go without saying that none of these can replace good, up-to-date antivirus and firewall protection, but they can make stealing your system or data difficult or unappealing.

**1** It's simple, yet surprisingly effective: Remove the keyboard and mouse. It's highly unlikely that a snoop will carry an extra keyboard and mouse with him. This will slow someone down but is far from foolproof, and it should go without saying that every computer should be physically locked to a sturdy object and secured behind a strong password.

**2** To protect from *podslurping* (the connecting of an unauthorized USB device and its use to steal data), disable your USB ports. Or—and we borrowed this one directly from the U.S. military—epoxy over the USB ports. Too permanent?

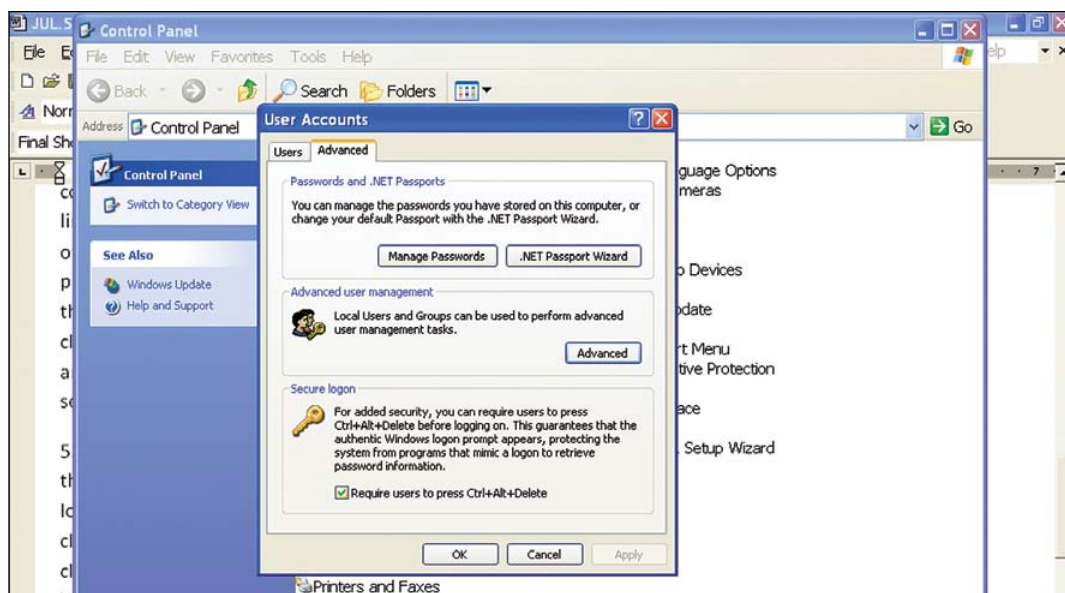
A slightly more elegant solution is to open the PC case and disconnect (or cut) the wires running from the motherboard to the USB ports.

**3** Traveling with a laptop? Try not to advertise that you're carrying a valuable piece of equipment: Use a computer bag that doesn't look like a computer bag, or use a neoprene sleeve inside a regular backpack. If you nap at the airport, wrap the shoulder strap around your arm or leg so you'll be alerted if someone tries to walk away with your bag.

**4** Here's an easy way to hide your Windows PC on a network while maintaining access to network resources. (This also works when you want stealth but still want to let others access your shared resources.) At the command prompt, type

```
Net config server /hidden:yes
```

Now you're still a member of your network neighborhood, but your PC won't show up when others browse for it. Make sure your



**ENABLE  
SECURE LOG-  
ON** Make sure  
anyone trying to  
log on to your  
system has to  
press Ctrl-Alt-  
Del first.

software firewall is turned on, and block incoming ICMP traffic. This will prevent a network intruder from scanning for your PC using a ping sweep.

Once you are hidden on the network, you can spend some time trying to figure out who, if anyone, is connecting to your PC and to whom your PC is connecting. To accomplish this, you'll use the command-line tool Netstat and the Task Manager. Get to the command prompt and type

```
netstat -ao
```

A bunch of info will flash by on your screen listing the type of connection, the IP addresses of remote hosts, the protocols, and the process identifier, or PID. If there's something here you don't recognize, write down the PID. Now, open the Task Manager and add the PID column by opening the **View** menu and clicking on **Select Columns**. Check the box next to **PID**. Now match the

PID from Netstat and the PID from Task Manager to learn which applications are holding which ports open. A well-secured machine should have ports open only for authorized apps.

