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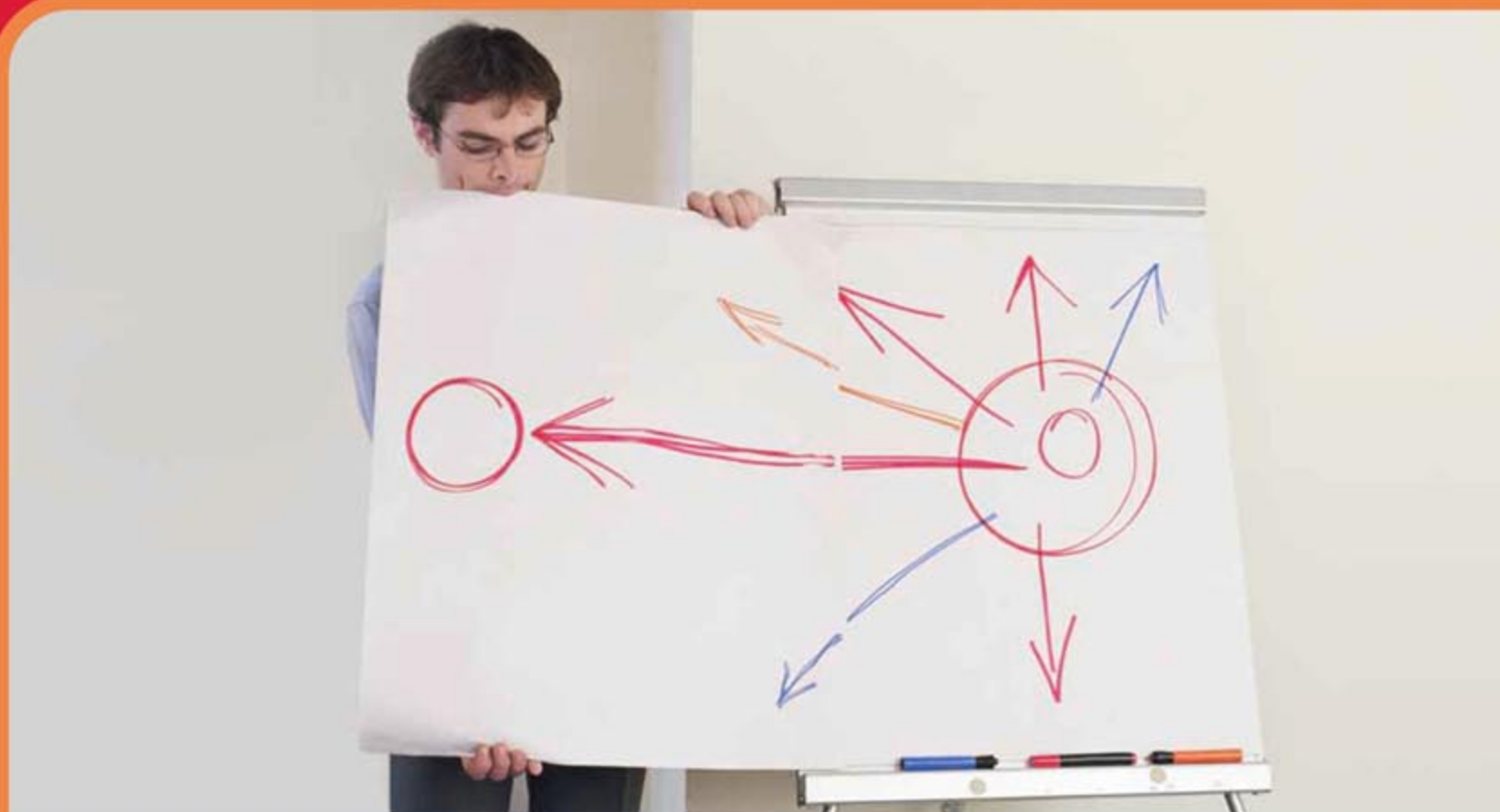
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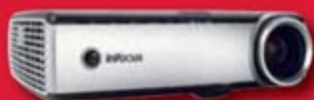
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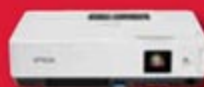
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COVER STORY

66 35 Things Every PC User Should Know

In this all-in-one guide, we've collected instructions for performing essential tasks that will keep your PC, your Internet and network connections, and your mobile devices humming. Whether you need to solve a nagging problem or just want to make a few helpful tweaks, our tips and how-to's will point the way.

Cover photography by Robert Cardin.



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PC WORLD

MARCH 2007
VOLUME 25 ♦ NUMBER 3
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FEATURES

BROWSER TOOLS

87 Build the Perfect Browser

Here's a comprehensive look at add-ons and tools designed to boost performance for the latest versions of Internet Explorer and Firefox. Simplify site sharing, sharpen your searches, sync your bookmarks, protect your privacy and gather news more quickly. Plus: toolbars, download managers, network settings optimization, ad blocking, tabbing, and more.



AUDIO PLAYERS

94 Jukebox in Your Pocket

The latest audio players do much more than just play tunes—and the best of them sound top-notch. Many new models play video and connect to music services, and one lets you wirelessly share music and photos with others. We test 21 flash- and hard-drive-based players, and reveal which have the features and performance you want.

ON THE COVER





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Ultimate Windows Guide: From XP to Vista, our tips will keep your OS running in tip-top shape.

Motherboards: We test the latest models for Intel and AMD processors and choose the best buys.

Cell Phone Tips: E-mailing voice mail? Texting a Google search? Make your phone act like a PC.

Zero-Day Attacks: We explain what they are, why they're on the rise, and how to protect yourself.



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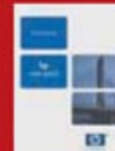


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For Browsers, the Best of Times Is Now

It's not just the Web that's evolving fast—so is the software we use to get there.

"BROWSER." ONCE UPON a time, that was a logical moniker for the applications we use to navigate the Web. In 2007, it's pitifully inadequate. Sure, we still browse. But the same software lets us talk to the world, share stuff of all kinds...even crunch numbers and process words.

Browsers can do it all. Which is why it's more likely than ever that you practically live in yours—and why this issue features "Build the Perfect Browser" (page 87), Associate Editor Erik Larkin's review of Internet Explorer and Firefox add-ons, from interface tweekers to security fixers.

As cool as today's array of add-ons is, it's only one enjoyable aspect of what Erik says is "a great time to be a browser user." Right now, more viable options are angling for your attention than at any time since the browser wars of the mid-1990s. Yet it feels less like a battle royal this time around and more like a period of peace and harmony. That represents a tremendous change from just a few years ago, when Internet Explorer 6 was outdated, unsafe, and—for millions of people—unavoidable, since many major sites were unusable with other browsers.



ERIK LARKIN, PCW'S man on the browser beat.

When IE 7 arrived last fall, we finally got a Microsoft browser that's...well, decent. More important, there's less and less reason why anyone should feel trapped into using IE. Sites that require it

are a vanishing breed: I could tell that the sea change was nearly complete when MSNBC.com, co-owned by Microsoft, dumped its IE-only video player for one that works equally well in Firefox.

Tempted to leave IE? Firefox and Opera, the powerful browser from Norway, are far from your only options. These days, in fact, they're part of the old guard. Newer alternatives abound: Flock, for instance, offers built-in blogging, and K-Meleon is snappy even on low-end hardware. (Both are built on the same open-source underpinnings as Firefox, but they're by no means clones.)

Neither Flock nor K-Meleon is the best choice for everybody, but that's kind of the point. On today's Web, a browser doesn't have to be the right one for all users in order to thrive—it just needs to be the right one for somebody. And that's yet another reason why it is, indeed, a terrific time for browsers and the folks who use them. ■

Harry McCracken is editor in chief of PC World. All browsers mentioned here are available at www.pcworld.com/downloads.

IN MEMORIAM



mandate, which was to make our content as clear, fair, and accurate as possible. You have benefited from his expertise

SHORTLY BEFORE WE went to press this month, PC World lost a beloved friend and colleague when Senior Technical Editor Rex Farrance was murdered in a home invasion at his residence in Northern California. With 19 years on staff, he was our longest-serving editor, and he was endlessly dedicated to his job's

every time you read PCW, whether or not you knew his name.

We, his coworkers, benefited simply from knowing the guy. Rex was an upbeat, wry presence around the office, and he was an astute student of technology and life in general. Most of all, he was among the most courteous, considerate individuals any of us have ever met—both a gentleman and a truly gentle man.

Outside the office, he had many passions, from rock guitar to weight lifting. But anyone who met him, even casually, knew that the biggest one by far was his family. He leaves his wife and four grown children, and he was a proud grandfather. For more on Rex, see our tribute at find.pcworld.com/56213.

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NEWS & TRENDS

EDITED BY EDWARD N. ALBRO

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Vista PCs Perform

IN OUR TESTS, THE FIRST DESKTOPS LOADED WITH THE NEW OPERATING SYSTEM PROVE TO BE SOLID PERFORMERS, BUT SOME ROUGH EDGES REMAIN. **BY RICHARD BAGULEY**

TEST IT'S BEEN A long wait, but Windows Vista PCs are here. We evaluated the first set of desktop systems with Microsoft's new operating system preloaded—and the results of our benchmark performance tests show that even sub-\$1000 systems can ably handle Vista. But some of the new OS's highly touted features aren't present in these first Vista desktop systems.

If you're planning on buying a PC after January 30, you may be destined to get Vista on your machine whether you want it or not. Of the four vendors whose systems we tested, each is taking a differ-



VISTA RUNNERS: The high-end Gateway FX530XT (left) was our top Vista PC performer, while Dell's more modestly configured Dimension C521 was our slowest.

ent approach to integrating Vista. Once the new OS ships, Dell and Gateway are switching exclusively to Vista for consumer desktops and note-

books. These two companies will also continue to sell systems running Windows XP, but only through their respective business divisions. Mean-

while, CyberPower and Shuttle will continue to offer XP as an option on their consumer systems.

We found a similar schism among some other PC vendors that we've spoken with (but whose systems were not included in this story). Polywell will be sticking with XP as the default option, installing Vista only if the customer requests it. And even then, the company will install both Vista and XP, allowing the user to choose which OS they

want to boot the system into. At this writing—before Vista's retail store launch, but after manufacturers had received the final version of

PHOTOGRAPHS: MARC SIMON

the operating system—Polywell CEO Sam Chu claims that Vista is still having compatibility problems with many applications and drivers.

Chu is not the only vendor we talked to who expressed concern over the state of readiness—or lack thereof—of Vista's drivers. "Right now, we're seeing some issues on the R&D side," according to Marc Diana, product marketing manager for Alienware.

able on our workstation line, because those customers are more sensitive to the idea of switching, and some of their applications may not work on Vista. We wanted to leave the option for them."

Hewlett-Packard, on the other hand, is taking a route similar to Dell's and Gateway's. In its online store for consumer systems, HP will switch to Vista at launch. At retail, the company will let

hard drives that will speed up disk access (see find.pcworld.com/56102 for more information); notebooks with these hybrid drives will be available first, and they're not arriving until about midyear, maybe sooner. Furthermore, the desktops we looked at also lack the secondary SideShow displays that can access and show you system information. These displays may be integrated into peripherals, such as a keyboard or a remote control, or potentially even the PC's chassis itself.

TESTING VISTA PCs

IN TERMS OF hardware, the first six desktops we tested are identical to same-model XP PCs we've seen over the past few months, and have no specific features that take advantage of the Vista operating system. By comparison, early Vista notebooks are poised to take better advantage of the new OS (see "Vista Opens New Directions for Laptop PCs" on page 24).

Although the first of these systems to cross our lab bench were all desktops (Vista notebooks were not available in time for this article), major laptop makers, including Asus, Dell, Gateway, Hewlett-Packard, and Toshiba, say they will be selling Vista notebooks at the same time Vista desktops go on sale. Adding Vista to a portable can be more challenging for a vendor than adding it to a desktop PC; among other things, ►



VISTA ALL THE way: Dell's Dimension XPS 410 (left) and its XPS 710 gaming system. Dell will switch to Vista exclusively once the operating system ships.

The issues, he says, are related to things like graphics card drivers (our test systems with both ATI and nVidia used beta drivers during this story), and software, such as that used for Blu-ray Disc playback. "If this continues post-launch, we will give our customers the option of XP. Most likely, though, [these problems] will get sorted out before launch."

Barring ongoing driver issues, Alienware plans to offer only Vista Home Premium on its consumer desktops and notebooks. However, says Diana, "We will have XP avail-

existing stock run its course; Vista will be the OS thereafter. HP will continue to offer business desktop and laptop PCs with XP Professional and Vista as options, through the end of 2007. By early 2008, though, HP expects to offer only Vista on business PCs.

Velocity Micro will switch to Vista at launch, both at retail and via its online store.

Notably, these first-generation Vista desktops lack some of the components that take advantage of the interesting features in Windows Vista. For example, they don't include the ReadyDrive hybrid

IN BRIEF

Product Pipeline



APPLE CELL PHONE:

Apple says its long-awaited iPhone will be available in June and will work exclusively on the AT&T (formerly Cingular) wireless network. The iPhone, priced at \$499 or \$599, features a 3.5-inch touch screen and includes integrated Wi-Fi and Bluetooth. The iPhone will synchronize via iTunes and sync calendars, e-mail accounts and photos.



HARD-DISK MILESTONE:

Hitachi is gunning to be the first to market with a mammoth 1-terabyte hard disk. By March the company planned to release a 1TB Deskstar 7K1000 hard drive for \$400. The 7200-rpm, 3.5-inch SATA drive will target high-performance applications. Seagate says it will release a 1TB drive by June, but had no pricing or model information at press time.

installing it requires testing Vista's power-management system, which will affect battery life differently than XP's implementation does.

We looked at a mix of expensive, high-performance PCs and sub-\$1000 value systems. The desktop makers included CyberPower (the \$999 Gamer Infinity 7500); Dell (three models: the quad-core, \$4224 XPS 710; the \$1954 XPS 410; and the \$979, bargain-basement C521); Gateway (the speedy \$4500 FX530XT); and Shuttle (the compact, \$1860 G2-3200).

All of them came with the Home Premium version of Vista installed, with at least 1GB of memory, and with dedicated graphics—the minimum specifications that we found you need to run Vista effec-

tively (see "Lab Tests: Vista's Fast If You Have the Hardware," find.pcworld.com/56151, in which we tested single-core and dual-core systems running Windows Vista Ultimate Edition).

In our hands-on tests, we found that these systems were quite capable of running the advanced, more graphics-intensive features of Vista. Even the sub-\$1000 Dell C521

(which displays your programs like a pack of cards as you switch among them).

VISTA GOTCHAS

DRIVERS ARE CRITICAL to your PC; they are the files that let your OS communicate with devices such as graphics cards, printers, or storage devices. All drivers have to be rewritten for Vista, but not all may be ready at launch, and some older peripherals may never get an updated driver.

The lack of Vista drivers for some peripherals could be a major issue for many users. For example,

with the beta drivers in our tests, games ran significantly slower under Vista than under Windows XP. In earlier testing of the Dell XPS 710 running Windows XP, this sys-

tem ran at 143 frames per second in the game Far Cry at 1024 by 768 resolution. An identical system using the same settings with Vista managed a frame rate of just 108 fps—some 24 percent slower.

Our other test game, Doom 3, didn't run at all on the Vista systems that used ATI graphics cards; at this writing, ATI's beta drivers for Vista don't support the OpenGL graphics system that this game requires. nVidia's beta driver, however, did support OpenGL graphics. ATI and nVidia both claim that they will have full versions of their drivers ready by the time Vista ships.

WORLDBENCH 6 BETA

TO TEST THESE new Vista systems, we used a beta version of *PC World's* test suite, WorldBench 6, which has been optimized for Win- ▶

These systems could handle the graphical features of Vista.

and CyberPower Gamer Infinity 7500 could handle features such as the new, translucent Aero Glass effects. We were also able to successfully use features such as Flip 3D

TEST REPORT

EXCLUSIVE TESTS: FIRST VISTA DESKTOP PC BENCHMARKS

QUAD-CORE PCs RUNNING Intel's Core 2 Extreme QX6700 CPU did better on our WorldBench 6 (beta) suite than dual-core systems, and Gateway's FX530XT led the pack, excelling on all of our productivity tests. But as our gaming trials show, not all units had fully baked graphics drivers at the time of testing.

| VISTA PC | Price | CPU | Graphics | RAM (MB) | WorldBench 6 (beta) score ¹ | Productivity tests (seconds) ² | | | | Gaming tests (fps) ³ | |
|--------------------------------|--------|---|----------------------------------|----------|--|---|---------------------|----------------------------------|---------------------------------|---------------------------------|------------------|
| | | | | | | Multitasking: Firefox and Windows Media Encoder | Adobe Photoshop CS2 | Autodesk 3ds max 8.0 (rendering) | Microsoft Office 2003 (seconds) | Far Cry | Doom 3 |
| CyberPower Gamer Infinity 7500 | \$999 | 2.4-GHz Core 2 Duo E6600 | EVGA GeForce 7900GS | 1024 | 108 | 265 | 449 | 671 | 353 | 112 | 124 |
| Dell Dimension C521 | \$979 | 2.4-GHz Athlon 64 X2 4600+ | ATI Radeon X1300 | 2048 | 91 | 359 | 597 | 774 | 395 | 81 | n/a ⁴ |
| Dell XPS 410 | \$1954 | 2.4-GHz Core 2 Duo E6600 | GeForce 7900 GS | 2048 | 118 | 291 | 387 | 672 | 362 | 109 | 111 |
| Dell XPS 710 | \$4224 | 2.66-GHz Core 2 Extreme QX6700 | GeForce 7950 GX2 | 2048 | 129 | 258 | 360 | 348 | 342 | 108 | 120 |
| Gateway FX530XT | \$4500 | 2.66-GHz Core 2 Extreme QX6700 ⁵ | ATI Radeon X1950 XTX (Crossfire) | 4096 | 148 | 211 | 295 | 292 | 325 | 159 | n/a ⁴ |
| Shuttle G2-3200 | \$1860 | 2.13-GHz Core 2 Duo E6400 | ATI Radeon X1300 | 2048 | 100 | 325 | 495 | 755 | 370 | 62 | n/a ⁴ |

TEST CHART NOTES: All systems ran Windows Vista Home Premium edition. Best scores are in bold. **FOOTNOTES:** ¹ Results are not comparable with WorldBench 5 scores. ² For timed tests, lower numbers are better. ³ Tests performed at 1024 by 768 resolution with antialiasing turned off; higher rates of frames per second (fps) are better. ⁴ n/a = not applicable. Systems with ATI-based graphics were unable to complete this test. ⁵ Factory-overclocked to 3.2 GHz.

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dows Vista. This performance benchmark runs a variety of common tasks in several programs (such as processing a photo in Adobe Photoshop and opening a complex Web page in Firefox) and times how long these tasks take. WorldBench 6 uses, among other things, updated applications (such as Adobe Photoshop CS2), and more demanding tests employing, for example, bigger files, as on our Photoshop test. The WorldBench 6 test results can't be compared with WorldBench 5 results for our desktop PC reviews or with other tests.

THE RESULTS

THE TOP SCORE in our evaluations went to the speedy Gateway FX530XT, which was the quickest in every test it completed; the ATI graphics card it came with, however, failed to run our Doom 3 game. Providing the Gateway's zip was an over-clocked quad-core Intel Core 2 Extreme QX6700 processor (running at 3.2 GHz, up from the standard 2.66 GHz).

The FX530XT completed our Photoshop component in 295 seconds, while the next-fastest system (the Dell XPS 710) took 360 seconds, meaning that the Gateway was 22 percent faster. It sped through our multitasking test—in which a video encoder and a Web browser run at the same time—in only 211 seconds.

The speedy performance of the FX530XT is likely helped not only by the processor, but by the 4GB of fast DDR2 memory Gateway included;

that's double the amount of system RAM we typically see on a power desktop.

The \$4500 FX530XT is well tricked out—and is one of the most expensive systems we've tested recently. Its compact configuration leaves little room for expansion, though.

The Dell XPS 710, the second-best performer here, lagged the Gateway by 10 to 20 percent on most of our tests. At \$4224, it's slightly

test was a little slower than the times of the more expensive models, but fast enough to prove its mettle at juggling simultaneous tasks.

Although our previous tests have shown that adding more memory to Vista systems often boosts performance, the CyberPower Gamer Infinity 7500 proves that performance is not just about memory: With its Core 2 Duo E6600 processor and 1GB of RAM,

tem lagged behind the other machines in all of our tests except the Far Cry game. It took a rather lengthy 597 seconds to run the Photoshop test, or about twice as long as the Gateway model. The C521 was also very slow in multitasking, taking 359 seconds to complete a test that the XPS 710 finished in 258 seconds—28 percent slower. Even when compared with a more similarly equipped system, such as the CyberPower, this Dell PC was poky, requiring 148 seconds more to complete our Photoshop test.

To be fair, even running Vista, this very inexpensive system is fast enough for general computing tasks. Gaming is a different story, though: With an ATI Radeon X1300 graphics card, it managed just 81 frames per second in Far Cry at 1024 by 768 resolution, and a marginal 25 fps in Doom 3.

The \$1860 Shuttle G2-3200 proved to be a mixed bag: This diminutive PC came in near the bottom in performance, taking a lengthy 495 seconds to complete our Photoshop test. Its other performance results were equally slow, with our multitasking test taking a protracted 325 seconds.

Although the small case means that this machine could be squeezed into tight spots, it also means it has little room for expansion: There are no vacant PCI or PCI Express card slots, and only a single vacant drive bay. Shuttle also discourages users from opening the case themselves to install upgrades. ►



less expensive than the Gateway, and its large case provides a lot more room for expansion than does the cramped FX530XT. It was also significantly quieter: The case allows room for bigger, less noisy fans to remove heat from components like the CPU and the GeForce 7950 GX2 graphics card.

Dell's \$1954 XPS 410 proved to be a good balance of price and performance: Built around an Intel Core 2 Duo E6600 dual-core processor, it ran through our Photoshop test in a reasonably quick 387 seconds, ranking third among these six systems. And its 291 seconds on our multitasking

this machine was consistently faster than the Dell C521, which came with 2GB of RAM and an AMD 2.4-GHz Athlon 64 X2 4600+ processor. And despite its sub-\$1000 price, the Gamer Infinity 7500 ran only slightly more slowly than the much more costly Dell XPS 710 on a couple of tests.

The Gamer Infinity also features a large, glass-fronted case that gives it a stylish designer appearance, as well as a retro-looking analog internal temperature meter on the front; a cobalt-blue light inside shows off its innards.