**5** One last idea: Enabling secure log-on in Windows XP and Vista will protect your system from malware that attempts to impersonate a log-on screen to steal system passwords. This forces anyone trying to log on to press Ctrl-Alt-Del first. In Windows Vista, open the Run command, type **netplwiz**, and click **Continue** when prompted by User Account Control. In the Advanced User Account window, click the Advanced tab, then select the box that says **Require users to press Ctrl-Alt-Delete**. In Windows XP, go to the Control Panel's User Accounts applet. In the Advanced User Account window, click the Advanced tab, then select the box that says **Require users to press Ctrl-Alt-Delete**. ■

# Tech Tips

Useful tidbits from PCMag editorial staff, Labs analysts, and readers

## NETWORKING & SECURITY

### Watch Out for Wireless Bad Guys

Ad hoc networking can be handy, but it can also be a security nightmare: Scammers can pretend they're an AP so that you'll connect to them. So if you're connecting to a wireless network in a hotel or coffee shop, always be sure about the SSID (network name).

—Eric Griffith

## WINDOWS

### A Quick Fix for Vista Problems

Does Windows Vista seem sluggish to you? The slowdown could be caused by any number of things, but there's an easy way to cross a few off your list: Run the built-in System File Checker, which scans through all the bits and pieces of Windows Vista to make sure they're in the right place. If it finds a corrupt or missing file, the utility will repair it for you, too. There's no user interface to the tool, however, so to launch it you'll have to resort to the Command Prompt. In the Start menu, type **command**, then right-click on Command Prompt and choose **Run as Administrator**. When the command prompt opens up, type **SFC/scannow** to start the file checker.—Jeremy A. Kaplan

## HARDWARE

### FAT Drives Lie

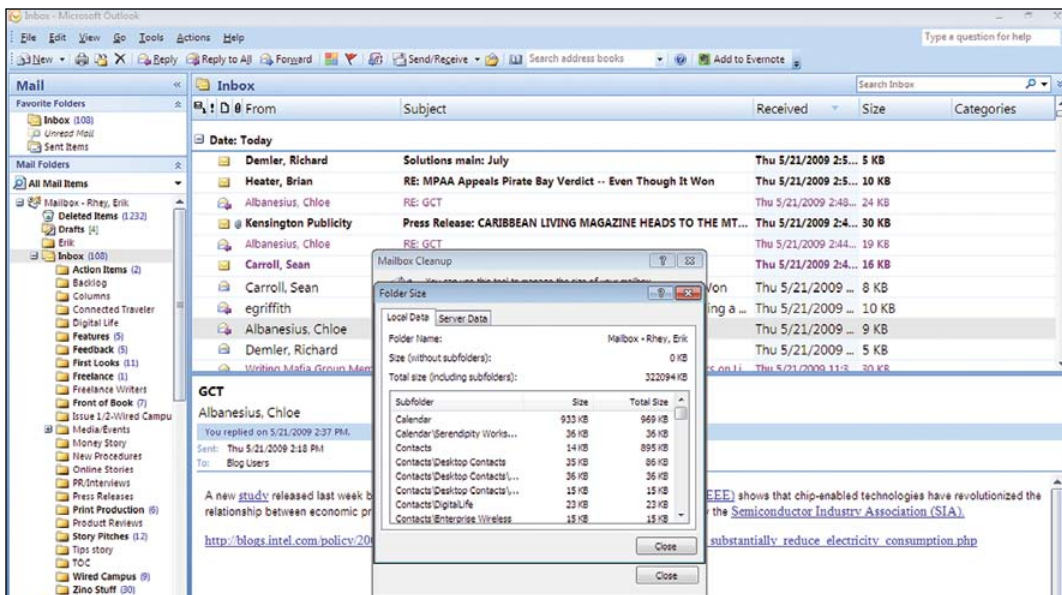
If you copy lots of small files to a USB drive, you may get a "Disk full" message even if plenty of space is left. This is especially likely if the small files have long names. USB drives are formatted using the FAT file system, and their root directory has a fixed number of directory entries. Every file has to have a directory entry, and those with long file-names take more than one. If you fill up the root directory you can't add any more files. The solution is simple. Move at least one file off the drive, so the root directory is no longer full. Create a subdirectory and give it any name you like. Now copy all the rest of your files into the subdirectory. Unlike the root directory, it will expand as needed, so you won't get a "Disk full" error until the USB drive is really, truly full.—Neil J. Rubenking

## MOBILITY

### Make Cheap Calls Overseas

Calling with your mobile phone from overseas can be expensive—unless you use Wi-Fi. The easiest way to make cheap Wi-Fi calls is to use a T-Mobile HotSpot@Home phone: It's totally seamless, and you even





## MAILBOX MAINTENANCE

The *Mailbox Cleanup* option in Outlook can tell you which folders are taking up too much space.

keep your ordinary T-Mobile phone number when you call from a Wi-Fi network. But you can also use Skype on Windows Mobile phones, Gizmo VoIP on Nokia smartphones, or Truphone on the iPhone and iPod touch. Want to be extra safe from roaming charges? Make sure you've turned off your mobile network and have only Wi-Fi on. —*Sascha Segan*