The \$979 Dell C521 yielded the slowest performance we saw in this group. This sys-



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FIRST-GEN VISTA PCs

OUR TESTS ON these Vista-equipped systems indicate that they provide all the performance you need to run the

OS with its new graphics pizzazz. As the first generation of Vista desktops, these machines don't include some of the fancy features that Vista supports (such as SideShow

displays and hybrid hard drives). But they do deliver the basics today.

Less clear is just how nagging an issue the rough state of drivers may remain after

launch. Graphics boards, in particular, could pose a recurring problem that cramps gaming performance early in the release cycle of both Vista and the first PCs with the OS.

NOTEBOOK PCs

VISTA OPENS NEW DIRECTIONS FOR LAPTOP PCs

THE FIRST SALVO of Windows Vista-based desktops showed little difference in performance and features from their XP counterparts. However, Vista-based notebooks may present a different story. While only a handful will take full advantage of Vista at the outset, the first two Vista laptops we saw suggest that the new operating system could potentially have a greater impact on notebook PCs than on desktops.

Notebooks—which are often more modestly powered than desktop PCs—should reap many benefits from Vista's performance-enhancing technologies. For instance, Vista's ReadyDrive takes advantage of the speed and reliability inherent in the nonvolatile RAM (high-speed flash memory) of the upcoming new breed of hybrid hard drives. ReadyDrive enables the system to boot and wake up from sleep mode more quickly.

With a hybrid drive, applications should also launch more quickly, as Vista will be able to access information from the solid-state part of the drive without experiencing the latency inherent in accessing a rotating disk. Because the notebook will have to spin up the drive's disks less often, it should also use less power and allow you to go longer between recharging sessions. And theoretically, at least, with data being written less frequently to the conventional portion of the hard drive, overall drive reliability should be enhanced.

Windows SuperFetch—another feature new to Vista—should complement ReadyDrive by learning what your most commonly launched applications are and preloading them into memory. Microsoft says that SuperFetch will even predict what applications you are most likely to use on different days and times, to further improve your system's responsiveness.

But hold your horses: None of the early Vista systems we saw featured a hybrid drive. Seagate has announced that its hybrid drive will ship in the first quarter of 2007; notebooks built with such drives will not appear until later in the year.

Vista's ReadyBoost lets you use a USB thumb drive to beef



NEW VISTA-FRIENDLY CHARACTERISTICS grace Asus's W5Fe (right) and Toshiba's Portege R400.

up the memory on your notebook by storing data on the drive as if it were a part of main memory. Microsoft says that this feature will work in concert with SuperFetch to improve performance. It could also be a significant boon to memory-pinned notebook users, since USB flash memory is relatively inexpensive compared with internal notebook memory.

THE FIRST VISTA NOTEBOOKS

WE WERE ABLE to procure two early Vista laptops—Toshiba's Portege R400 and Asus's W5Fe—for initial evaluations. Both had Vista-specific features.

Loaded with Vista Ultimate, the most full-featured version of Vista, the Toshiba unit is the first, according to the company, to support Microsoft's new-to-Vista Active Notifications, via its one-line OLED front-panel display. The display is located along the outer edge of the unit, running as a ticker beneath the latchless-hinged lid. Active Notifications is designed to work with Microsoft's Exchange Server; in Toshiba's implementation, the text-only display shows the time, battery life, wireless signal strength, and whether you have any new e-mail messages waiting; press a button to the left of the display to see any Active Notifications you've received. The notebook has an elegant design, with its slim, black-and-white chassis and swiveling 12.1-inch wide-screen LED backlit display.

The sleek, lightweight Asus W5Fe fully implements Vista's SideShow technology, which lets you check e-mail and PC status (for example, wireless connection and battery life), play back music and pictures, and view other data on an external notebook display. The W5Fe's 2.5-inch display sits on the notebook's outer lid. A five-way navigation pad rests to the right of the screen, and made it easy for us to page through the icon-based main menu. The graphical color display is self-powered; in Vista, you can schedule Windows to wake your computer at regular intervals to download the latest info to SideShow.

—Melissa J. Perenson and Rex Farrance

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ONLINE ADS ARE not only booming—and scrolling, spinning, shaking, shouting, and singing—they are also watching you even as you are viewing them, capturing your click patterns to create more detailed profiles than traditional browser cookies do.

Behavioral marketing networks such as BlueLithium, Revenue Science, and Tacoda display ads based on your browsing habits. Spending on these behavioral ads will grow from \$1.5 billion in 2007 to more than \$2 billion next year, according to eMarketer, a market research firm. And the company expects video ads to account for more than a third of that total.

The networks say that behavioral ads are more effective for advertisers, and usually less intrusive for consumers, than are standard pop-ups or adware. But the potential for abuse is troubling, privacy advocates claim, and the vast majority of Netizens have no idea that their actions are being tracked so closely.

Visit any of the 1000-plus sites on BlueLithium's ad network, and your PC will get a cookie that records the Web pages you visit, the ads you click, and whether you bought anything. The network then delivers ads based on your interests: Shop for cell phones at one site, and you might see ads for handsets at another, unrelated

site, while someone with other interests would see a different ad. Unless you keep a close watch on your browser cookies, though, you'd never know you were being targeted. BlueLithium chief marketing officer Dakota Sullivan declines to name any of the company's clients, but says that they include 70 of the 100 most popular sites.

SNEAKY COOKIES

LAST NOVEMBER, THE Center for Digital Democracy and the U.S. Public Interest Research Group filed a 50-page complaint with the Federal Trade Commission, claiming that such techniques by behavioral ad networks were unfair and deceptive marketing tactics.

"There's nothing wrong

The boundaries between anonymous clickstreams and personally identifiable data could dissolve.

with serving an ad targeted to what users are interested in," says Jeff Chester, the CDD's executive director. "But you need to tell consumers exactly what you're doing and get their permission before you follow them from site to site."

Shortly after the complaint was filed, Tacoda said that it would periodically run ads on its network disclosing how it



YOU CAN KEEP AT LEAST SOME behavioral-ad cookies at bay by opting out of the services at the Network Advertising Initiative's site.

uses tracking cookies, and that it would set the cookies to expire after a year.

The Tacoda site features a prominent link to the Network Advertising Initiative's opt-out page (find.pcworld.com/56088), where consumers can turn off the tracking cookies from Tacoda, Revenue Science, and five other online ad networks. NAI executive director Trevor Hughes says that, in addition, consumers can protect themselves by reading privacy policies and by carefully managing their cookies.

Revenue Science chief executive officer Bill Gossman says the way his company captures Web surfing data makes it "nearly impossible" to merge clicks with users' personal information. "If a new corporate owner, the government, or anyone else asked us

to provide data on an individual user, we most likely could not do so," he says.

BlueLithium's Sullivan claims that linking a person to a surfing history would be relatively easy for companies with information on both, but doing so would ignite a firestorm of public criticism.

As Web entities continue to consolidate and corporate giants such as Microsoft enter the behavioral ad business (adcenter.microsoft.com), consumer advocates fear that the razor-thin boundaries between anonymous clickstreams and personally identifiable data could dissolve.

The risk? "Once a database exists, people often dream up ways to use it," says Peter Swire, an Ohio State University law professor and former privacy advisor to the Clinton administration. "Notice and effective choice by consumers are the way to go."

—Dan Tynan

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GRAPHICS

Vista's Promising Video Upgrades

DIRECTX 10 AND OTHER ENHANCEMENTS SHOULD SERIOUSLY BOOST VISTA GRAPHICS.

WHEN IT COMES to graphics, Microsoft's new operating system may earn its name. Vista promises plenty of great views with upgrades for richly detailed games, as well as better-looking and more-useful desktop apps.

Much of the expected benefit will come from DirectX 10, the first complete rewrite of Microsoft's ubiquitous package of graphics tools, and its move toward what's called a Unified Shader Model. Though games will receive the biggest benefit, Microsoft says

that Vista's improved use of graphics resources will allow all applications to add more animation and visual effects without slowing your PC to a crawl. Of course, there's a catch: DX10 must be paired with similarly boosted graphics hardware, meaning you'll have to shell out for a new video card. But you can still benefit from other advances with today's cards.

PIPELINE POWER-UPS

THE REVAMPED, more powerful DirectX "allows us to do a lot more processing on the GPU [graphics processing unit] and speeds everything up immensely," says Chris Donahue, director of business development for Microsoft Games for Windows.

DirectX 9, used widely for today's games, employs different parts of the video card to determine the visual appearance of pixels and vertices (where lines meet). A set number of "pipelines" handle only pixel shaders, while others are just for vertex shaders. If creating a certain 3D scene hits the pixel shader pipelines

DX10 must be paired with similarly boosted graphics hardware.

hard but uses only a few of the vertex shaders, the extra vertex pipelines lie dormant.

DX10's Shader Model 4, however, uses the same hardware resources for pixel, vertex, and even new geometry shaders. That approach allows GPU vendors to design chips with pipelines that can run any type of shader, and also makes it easier for GPUs to handle things like physics effects that currently must run on the CPU. In general DX10 is more CPU-friendly, with less processing overhead.

The end result? A more flexible graphics system, and one that makes better use of the GPU's processing power.

"It's a step forward," says Mike Goodman, a senior analyst for research firm The



CRYSIS, AN UPCOMING game from Electronic Arts, supports DirectX 10's promising new graphics features (but still works with DirectX 9).

Yankee Group. "This is another way to take advantage of the processing power of PCs that Vista will operate on."

That power will cost you, though, as you'll need a next-generation graphics card that can handle DX10's new features. A card from nVidia's GeForce 8800 series will set you back \$400 or more. ATI will offer DX10-ready video cards as well, but as of press time it hadn't released details.

NOT JUST FOR GAMES

YOU WON'T NEED to be a gamer, or even use DX10, to get some of the new glitter and glitz. For example, Vista's Aero display gets its hardware acceleration from having been built using the new Windows Presentation Foundation. The platform, which is built into Vista and is also included in the new .Net 3.0 framework for XP, opens up DirectX to other programs for acceleration and other processing. Times Reader, a downloadable program that displays an electronic look-alike of *The New York Times* newspaper, was built with WPF (you can grab the Reader beta from

find.pcworld.com/56192).

Aero—which requires only a DX9-capable GPU—also makes use of the Windows Display Driver Model in Vista to improve on the way programs can access graphics resources. Previously, only one program at a time could access graphics resources using DirectX: "An application could monopolize the processing and starve other graphics applications," says Pablo Fernicola, group program manager for Windows Presentation Foundation.

With the new model, multiple applications will be able to access DirectX resources (both 10 and 9, which remains in Vista) simultaneously. So program designers should have more leeway to add visual effects without fear of bogging down users' computers.

As Vista and improved video cards become more prevalent, the new graphics features could give rise to more eye-pleasers in games and productivity apps alike.

"In theory," says Andrew Dodd, software product manager for ATI, "you could have Office or Word documents with 3D acceleration."

—Joel Strauch



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ONLINE ECONOMY

Virtual Gold Could Draw Real Taxes

CONGRESS IS INVESTIGATING WHETHER THE IRS SHOULD TAX ONLINE GAME LOOT.

IMAGINE GETTING a notice from the IRS to report taxable income every time you collected rent on your hotel-stuffed Boardwalk property. Surely the stuff of bad dreams. But whereas Monopoly cash won't be taxed anytime soon, another type of play money—earned by millions of online gamers each day—may not be so safe.

Sometime in the next few months, the Joint Economic Committee of Congress will publish a report regarding the economies of World of Warcraft, Second Life, and other massively multiplayer online games (MMOs). And the report's number-one question will be: Do real-world tax laws apply to virtual transactions?

REAL-MONEY TRADES

THE QUESTION MAY seem bizarre. But consider this key feature of virtual game currencies: an exchange rate.

At this writing, the Azerothian gold coin—the in-game currency used by World of Warcraft's 7.5 million players—trades on eBay at an unofficial rate of seven gold coins to the U.S. dollar. Second Life actively encourages a real-world type of economy with an official market-driven exchange rate of roughly 50 cents per 100 Linden dollars (Second Life's currency). For the most part, where there is an MMO, there is also a way for players to buy things that they want in the game with real money.

And naturally, if you can pay real money, you can col-



lect it. Lots of it. Successful entrepreneurs such as Second Life real-estate magnate and real-life millionaire Anshe Chung represent the pixel-perfect face of a fast-growing "real-money trade" that is estimated by Steve Salyer, former CEO of online game item and currency retailer IGE, at nearly \$1 billion worldwide—every penny of it taxable.

But as any accountant can tell you, real-money revenues aren't the only kind of income that draws the IRS's attention. Consider the terms "bartering" and "prizes" as outlined in IRS publication 525 ("Taxable and Nontaxable Income"): Anyone who acquires goods or services in trade or at play must report as income the "fair market value" of those goods or services. If you give your plumber a rare baseball card as payment for fixing your pipes, both of you owe taxes on the dollar value of the exchange at your respective ends of the deal.

So if virtual loot can be sold for real money, what's to stop the government from concluding that when a player

loots a fallen virtual monster, a taxable event has occurred?

TAXABLE PRIZES?

DON'T ASK THE IRS. Pressed for an official opinion, agency spokesperson Nancy Mathis would say, via e-mail, only that "whether exchanges constitute bartering depends on the facts and circumstances of each case." But ultimately, she wrote, income could be money, property, or services. And "generally, your income is taxable unless it is specifically exempted by law."



AMERICAN APPAREL'S SECOND-LIFE store sells virtual fashions to players.

This seemingly broad reach drew the attention of the advisory Joint Economic Committee. When the JEC launched its research project in October, its then-chair, Representative Jim Saxton (R-New Jer-

sey), made his position quite clear: "There is a concern that the IRS might step forward with regulations that start taxing transactions that occur within virtual economies," he commented. "This, I believe, would be a mistake."

And there's more to it than an anti-tax Republican platform. Saxton's chief economist, Dan Miller, is a veteran gamer, with many hours of World of Warcraft under his belt. "If there's a new issue," says Miller, "you want to set the terms of the debate... I don't think it's a good idea to wait until the IRS has already started writing rules."

That is not to say the JEC could forever banish the IRS from the economies of virtual worlds. Varying estimates put the total wealth created annually within these games in the vicinity of \$10 billion (find.pcworld.com/56106). It may become harder and harder to resist the political imperative to tap into such a large revenue stream.

Even Miller admits that "maybe down the road, it becomes something that's unavoidable." But in the meantime, he argues, any tax grab would be penny-wise and pound-foolish: "I just see so much potential in these virtual worlds, beyond simple gaming and social interaction, that it'd be a real shame to shut the door on these opportunities before they ever get started."

—Julian Dibbel



PLUGGED IN

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PLUS: STRANGE BLUETOOTH HEADPHONES AND IN-CAR WI-FI ACCESS.

HACKING DRM

The Buzz: Blu-ray, HD DVD, and Windows Vista have a few things in common. They all sport shiny new copy protection technology, and all are major targets for pirates. This year is shaping up as a turning point in the development of DRM (digital rights management). The HD movie DRM scheme AACs (you have to love an industry that calls a content-restriction system "access") is already under attack: The BackupHD-DVD tool lets PC users make unencrypted copies of AACs-protected HD DVD content (Blu-ray also uses AACs, so it may be vulnerable as well). And hackers played with ways to trick Vista's product activation even before its retail release. (Such efforts aren't new: Researchers exposed holes in



HDCP—DRM for HD content coming via DVI or HDMI ports—way back in 2001.)

Bottom Line: If current trends continue, record labels will be able to point to encouraging numbers from their tests of DRM-free music at the same time all these DRM hacks are making news. The optimist in me sees a way to a saner future here, but I've never listened to him that much. Expect more DMCA lawsuits and dueling product and hack updates than ever before.

WIRELESS HEADPHONES

The Buzz: The war on wires continues as Bluetooth draws a bead on your MP3 player's headphones. iPod-focused Bluetooth headphones have been around, but a new crop of wireless wonders is bringing better design and sound quality to the table. Etymotic is among the first to offer serious sound quality, via its \$299 ety8 in-ear phones. But unless your fashion icon is *Star Trek's* Lt. Uhura, you may prefer a pair that doesn't have little boxes sticking out of your ears. Blue-trek's sportier design with built-in play, fast-forward, pause, and volume controls may be a better fit for people who are less obsessed with audio quality.

Bottom Line: Too bad neither model has a built-in mic for



use with your cell phone. Bluetooth headphones should be most attractive to the headset set, but who wants to carry two different earpieces around?

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2 USB SHARING: The \$60 Tornado and its software connects two PCs for file sharing over USB. find.pcworld.com/56178

3 BRICK DRIVE: Stackable, Lego-styled external 300GB hard drives (\$140) from LaCie. find.pcworld.com/56179

4 TAG2FIND: Beta app lets you organize local files via tags instead of folders. www.tag2find.com

5 PROFILELINKER: Like Trillian for social networks, this lets you update profiles on many sites at once. profilelinker.com

WI-FI HITS THE ROAD

The Buzz: Here's an odd twist in the mobile Net access game: Avis has partnered with the firm AutoNet to begin offering Wi-Fi access in its rental cars. AutoNet's In-Car Router connects to 3G networks and then distributes that bandwidth to any Wi-Fi-equipped gadgets in the car. (Hope none of those devices are in the driver's hands.)

Bottom Line: You'd have to be a pretty wired family or travel group to need a router in your car. And anyone that wired probably already has a 3G PC Card to use with connection-sharing software—and would know that mobile WiMax, if it ever arrives, should blow this device out of the water. ■

You can contact PC World Senior Editor Eric Dahl at eric_dahl@pcworld.com; visit find.pcworld.com/31643 to read additional Plugged In columns.

COMING UP

EXTERNAL LAPTOP POWER

BULKY, DESKTOP-REPLACEMENT gaming notebooks are okay for just lugging around. But for a laptop that actually fits on your lap, you have to give up something—usually some graphics and audio power. In May, Asus's XG Station will let users connect their laptops to desktop graphics hardware for a big boost in performance. The external device packs its own audio processing hardware along with a PCI Express x16 slot to house a desktop graphics card. (It's rumored to ship with a GeForce 7900 GS installed.) Connect the XG Station to a laptop via an Express-Card slot, add a monitor, and presto—instant gaming machine.

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February / March 2007

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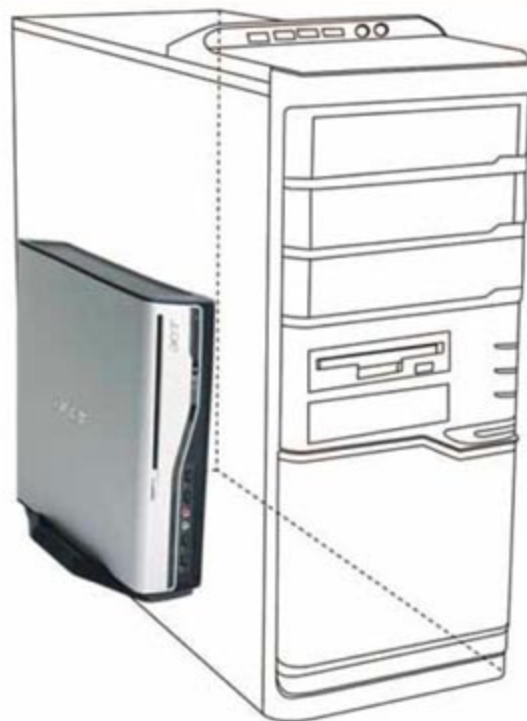
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WHY VISTA MAY NOT TAKE OFF

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FORUMITES RAP BIOMETRICS



READERS ON VISTA: BE WARY, BE VERY WARY

REGARDING PRESTON GRALLA'S article "Everything You Need to Know About Windows Vista" [January]: Let me see if I got it right. Vista has outrageous hardware requirements, driver incompatibilities, inconsistent menus, and inconsistent operation of its applets (like Windows Search), and it's way too expensive. Yet his recommendation is that we should all rush out and upgrade because it looks cool? Oh yeah, and it's really secure?

I recall that Windows XP was initially advertised as a very secure operating sys-

tem, and look what happened to it. If all you want is cool and Aero glass, purchase Stardock's WindowBlinds [find.pcworld.com/52846]. It's only \$19.95.

Horst Wetjen, Lancaster, California

NOT UNTIL VISTA has been operating in the real world for a year or more will we be able to judge its security versus that of other Windows versions. But it doesn't look good. In the same issue, Stuart J. Johnston reports [in *Bugs and Fixes*] that a bug was discovered in Microsoft's Internet Explorer 7 less than a day after its release.

J. Trent Corbett, Chesterfield, Virginia

OVER EIGHT FULL pages, no Vista feature warrants an unqualified rave—not even networking—but Gralla still suggests that paying up to \$399 for the new OS is imperative. Only the Aero interface garners his genuine enthusiasm. Well, a prettier face isn't worth that kind of

money. Not yet. I'll wait at least until Vista Service Pack 2 sands off the roughest edges—just as I did with Windows XP.

Steve Reed, Downey, California

PHOTO SERVICES

YOUR ARTICLE ["Digital Photos: Print Them, Share Them, Perfect Them," January] states that Snapfish had the lowest price and best quality.

Wink Flash (www.winkflash.com)—which you did not review—charges only 12 cents per 4-by-6 print versus 22 cents for Snapfish. The quality is just as good, plus Wink Flash postage is 99 cents regardless of the number of prints. Snapfish charges more for postage.

Fred Russell, Edison, New Jersey

Editor's response: Snapfish had the lowest price among the sites we tested. We looked at the most popular sites (as rated by a third party), and chose those offering the basic services we wanted to rate.

—Erik Larkin

NO CELL-PHONE TELEMARKETING!

REGARDING THE JANUARY *Consumer Watch*, "Is That a Sales Pitch in Your Pocket?": No doubt telemarketers will eventually bribe—er, lobby—politicians to allow marketing to our cell phones.

But telemarketing is an abuse of my phone and should be punishable by steep fines, and jail terms for repeat offenses.

Art Miller, Hanover, Pennsylvania

SHOPPING ANNOYANCES: INKLINE GLOBAL RESPONDS

IN YOUR DECEMBER issue's "How to Avoid the Biggest Web Shopping Annoyances," an ex-customer, Billie Gray, claimed to have not received a refund on her purchase from inKline Global.

inKline Global takes all feedback ►

HOT TOPICS IN FORUMS

Antipiracy, Fingerprint Security, Vista

HERE ARE SOME of the hot topics going on now in our forums. You can take part in our community discussions by heading to find.pcworld.com/55165.

MICROSOFT'S ANTIPIRACY EFFORTS:

When Vista comes out, nobody will want to get it because their friends who did get locked out of their systems when Microsoft claimed they had an illegal copy of Vista. *—techie4fun*

SECURITY: [Regarding "Researcher Hacks Microsoft Fingerprint Reader," find.pcworld.com/56092]....It's just a matter of time before a worm exploits

any weak link...[such as] the fact that the image of your fingerprint is delivered unencrypted to a USB port of your computer. One might argue that this is a special, protected type of connection...but are you willing to bet your unique, immutable, life-lasting password on that claim? *—pedrora*

MOVING TO VISTA: [My corporation's] IT buying habits are such that we've had XP for only a little over three years. We...test for a lo-o-ong time and then deploy....If the move to Vista mimics the move to XP, [the transition will] be at least three years away. *—Doug*

from customers seriously. We have always made it our priority to reply to customers' requests within three business days, be it a technical support issue, questions about our product, or a request for a refund. We fully stand by our 60-day money-back

guarantee. A 60-day period instead of the more-usual 30 days allows customers a longer time to use the refund option.

For our customers' convenience, refunds can be requested via online form, by fax, and even by snail mail. Also, the

average turnaround time for a refund request is within seven business days.

We authorized the refund to Gray's account within the 60-day guarantee on her purchase, and there are various documents supporting this fact. We tried to help Gray identify the refund transaction, and provided her with the transaction reference number issued by her bank when it credited the money to her account.

inKline Global always seeks to streamline and improve our systems to provide customers with the best online shopping experience possible. So we stringently record and process every transaction and all correspondence, and we constantly take our customers' feedback to heart to further improve their experience.

James Phang, Public

Relations Manager, inKline Global ■

PC World welcomes letters to the editor. We reserve the right to edit for length and clarity. Send e-mail to letters@pcworld.com.

TELL US WHAT YOU THINK

RATE THIS ISSUE by going to www.pcworld.com/pcwinput—you could win a \$300 Amazon.com gift certificate. The site explains the official rules and offers an alternate method of entry into the prize drawing.

CORRECTION

THE DECEMBER ISSUE'S "How to Avoid the Biggest Web Shopping Annoyances" should have reported that inKline Global provides three U.S. fax numbers for customers to use in requesting a refund. The company also offers customers the option of mailing a request. inKline says it refunded the \$30 that customer Billie Gray paid for its product, TVolution, and gave her a transaction routing number to document the claim. Financial privacy issues prevent *PC World* from confirming whether the refund was received. Gray maintains that she did not receive it.

PC World regrets the error.

Special Advertising Supplement

The most flexible solution for recovering lost data

Enhancements to R-Studio from R-Tools gives users added capabilities to retrieve Windows-based files

THE MOST INNOVATIVE SOLUTION for recovering business-critical data lost to a host of threats just got better.

R-Tools, the leader in smart data recovery solutions, has launched **R-Studio 3.6**. The newest version of this business continuity solution now allows users to preview almost all major file types before they are actually recovered, even if the prescribed application is not installed. For example, users of R-Studio 3.6 can preview a .pdf file regardless of whether Adobe Reader is installed.

These latest enhancements further build upon the lengthy list of capabilities of R-Studio as the ideal solution for recovering essential data that otherwise would be lost forever to viruses, malicious attacks, hardware failures, and oper-

ating system crashes. Plus, R-Studio is a Microsoft Vista-ready application.

Bundled with R-Studio 3.6 is **R-Studio Emergency Version**, allowing users to recover data even when Windows cannot be booted due to system file corruption or deletion.

R-Studio 3.6 is one product on a fast-growing list of business continuity solutions from R-Tools, a list that now includes the recently released **R-Mail for Outlook**. This handy utility restores deleted information and repairs damaged Microsoft Outlook files when Outlook cannot open them, permitting users to first preview recovered messages before recovering the information completely.

Meanwhile, R-Tools also offers



R-Mail for Outlook Express, which reconstructs accidentally deleted email messages or damaged .dbx files. Other exceptional business continuity solutions from R-Tools include **R-Word** to recover damaged Microsoft Word files; **R-Excel** to reconstitute valuable Microsoft Excel files that are corrupted or attacked; and **R-Wipe & Clean** to automatically keep disks free and clear of data clutter.

To learn more about any of these R-Tools solutions designed to keep your business up and running smoothly, visit www.r-tt.com.

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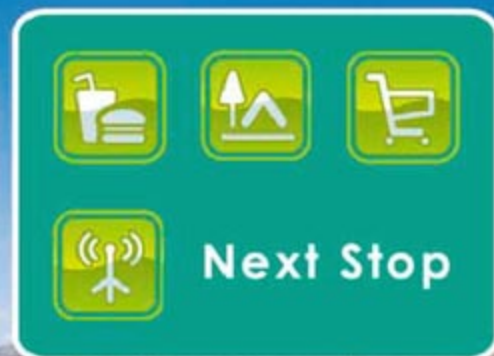
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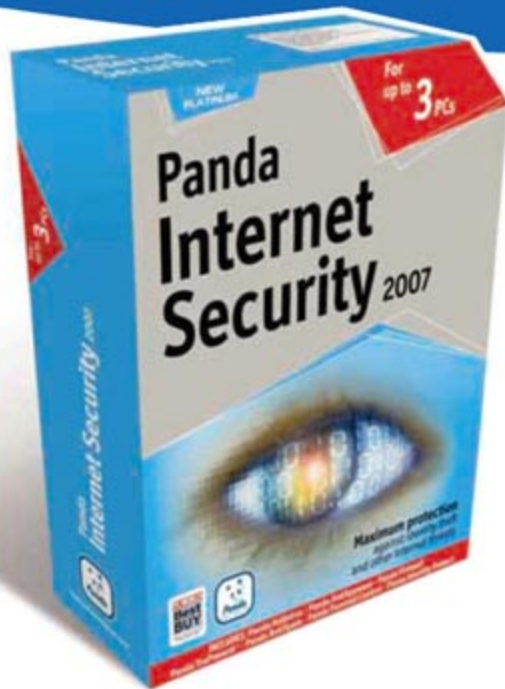
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How To Steal An Identity...



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— VERITEST 2006

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one is desperately trying to recover his/her sanity. Try to find people who, although using the most popular antivirus products, are not nearly as secure as they might think.

Industry experts all are clamoring about the explosion in the number of new Internet threats and the inability of conventional security solutions to keep up.

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CONSUMER WATCH

YARDENA ARAR

THE LATEST BATTLES
IN THE SPAM WAR

INTERNET EXPLORER 7
STILL DOESN'T CUT IT

AOL COLLECTIONS
WON'T STOP CALLING

Spam Explodes, but You Can Fight Back

Changing the way you handle e-mail could reduce your junk-mail intake.

WE'RE HAVING A spam wave—more like a tsunami. After a lull in growth rates in late 2005, the volume of junk mail on the Internet at large began skyrocketing in 2006. IronPort, a leading antispam-technology company, says that 63 billion spam messages were sent in October 2006, more than double the number of messages dispatched in October 2005.

Experts attribute the global upswing in spam to technological innovations in the way the junk mail is sent. Spam-fighting software is good at rejecting mail from servers that are known to disseminate spam, but spammers are getting better at setting up botnets—networks composed of broadband-connected PCs that, unbeknownst to their owners, are used to send spam. PCs that are directly connected to a cable modem or a DSL modem are particularly at risk of being commandeered.

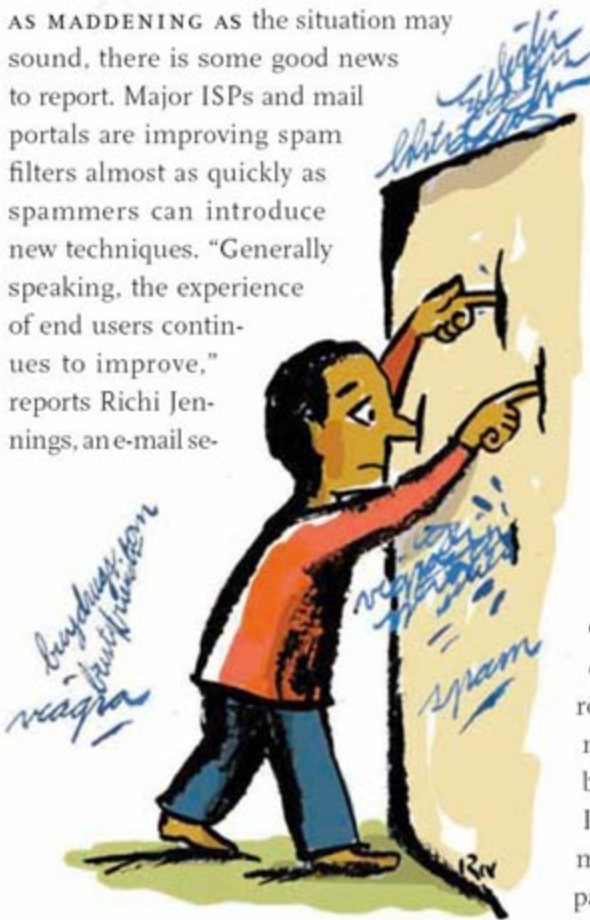
How do you keep your PC from being shanghaied into a botnet? Make sure you have a good firewall and a secure browser (Internet Explorer users should upgrade to IE 7, which has better defenses, or try an alternative browser like Firefox—see this month's *Privacy Watch* for more on browser security). If you're on a home network, your router should be protecting you from intruders; check your documentation to confirm that you're taking advantage of the firewall features included with most home routers these days.

Botnets aren't new, but spammers have become more adept at distributing and concealing them. The latest botnet software, which you can run afoul of simply by visiting a rigged Web page or by clicking on a spam message itself, remains inconspicuous by transmitting only a small

volume of spam at any one time. Spam-filtering software has trouble distinguishing bot-generated mail from legitimate messages sent by the same computer.

SPAM FIGHTERS

AS MADDENING AS the situation may sound, there is some good news to report. Major ISPs and mail portals are improving spam filters almost as quickly as spammers can introduce new techniques. "Generally speaking, the experience of end users continues to improve," reports Richi Jennings, an e-mail se-



curity analyst working for Ferris Research.

Unfortunately, some other ambitious antispam efforts haven't proved to be terribly effective. Federal authorities have prosecuted a handful of businesses under the three-year-old CAN-SPAM (Controlling the Assault of Non-Solicited Pornography and Marketing) Act. But that law has no jurisdiction over spammers overseas, and its provisions are increasingly

being ignored. In analyzing 10,000 randomly selected commercial e-mail messages, MX Logic found that less than 1 percent met the law's requirements that such messages include the sender's real street address and a way to opt out of subsequent mailings.

The jury is still out on whether sender-authentication technologies such as Microsoft's Sender ID and Yahoo's DomainKeys will succeed in fighting spam. Sender authentication works this way: Your bank registers the IP addresses of its mail servers. If you get an e-mail that purports to come from your bank but doesn't come from one of the registered addresses, the mail service will delete the message or will at least alert you.

By the end of 2006, according to Craig Spiegle, Microsoft's director of online safety strategy and planning, roughly 40 percent of all legitimate mail received by Hotmail users was being authenticated using Sender ID. But the system works only if major phishing-target sites participate. Another weakness of sender authentication is that some of the sites registering their addresses are actually phishing sites. For example, a phishing site with a domain name that's a misspelled version of a bank's name could publish its mail server information, and Sender ID would authenticate mail from the malicious site. You can see for yourself how well sender authentication works by forwarding your mail to a Hotmail account (to test Sender ID) or to a Ya- ▶

hoo mail account (to test DomainKeys).

AOL and Yahoo users, meanwhile, are getting some help in identifying mail that isn't spam through each company's partnership with a firm called GoodMail, which offers "legitimate" bulk e-mailers a service it calls "certified e-mail."

GoodMail chief executive Richard Gingras says that the company accepts only customers that have no history of sending spam. Mailings from GoodMail customers are routed through GoodMail's servers, which insert a unique cryptographic token into each message. Partner e-mail services recognize the token when they receive the message, and the mail appears in the user's inbox with a special icon and words like *AOL Certified Mail*. Gingras says the service addresses one side effect of phishing: Fearful of identity theft, people simply delete all mail claiming to come from any financial institution.

GoodMail charges its customers 0.25 cent per message and shares that revenue with its partner e-mail services. Critics say that the scheme simply affords wealthy bulk e-mailers easy access to the inboxes

of people whose mail services use (and profit from) GoodMail. Gingras, however, says that GoodMail turns down three out of every four prospective customers because their record on spam isn't clean enough to satisfy his firm's standards.

If you haven't noticed much extra spam in your mailbox lately, you likely have

If more than 10
percent of your
e-mail is spam, you
can likely do better.

your e-mail service to thank for it. Ferris Research's Jennings says that if more than 10 percent of mail in your inbox is illegitimate, you can probably do better.

I did, by setting up automatic forwarding of all my personal e-mail to Google's Gmail. Fortunately, my hosting company makes mail forwarding easy through its Web-based e-mail management tools.

Most ISPs that offer e-mail based on POP3 or IMAP will have similar tools—I found EarthLink's tools, for example, by searching its Help for "e-mail forwarding."

Gmail cleaned an additional 30 messages per day from the forwarded mail, leaving only a handful of stragglers each day; in a week I found only one false positive in its spam folder. (If you do switch services, be extra diligent about checking the new service's spam folder for false positives in the first couple of weeks.)

I haven't tested other major e-mail services, but Jennings says they are all being very aggressive about keeping consumer inboxes clean—and are better equipped for the job than any desktop software. "It makes very little sense for consumers to be running software on their desktop that filters spam," Jennings notes, "[because] you still have to download the spam." Nevertheless, for users who are wedded to Outlook but want spam-filtering help, we have recommended Cloudmark Desktop (find.pcworld.com/56164) and Sunbelt Software's IHateSpam (download it at find.pcworld.com/56163) in the past. ►

PRIVACY WATCH

Internet Explorer 7: Still Not Safe Enough



MICROSOFT'S INTERNET EXPLORER 7 offers significant security improvements over its deservedly criticized predecessor. But the new IE still does not do enough to protect users.

Microsoft has, in IE 7, locked down some of the problem areas in IE 6.

The browser will permit a Web site to nag you only once about installing an ActiveX control, for instance. (Some users will approve an installation simply to get rid of the pop-up windows.)

But malicious scripting attacks remain a big problem. Some miscreant Web sites use scripting code (such as JavaScript) to exploit security holes. This can allow them to perform drive-by installations of spyware or Trojan horse programs. IE 7 has a host of features designed to thwart exploits, including showing a pop-up warning that lets the user know when a site is trying to use scripting. But the new features don't go far enough.

Firefox's NoScript plug-in (a free download at Noscript.net) provides an elegant solution to the problem of malicious scripting. Once installed, NoScript prevents scripting from working at any Web site you visit until you approve it for that particular site. Being able to control scripting on a site-by-site basis with

a single mouse click gives you a powerful security advantage.

But instead of the surgical script controls of NoScript, IE 7 still uses the same mud-covered sledgehammer that IE 6 did. Like NoScript, IE lets you block scripting for all sites in the Internet Zone, after which you can enable scripting for a particular site, but getting to the necessary dialog box takes at least six mouse clicks, and you must then enter the site's URL into the Trusted Sites list. It's a hassle most users won't deal with.

Microsoft touts IE 7's Phishing Filter as a significant new security feature, but a recent test of IE 7's filters by researchers at Carnegie Mellon University found that the Phishing Filter caught, at best, 68 percent of the phishing URLs that the researchers threw at the browser. (You can read more about the study's findings at find.pcworld.com/56083.) Your best bet: Install an antiphishing toolbar as a safety net. In the CMU tests, SpoofGuard (find.pcworld.com/56072) identified 91 percent of phishing sites. EarthLink's free toolbar (find.pcworld.com/56073) placed second, with 83 percent accuracy.

None of this means that you shouldn't upgrade to IE 7. The new browser is more secure than IE 6—and given how tightly it's integrated into Windows, that extra protection is critical.

—Andrew Brandt



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In the midst of the current spam wave, the usual caveats for reading e-mail safely still apply. When in doubt, don't open an e-mail message—especially if it includes an attachment. Don't click on links that promise to send you to a site where you have an account—type in the institution's URL in the address field of your browser. And consider using a free e-mail account for your e-commerce transactions.

Engaging in safe e-mail practices offers you the best hope of safe shelter from the worst fallout of the spam storm. ■

Yardena Arar is a senior editor, Andrew Brandt is a contributing editor, and Amber Bouman is an editorial assistant for PC World. E-mail them at consumerwatch@pcworld.com, privacywatch@pcworld.com, or onyourside@pcworld.com. To read previously published Consumer Watch, Privacy Watch, or On Your Side columns, visit find.pcworld.com/31703, find.pcworld.com/31706, or find.pcworld.com/31709, respectively.

ON YOUR SIDE

AOL Collections Won't Stop Calling

I WOULD LIKE AOL to stop calling me. Almost four months ago, we started receiving calls from a collection agency representing AOL and asking for "Brian" (no one by that name ever had my phone number). We ignored it for nearly a month, but the calls continued unabated.

We attempted to convince the agency that its database was faulty, that "Brian" had never had my phone number; I tried calling AOL's primary business line on a number of occasions, each time explaining the situation to a representative, and each time being promised that the problem would be taken care of.

The collection agency has now escalated to telephoning more than once a day. When I ask to speak to a supervisor,

or for an address I can mail a letter to, the caller hangs up. I have never subscribed to AOL, so my telephone number should not be in its database at all.

T.J. McDermott
Lake Stevens, Washington

On Your Side responds: We contacted AOL and asked it to look into Mr. McDermott's problem; the Washington State Attorney General also investigated. An AOL representative said that its collection agency was trying to reach someone with the same number but a different area code (even though Mr. McDermott's area code changed ten years ago). Mr. McDermott says he has not received a call in almost a month.

—Amber Bouman

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Age: 36

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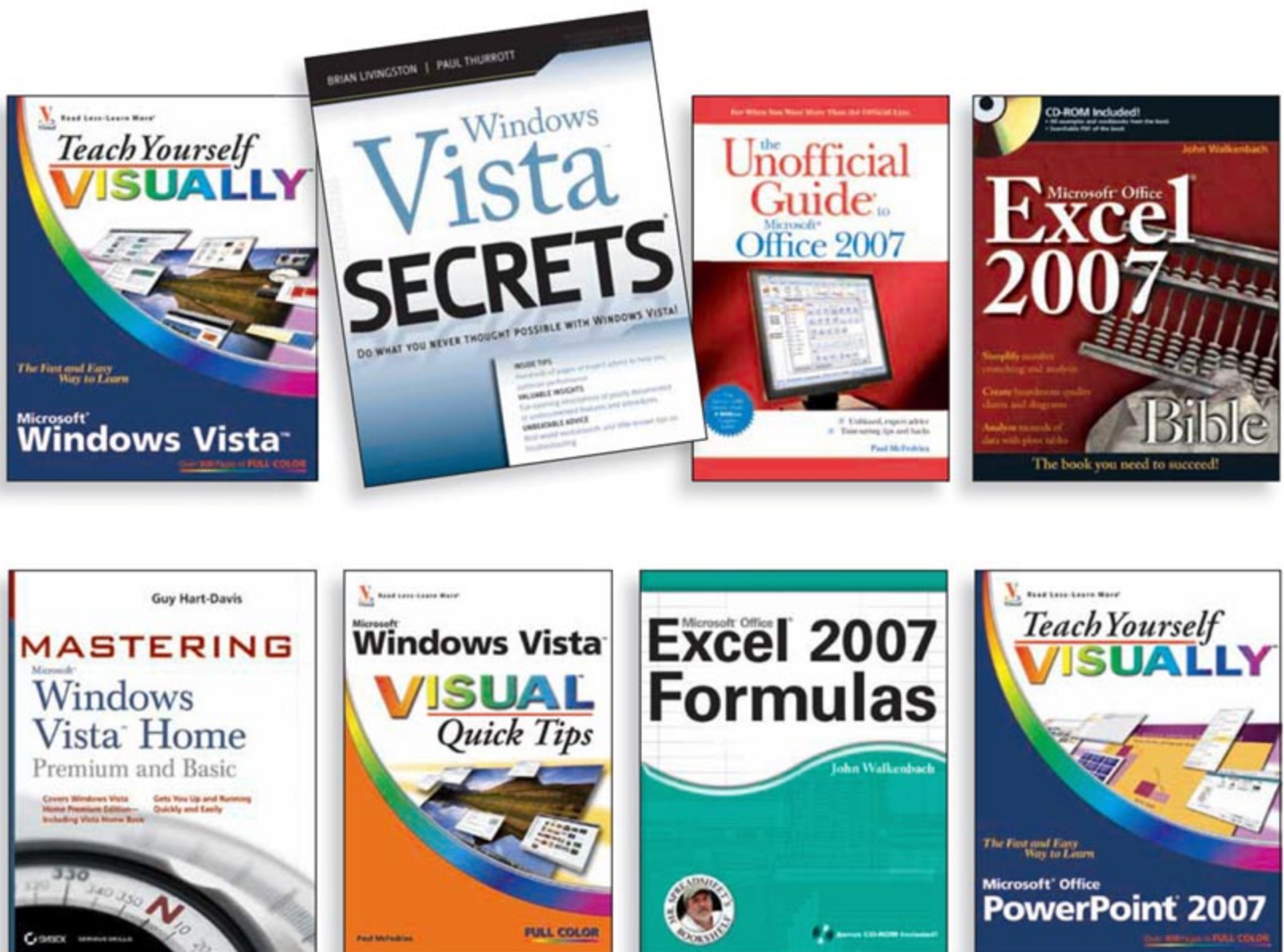
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STEVE BASS

Make Windows XP Act Like Vista

In less than an hour, these freebies can transform XP into an ersatz Vista.

NOT THRILLED ABOUT spending a bundle on Vista—and dealing with potential bugs and hardware upgrades? Stick with XP, and use these tools to emulate the Vista experience.

The Hassle: I'm trying to resist moving to Vista. How can I make XP perform like the new Windows OS?

The Fix(es): You can be a holdout (like me) and use a few XP-based freebies that do a surprisingly good job of emulating some of Vista's fancy graphical features. The first three apps listed below are my favorites. You can find all of the free tools and more online at "Add Vista Features to XP" (find.pcworld.com/55978).

Copernic Desktop Search: Vista's search is fast and smart—and so is Copernic's, with keyword, file content, Boolean, and wildcard searches. If you don't like the look and feel of Copernic, Google Desktop makes a good substitute.

Desktop Sidebar: Vista has a handy Windows sidebar with calendars, calculators, a quick link to your media player, and RSS feeds. Desktop Sidebar offers similar features, with zillions of add-ons, including a file browser, a weather sum-



mary, news updates, and an e-mail checker. Too complicated for you? Then try the simpler LaunchBar Commander, which lets you create multiple on-screen panels (called docks) for launching various applications and documents.