## OUTLOOK

### How Big Is My Outlook Mailbox?

When your Microsoft Outlook inbox is bursting at the seams, you should find out exactly how much space your messages and attachments are taking up—and which folders are responsible. Click **Tools | Mailbox Cleanup...** and you'll see a button marked **View Mailbox Size....** Click it to bring up a dialog showing the total size, along with breakdowns by each folder. The tool also lets you search for large and old files, archive your inbox, and empty deleted items. —*Michael Muchmore*

## MULTIMEDIA

### Fix a Corrupt iTunes File

If you download a lot of files on iTunes, particularly videos, eventually you're bound to get a corrupt file that can't finish downloading. As a fix, iTunes might prompt you to "Check for Available Downloads" under the Store menu, but chances are this will only redownload the corrupt file, sticking you with something you paid for that doesn't play. The solution? Easy. On a Mac, go to Users\User\Music\iTunes\iTunes Music\Downloads. In the Downloads folder, you'll find the TMP folder for the corrupt file—delete it. Then click on Check for Available Downloads: iTunes will download a fresh, uncorrupted file, and you'll get your money's worth. On a PC, it's basically the same drill. For Windows XP, the folder path is: Documents and Settings\User\My Documents\My Music\iTunes\iTunes Music\Downloads. In Vista, it's Users\User\Music\iTunes\iTunes Music\Downloads. —*Tim Gideon*



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# TheBe

## DESKTOPS

### MAINSTREAM

**HP Pavilion Elite m9400t**  
\$843 list

### BUDGET/VALUE

**Lenovo IdeaCentre K220**  
\$699 list

### GAMING/ MULTIMEDIA

**NEW Falcon Northwest Mach V**  
(Core i7-975) \$8,240 direct

**Dell Studio XPS 435**  
\$1,769 direct

### ALL-IN-ONE

**Apple iMac (Nvidia GeForce 9400M)** \$799 list

**NEW Lenovo IdeaCentre A600**  
\$799 direct

### BUSINESS

**NEW Lenovo ThinkCentre M58p Eco Ultra Small**  
\$1,089 direct

## LAPTOPS & NOTEBOOKS

### MAINSTREAM

**Apple MacBook Pro 15-inch (Penryn)** \$2,899 direct

### GAMING

**Alienware M17** \$2,059 direct

### MULTIMEDIA

**HP HDX16t** \$1,790 direct

### DESKTOP REPLACEMENT

**Acer Aspire 6930G-6723**  
\$1,020 street

**Dell Studio XPS 16** \$1,804 direct

### NETBOOK

**ASUS EeePC 1000HE**  
\$400 street

### BUSINESS

**Lenovo ThinkPad T400**  
\$1,580 direct

### BUDGET

**HP Pavilion dv2800t**  
\$1,049 direct

**Acer Aspire 3935** \$900 street

## STORAGE

### PORTABLE

**Lenovo ThinkPad USB Portable Secure Drive**  
\$319 list

**Clickfree HD325** \$180 list

**OCZ Rally2 Turbo USB 2.0 Flash Drive (32GB)**  
\$80 street

### DESKTOP

**Western Digital MyBook Studio Edition II** \$430 list

### NETWORK-ATTACHED STORAGE

**HP StorageWorks AiO400t**  
\$3,799 list

## LCD MONITORS

**HP LP2275w** \$349 direct

**Dell UltraSharp 2408WFP**  
\$689 direct

**NEW Acer B273HU** \$409 list

## SCANNERS

**Canon CanoScan 5600F**  
\$149.99 direct

## PROJECTORS

**Canon Realis X700** \$2,500 list

**NEC VT800** \$1,000 street

**Dell M109S** \$499 direct

## PRINTERS

### MONOCHROME LASER

**Samsung ML-2851ND** \$150 street

### COLOR LASER

**Lexmark C544dn** \$499 direct

### STANDARD INKJET

**Canon Pixma iP4300**  
\$99.99 direct

### ALL-IN-ONE INKJET

**NEW HP Officejet Pro 8500 Wireless All-in-One**  
\$400 direct

### PHOTO PRINTER

**HP Photosmart A636 Compact Photo Printer**  
\$149.99 direct

## NETWORKING

**Netgear XAVB101** \$130 street

**SMC SMCGS8P** \$300 street

**Spiceworks 3.5** Free

**CloudEngines Pogoplug**  
\$99 direct

**NEW Windows Server 2008 R2**  
Free with Server 2008 license

**NEW Cisco Network Magic Pro 5.5** \$39.99 direct

## HDTVS

### PLASMA

**Vizio VP505XVT** \$1,499.99 list

### LCD

**Sharp Aquos LC-52D85U**  
\$2,099.99 direct

**Sony Bravia KDL-46XBR8**  
\$3,999.99 list

**Samsung LN52A750** \$3,999 list

### OLED

**Sony XEL-1 OLED Digital TV**  
\$2,499.99 list

## DIGITAL CAMERAS

### COMPACT

**Canon PowerShot A1000 IS**  
\$349.99 list

### D-SLR

**Nikon D300** \$1,800 street

**NEW Canon EOS Rebel T1i**  
\$899.99 list

### SUPERZOOM

**Panasonic Lumix DMC-FZ18**  
\$399.95 list

## DIGITAL VIDEO CAMERAS

**Creative Vado Pocket Video Cam HD** \$299.99 direct

**Sony HDR-SR11** \$1,099.99 direct

# stStuff

## DIGITAL PHOTO & VIDEO

### MULTIMEDIA SUITE

**Adobe Creative Suite 3**  
\$999 direct

### VIDEO-EDITING SOFTWARE

**CyberLink DVD Suite 7 Ultra**  
\$129.95 direct

### PHOTO EDITING

**Adobe Photoshop CS4**  
\$1,150 list

**Picasa 3 (beta)** Free

### DIGITAL PHOTO FRAME

**Sony VAIO VGF-CP1** \$299 list

## MP3 PLAYERS

**Microsoft Zune 120GB** \$249 list

**Apple iPod touch** 8GB,  
\$229 direct

**Apple iPod nano** 16GB,  
\$199 direct

**Samsung YP-U3 (2GB)** \$90 list

## SPEAKERS/DOCKS

**Chestnut Hill Sound George**  
\$549 direct

**Hercules XPS 2.1 Lounge**  
\$60 street

**Logitech Pure-Fi Dream**  
\$200 direct

## MEDIA EXTENDERS

**Sonos Bundle 150** \$999 direct

**Slingbox PRO-HD** \$299 list

## GAMING CONSOLES

**Sony PlayStation 3** \$399 direct

## GPS DEVICES

**Garmin nüvi 265T** \$279.99 list

**TomTom One 140-S** \$199.95 list

## GADGETS

**Amazon Kindle 2** \$359 direct

## CELL PHONES

### ALLTEL

**RIM BlackBerry Curve 8330**  
From \$229.99 with contract

### AT&T

**Apple iPhone 3G**  
From \$199.99 with contract

### SPRINT

**RIM BlackBerry Curve 8330**  
\$179.99 with contract

### T-MOBILE

**Samsung Memoir SGH-t929**  
\$299 direct

### VERIZON WIRELESS

**Samsung Knack SCH-u310**  
\$39.99 with contract

### UNLOCKED

**Nokia N82** \$629 direct

## HEADSETS

**Aliph New Jawbone** \$129.99 list

**Plantronics Voyager Pro**  
\$99.99 list

## HEADPHONES

**Ultimate Ears MetroFi 170**  
\$49.99 list

## 3G NETWORK ADAPTERS

### SPRINT

**Sierra Wireless 598U**  
\$249.99 list

## OFFICE & PRODUCTIVITY

**Adobe Acrobat 9 Pro**  
\$449 direct

**QuickBase** \$250 direct per month

**Skype 4.0** Free

**Ipswitch Iml Server Premium v10** 25 licenses, \$1,195 direct

**Viigo for BlackBerry** Free

**Dragon NaturallySpeaking 10**  
\$99.99 direct

**Adobe Illustrator CS4**  
\$599 direct

## IPHONE APPS

**Air Sharing** \$6.99 direct

**Stanza** Free

**Photogene** \$2.99 direct

## ENTERTAINMENT

**Pandora (for iPhone)** Free

**Rhapsody** From \$12.99 per month

**Slacker** Free

**Apple iLife '09** \$79 direct

**SimCity 2009 (for iPhone)** Free

**MLB 09: The Show** \$59.99 list

**Hulu (Spring 2009)** Free

## SECURITY

### PASSWORD PROTECTION

**LastPass 1.5** Free

### ANTIMALWARE

**NEW Prevx 3.0**  
\$29.95 direct per year

### ANTIVIRUS

**Webroot AntiVirus with AntiSpyware 6.0** \$39.95 direct

### SUITE

**Norton Internet Security 2009** \$69.99 yearly

**Norton 360 version 3.0**  
\$69.99 yearly

**Net Nanny 6.0** \$39.99 yearly

## BACKUP

**SOS Online Backup (beta)**  
\$19.95 direct

**Dropbox**  
2GB, free; 50GB, \$9.95 monthly

## FINANCIAL

**QuickBooks Accounting Pro Edition 2009** \$199.95 list

**Quicken Home & Business 2009**  
\$79.99 direct

**Mint.com (Winter 2009)** Free