Vista Start Menu SE: This utility creates a fair imitation of Vista's Start menu, but adds functions that Vista lacks—built-in shortcut keys to frequently used Windows functions such as Reboot, Switch Users, and Hibernate. Another great alternative for organizing apps and

files is JetStart Free; it's faster than Vista Start Menu SE, but less fancy. (Choose just one of these tools.)

Visual Task Tips: This clever tool pops up a preview—a miniature image—of the open window in the taskbar. Scroll your mouse wheel up or down on the image to resize it.

Folder Marker: Customize your folder icons and icon backgrounds with Vista icons. Folder Marker is a snap to use, and you can visit Horizon Software (find.pcworld.com/55994) to download a bunch of Vista icons. (Choose icons of the Ico file type.)

If you haven't had enough (and I know you haven't), read "Why Wait for Vista?" (find.pcworld.com/56012), Scott Dunn's take on tools that give your PC the look of Vista without the annoying underlying operating system.

WindowBlinds 5: One prominent Vista feature you might like is Windows Glass, the semitransparent, colored window edges that Windows Aero has. WindowBlinds 5 (find.pcworld.com/56030) provides skins—visual styles and themes—that allow you to change the look and feel of many parts of Windows XP. For example, this \$20 program lets you modify toolbar icons, the Start Menu and Start button, menu and dialog borders, and the taskbar and title bar. Get the Vista Plus Version 2 skin at the WinCustomize site (find.pcworld.com/56031). ■

TOOL OF THE MONTH

Zap Dead and Duplicate Favorites

DO YOU COLLECT Favorites? Me, too—so I use AM-DeadLink (find.pcworld.com/55984). This brilliant tool checks your browser's bookmarks to see if they're alive and well (or dead and in the 404 bit bucket); it also spots duplicate links. Deleting unwanted faves is easy: From Bookmarks, select *Sort bookmarks with errors to top of list*, highlight the duds,

and dismiss them. You can also use AM-DeadLink's built-in viewer to check links or to open them in your browser. Just as nifty is being able to download and install cool icons (called FavIcons) from any bookmarked Web site. AM-DeadLink works with IE 6, IE 7, Mozilla, and—I can sense your synapses snapping to attention—Firefox and Opera.

Contributing Editor Steve Bass writes the *Tips & Tweaks* blog (find.pcworld.com/50264) and is the author of *PC Annoyances*, published by O'Reilly (find.pcworld.com/43818). Contact him at hasslefreepc@pcworld.com. To read his previous columns and newsletters, go to find.pcworld.com/50268.



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DAN TYNAN

Sick of High Phone Bills? I Hear You

Voice-over-IP phone services can save you big bucks—if you choose carefully.

OVER THE YEARS I've given enough money to Ma Bell and her ugly stepdaughters to buy them all vacation homes in Tahiti. Frankly, I'm tired of it. That's why I love Skype.

The beauty of VoIP phone services like Skype is that you can call subscribers anywhere in the world for absolutely nothing. All you need is the right software and a broadband connection. In fact, chat apps from AOL Instant Messenger to Yahoo Messenger are now rapidly morphing into Internet phones, offering a tempting alternative to traditional cellular and landlines. Just download the chat software, plug a phone into your PC, and start dialing. But not all services are created equal.

HIGH ON SKYPE

I'LL MAKE IT easy. To shrink your phone bills to the size of a pea, install Skype 3.0. It's a snap to use and it's dirt cheap. PC-to-PC calls are free; to receive calls from landlines or cells, you can buy a Skype-In number for \$38 a year. To call any phone, sign up for the Unlimited Calling plan for \$30 a year or buy SkypeOut minutes for less than 2 cents a minute (international rates can be higher). Ten bucks buys you over 8 hours of gabbing.

Other chat services are scrambling to catch up. For \$15 a month AOL's Phone-line allows you to make unlimited long-distance calls, if you can get it to work (I couldn't). Microsoft's Windows Live Messenger (in beta at press time) lets you call out, but cell and landline phones can't call you. Only Yahoo's Messenger with Voice approaches Skype's features, and at \$30 a year for a Yahoo Phone In num-

ber, it's a bit cheaper. But you won't get Skype's broad selection of area codes and prefixes when you choose your number, and Yahoo's service isn't as easy to use.

The big caveats? Neither Skype's nor Yahoo's service offers 911 emergency assistance. And while PC-to-PC connections can be crystal clear, calls to cell phones or landlines range from adequate



to awful. So while Skype or Yahoo can't entirely replace a phone line, either one can supplement it quite nicely.

HOME HARDWARE

UNLESS YOU ENJOY shouting at your PC's built-in mic, you'll also need a phone. A raft of new models have been tweaked to work with Skype or Yahoo. I tried out Wi-Fi-enabled Skype phones from Belkin and Netgear that let you connect from almost any hotspot. Simply turn on these cell-phone-size units, and they find all of the Wi-Fi networks in range—no PC needed. (But they may not work with hotspots that require you to

sign in to a Web page.) Press a button to connect, log in to Skype, and the phone downloads your contacts and call history. Add new numbers via the phone's keypad, and they sync with your Skype address book the next time you log on.

The 4-by-2-inch Netgear SPH101 handset (\$249, www.netgear.com) is a little smaller than the \$200 Belkin Wi-Fi Phone for Skype (www.belkin.com) and is faster at displaying menus, but it's also pricier than Belkin's phone. Of course, when you go out of Wi-Fi range, the call dies. So these phones are good only when you're in a hotspot and want to call without booting up.

If you opt for Yahoo's service, you can make semi-untethered Net calls from home via the Linksys CIT310 Dual-Mode Cordless Phone (\$100, www.linksys.com). Connect the base unit to your regular phone jack and your PC's USB port; you then press one button on the handset to make landline calls and another to call folks in your Yahoo address book. Unlike the Skype phones, however, the CIT310 doesn't sync with your Yahoo contacts. And it works only as a stand-alone phone—to make free PC-to-PC calls, you need a second handset.

My ideal phone would automatically log on to Skype when I'm in a hotspot and to a cell network when I'm not. The handsets that let you use Skype aren't that slick, but they'll get there. Then I'll really be able to stick it to Ma Bell. ■

Contributing Editor Dan Tynan is the author of Computer Privacy Annoyances (O'Reilly Media, 2005). You can send him e-mail at gadgetfreak@pcworld.com.



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| Intel® Core™2 Duo Processor T7600 (4MB L2 Cache, 2.33GHz, 667MHz FSB) | \$ 1645 |
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BUGS & FIXES

STUART J. JOHNSTON

Fix Flaws in IE, Windows Media Player

Microsoft Word and Acrobat are also vulnerable to attacks from poisoned files.

THE EXPLOSION OF user-generated multimedia content has made the Web more fun, but unfortunately the bad guys get to play, too. These days some of the easiest venues for an attack are sites that let users post their own material.

For example, the Internet Storm Center, which tracks online assaults, recently reported that criminals used normal JavaScript features in Apple QuickTime movies to launch an attack against a MySpace vulnerability. When users viewed an infected movie on a MySpace page, the video (via the flaw) embedded itself on their own MySpace pages, and replaced their links with pointers to phishing sites. That flaw has since been fixed, but new program vulnerabilities keep the user-posted-content threat alive.

WMP PROBLEMS

MICROSOFT RECENTLY patched two critical holes in the way Windows Media Play-

er (6.4 through 10) handles streaming media files with .asf and .asx extensions. An active attack using either hole would set you up for a classic drive-by malware download if you viewed a tainted page in



Online video clips can bring laughs—or hide an attack.

IE (and thereby automatically called up Media Player to play a video or audio file) or otherwise pulled poisoned content directly into WMP. And, according to Microsoft, you have a particular risk of encountering such content on sites “that accept or host user-provided content or advertisements.” The flaw affects WMP in Win-

dows 2000 Service Pack 4 through Windows XP SP2; get the fix via Automatic Updates, or at find.pcworld.com/56077. Version 11 of WMP (download it at find.pcworld.com/56096) is not at risk.

At press time neither bug had been exploited—but the proof-of-concept code, often a precursor to an attack, had been posted for one of them.

HOLE-Y IE 6

MICROSOFT ALSO PATCHED two critical flaws in Internet Explorer 5.01 through 6.0 SP1 (in Windows 2000 SP4 through XP SP2) that could leave you open to an attack from a poisoned Web site (IE 7 is not vulnerable). Both holes take advantage of memory-corruption errors in the way IE handles scripts. No attacks are known to exist as of yet; but once again the company warns that sites hosting user-provided content are a likely avenue of attack.

Grab the fix through Automatic Updates, or as part of a large, cumulative IE patch at find.pcworld.com/56078.

As for Word, Microsoft is warning about yet another pair of zero-day attacks that try to trick unsuspecting users into opening rigged Word documents. In Windows, the as-yet-unaddressed holes affect Word 2000, 2002, and 2003, plus Word Viewer

IN BRIEF

Bug Slows IE 7

A PHISHING FILTER bug can reduce your computer to a crawl on Web sites with many frames. Get the fix at find.pcworld.com/56080.

Critical OS X Fixes

APPLE ISSUED A major security update that closes 22 OS X holes, including one that has the highest threat rating possible. Obtain details and patches at find.pcworld.com/56082.

Vista Battery Drain

LAPTOPS WITH the new OS will have default settings that help connect to public hotspots but decrease battery life. To get more info—and change the settings—go to find.pcworld.com/56079.

2003; for Macs, Word 2004 and Word X are also in danger. Works 2004, 2005, and 2006 are likewise affected. ■

Stuart J. Johnston is a contributing editor for PC World. Visit find.pcworld.com/31580 to see more Bugs and Fixes columns.

BUGGED?

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PATCH CRITICAL ACROBAT, READER HOLES

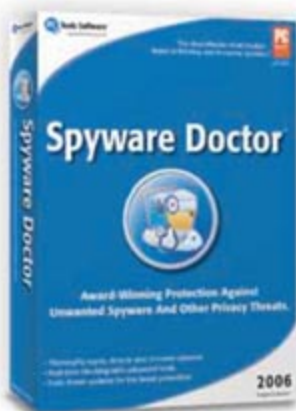
SECURITY COMPANY SOPHOS found critical cracks in the ActiveX control for versions 7.0 through 7.0.8 of Adobe Reader and Adobe Acrobat Standard and Professional. No attack exists yet, but if one arises you'd have only to visit a contaminated site in IE to be the victim of a drive-by download.

To close the hole, upgrade to version 8 of either product, or patch version 7. Adobe is working on an automatic update using the program's 'Help•Check for Updates' options, but until that method is available, get the fix from find.pcworld.com/56081.

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REVIEWS & RANKINGS

EDITED BY LIANE CASSAVOY AND NARASU REBBAPRAGADA

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- 54 **CINGULAR 8525**
- 55 **ANONYMIZER**
SAFE SURFING SUITE
- 58 **NIKON D40**
- 58 **SHARPCAST PHOTOS**



High Definition for Small Spaces

We test seven 32-inch LCD TVs and find you don't always need a monster set to get a good picture.

32-INCH LCD TVs

TEST Center DESPITE THE HYPE surrounding them, gargantuan flat-panel televisions are not for everyone. People with smaller rooms and tighter budgets need a unit that will fit their resources. A 32-inch LCD TV is one good option. With a manageable price and size, it is a great entrée into the world of wide-screen high-definition TV.

A 32-inch set can be a nice fit for rooms that lack the optimal viewing distance for 42-inch and bigger televisions, which is at least 7 feet (or about twice the diagonal measurement of the screen). In small rooms, you're more likely to be seated so close to the TV that individual pixels become noticeable on larger sets, making the images look grainy.

LCD TVs are wall mount-

able, as well, potentially saving considerable space over a bulky CRT. Another factor to be aware of with any wide-screen television is the height of the display—which in the case of these 32-inch models is equivalent to that of a 26-inch screen having a conventional 4:3 aspect ratio.

LCD TVs are also getting cheaper, fast. Riddhi Patel, principal analyst of research

DELL'S FULL-FEATURED W3207C (left) is our Best Buy; the low-priced (\$700) Vizio VX32LHDTV ranks second.

firm iSuppli, says that the average cost of 32-inch LCD TVs dropped to about \$850 in the last quarter of 2006, with some sets priced as low as \$599. The net result of these cuts is that 32-inch LCD models now cost only a small per-

PHOTOGRAPHS: MARC SIMON

- 59 EPSON P-5000, DIGITAL FOCI PICTURE PORTER ELITE
- 60 HP PAVILION M7690N
- 60 PHILIPS BDP9000
- 62 DELL ULTRASHARP 2707WFP
- 62 FUJITSU LIFEBOOK P1610
- 63 MONSOON HAVA WIRELESS HD, SONY LF-B20 LOCATIONFREE BASE STATION
- 64 DATAVIZ DOCUMENTS TO GO 9
- 64 LOGITECH CORDLESS INTERNET HANDSET



54

- 52 TOP 5 32-INCH LCD HDTVs
- 56 TOP 10 INKJET PRINTERS
- 61 TOP 5 BLOGGING PLATFORMS



58

centage more than similarly sized CRTs but are still significantly cheaper than their 37-inch LCD siblings, whose price averaged about \$1400 in the last quarter of 2006.

DELL AND VIZIO WIN

PC WORLD GATHERED seven 32-inch LCD HDTVs and put them through a battery of tests that included the display of both high-definition and standard-definition video. In general, all performed respectably, although no one set's image quality blew us away. The differences had to do with the color warmth and brightness of the calibrated settings at which we test, but you can adjust those to your taste.

While the highest performers edged out the other TVs only narrowly, the price differences between sets were wide. The top-performing Toshiba 32HL66, for example, cost \$900 more than the Vizio VX32LHDTV, but the Toshiba set outscored the Vizio in image quality just slightly.

In the end, the Dell W3207C earned *PC World's* Best Buy nod, racking up points for consistently well-saturated images and ample connectors. Its shiny black and silver cabinet

with a swiveling stand provides a sleek look, even with its side-mounted speakers.

Budget-HDTV stalwart Vizio, with its VX32LHDTV, finished right on the Dell's heels. In tests at both standard and high definition, this model produced pleasingly saturated colors, sharp pic-

HP's \$900 LC3260 claimed last place in this roundup's image-quality tests, although its score was only six points off from that of our winner. It also earned marks slightly below average in the important high-definition and DVD tests. However, its low price and solid, if somewhat basic,

tively inexpensive at \$999, the unit lacks RCA audio inputs and offers only one HDMI port, one S-Video port, and a single set of composite inputs, when some other models provide two or even three of each type of connector. It does have two component inputs.

Two TVs we tested—the Sharp LC-32D50U and the Toshiba 32HL66—did not make the chart, largely because of their high prices. The \$1700 LC-32D50U, from the company's premium Aquos line, scored fourth in image-quality tests and was the strongest at displaying DVD movies and standard-definition content. It also comes with a light sensor that automatically adjusts the backlight brightness, which is an unusual feature in this size and category of TV. Additionally, some consumers may like its unique titanium-hued cabinet well enough to shell out for this stylish set.

Toshiba's \$1600 32HL66 earned the best overall performance score in our tests, but not by much. HD images displayed with punchy colors and pleasing contrast, and the set's picture quality remained consistent under different lighting conditions. How- ▶



REMOTES BUNDLED WITH the Panasonic, HP, and Dell 32-inch LCD TVs have navigation buttons similar to an Apple iPod's scroll wheel.

tures, and nuanced details.

The Panasonic TC-32LX60, which came in third, offered good color and image quality plus desirable features such as a built-in HDTV tuner and a swiveling stand. Its \$1200 price matched the median of this test set of LCDs.

design helped it take fourth place overall on our chart.

The number five Westinghouse LTV-32w6 was third in our screen tests, displaying sharp pictures with natural tones regardless of whether the source was high or standard definition. Though rela-

ever, our test model lacked extras—such as a swiveling stand and more than one HDMI input—that you would expect to find at this price.

SPECS AND FEATURES

ALL OF THE TVs we tested support 720p and 1080i, the high-definition resolutions that all HD broadcast television programming offers.

None of them, though, support the 1080p resolution—also known as full HD—that HD DVD and Blu-ray players can output. Of course, those devices can convert 1080p sources to 1080i or 720p for viewing on the TVs we tested, as long as you use an HDMI connection (which all of the sets here came with).

Should you hold out for full HD on a set this size? No—iSuppli's Patel says it doesn't make much economic sense for LCD TV manufacturers to

put 1080p HDTV resolution on smaller sets given the price pressures that they face.

The good news: LCD TV manufacturers have improved other specifications of their 32-inch sets. For example, the pixel response times in this group all range from 6 to 8 milliseconds—faster than the 16-millisecond response time of some models on our previous charts. One indicator of this improvement is that we noticed hardly any bothersome ghosting in fast-action sequences or camera panning. However, manufacturers measure this spec in different ways, so you shouldn't use it as a deciding factor in your purchase.

The LCD TV sets we tested are simple in design, though a few models have features that make them stand out. We discovered that buttons located on the side or top of the TV

cabinets—as on the Vizio and HP—were easier to access than those that occupied the underside of the panel, as on the Toshiba set.

Westinghouse's unique SpineDesign



WESTINGHOUSE PLACES ITS inputs in convenient locations on the LTV-32w6's back panel.

places inputs and other connectors high up on the back of the panel, where they're easy to reach. And all of the sets' remote controls are logically

laid out, although the Westinghouse one is basic. The Dell and Panasonic remotes even mimic the circular controls of an Apple iPod. (Their versions, however, boil down to four-way navigation buttons.) The Dell and Panasonic sets are also the only models with swiveling cabinets; the W3207C has a wider swiveling angle and a smooth movement, making quick adjustments simple and the back easy to access.

The Dell, Toshiba, and Vizio all offer picture-in-picture or picture-by-picture capabilities. On-screen display (OSD) menus are generally intuitive to use, too. For example, Dell's main menu appears at the bottom of the screen while submenus float in the middle. The polished menus of the Vizio are full-featured and easy to navigate. With Sharp's model, however, you use the remote control to access OSD menus.

Whether you're transitioning from your aging, space-hogging CRT or seeking a second TV for a smaller room, a 32-inch LCD TV can fit your space and budget requirements. But our tests suggest that a premium-priced TV doesn't necessarily guarantee the best blend of features and image quality. In the case of the Toshiba model, for example, its test performance was only somewhat superior to that of its competitors, which offer better combinations of ports and cabinet designs. Our chart-makers—including the affordable \$700 Vizio—provide a lot for a lot less.

—Roy Santos

| | 32-INCH LCD HDTV | PCW Rating | Performance | Features and specifications |
|---|--|-----------------|--|--|
| 1 | Dell W3207C Best BUY \$1199 find.pcworld.com/56045 | 80 Very Good | <ul style="list-style-type: none"> HDTV: Good SDTV: Good DVD: Good Overall design: Very Good | <ul style="list-style-type: none"> 1366-by-768-pixel screen Tuners: one NTSC, one ATSC Inputs: one HDMI, two component CableCard slot |
| ▶ Bottom line: Good performance, stylish design, and features such as side speakers and a swiveling stand make for an attractive package. | | | | |
| 2 | Vizio VX32LHDTV \$700 find.pcworld.com/56049 | 78 Good | <ul style="list-style-type: none"> HDTV: Good SDTV: Good DVD: Good Overall design: Very Good | <ul style="list-style-type: none"> 1366-by-768-pixel screen Tuners: one NTSC, one ATSC Inputs: two HDMI, two component No CableCard slot |
| ▶ Bottom line: An incredibly cheap price distinguishes this LCD TV, which otherwise has decent, but not overly impressive, design and features. | | | | |
| 3 | Panasonic TC-32LX60 \$1200 find.pcworld.com/56044 | 76 Good | <ul style="list-style-type: none"> HDTV: Good SDTV: Good DVD: Good Overall design: Good | <ul style="list-style-type: none"> 1366-by-768-pixel screen Tuners: one NTSC, one ATSC Inputs: one HDMI, one component No CableCard slot |
| ▶ Bottom line: This LCD TV is a solid performer and comfortable to use, but it lacks speakers and a VGA input. | | | | |
| 4 | HP LC3260 \$900 find.pcworld.com/56046 | 74 Good | <ul style="list-style-type: none"> HDTV: Fair SDTV: Good DVD: Fair Overall design: Good | <ul style="list-style-type: none"> 1366-by-768-pixel screen Tuners: one NTSC, one ATSC Inputs: two HDMI, two component No CableCard slot |
| ▶ Bottom line: Subpar performance and a lack of extras, such as picture-in-picture display, weaken this otherwise inexpensive LCD TV. | | | | |
| 5 | Westinghouse LTV-32w6 \$999 find.pcworld.com/56048 | 73 Good | <ul style="list-style-type: none"> HDTV: Good SDTV: Good DVD: Good Overall design: Good | <ul style="list-style-type: none"> 1366-by-768-pixel screen Tuners: one NTSC, one ATSC Inputs: one HDMI, two component No CableCard slot |
| ▶ Bottom line: This sub-\$1000 TV has a basic cabinet and remote control, but image quality is competitive with that of more expensive models. | | | | |

CHART NOTE: Prices and ratings are as of 1/7/07. For information on how we test LCD HDTVs, go to find.pcworld.com/56060.

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An Updated Treo for the Masses

PDA PHONE

WITH ITS FAMILIAR candy-bar design, Palm's Treo has become an iconic PDA phone—but models generally debut at prices that only serious mobile professionals can afford. The **Treo 680** arrives carrying a lower price tag (\$300 with a two-year contract from Cingular), a slightly svelter look, and

Treo 680

Palm

PCW Rating **76** Good

This affordable PDA phone has a sleek new look, but—like its predecessors—it relies on the slow EDGE network for data access.

List: \$300 (with two-year Cingular contract)

find.pcworld.com/56065

features intended to attract a much wider audience. Unfortunately, though, this phone suffers from some drawbacks.

The 680 looks jazzier than its predecessors did. Subtle sculpting gives the case a softer, less boxy look and a nicer feel in the hand. Palm tweaked the keyboard, too, making the keys slightly larger.

As a phone, the 680 is fairly comfortable to use, with adequate voice quality and volume. The integration with Palm contacts remains a strong feature. Talk-time battery life is average, at 6 hours, 25 minutes in our lab tests—longer than the battery life of other Treos we've seen, but shorter than that of most PDA phones we test.

The 680 comes with a robust bundle of software. For productivity, Palm adds the Microsoft Office-compatible DataViz Docs to Go 8.0; and for playing music and video, you get the basic version of NormSoft's Pocket Tunes.

Cingular's included Xpress mail application makes receiving most standard forms of corporate e-mail a breeze. To handle standard POP3 and IMAP e-mail, the 680 has the VersaMail client. Unfortunately, the dial-up-like EDGE service that the 680 supports severely limits its data speeds.

Overall, the 680 makes for a decent entry-level Treo that improves markedly on the 650. For people who have resisted



THE 680 LACKS the antenna stub found on previous Treos.

trading in an older phone and a Palm for a single device, it's certainly worth checking out.

—Yardena Arar

Cingular's PDA Phone Hits Higher Speeds

PDA PHONE

IF CHECKING E-MAIL or surfing the Web is sluggish on your aging cell phone, the **Cingular 8525**—the first PDA phone compatible with Cin-

gular's high-speed HSDPA network—might be the answer to your prayers. For the most part, the 8525 delivers strong broadband data speeds, as you'd expect. But poor battery life is its Achilles' heel.

Windows Mobile based, the 8525 isn't for people who like sleek and slender handhelds. The chunky, 6.2-ounce, 4.4-by-2.3-by-0.9-inch business-oriented device costs \$450 with a two-year contract, and it sports a 2.8-inch 240-by-320 display that slides sideways to reveal a QWERTY keyboard.

You must turn the phone 90 degrees to use the keyboard for data entry or to dial a number. The keys seem to have been cut from one sheet of metal—

they aren't domed or separated. But the keyboard is wide for a handheld, and I found it usable for basic thumb typing.

Browsing on the 8525 was impressive: Though I encountered some latency problems, HSDPA's superior download speed was evident once a page began loading. Touted as the high-speed successor to GSM/GPRS/EDGE service, HSDPA directly competes with Sprint and Verizon's EvDO service. Cingular rates its speed at 400 to 700 kilobits per second.

The quad-band 8525 proved surprisingly capable as a cell phone. Voice quality was crisp in my tests; callers said that I sounded good, too. The built-in 2-megapixel camera produced better images, especially indoors (thanks to a built-in flash), than most phone cam-

eras I've tried. Cingular outfits the device with a full complement of Windows Mobile productivity applications.

Alas, the 8525's battery life in our lab tests was exceptionally poor at 4 hours, 21 minutes, which ranks among the worst spans we've recorded.

I'd recommend the 8525 to business users who are willing to carry an extra battery in return for top speed and great voice and image quality.

—Yardena Arar



THE 8525'S HSDPA network offers excellent download speeds.

Cingular 8525

Cingular

PCW Rating **83** Very Good

Poor battery life and a bulky design undermine the very fast data access that the 8525 offers. List: \$450 (with two-year Cingular contract)

find.pcworld.com/56064

Anonymizer Hides Your Browsing Tracks

PRIVACY

IT CAN BE HARD to protect your privacy while surfing the Web, but **Anonymizer Safe Surfing Suite** simplifies matters. This \$40-a-year suite consists of four privacy-themed products. Unfortunately, though three of them work well, the suite is hamstrung by its Anti-Spyware application.

Available for download at Anonymizer.com, the software runs in the background as you browse. The suite's centerpiece, Anonymous Surfing, protects your privacy by masking your browsing via a proxy maintained by Anonymizer. An indicator icon in your system tray flashes when you're using the proxy, but you gen-

erally won't notice anything different in your browser.

The Digital Shredder clears your Windows usage history (such as files you've recently opened) and your browsing history. And the new Nyms feature lets you create temporary e-mail addresses to protect yourself against spam. The three elements work well together and make changing your preferences or turning off certain features easy.

The same cannot be said of the Anti-Spyware component, which performs an on-demand spyware scan and offers limited real-time protections for ActiveX controls. My test scan falsely reported benign software as harmful



ANONYMIZER SAFE SURFING Suite's Nyms feature enables you to create temporary e-mail addresses that hide your real e-mail address.

malware. It also issued a "very high risk threat" warning for StumbleUpon, a safe browser add-on. The company confirmed that these were indeed false positives and said that the flaws would be fixed.

If you ignore Anti-Spyware, though, you have a decent product that works well.

SURFING INCOGNITO

WHEN YOU USE Anonymous Surfing, you must type in a Web address as usual; then, however, the proxy steps in and makes the actual Web site request for you. It hides your IP address so that the site visit appears to be from the proxy instead. Anonymous Surfing also blocks known phishing and other malicious sites.

In my informal tests, Anonymous Surfing worked fine with both Internet Explorer 7 and Firefox 2, but it had trouble with a few browser tools and specific sites. The Netcraft antiphishing toolbar doesn't work with the proxy as yet, and I was unable to access a few internal company sites here at the *PC World* office. You can toggle the anonymous surfing feature off and on quickly, though.

The suite recently added Nyms for sending and receiving e-mail via easy-to-create

temporary addresses that hide your real address. For example, you might use bobthrowaway1@nysms.net to sign up at a forum or to make an online purchase. Any message sent to that address would go to your real address, but if the list of forum users' e-mail addresses were to find its way into a spammer's hands, you would know where the spammer got your e-mail.

The Digital Shredder works well enough. New built-in features in both Firefox 2 and Internet Explorer 7 perform many of the same functions it does, but the Shredder lets you easily choose which cookies to keep and which to discard.

If you are concerned about protecting your online privacy, Anonymizer's Safe Surfing Suite is worth an extended look. But forget about using its Anti-Spyware application to keep your computer safe.

—Erik Larkin

Anonymizer Safe Surfing Suite

Anonymizer

PCW Rating 76 **Good**

Anonymizer's suite hides your surfing habits and e-mail address from prying eyes, but its antispyware app needs work. List: \$40 per year find.pcworld.com/56076

TECH TREND

MiniDV: End of the Line?

THE POPULARITY OF MiniDV camcorders has been plummeting, with DVD-based models taking hold. In 2007, DVD-

based camcorders will outsell MiniDV-based models for the first time, according to IDC Research; by 2009, hard-disk-based models will also overtake MiniDV ones. So why is everyone ditching the format that gave birth to the era of digital video?

"The vast majority of consumers are buying DVD models on the premise of convenience," says Mitch Glick, assistant man-

ager of marketing for Canon's camcorder division. Removing a disc from a camcorder and popping it into a DVD player is that format's main benefit. And though MiniDV still offers better video quality, Sony spokesperson Yolanda Hunt-Boes says that for most users, "The video quality [provided by DVD- and hard-disk-based models] is good enough for them."

—Alan Stafford



INKJET PRINTERS

Print Great Photos Without Spending Big

TEST CENTER SEVEN NEW INKJET printers earn a place in this month's chart. Our debuting Best Buy, Canon's \$100 Pixma iP4300, generated top-notch text, graphics, and photo prints faster than any other model we tested.

Canon's Pixma iP1700 and Lexmark's Z845 (both \$50) finished in third and eighth place, respectively, and surprised us with nice, black text and acceptable photo quality.

For a premium experience when printing without a PC, both HP's fifth-ranked Photo-



SURPRISINGLY CAPABLE:
Canon's \$50 Pixma iP1700.

smart D7360 and Canon's seventh-place Pixma iP6700D include media card readers and have large, built-in color displays, for a price of \$200.

Meanwhile, if you want to print onto CD or DVD discs, two new Epson printers—the Stylus Photo R260 (in sixth place) and the Stylus Photo R380 (in ninth)—are the only models on our chart that can handle the assignment.

—Danny Allen

ONLINE

FOR MORE INFORMATION about the inkjet printers reviewed in this chart, including details on how we tested them, go to find.pcworld.com/56071.

| | INKJET PRINTER | PCW Rating | Performance | Features and specifications |
|--|---|-----------------|--|---|
| 1 | Canon Pixma iP4300 Best Buy \$100 NEW find.pcworld.com/56053 | 85 Very Good | <ul style="list-style-type: none"> Text quality: Very Good Graphics/photo quality: Very Good/Superior Tested speeds (ppm): 11.9 text/3.7 graphics | <ul style="list-style-type: none"> 30 ppm text 24 ppm graphics 9600-by-2400-dpi maximum resolution |
| ▶ Bottom line: The Pixma iP4300 has it all: speed; impressive output quality for text, graphics, and photos; and a very appealing price. | | | | |
| 2 | HP Photosmart D7160 \$150 NEW find.pcworld.com/56057 | 83 Very Good | <ul style="list-style-type: none"> Text quality: Good Graphics/photo quality: Fair/Superior Tested speeds (ppm): 7.5 text/2.9 graphics | <ul style="list-style-type: none"> 32 ppm text 31 ppm graphics 4800-by-1200-dpi maximum resolution |
| ▶ Bottom line: This model is one of the better photo printers available, but competing printers have an advantage in price or speed. | | | | |
| 3 | Canon Pixma iP1700 \$50 NEW find.pcworld.com/56052 | 81 Very Good | <ul style="list-style-type: none"> Text quality: Good Graphics/photo quality: Good/Good Tested speeds (ppm): 8.6 text/2.0 graphics | <ul style="list-style-type: none"> 22 ppm text 17 ppm graphics 4800-by-1200-dpi maximum resolution |
| ▶ Bottom line: Cheapskates will cheer this inexpensive printer, which demands surprisingly few compromises in return for the low cost. | | | | |
| 4 | HP Deskjet 6980 \$150 NEW find.pcworld.com/56056 | 79 Good | <ul style="list-style-type: none"> Text quality: Very Good Graphics/photo quality: Very Good/Very Good Tested speeds (ppm): 9.1 text/2.5 graphics | <ul style="list-style-type: none"> 36 ppm text 27 ppm graphics 4800-by-1200-dpi maximum resolution |
| ▶ Bottom line: The Deskjet 6980 is a good everyday printer, delivering solid print performance without distracting or pricey extras. | | | | |
| 5 | HP Photosmart D7360 \$200 find.pcworld.com/55296 | 78 Good | <ul style="list-style-type: none"> Text quality: Good Graphics/photo quality: Fair/Superior Tested speeds (ppm): 7.4 text/2.8 graphics | <ul style="list-style-type: none"> 32 ppm text 31 ppm graphics 4800-by-1200-dpi maximum resolution |
| ▶ Bottom line: The Photosmart D7360's 3.4-inch display and photo prints are impressive, but its plain-paper graphics output is poor. | | | | |
| 6 | Epson Stylus Photo R260 \$130 NEW find.pcworld.com/56054 | 74 Good | <ul style="list-style-type: none"> Text quality: Fair Graphics/photo quality: Fair/Very Good Tested speeds (ppm): 3.9 text/2.9 graphics | <ul style="list-style-type: none"> 30 ppm text 30 ppm graphics 5760-by-1440-dpi maximum resolution |
| ▶ Bottom line: Very good photo output and the ability to print on CDs and DVDs compensate for this model's lackluster text-printing speeds. | | | | |
| 7 | Canon Pixma iP6700D \$200 find.pcworld.com/54674 | 74 Good | <ul style="list-style-type: none"> Text quality: Fair Graphics/photo quality: Good/Superior Tested speeds (ppm): 4.2 text/2.0 graphics | <ul style="list-style-type: none"> 18 ppm text 17 ppm graphics 9600-by-2400-dpi maximum resolution |
| ▶ Bottom line: The iP6700D boasts a big color LCD, two-sided printing, and nice photo output, but text quality and speed were average. | | | | |
| 8 | Lexmark Z845 \$50 NEW find.pcworld.com/56058 | 72 Good | <ul style="list-style-type: none"> Text quality: Fair Graphics/photo quality: Poor/Very Good Tested speeds (ppm): 9.4 text/1.2 graphics | <ul style="list-style-type: none"> 24 ppm text 18 ppm graphics 4800-by-1200-dpi maximum resolution |
| ▶ Bottom line: With mediocre text and plain-paper graphics output, the Z845 serves best as a cheap way to start printing glossy photos. | | | | |
| 9 | Epson Stylus Photo R380 \$200 NEW find.pcworld.com/56055 | 72 Good | <ul style="list-style-type: none"> Text quality: Fair Graphics/photo quality: Fair/Very Good Tested speeds (ppm): 3.9 text/2.9 graphics | <ul style="list-style-type: none"> 30 ppm text 30 ppm graphics 5760-by-1440-dpi maximum resolution |
| ▶ Bottom line: This printer's extras, including the ability to print on CDs and DVDs, make up for shortcomings in speed and output quality. | | | | |
| 10 | Canon Pixma iP90 \$250 find.pcworld.com/46660 | 66 Fair | <ul style="list-style-type: none"> Text quality: Very Good Graphics/photo quality: Good/Very Good Tested speeds (ppm): 8.2 text/1.7 graphics | <ul style="list-style-type: none"> 16 ppm text 12 ppm graphics 4800-by-1200-dpi maximum resolution |
| ▶ Bottom line: The Pixma iP90 is a speedy portable printer, but beware of the rising price when you add optional equipment. | | | | |

CHART NOTE: Prices and ratings are as of 2/6/07.

REMOTE CONTROL THIS EFFORTLESS USUALLY INVOLVES A COUCH.



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IBM Director and Predictive Failure Analysis monitor and help identify problems on processors, memory, hard disk drives, VMR and power supplies

Limited warranty: 3 years on-site³



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Nikon's Low-Cost SLR Delivers

DIGITAL CAMERA

TEST ONLY A FEW years ago, \$1000 was a firm barrier for digital SLRs; now vendors are racing to produce a \$500 model. No camera has reached that goal, but Nikon's **D40** comes close. For \$600, you get a nice SLR camera with impressive image quality.

The D40 kit includes the

D40

Nikon

PCW Rating **82** Very Good

This well-crafted digital SLR has high-end features and very good image quality at a low-end price. Street: \$600

find.pcworld.com/56090

small, lightweight camera and a separate 18–55mm lens (not available in a body-only configuration). Even at this low price, the D40's build quality is excellent. Nikon has crafted a petite camera that is easy to hold and isn't too cramped.

The 6-megapixel sensor offers enough pixels for you to comfortably print photos at sizes up to 8 by 10 inches. Image quality is very good; the camera uses the same image-processing circuitry found in Nikon's more expensive D80 and D200. In our tests, the D40 scored just below those cameras on this measure.

The 2.5-inch LCD screen



provides a detailed readout of current camera settings. The info display includes a feature that is so handy, it's hard to believe that no one thought of it before: As you change the aperture, the display shows an animated iris that opens and closes, so you don't have to try to remember whether a bigger number means a smaller or larger aperture. The camera's help system also explains each feature, and shows you how it will alter your picture.

THE RUBBERIZED GRIP and pebbled finish make the D40 feel like a professional-level camera.

The D40 is a great value and a great tool for photographers who want to grow. The included help system and aperture displays are fantastic, and the camera provides plenty of features to ensure that you won't have to compromise as your shooting prowess grows.

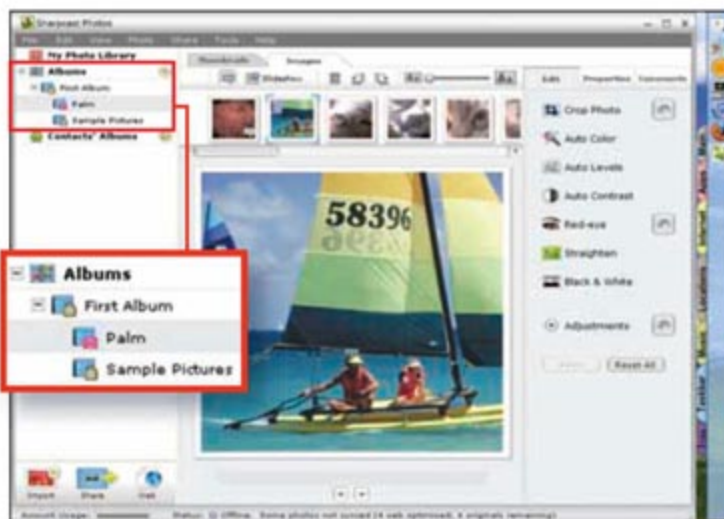
—Ben Long

Sharpcast Keeps Your Photo Collection in Sync

PHOTOS

FOR AN INTRIGUING combination of image editing and organizing software, plus a Web service for sharing your images, **Sharpcast Photos** is the ticket. But what makes Sharpcast Photos special is the way it automatically updates your data wherever you access it, so any change you make to a designated photo collection gets shared among the various PCs and mobile devices that you use to access your account. This approach to syncing is impressive, though the actual photo editing and organizational tools are limited.

I tested a beta version of Sharpcast, which offers 5GB of online storage for free. You sign up online and download the software component. The



SHARPCAST'S DESKTOP APPLICATION lets you edit your photos, organize them into albums, and then share them with friends.

app works with Windows PCs and with Windows Mobile 5.0 smart phones, and it lets you organize photos in albums, share them with friends, and handle basic editing tasks such as cropping and red-eye

reduction. The Sharpcast site offers the same sharing tools and some of the editing tools.

Changes you make to your photo collection—via the Web service or via the desktop or mobile software—get shared

all over. In my testing, when I rotated a photo through the Web service, the resulting change appeared on my desktop and notebook even before it showed up in my browser.

Sharpcast's editing tools are fairly basic, and although you can add comments to photos, there's no simple tagging system to organize them. Still, Sharpcast provides a terrific way to sync and share photos.

—Edward N. Albrow

Sharpcast Photos

Sharpcast

PCW Rating **83** Very Good

Web service/software combo supports convenient syncing, but limited editing and organizing. Free while in beta; final version will have free and paid accounts find.pcworld.com/56105

View and Back Up Photos While on the Go

PHOTO VIEWERS

IN AN ERA when digital cameras take 10-plus-megapixel images, you may find it impossible to rely on media cards to store all your images. That's where a photo viewer such as Digital Foci's \$470 **Picture Porter Elite** or Epson's \$699 **P-5000** comes in: These handheld devices have large screens, built-in media-card slots, and 80GB hard drives. In my tests of two shipping units, the devices displayed similar ranges of functionality, yet each stood out for different reasons.

Both battery-operated handhelds come with software that permits you to back up your media cards to the device's hard drive and then view the photos on an LCD screen.

The Picture Porter Elite employs a fast, efficient, Linux-based operating system that's easy to navigate. The unit accommodates CompactFlash, SD, and Memory Stick cards. Slip a card in, and the device automatically prompts you to perform a photo backup (for images and videos on a media card) or a full backup (for all of the data stored on a card). Copying goes quickly, and photos looked satisfactory on the Picture Porter Elite's scratch-resistant, 3.6-inch, 320-by-240-resolution LCD. The device can handle JPEG, GIF, BMP, and TIFF files, as well as some RAW formats.

Though I wasn't thrilled by the Picture Porter Elite's boxy, squared-off design (its dimensions are 3.1 inches tall by 5.3 inches wide by 1.1 inches deep, and it weighs 11 ounces), I did

right corner. The two card slots at the top accept CompactFlash and SD cards. Like the Picture Porter Elite, the Epson viewer prompts you to back



THE PICTURE PORTER Elite (left) suffers from a boxy design, while Epson's P-5000 is larger but uses that space for its bigger LCD.

appreciate the device's convenient joystick and its easy-to-use menu navigation buttons.

BIG-IMAGE DELIGHT

IN CONTRAST, the 80GB Epson P-5000 is larger (3.5 inches tall by 5.9 inches wide by 1.3 inches deep) and heavier (1 pound), enabling it to accommodate a 4-inch, 640-by-480-resolution screen. That gorgeous display supports 16.7 million colors; not surprisingly, images appeared sharper, clearer, and more detailed on this model, making it an excellent choice for professional photographers.

The P-5000 has an elegant, curved design. Its handsome matte-black case includes intuitive, well-labeled navigation buttons situated in the upper-

up your images to the device.

I had no trouble navigating the P-5000's refined menus. The Linux-based software let me scroll quickly through images; the menus let me create albums and slide shows on the fly, and assign individual ratings to photos and albums.

Nevertheless, the P-5000 is more limited than the Picture Porter Elite in some respects. Its card slot does not accommodate Memory Stick media, for instance, and it supports only JPEG and RAW images.

I would recommend Epson's P-5000 for serious photographers; its larger, higher-resolution screen will justify the premium price. But the Picture Porter Elite will certainly get the job done, too.

—Melissa J. Perenson

ASK OUR EXPERTS

MacBook Worth a Look

HOW GOOD IS the latest Apple laptop?

sumanthreddy28 via PCWorld.com Forums



Senior Editor Narasu Rebbapragada responds: Apple's MacBook with an Intel Core 2 Duo processor is a good buy not only for Mac lovers but also for PC users who are in the market for an Apple portable. A midrange model with a 2.0-GHz Core 2 Duo processor, 1GB of RAM, a double-layer DVD±RW drive, full wireless, and a Webcam costs \$1299. Our \$1774 (as of January 3, 2007) test unit with 2GB of RAM earned a WorldBench 5 score of 98—one point higher than the 97 earned by a Gateway M285-E with the same processor but only 1GB of RAM and a discrete graphics chip. (The MacBook has only integrated graphics.)

Windows runs smoothly on the Mac, but software and driver kinks will remind you that you're not on a PC. I use Apple's free Boot Camp utility to work in programs such as Office 2007. The \$80 Parallels Desktop for Mac is another great alternative for running both OSs simultaneously.



P-5000

Epson America

PCW Rating **81** Very Good

A roomy, high-resolution screen makes this expensive photo viewer a good choice for photo pros.

Street: \$699

find.pcworld.com/56067

Picture Porter Elite

Digital Foci

PCW Rating **79** Good

This easy-to-use unit is a speedy performer but suffers from a boxy, squared-off design.

Street: \$470

find.pcworld.com/56068

HP Pavilion Includes HD DVD Drive

DESKTOP PC

TEST Center HP HAS optimized its home-theater-ready **Pavilion Media Center TV m7690n** PC for high definition. I examined a shipping unit of this desktop model, which is the company's first to include an HD DVD drive. The system handled our performance tests admirably—but at \$2080, it

Pavilion Media Center TV m7690n

HP

PCW Rating **80** Very Good

The m7690n has an extensive set of features, including an HD DVD drive, but it is rather expensive.

List: \$2080

find.pcworld.com/56172

certainly doesn't come cheap.

Our Vista Capable test machine ran Windows XP Media Center Edition and included a TV tuner for recording television shows. The system's other major feature is a Toshiba SD-H802A HD DVD ROM drive (the second optical drive on the PC). It can read HD DVD movie discs, but you have to run the included HD DVD application separately; unfortunately, it isn't integrated with the Media Center software.

The accompanying 22-inch HP w22 LCD monitor was a disappointment, as well, offering pale colors and poorly reproduced shadow details.

Equipped with a 2.13-GHz



THE M7690N INCLUDES both an HD DVD drive and a TV tuner.

Core 2 Duo E6400 processor and 2GB of DDR2 SDRAM, the m7690n earned a strong score of 126 on our World-Bench 5 tests, which makes it well suited for most general computing tasks. It also turned in reasonable graphics performance using a mainstream GeForce 7600G GT graphics

card; the system managed a respectable frame rate of 112 frames per second in Doom 3 at 1280 by 1024 resolution.

Though the m7690n is pricey, the PC includes both a TV tuner and an HD DVD drive. It's too bad, however, that the drive isn't better integrated.

—Richard Baguley

Philips's Sleek, Simple Blu-ray Disc Player

DVD PLAYER

THE PHILIPS **BDP9000** is the second dedicated Blu-ray Disc set-top player to hit the market, following Samsung's BD-P1000, which was released last summer. I looked at a shipping version of the \$899 Philips device and found that its sleek design and well-rounded functionality top the Samsung's.

About the same size as a non-high-def DVD player, the



THE BDP9000 HAS the same dimensions as a standard DVD player.

BDP9000 sports a glossy, piano-black finish. An LCD on the front shows disc information. Hiding under a flip-down door are the (too-small) buttons necessary to operate the unit sans remote, along with memory card slots (for CompactFlash, Memory Stick, and SD Card)—something the Samsung player lacks.

The Philips unit's generally sharp design extends beyond

its hardware. Its menus, for example, are better-organized than the Samsung's; and the home screen has friendly navigation menus to adjust such options as audio output and display, with clearly readable selections that don't overwhelm you with too many choices.

The BDP9000 can play videos on either Blu-ray Disc or DVD (upconverting standard-definition DVDs to 1080p via

HDMI); music on audio CDs, or MP3 files on CD or DVD; and JPEG pictures stored on DVD or CD.

Blu-ray Disc movies appeared both vibrant and sharp—as expected on a Pioneer Elite Pro-FHD 150-inch plasma screen, the TV that I used to view the movies. In my casual hands-on trials with the player, disc-startup time was reasonable, but occasionally I noticed a delay when I switched scenes in the middle of the movie.

With its sophisticated look, easy navigation, and support for CDs, MP3s, DVDs, and flash media cards, Philips's BDP9000 is a well-designed challenger to the Samsung in the Blu-ray player market.

—Melissa J. Perenson

BDP9000

Philips

PCW Rating **82** Very Good

The BDP9000's sleek design and user-friendly menus make it an excellent choice if you're in the market for a Blu-ray disc player.

Street: \$899

find.pcworld.com/56098

Powerful Software for Better Blogging

BUILDING A BLOG has never been easier, thanks to the loads of free or inexpensive programs that are available. We looked at a few to determine which is the easiest to use. We evaluated only hosted blog platforms; the five that made the cut were Blogger, Squarespace, Tripod, TypePad, and WordPress.

We built blogs with each program, testing how quickly the app allows you to create and update posts and how easy its tools are to use; we also analyzed the ability to upload images. In addition, we assessed the quality of the provided templates, and how easy it is to customize them.

After thoroughly evaluating the programs, we named the newest version of Google's

free Blogger as our top pick. A recent update has made Blogger an extremely versatile platform, with templates that you can easily modify to include advertisements, RSS feeds, and even third-party HTML applications, such as a slide-show viewer. All of the controls and features are arranged in a simple interface that's easy to work with. The only drawback: Your photo galleries must be hosted externally by a service such as Flickr or Picasa.

Our second-place selection, WordPress, provides 50 templates to choose from—far



BLOGGER'S CLEAR-CUT MENUS simplify adding HTML applications and RSS feeds to your blog.

more than the other services offer. It also has autosaving, as well as the means to import content from other blogging software. It doesn't allow ads,

however, and the site slows down considerably when you upload images or video.

TypePad, a version of Six Apart's powerful Movable Type blog platform, lands in the third spot. The program's interface is straightforward—more so than either Blogger's or WordPress's, with clear icons that aid in adding HTML or uploading photos. But its storage allowance is low (5GB runs \$9 per month), and it can't create static (update-free) pages, as Blogger and WordPress can.

The Tripod service from Lycos comes in fourth. Users can update a Tripod blog through e-mail and can maintain group blogs. But Tripod's interface groups all the controls on one page, rather than by category, forcing you to search for what you need. The program is aggravatingly slow, too: A new-post window can take 20 seconds just to open.

Our fifth pick, Squarespace, lets you create static pages and photo galleries. The program also permits you to insert third-party widgets, such as a Google search box. Confusing menus, however, make setting up a blog difficult.

—Kalpana Ettenson

| | BLOGGING SOFTWARE | PCW Rating | Ease of use | Features and specifications |
|---|---|------------------------|---|--|
| 1 | Blogger Best Free BUY find.pcworld.com/56156 | 91 Superior | <ul style="list-style-type: none"> Speed and stability: Superior Management tools usability: Very Good Template quality: Very Good | <ul style="list-style-type: none"> Storage space: 300MB WYSIWYG posting: Yes Photo gallery support: External only Mobile blogging support: Yes |
| ▶ Bottom line: The full-featured Blogger platform offers quick setup and easy customization of templates. | | | | |
| 2 | WordPress Free find.pcworld.com/56157 | 88 Very Good | <ul style="list-style-type: none"> Speed and stability: Very Good Management tools usability: Good Template quality: Very Good | <ul style="list-style-type: none"> Storage space: 50MB WYSIWYG posting: Yes Photo gallery support: No Mobile blogging support: Yes |
| ▶ Bottom line: WordPress is versatile and highly customizable, though its text-based buttons might confuse inexperienced users. | | | | |
| 3 | TypePad \$5 per month find.pcworld.com/56158 | 84 Very Good | <ul style="list-style-type: none"> Speed and stability: Superior Management tools usability: Good Template quality: Very Good | <ul style="list-style-type: none"> Storage space: 100MB WYSIWYG posting: Yes Photo gallery support: Yes Mobile blogging support: Yes |
| ▶ Bottom line: TypePad's clean design makes it easy to work with, but its inability to create static pages limits its usefulness. | | | | |
| 4 | Tripod \$9 per month find.pcworld.com/56159 | 74 Good | <ul style="list-style-type: none"> Speed and stability: Fair Management tools usability: Fair Template quality: Fair | <ul style="list-style-type: none"> Storage space: 20MB WYSIWYG posting: Yes Photo gallery support: Yes Mobile blogging support: Yes |
| ▶ Bottom line: Though Tripod offers plenty of customizable templates, its pages load much too slowly. | | | | |
| 5 | Squarespace \$7 per month find.pcworld.com/56160 | 74 Good | <ul style="list-style-type: none"> Speed and stability: Good Management tools usability: Fair Template quality: Good | <ul style="list-style-type: none"> Storage space: 100MB WYSIWYG posting: Yes Photo gallery support: Yes Mobile blogging support: No |
| ▶ Bottom line: Squarespace offers highly configurable blog pages, but you'll have to figure out an unintuitive drag-and-drop module system. | | | | |

CHART NOTES: Ratings are as of 1/5/07. Software versions are current as of 12/19/06.

ONLINE

FOR MORE INFORMATION on the blogging software reviewed this month, go to find.pcworld.com/56161.

Dell's Pretty, Pricey Display

MONITOR

THE DELL **UltraSharp 2707WFP**, a 27-inch wide-screen LCD monitor, is a stunner. It delivers great image quality, features a thoughtful design, and has several useful and unusual inputs. But at \$1399, it's also pricey, especially considering that you can buy a 26-inch flat panel for well under \$1000.

You do get a lot for the investment. The monitor's gen-

erous 1920 by 1200 resolution makes it great for viewing documents side by side. Text in a Microsoft Word document looked extremely sharp and photos showed bright colors and excellent detail, even in shadows. One useful extra: The 2707WFP comes with individual red, green, and blue color adjustments, and this allows you to tune colors more finely when necessary.

Several other features help set the 2707WFP apart, as well. On its left side are two media card slots that can read nine different formats. On the back, all of the connections are both labeled and identified with pictures, so you don't have to hunt to find the correct input.

Besides including composite-in, S-Video-in, and DVI ports, the unit has a component-in connection; it's a handy feature, especially if you want to attach the monitor directly to a cable box for viewing television (albeit over an analog, not digital, connection). In addition, because the display provides picture-in-picture functionality, you can view TV while you work.

The 2707WFP has a pretty design, with a brushed-silver bezel and a shiny black stand.

Despite all of the display's notable qualities, \$1399 is still



THE 2707WFP HAS a simple-to-manuever arm that allows you to adjust it easily.

a fairly high price to pay. Nevertheless, for people seeking a monitor that has great image quality, useful extra ports, and an appealing design, the Dell 2707WFP can't be beat.

—Kalpana Ettenson

UltraSharp 2707WFP

Dell

PCW Rating **84** Very Good

Though it's expensive, this 27-inch display provides excellent image quality and useful ports.

List: \$1399

find.pcworld.com/56104

Fujitsu Notebook Redefines Ultraportable

LAPTOP

TEST PICK UP THE svelte Fujitsu **LifeBook P1610**, and you'll barely feel as if you are carrying a notebook PC. And no wonder: Weighing 2.2 pounds, the \$2419 P1610 puts the "ultra" in *ultraportable*.

The P1610 is similar in heft and size to its predecessor, the LifeBook P1510. Included, however, are such notable im-

provements as a reasonably roomy 80GB hard drive, and a PC Card slot in lieu of the P1510's CompactFlash slot.

Furthermore, the unit's 8.9-inch, WXGA, swiveling touch-screen display has a higher resolution (1280 by 768 pixels) and a proprietary coating that optimizes how the image looks in bright sunlight. On the touch-screen display, you can navigate with your fingertips or with the included—and exceptionally thin—stylus. I found this flexibility a real boon, since tablet PCs typically require you to use a specially configured stylus.

lus to input data via the screen. (I tested a shipping version of the notebook running Windows XP; if you prefer, you can choose to buy it with Windows XP Tablet PC Edition instead. And Fujitsu also bills the P1610 as Vista Capable.)

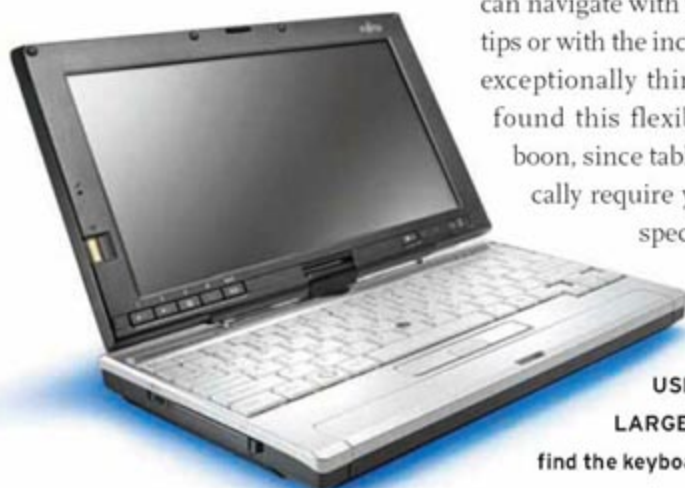
In addition to the PC Card slot on the left side of the unit, the P1610 has an SD Card slot, two USB 2.0 ports, and headphone and line-in jacks along the right side; in the back is a VGA port, plus RJ-11 and ethernet ports. The notebook has 802.11 a/b/g and Bluetooth wireless connectivity.

Equipped with a 1.2-GHz Intel Core Solo ULV U1400 CPU, integrated graphics, and 1GB of RAM, the unit mustered only a Fair rating on our WorldBench 5 tests, earning a score of 62. It also performed

poorly on our gaming graphics tests, posting unplayably low frame rates. The P1610's 3-hour battery life is respectable, given the unit's small size, but it falls nearly an hour and a half short of the current average battery life among ultraportables we've seen.

Clearly, the petite P1610 is aimed at people who put a premium on portability. If you crave both compactness and functionality, this notebook will charm you.

—Melissa J. Perenson



USERS WITH LARGE hands may find the keyboard cramped.

LifeBook P1610

Fujitsu

PCW Rating **73** Good

This ultraportable is attractive, but its performance will leave power users wanting more.

Street: \$2419

find.pcworld.com/56066

Battle of the TV Place-Shifting Devices

TV ACCESSORIES

TV USED TO be so simple. You sat down on the couch, grabbed the remote control, and watched your favorite shows when they were on.

Today it's anything but simple. You have to make sense of HDTVs and LCDs and DVRs. As if all that weren't enough, now you face a wave of "place-shifting" devices, too: gadgets that allow you to watch your TV even if you're not in the same room—or building—as the set. I looked at two new place-shifting devices, the **Hava Wireless HD** from Monsoon Multimedia and the **LF-B20 LocationFree Base Station** from Sony's LocationFree TV line. Both products offer some excellent features, but overall I preferred the Hava Wireless HD because of its easier setup and better video quality.

Both gadgets are similar to the Slingbox AV, a popular place-shifting device I recently reviewed (find.pcworld.com/56074). Like the Slingbox, the Hava and the LF-B20 each let you watch your TV from any Internet-connected computer, and even from certain portable devices. All three devices work via a hardware component that you attach to your TV and video source and then connect to your home net-

work, and all three include a software component that you install on your computer.

GET CONNECTED

THE EASE OF setup, however, varies. Much like the Slingbox AV, the Hava was a snap to install. About the size of a large textbook, the Hava is slightly bigger than the sleek Slingbox, but it feels less sturdy. I connected the Hava to my TiVo Series2 DVR via S-Video and composite audio. Within minutes the device was set up, and my TV was linked to my PC.

What's nice about both the Hava and the LF-B20 is that they possess built-in wireless capabilities. Even so, however, I first had to connect the Sony device to my router via ethernet to set it up. That process was quick—linking it to my TV was considerably more complicated. The quick-start guide that accompanied the product contained so many diagrams and arrows that it was difficult to follow. Also, the text directions it offered were incomplete, and the illustrations were too small to be helpful. After incorrectly connecting the LF-B20 to my TiVo on my first attempt, I gave up and called Sony's excellent toll-free customer service line; the representative walked me



THE SONY UNIT (left) stands vertically and offers a sleeker design than the Hava Wireless HD, but the latter provides better video quality.

through the installation process step-by-step—and soon enough, the unit was working.

LET YOUR TV PLAY

THE SOFTWARE (on CD) that accompanies the Hava and the LF-B20 is what permits you to watch the content of your TV set on your PC. Once the software is installed, you can connect to your Hava or Sony device, on your current network or over the Internet. On your network the software will find the device automatically; to connect via the Internet, you submit the name and password of the device.

Both applications show a large video screen and a remote control for changing the channel and otherwise managing your TV remotely. One major drawback, though: Unlike Slingbox's SlingPlayer software, neither the Hava PC Player nor the Sony LocationFree Player shows an exact replica of your TV's remote control. SlingPlayer employs skins that allow you to see, for example, your TiVo remote on the screen. In this familiar interface, you can more easily do things like scroll through and play back your stored recordings and schedule your future recordings. Both the Hava

PC Player and the LocationFree Player come with basic, industrial-looking remotes that provide most of the same functions, but not the familiarity, that the SlingPlayer remote does. Monsoon says that it will be adding skins in a future version of the Hava software.

The Hava software has certain features that both of the other applications lack, however. Within the app, you can record TV content directly to your PC's hard drive; you can schedule recordings and play back previously recorded content from your hard drive, too. And Hava PC Player provides excellent video quality—I found it to be the most consistent of the three applications, especially when the video was expanded to full-screen size.

Meanwhile, Sony's device provides a unique feature of its own: It allows you to connect to your TV from a PlayStation Portable device. Your PSP guides you through the quick setup process, and video looks surprisingly good on the handheld's 4.3-inch screen.

Overall I preferred the Hava Wireless HD. Both it and the Sony cost \$249, but the Hava is easier to set up and produced consistently better video.

—Liane Cassavoy

Hava Wireless HD

Monsoon Multimedia

PCW Rating **86** Very Good

This TV place-shifter is simple to set up and easy to use, and it offers excellent video quality.

List: \$249

find.pcworld.com/56062

LF-B20 LocationFree Base Station

Sony

PCW Rating **80** Very Good

Connecting this device to your television can be a challenge.

List: \$249

find.pcworld.com/56063

Office Suite Brings Productivity to Palms

PALM SOFTWARE

ONE OF THE best features of PDA phones is their ability to handle not just e-mail but also the attachments that invariably come with it. For years, DataViz's Documents To Go has been the utility of choice for editing Word, Excel, and PowerPoint files (and for viewing PDFs) on Palms. I checked out the most recent release, **Documents To Go Premium Edition**

Documents To Go Premium Edition 9

DataViz

PCW Rating **79** Good

New users will benefit from this productivity suite, but version 9 offers little reason to upgrade.

List: \$50

www.dataviz.com

9, and though the \$50 suite is impressive, it adds only a handful of new features—which might make justifying an upgrade tough.

Like older versions of the program, the latest suite can open any standard Microsoft Office file. The image on the Palm screen closely re-creates the looks of the original document, while a stripped-down menu resides on the bottom of the screen.

In Word you can do everything from checking spelling to creating bulleted lists—and in version 9, for the first time, you can edit comments, text boxes, and footnotes (though

| | A | B | C |
|----|--------------------------------|------|-----------------|
| 25 | Cal | 2003 | Jenson |
| 26 | California/Oregon - Pinot Noir | | |
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| 28 | Cal | 2004 | Migration |
| 29 | Cal | 2004 | Miner |
| 30 | Ore | 2005 | Cathedral Ridge |
| 31 | Cal | 2005 | Chalone |
| 32 | California/Washington - Merlot | | |
| 33 | Cal | 1997 | Artesa |
| 34 | Cal | 2001 | Rodney Strong |

DOCUMENTS TO GO'S simple interface allows you to perform most common editing functions.

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sion 9 brings support for an additional chart type. PowerPoint has been upgraded to handle files natively (as it does Word and Excel files)—older editions of the program could cause formatting loss, a huge problem in presentation files.

Palm users without Documents To Go will want to download this useful suite. But people who already own a previous version of the

software (which comes preinstalled on Palm-based Treos) may balk at the idea of paying the \$30 upgrade price just so they can read a few footnotes.

—Christopher Null

Skype Calls With No Strings Attached

VOICE OVER IP

THE BEST THING Skype's Internet phone service has going for it is its price: Calls are free. Usually, however, to make and receive calls, you must be tethered to your PC. Now, new handsets permit you to roam around your house while connected to a Skype account. I looked at one such device, Logitech's impressive \$100 **Cordless Internet Handset**.

Essentially the handset looks and operates like an ordinary cordless phone, but above its keypad is a six-line color LCD that displays all of your Skype contacts and call logs. Its base station links

to your PC via USB; Logitech says that the product will offer clear calling at up to 164 feet away. I traveled just over 200 feet from the base station and still had a great connection.

Installing the phone was more difficult than it ought to have been, however. The setup software

THE PHONE'S LCD shows your Skype contacts.



failed to start automatically, forcing me to dig through several menu layers to start the process manually. Then, after the program and drivers were activated, I needed to reboot my system, but the instructions omitted this step.

Once successfully installed, the Skype-certified phone performs the various functions of Skype's desktop application directly on your receiver. A dedicated Skype button below the phone's keypad displays a scrollable list of your contacts, allowing you to see who is online and available to talk.

From there you can connect via free Skype-to-Skype calls. In addition you can use the handset to access fee-based Skype-In and SkypeOut services for

connecting calls to and from landline and cell phones.

One drawback: When the base station is connected to your computer's USB port, all other sound on the PC is muted. You can't, for example, listen to MP3s until you disconnect the phone.

If you are a regular Skype user and would like to be free of your PC, the Cordless Internet Handset is an attractive, albeit imperfect, option.

—Michael S. Lasky

Cordless Internet Handset

Logitech

PCW Rating **82** Very Good

With this cordless phone you can access Skype away from your PC, but the installation is sloppy.

List: \$100

find.pcworld.com/56075

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Logitech

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List: \$100

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THINGS EVERY PC USER SHOULD KNOW

BY CHRISTOPHER NULL

Want to speed up your broadband connection?

Diagnose mysterious crashes?

Move massive files across the Internet?

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and you'll find step-by-step instructions for these and other common PC tasks right here. ▶

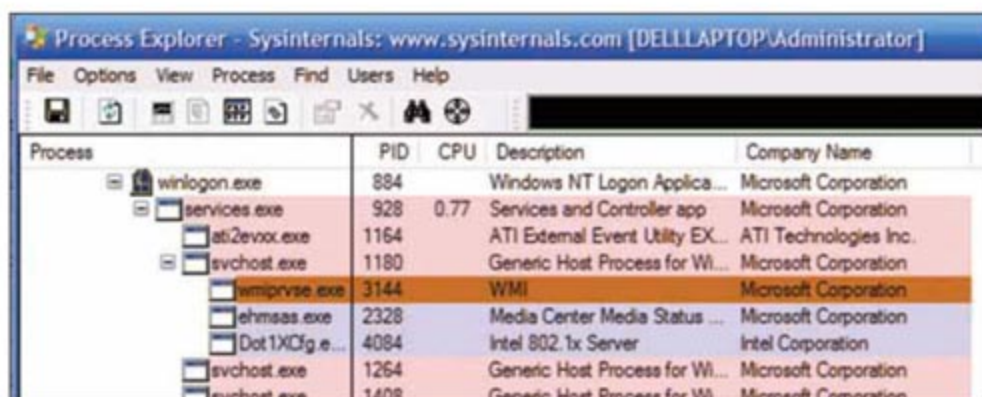


Find Out What Your PC Is Really Up To

THE WINDOWS TASK Manager provides a good start when you try to discover what programs are running on your system, but it's only a first step. For more-detailed data, you need another tool. Your best bet: Sysinternals Process Explorer (Microsoft acquired Sysinternals last year).

Get the program at find.pcworld.com/56140. It needs no formal installation; just unzip it and run the .exe file. It will then list your PC's active processes, much as Task Manager does, but with better descriptions and organization.

Interpreting Process Explorer's information is fairly straightforward (and killing processes works much as it does in Task Manager), but here are some tips



| Process | PID | CPU | Description | Company Name |
|---------------|------|------|----------------------------------|-----------------------|
| winlogon.exe | 884 | | Windows NT Logon Applica... | Microsoft Corporation |
| services.exe | 928 | 0.77 | Services and Controller app | Microsoft Corporation |
| ati2evxx.exe | 1164 | | ATI External Event Utility EX... | ATI Technologies Inc. |
| svchost.exe | 1180 | | Generic Host Process for Wi... | Microsoft Corporation |
| smss.exe | 3144 | | WMI | Microsoft Corporation |
| ehmsas.exe | 2328 | | Media Center Media Status ... | Microsoft Corporation |
| Dot1XCFG.e... | 4084 | | Intel 802.1x Server | Intel Corporation |
| svchost.exe | 1264 | | Generic Host Process for Wi... | Microsoft Corporation |
| svchost.exe | 1408 | | Generic Host Process for Wi... | Microsoft Corporation |

PROCESS EXPLORER PROVIDES detailed information on your PC's running processes.

to help you make the most of the utility.

- ◆ **Consider adding the useful 'Handles' column to the view.** Handles (a term that refers to programming methodology) are a convenient way to measure a process's resource utilization. Processes with high handle usage should be the first ones you kill when resources run low. Add the column by right-clicking in the header area and clicking the *Select Columns* option. Click the *Process Performance* tab and check the box next to *Handle Count*.

- ◆ **Note that Handles can also be created for media-based devices like CD-R drives, which may cause errors on eject.** If you can't safely eject a disk or memory card,

use the Find menu to search for the drive letter followed by a colon (for example, E:), and kill that process directly.

- ◆ **Instead of outright killing a process, you can suspend it** (right-click on a process to see this option). This can be useful in the case of a runaway program stuck in an endless loop.

- ◆ **Want to know what a program's process identification is to better tell whether it's friend or foe?** Open the program, then switch to Process Explorer. In the top-right corner is a target icon (concentric circles). Click this icon and drag it onto the program you want to ID; Process Explorer will highlight the process.



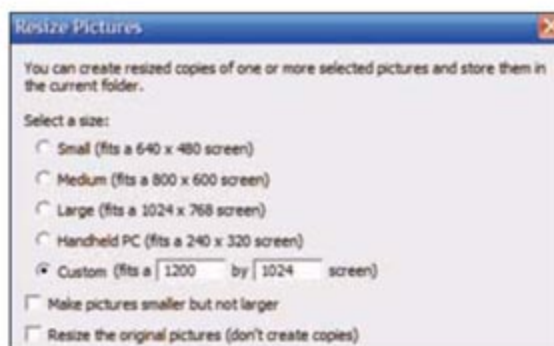
Make Sure Burned DVDs Play

WITH A FULL seven types of standard-def writable DVDs out, ensuring that the home movies you just burned to disc will actually play on your set-top player can be difficult. Get a list of the media your player is compatible with by searching for your player's brand and model number on VideoHelp.com (find.pcworld.com/56139).

Expand Your Collection of Windows-Tweaking Tools

MICROSOFT OFFERS A sizable collection of useful yet unofficial and unsupported utilities called PowerToys. Following are the essential PowerToys for any serious computer user; all are downloadable from Microsoft's page (find.pcworld.com/56138).

- ◆ **ClearType Tuner:** Dramatically improves font legibility on some LCD screens.
- ◆ **Image Resizer:** Adds a new menu when you right-click a photo on your PC. Just click *Resize Pictures* to change an image's dimensions without opening an editor.
- ◆ **Tweak UI:** If you don't already have Tweak UI, get it. This essential OS tweaking tool offers more granular control over your privacy settings and operations, and even



THE IMAGE RESIZER tool gives you a quick and easy way to resize your shots individually or in batches.

over the way you log in to your PC (plus much more). It should be one of the first things you install on any new computer.

- ◆ **Alt-Tab Replacement:** Adds previews of each page when you switch between open applications using <Alt>-<Tab>.

- ◆ **SyncToy:** Improves the task of synchronizing files among multiple machines, especially compared with Windows Briefcase.

Safeguard Your Wi-Fi Network

OUT OF THE box, most Wi-Fi routers are totally insecure. Fixing that takes only a few minutes, but you can easily get lost in the confusing menus of your router's management tool. Here's what to do.

1 If possible, plug in via ethernet to set up your router at the start—it'll save considerable time down the line. Don't bother installing the special software that comes with your router. Most routers can be controlled via a Web browser, which lets you manage your router from any networked PC.

2 To manage the router, type its IP address into your Web browser's address bar. If you don't know the IP address, go to *Start•Run* and type `ipconfig /all` in the field. The address will be shown as 'Default Gateway'. You'll also need the user name and password available in the manual or via an online search of the model number. (Try looking at find.pcworld.com/56137.)

3 Once you can manage your router, change the administrator password you just looked up. This is typically under System Settings or a similar option.

4 Next, turn on encryption. WPA (or WPA-PSK) is about as secure as Wi-Fi gets today. Set a WPA key, and configure your clients to use the new key. (If one of the devices on your network does not support the WPA version you want to

use, though, you'll have to go with a less secure method.) Look for 'Encryption' or 'Security' in the wireless management portion of the page (where you'll also find the following steps' settings).

5 It's a good idea to change the SSID from the default, which is usually



AFTER ACCESSING YOUR router's management tools, change its default administrator password to a more secure one.

'linksys', 'belkin', or the like. Choose an SSID that doesn't invite inquiry from passersby (like 'broken' instead of 'janes-wifi' or '123mainstreet'). For extreme security, turn off SSID broadcasting.

6 Optional: Enable MAC address control, which limits access to computers you specify by their unique MAC address. This can enhance security, but MAC addresses are easily spoofed, and using this feature means you'll have to access your router's admin page to add new PCs to your network. To find a PC's MAC address, use the `ipconfig` command in step 2; look for the 'Physical Address'. Add that address to the allowed list in the appropriate router settings page. ▶



TURN ON WPA or WPA-PSK encryption through the management tool's Security page.

PC PROTECTION

Tighten PC Security

1 Create a password for the Administrator account. You can find the option under *Start•Settings•Control Panel•User Accounts*.

2 Password-protect your screen saver. Go to *Settings•Control Panel•Display*. Click the *Screen Saver* tab. Change 'Wait time' to 5 minutes, and check *On resume, password protect*. The password will be your user password.

3 Turn off file sharing in Windows Explorer. Open Explorer, click *Tools•Folder Options•View*. Scroll to the bottom, uncheck *Use simple file sharing*, and click *Apply*.

4 Turn off the Windows Firewall. Go to *Settings•Control Panel•Windows Firewall* and click *off* under the General tab. Then, install a software firewall such as ZoneAlarm.

5 Turn on Automatic Updates. Go to *Settings•Control Panel•Automatic Updates*. Select the first option to have each update download and install automatically. If you want more control over the process, use either option two or three.

6 Install an antivirus program, turn on automatic updates, and set up a regular scanning schedule.

7 Install an antispyware app and run it on a regular schedule.

8 Turn on your browser's pop-up blocker. In IE 7, go to *Tools•Pop-up Blocker Settings*, and choose the *Medium* option (this is the default, but it's easy to turn it off accidentally); to kill all pop-ups, select *High*.

9 Optional: Set a BIOS password in your PC Setup application.

10 Optional: Increase your browser's security settings. In IE 6 or 7, click *Tools•Internet Options•Privacy* and move the slider to *High*.

Diagnose PC Problems Using Event IDs

ANYTIME YOUR SYSTEM crashes or an application freezes up, Event Viewer dutifully logs the error—but sorting through Event Viewer logs can be just as frustrating as dealing with the Blue Screen of Death. Here's a cheat sheet.

1 Start by familiarizing yourself with Event Viewer *before* you have a problem. It's under *Start•Settings•Control Panel•Administrative Tools•Event Viewer*. The utility's System node

logs Windows issues (particularly networking ones), while the Application node logs issues with other software. You should not see much activity in the Security node since it is disabled by default and is used only if you have auditing turned on (which requires extra Microsoft software and ultimately doesn't help

most folks anyway). Third-party apps might create more nodes, as well.

2 Events are fairly self-explanatory: The date and time of each event are logged along with its source, plus miscellaneous data about the issue. Most events

| Application 1,269 event(s) | | | | |
|----------------------------|------------|--------------|-------------|--|
| Type | Date | Time | Source | |
| Information | 11/25/2006 | 10:25:54 ... | (MSN/Win | |
| Information | 11/25/2006 | 10:25:08 ... | SecurityCe | |
| Information | 11/25/2006 | 10:25:07 ... | RegSvc | |
| Information | 11/25/2006 | 10:25:04 ... | EvtEng | |
| Error | 11/25/2006 | 10:07:42 ... | Application | |
| Error | 11/20/2006 | 9:46:41 PM | Application | |
| Information | 11/19/2006 | 3:39:24 PM | (MSN/Win | |

NOTE EVENTS MARKED 'Error'; you can get more information by double-clicking these items.

will be noted as 'Information' and are generally safe to ignore. The 'Error' and 'Warning' entries are what you should concern yourself with. You can access the guts of

the information by double-clicking the event to open its Event Properties page.

3 In the Event Properties window, you'll find detailed information about the error in question and a link to the Microsoft support Web site. Clicking the link will open a detail page within the Windows Help application (not your

browser) for the error you're investigating. But often the information you get will tell you little about the problem, either saying no more data is available or declaring there's nothing you can do.

4 For more detail on the error types and what they mean, turn to the Web. Plug the event ID into EventID.net, or search for key phrases in the error message, and try looking for clues to your problem by using the 'Source' field in the Event Viewer log as a search term.

WINDOWS TIPS

Optimize PC Settings

1 **Tweak the Start menu display:** Right-click the Start button, then click *Properties* and *Customize*. Under the Advanced tab, you'll see a list of the items you can modify.

2 **View all files:** Click *Tools•Folder Options•View* in Windows Explorer. Check *Show hidden files and folders*; uncheck *Hide extensions for known file types* and *Hide protected operating system files*.

3 **Make sure System Restore is on:** Go to *Start•Settings•Control Panel•System*, and then click the *System Restore* tab; enable it if needed.

4 **Turn off Auto-Restart on Error:** With this feature on, you can't find out why your PC crashed. Right-click *My Computer*, choose *Properties*, click the *Advanced* tab, select *Settings* under 'Startup and Recovery', and uncheck *Automatically Restart* under 'System failure'.

5 **Turn off error reporting:** Go to *Settings•Control Panel•System*. On the *Advanced* tab, click *Error Reporting*, and then select *Disable error reporting*. No more nag note about sending Microsoft a report.

Surf Anonymously

NOT TOO LONG ago hiding your tracks on the Web usually meant finding an open proxy server to surf through or paying for proxy software like Anonymizer (\$30; www.anonymizer.com), which redirects traffic through its own proxy servers.

Today there's a better solution, and it's free: the Torpark browser (www.torrify.com). Torpark is a Firefox-based browser designed to access the Tor network of encrypted proxies. When you use the Torpark browser, your Web session bounces through multiple secure proxies, encrypted all the way, until your request reaches its destination. Torpark is a quick down-

load and doesn't require a formal install on your PC; just launch the executable when you need it and make sure the Tor Network icon is active when the browser starts.

Secure browsing is considerably slower than regular browsing, though, so skip it if you don't need the extra security—and most people don't most of the time.



Test and Tweak Your Internet Connection for Top Speed

DON'T SETTLE FOR out-of-the-box performance when faster downloads and hidden features are just a few steps away.

♦ First, measure your current connection speed. Make sure nothing else on your network is using the connection and stop any Internet processes on your PC (finish downloads, close your e-mail client, and the like). Next, visit **Speakeasy's** speed tester at find.pcworld.com/56123. Click a server to run the test for download and upload speeds. Note that you will get atypically high results for servers very near you, but that will give you a gauge of your connection's top raw speed. Try running the test once more against the farthest-away city on the list to see your full range. Try the same test at **BroadbandReports.com** (find.pcworld.com/56122), too, for a good idea of what your current throughput is.

If you like to keep an eye on performance over time, the venerable **DU Meter** (www.dumeter.com) keeps logs of network performance no matter what kind of connection you have.

♦ You can improve network performance modestly through Registry tweaks, but mucking around in the Registry is never a pleasurable experience, and with these difficult tweaks, it's easy to mess something up. **Tweak Tester** makes the task simple. Visit **Broadband Reports'** tweak page at find.pcworld.com/56121, and run **Tweak Tester II**. Results will appear on a new page. Pay attention to the 'Notes and recommendations' section of the page, where you will see any settings that merit alteration for improved

performance. (You may want to print this page.) Changing the TCP Receive Window setting is likely to be the only tweak that will have any real effect.

♦ Next, download and run **Dr. TCP** (find.pcworld.com/56120). You can run the program directly without installing it,



SPEAKEASY MAKES TESTING connection speed simple. Just choose a server and go.

but backing up the Registry before you use it is a good idea. (Go to **Start•Run**, and type **regedit** at the prompt; then, click **File•Export**, name the file, and click **Save**.) Enter the changes noted in the **Tweak Tester** results in the **Dr. TCP** window, and the program will then make all of the appropriate Registry fixes for

you. Restart the PC, and then retest your connection to see if the tweaks helped.

♦ You can also improve your Web experience (but not raw throughput) by increasing the number of download sessions in your browser. By default, Windows limits you to a mere two downloads at a time, but you can bump that up to eight or ten. Since few downloads fill your network pipe completely, the overall effect is that downloads should go faster.



TYPE THE CHANGES suggested by **Tweak Tester** into the **Dr. TCP** window. The program will then edit the Registry for you.

ADD-ONS

Get 5 Useful Freebies

1 PureText: Copies text and strips all formatting, such as italics and HTML tags. find.pcworld.com/56110

2 AOL Active Virus Shield: AOL merely puts its logo on this heavy-duty antivirus system; the actual security engine is from Kaspersky. Works with Windows 98 and up. find.pcworld.com/56109

3 AVG Anti-Spyware 7.5: A great spyware removal tool when others fail. find.pcworld.com/56108

4 SpamBayes: This Outlook anti-spam plug-in doesn't rely on blacklists but instead learns what to block according to how you train it. find.pcworld.com/56107

5 HTTrack: Highly configurable offline browser mirrors Web pages or entire sites onto your PC for later perusal. www.httrack.com

(Warning: Regedit work coming up, so back up your Registry before you begin!)

[1] Click **Start•Run**, and type **regedit**.

[2] Browse to **HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Internet Settings**.

[3] Right-click in the right pane and then click **New•DWORD Value**.

[4] Type **MaxConnectionsPerServer** in the resulting field.

[5] Double-click on the new item and then type a new number of connections (say, **10**) in the 'Value data' field. Click **Decimal**.

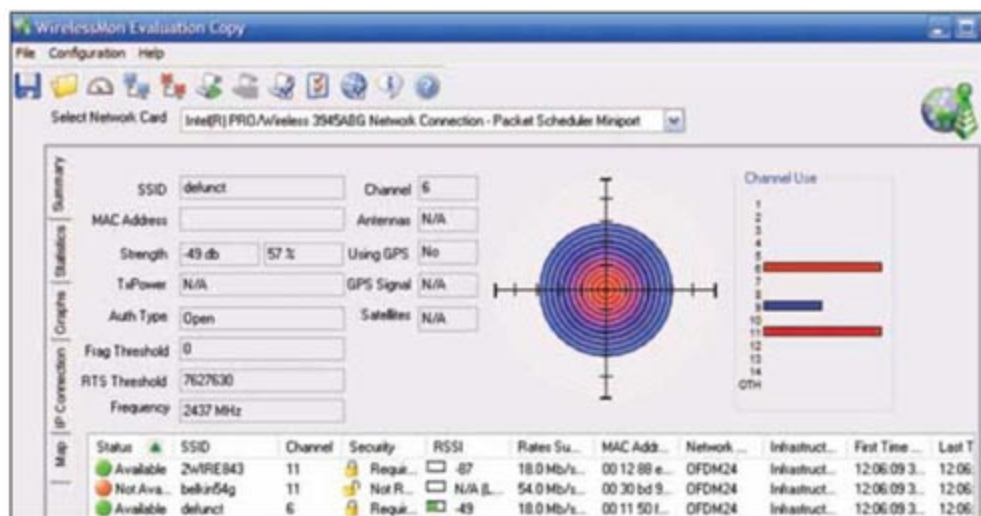
[6] Following the previous three steps, create another new **DWORD** entry, giving it the name **MaxConnectionsPer1_0Server**. ▶

Solve Wireless Connection Problems

WI-FI IS AWFULLY convenient, but it's also awfully buggy for many users, particularly those in areas crowded by competing wireless signals. If you're dealing with a loss of signal, try the following to troubleshoot your wireless setup.

1 Your PC might just need a little massaging. The best way to quickly disconnect and reconnect to your router is to right-click the wireless icon in the system tray and click *Repair*. If this doesn't solve the problem and you suspect it's still a PC issue, open a command prompt and type `ipconfig /renew`. This performs nearly the same operation as *Repair* but bypasses Windows, which could be causing the problem. If all else fails, reboot your PC.

2 If you're still having trouble, power-cycle your router by unplugging it, waiting 10 seconds, and plugging it back in. Your PC will need to reconnect after the router has booted up. Most routers lock up occasionally, and power cycling is the most reliable way to fix them. (Unless you can't physically reach your router,



COMPARE YOUR ROUTER'S channel (at the top of the middle column) with the **Channel Use** chart on the right. You'll want to switch the router if it is on a busy red or orange channel.

don't restart it through its management utility; that approach takes just as long, and the utility may not respond anyway.)

3 If you're still encountering frequent problems, you may be experiencing channel conflict, where multiple Wi-Fi routers are operating in the same narrow band of frequency. Download and run the evaluation version of WirelessMon (find.pcworld.com/56130); you can do all

you need to with the demo. Look at the 'Channel Use' chart: Red and orange bars indicate channels under heavy use, while blue or no bars indicate relatively free channels. If your router is on a crowded channel, switch to a less busy one. (Visit your router's management system to do this; read "Safeguard Your Wi-Fi Network" on page 69 for directions.) You may see better performance and fewer dropouts.

Format Your iPod for PCs

OUT OF THE BOX, your new iPod may be configured to work not with a PC but with a Mac. Before you try to use it, you must format it to work with Windows' file system (a Mac will recognize a Windows-formatted iPod, but the reverse is not true). Download iTunes (find.pcworld.com/56112), install it, then plug in your iPod. On the left side of the iTunes window you should see 'Devices' and your iPod below it. Click the iPod's name, then click *Restore* to the right and follow the prompts. This will reformat your device for use with Windows. If Windows can't see your iPod at all, try Apple's troubleshooting steps at find.pcworld.com/56113.

Save Streamed Media Locally



JUST TYPE THE video's URL in KeepVid.com to obtain a file you can download.

♦ **Audio:** Record Internet radio with Replay A/V (find.pcworld.com/56129), which can handle every audio format you're likely to come across, including Windows Media, Real, QuickTime, Flash, and even AOL's NSV format. It's \$50, but if you want to record a lot, it's worth it.

♦ **Video:** Record Flash-based video (like YouTube and Google Video files) with KeepVid.com. Just enter the video's URL, and KeepVid converts it into an FLV file you can download. To play the file, use software such as FLV Player (find.pcworld.com/56128) or VLC (find.pcworld.com/56127). Better yet, convert the video to an .avi, .mov, or .mp4 file by visiting vixy.net/flv_converter. These sites and programs are free. ▶

SINCE YOUTUBE HIT it big, streaming movies and music have gone positively bananas. But such online media has a major flaw: You can't download it to your desktop and save it forever.

Here's how you can download streamed-media offerings of various types.

♦ **Audio:** Record Internet radio with Replay A/V (find.pcworld.com/56129), which can handle every audio format you're likely to come across, including Windows Media, Real, QuickTime, Flash, and even AOL's NSV format. It's \$50, but if you want to record a lot, it's worth it.

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A new, easy-to-use search engine can help you find what you need faster than ever before.



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Introducing Windows Vista.
The "Wow" starts now. WindowsVista.com



*Some product features are only available in certain Windows Vista editions and may require advanced or additional hardware. For details, visit www.windowsvista.com.

Create Keyboard Shortcuts

YOU CAN AUTOMATE just about any point-and-click operation you perform with the mouse. Here's a variety of ways to make keyboard shortcuts.

♦ Windows lets you assign a keyboard command to any shortcut icon. (Note, though, that it *has* to be a shortcut; you

shortcut; it must include one standard character plus two or three of <Ctrl>, <Shift>, or <Alt>. (<Ctrl>-<Shift>-R in the example shown to the left.)

♦ To make more robust shortcuts, try the appropriately named freeware app Keyboard Shortcuts (find.pcworld.com/56132). With such shortcuts you can launch any file, perform system commands (such as logging off and shutting down), or open any URL in a browser. One shortcut can even perform several of these actions, simultaneously or in sequence.

♦ For even more complex shortcuts, get a macro recorder that can capture detailed steps and repeat them on command. The Workspace Macro program (\$25; find.pcworld.com/56131) can capture anything you type, as well as mouse movements and clicks. Just click *New* to record a macro, and click *Stop* after you've done all your typing and mousing. If you want to assign keyboard shortcuts to your macros, you'll need a separate program, Launch-N-Go (\$25; available at the same link). ▶



THROUGH THE PROPERTIES of a file or application shortcut, you can assign it a shortcut key via Windows.

can't assign a keyboard shortcut to any file you want.) Just right-click the icon in question, click *Properties*, and click in the 'Shortcut key' field. Press the keyboard combo you want to assign to launch the

KEYBOARD SHORTCUTS YOU SHOULD KNOW

| SHORTCUT | Action |
|------------------------------|---|
| <F2> | Rename selected file (in Windows) or edit selected cell (in Excel). |
| <Shift>-<F3> | For any highlighted text, cycle among all-caps, lowercase, and title case. Click <i>Format</i> • <i>Change Case</i> for more options. |
| <F5> | Refresh your page in Explorer and Web browser windows. |
| <Ctrl>-<Esc> | Open the Start menu (useful if your mouse won't respond). |
| <Ctrl>-<Space> | Reset the highlighted text to the default font (in Word). |
| <Ctrl>-mouse wheel | Zoom in and out. |
| <Windows>-L | Password-lock the computer. |
| <Windows>-R | Open the Run dialog box. |
| <Windows>-M or <Windows>-D | Minimize all windows. |
| <Ctrl>-+ (on numeric keypad) | Resize a column to fit its contents (in Excel). |
| <Windows>-E | Launch Windows Explorer. |

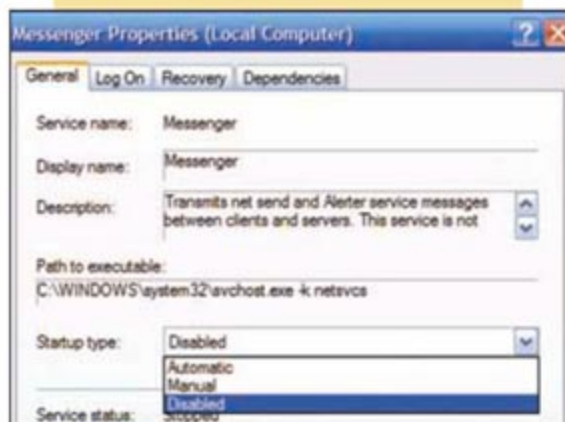
SYSTRAY TIPS

Turn Off Pesky Apps

MORE AND MORE applications continually nag you with pop-ups or plop an icon into your already crowded system tray. Here's how to deal with some of the worst offenders.

♦ **Apple QuickTime:** To remove the icon from the system tray, right-click it and select *QuickTime Preferences*. Click *Advanced* and uncheck *Install QuickTime icon in system tray*.

♦ **Real Player:** To remove pop-ups,



TURN OFF MESSENGER by making sure 'Startup type' is set to Disabled.

right-click the Real Player system tray icon. Click *Set Real Message Center preferences...*. Uncheck all boxes. Click *Yes* on the 'Warning!' screen. To remove the shovelware, go to the 'Add or Remove Programs' control panel. First, remove The Weather Channel Desktop (click *No thanks...* at the warning prompt and quit the browser survey launched after); then remove *Weather Services*. You must remove them in order.

♦ **Windows Messenger:** To prevent Messenger spam, disable it. Click *Start*•*Settings*•*Control Panel*•*Administrative Tools*. Double-click *Services*. Scroll to and then double-click *Messenger*. Click *Stop*. Change the 'Startup type:' field to *Disabled*.

Create a Disaster Recovery Disc

IT'S GREAT TO have your PC's system-restore disks and a fresh copy of Windows at hand, but if your computer does go south, don't be in such a rush to wipe out the hard drive. In advance, create a DVD full of essential utilities that you can use to try to repair your PC before reinstalling Windows from scratch.

Your disaster disc should also contain up-to-date hardware drivers, especially for networking devices. Organize everything by folders, and keep names short: You may be browsing the folder from a command prompt if Windows won't boot.

Here's a good selection of utilities that should help out in any crisis, large or small. Note that the first two listed need to be installed on their own bootable CD or DVD in order to run at startup. All are free or available as trialware.

- ♦ **MemTest86:** This venerable RAM tester still works. www.memtest86.com
- ♦ **Active@ KillDisk:** Securely wipes

drives as required. find.pcworld.com/56135

- ♦ **Hot CPU Tester:** Diagnoses CPU problems with an in-depth testing procedure. www.7byte.com

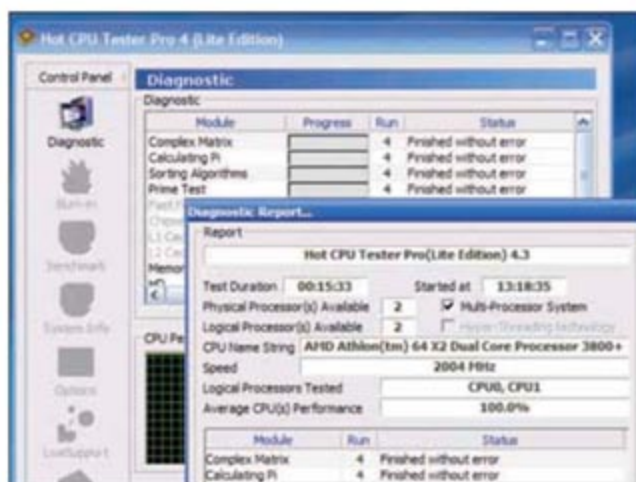
♦ **Restoration:** Recovers accidentally deleted files from both FAT and NTFS partitions, as well as memory cards. find.pcworld.com/56136

- ♦ **HDDlife:** Monitors the hard drive to warn you if a failure is near. (It's also a good idea to install this on your PC for occasional checkups.) www.hddlife.com

♦ **AOL Active Virus Shield:** Free anti-virus protection, with an engine powered by Kaspersky. find.pcworld.com/56109

- ♦ **Spybot Search & Destroy:** Keep an antispyware scanner on hand at all times. www.safer-networking.org

♦ **OpenOffice.org:** Always great for reading Office files when Microsoft Office isn't working. www.openoffice.org



HOT CPU TESTER performs numerous in-depth tests to provide you with lots of information about your processor.

Also check out these premade, downloadable emergency discs, which, in many cases, pack lots of system utilities.

- ♦ **Knoppix:** Use this free bootable Linux CD to access Windows directories on a hard drive. www.knoppix.org

♦ **Ultimate Boot CD:** Contains over 100 low-level system utilities on a single disc. The download is free; a CD is \$6, with shipping. www.ultimatebootcd.com

- ♦ **EBCD:** This free emergency CD is designed for seriously broken PCs—and expert users. find.pcworld.com/56134

♦ **Microsoft Boot Disks:** Download free boot discs for OSs from Windows XP to MS-DOS 6. find.pcworld.com/56133

Move Big Files Across the Internet

IT'S CONSIDERED RUDE—and rightly so—to e-mail someone a file larger than a few megabytes without permission. And you may not be able to anyway, since many ISPs place a cap on message size (often 10MB or less). So what are you to

do if you need to send an 18MB, an 80MB, or even an 800MB file to someone? Online services make the task much easier and more elegant than burning a DVD and dropping it in the mail. You have lots of options, and more new services pop up every day.

MediaFire.com is my favorite, and it's one of the best on the market now. The free service requires no registration, and it allows unlimited maximum file size, unlimited downloads, and multiple simultaneous downloads. It's just about perfect!

The other services below, however, also

have certain unique features that may make them more suitable for you.

- ♦ **Files-upload.com:** Handles 300MB files through a Web-based interface without registration; files expire after 45 days. Register, and you get your own FTP sub-domain (yourname.files-upload.com) that's accessible with a standard FTP client. It has a 1GB file-size limit.

♦ **GigaSize.com:** Has a 1.5GB file-size limit and stores files for 90 days. A \$4 monthly fee gets you a 2.5GB size limit.

- ♦ **Pando.com:** Has a 1GB file-size limit, but offers a peer-to-peer plug-in for various e-mail, Web mail, and instant messenger clients, so you don't have to go to the Web site to transfer files.

♦ **Xdrive.com:** Gives you 5GB of free storage space, accessible through the Web or a Windows Explorer plug-in that also allows for sharing with others. ▶



ONE OF THE best free storage and file transfer services around, MediaFire.com allows unlimited file sizes and downloads.

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INCREASINGLY, PEOPLE HAVE essential data stored on a fragile, easily misplaced communications device that they carelessly toss around. Here's how to back up the data on your cell phone.

♦ First, check your handset's manual or product Web page: A backup program designed specifically for that phone may be available for download. For phones with a USB charger, connect the handset to your PC via a USB cable with a mini-USB plug on one end. Use the software you find on

Safeguard Your Cell Phone Data With a Backup

the vendor's site to back up contact information to your PC.

♦ If your phone doesn't have such an application, check out FutureDial SnapSync II (find.pcworld.com/56126), a \$30 utility that supports most cell phones.

Click the *Is my phone supported?* link on its site to make sure yours is on the list. A data cable costs an additional \$30. SnapSync can also sync your data with Microsoft Outlook, as well as export numbers back to the phone. If SnapSync doesn't support your phone, consider Susteen DataPilot Universal Pro (www.susteen.com), which includes seven phone connectors, iPod and Bluetooth adapters, and backup software for \$80. It supports hundreds of phones; to check for yours before you buy, go to find.pcworld.com/56125.

♦ For SIM-equipped cell phones, use the Clipper Gear SIM Saver (\$20; find.pcworld.com/56124) to make a backup

copy of the card in less than a minute (but you can't then back up SIM Saver to your PC; it talks only with the SIM card).

♦ Another option is Spark Technology's CellStik (\$40; www.sparktech.com), which looks like a USB thumb drive and attaches directly to your phone. A USB connector on the other end lets you hook up to a PC to back up and edit the data, which you can then transfer to the phone.

Reorganize the Taskbar

DOWNLOAD THE FREE Taskbar Shuffle at find.pcworld.com/56111. With this plug-in you can drag taskbar items from one place on the bar to another. Note that some antivirus software may incorrectly warn you that Taskbar Shuffle is malware.

Eradicate Your Web and Windows Tracks

HEY, IT'S NOBODY'S business but yours what you're doing on your own PC. If you share a system with a nosy roommate or family member, or if you're stuck using public PCs at a conference, you may want to scrub your tracks—Windows' memory of what you've done over the last few hours or days—each time you sign off.

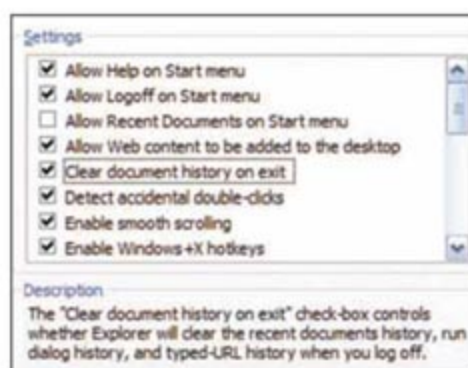
First, set up a browser for sensitive

surfing, and use it only for work in which you need maximum security. Clear your secure browser's history and configure it to remember as little as possible. In the chart below are instructions for the most commonly used browsers.

You can also get rid of your Windows history on PCs that you own or share, but the easiest way to keep prying eyes away

from your Windows history is to prevent it from being recorded. Download Tweak UI (see "Expand Your Collection of Windows-Tweaking Tools" on page 68) and run it. Make these changes:

♦ Under 'Explor-



IN TWEAK UI, you can keep Windows Explorer from tracking your document history.

er' check *Clear document history on exit*. Uncheck *Allow Recent Documents on Start menu*, *Maintain document history*, and *Maintain network history*.

♦ Under 'Common Dialogs' uncheck *Enable AutoComplete* and *Remember previously-used filenames*.

DON'T LEAVE BROWSING TRACKS

| BROWSER | Initial tweaks | To manually clear history |
|---------------------|--|---|
| Internet Explorer 6 | Click Tools • <i>Internet Options</i> , set 'Days to keep pages in history' to 0. | In <i>Internet Options</i> , click <i>Delete Cookies...</i> , <i>Delete Files...</i> , and <i>Clear History</i> . |
| Internet Explorer 7 | Click Tools • <i>Internet Options</i> ; under 'Browsing history' click <i>Settings</i> . Set 'Days to keep pages in history' to 0. | Click Tools • <i>Delete Browsing History</i> , and then <i>Delete all...</i> |
| Firefox 2 | Click Tools • <i>Privacy</i> ; uncheck all items under <i>History</i> section. Check 'Always clear my private data when I close Firefox'. | Click Tools • <i>Privacy</i> , and then <i>Clear Now...</i> |

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WEB SERVICES:

| | |
|------------|--------------|
| Amazon.com | 800/201-7575 |
| Buy.com | 877/780-2464 |
| eBay | 800/322-9266 |
| Netflix | 888/638-3549 |
| NetZero | 866/841-1442 |
| PayPal | 888/221-1161 |

TECH SUPPORT:

| | |
|-----------------|--------------|
| Apple | 800/275-2273 |
| Dell | 800/624-9896 |
| Gateway | 800/846-2000 |
| Hewlett-Packard | 800/474-6836 |
| IBM | 800/426-4968 |
| Toshiba | 800/457-7777 |

You can find other numbers (and instructions for bypassing automated menus) at gethuman.com/us/.

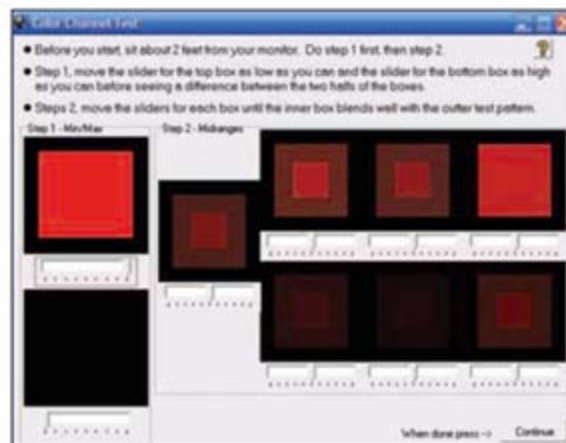
Calibrate Your Monitor's Color

OBTAINING true-to-life color on your display can be an expensive task that requires special software and hardware. Here's how to get more-accurate color out of your monitor without spending an arm and a leg.

First, download the free Monitor Calibration Wizard (find.pcworld.com/56119). When you run the wizard, it will walk you through several simple tests.

Afterward, save the profile under a name of your choosing. Select this profile under the Load Profile box, and check the box next to *Load at Windows startup*. Your color will be corrected to your new profile each time you boot. You may not notice much of a difference, though, unless your monitor was seriously out of whack to begin with.

Additional free color-correction tools exist for specific video card brands. RivaTuner (find.pcworld.com/56118) is primarily designed for systems with nVidia cards (through the GeForce 7 card series), while ATITool (find.pcworld.com/56117) is the counterpart for ATI cards (to get color-correction support for cards released in the last 12 months or so, download the beta version of this free tool).



THE FREE Monitor Calibration Wizard runs through several tests to set your monitor's color profile.

Decipher Digital Camera Mode Icons

THE LITTLE ICONS that appear on the control wheel of your digital camera may look pretty, but unless you've spent time with your camera's manual, you're likely to be baffled by what they all mean. Each represents a distinct camera mode, and selecting the right one can make the difference between a great shot and a dud.

Here's a cheat sheet of some of the most common icons and how the modes work. (Caveat: Every model of camera is designed differently, so you may notice some variations on the items below.) Note that shooting modes may not all appear on the control dial—some modes may be on a menu.



Automatic: Sets the camera's flash and focus to automatic and uses average exposure settings. Generally the default on digital cameras. Sometimes the icon reads 'AUTO'.



Close-up: Use this mode for taking photos from about 2 feet away or

closer. Note that the flash may not fire unless set manually in this mode.



Landscape: For distant subjects. The flash should not fire. Sometimes indicated by the ∞ symbol.



Sport Mode: For photographing moving subjects. Sets the shutter speed to the fastest mark and generally uses the flash as needed.



Night Mode: For low-light conditions. Uses a slow shutter speed and may fire the flash. The icon may also indicate a backlight mode that fires a fill flash so that you can properly compensate for the shadowed subject.



Portrait Mode: For faces. Tries to blur out the background and may use red-eye reduction mode.



Video Mode: For shooting short video clips.



Image Stabilization: Turns on the image stabilizer in order to counter shaky hands.



Aperture-Priority Mode:

You manually determine the aperture setting (the diameter of the lens), and the camera controls the shutter speed.



Shutter-Priority Mode:

You manually determine the shutter speed, and the camera controls the lens aperture.



Manual Mode: This setting gives you complete control over your camera's aperture and shutter speed. ▶

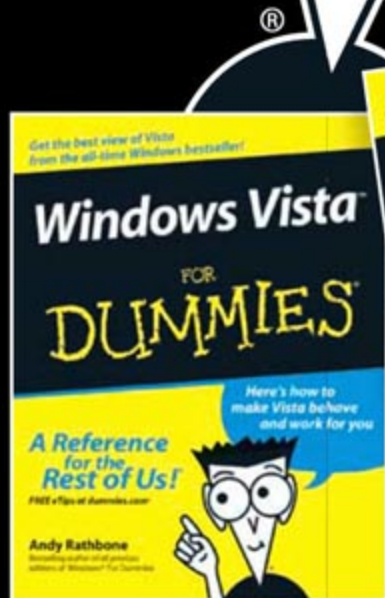
Sort Your Start Menu

CLICK **Start•All Programs**, right-click one of the selections, and click **Sort by Name**. You'll have to do this again each time you install a new app.

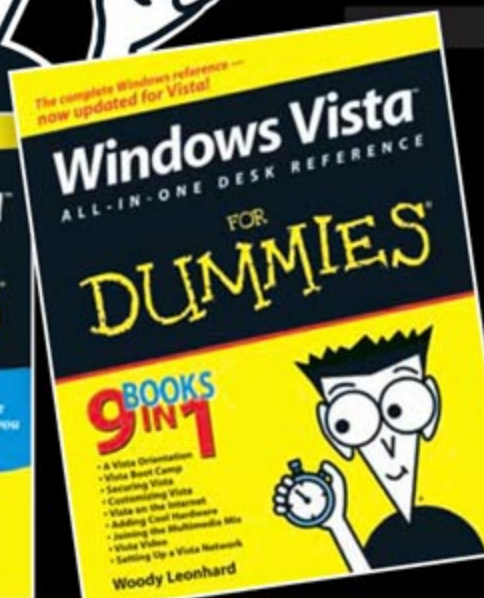
Get Dummies. Get Results. Get \$5 Back!



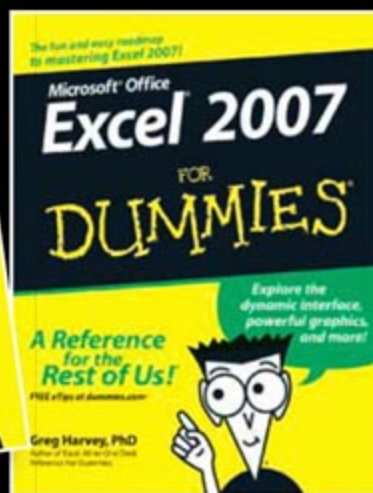
March 2007
is Dummies Month—
get \$5 back on
Dummies books!



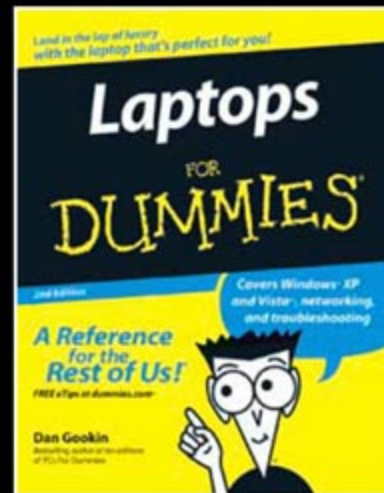
978-0-471-75421-3



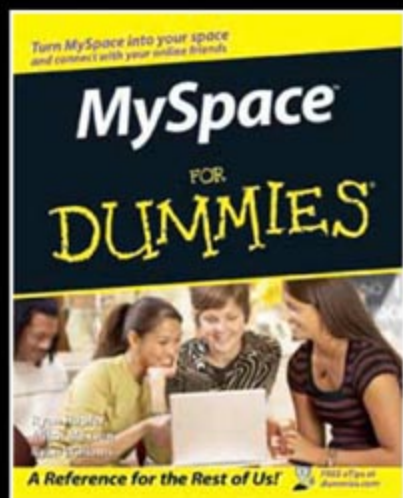
978-0-471-74941-7



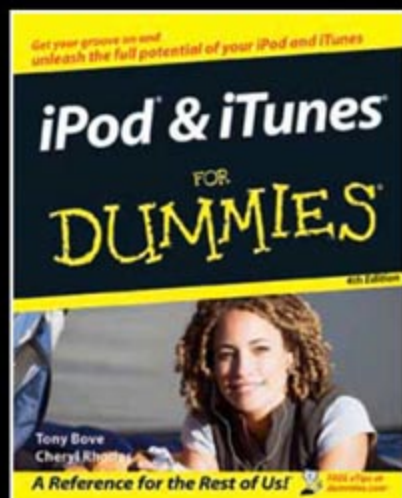
978-0-470-03737-9



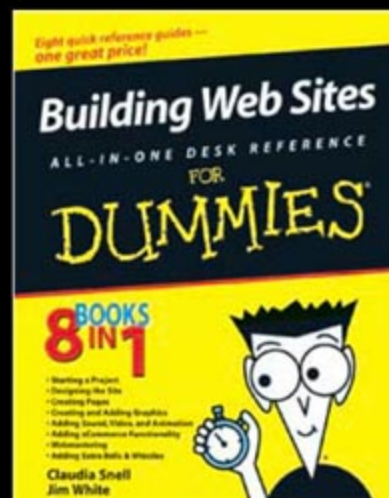
978-0-470-05432-1



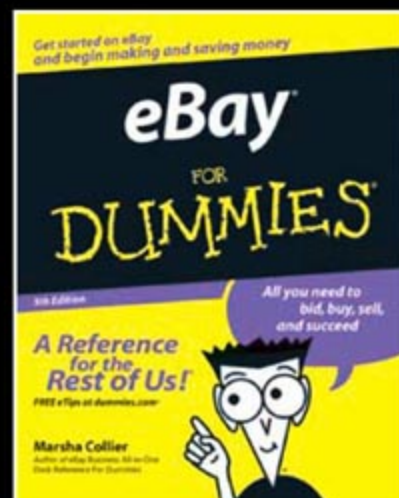
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Remove DRM From Your Tunes

APPLE'S ITUNES, MTV'S Urge, and similar online stores take the pain out of buying music, but the embedded digital rights management technology in the songs adds a new headache, limiting where you can play them and how often. Some apps strip out DRM by cracking the encryption, but that tends to be illegal. Achieve the same ends with the following.

- 1 Create a new playlist with all the songs you'd like to rip.
- 2 Use your software's Burn Disc option to copy the music to audio-CD format.
- 3 After you've burned the music to disc, rename the originally downloaded song to something like "My Sharona-iTunes DRM."
- 4 Insert your newly burned CD-R and click *Import CD* to copy the songs back into iTunes or whichever player app you originally used. They will now be stripped of all DRM.

Partition Your Hard Drive

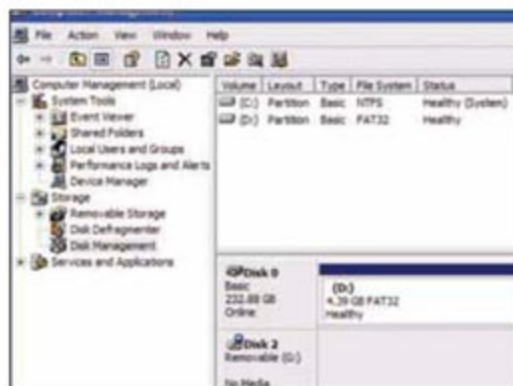
IF YOU'RE OUT of space on your system, it's time to add a new hard drive to your PC—or just reconfigure an old one. There's no real need to set up even the largest drives into multiple partitions (each with its own drive letter) anymore, as the system BIOS can address all the storage in one partition. However, partitions can still make for good housekeeping, and you might consider creating a separate partition for any network shares you'd like to make—say, for storing drivers and software installation files that you plan to reuse and want easy access to. Or you may wish to use one partition to install the operating system and critical apps and another for your data files, which will simplify backup tasks. Here's how to go about it.

♦ **Partitioning as you install Windows:** Use Windows Setup's partitioning system to set partitions appropriately as you go through the process. Format the partition(s) with NTFS. After you have installed Windows, copy any data you need from the original drive to the new one. You can then retire the old drive or clean it off for use as additional storage.

♦ **Partitioning under Windows:** To set up a new or existing drive in Windows, go to *Start•Settings•Control Panel*, and click *Administrative Tools•Computer Management•Storage•Disk Management*. Your drive should appear; new drives will show as unformatted space. Partition the space by right-clicking in the unformatted area and selecting *New Partition*; then, to format each partition, right-click in the partition and choose *New Logical Drive*.

Copious third-party tools offer options

to ease partition management and disk maintenance. Norton PartitionMagic (\$70; find.pcworld.com/56116) and Diskkeeper Home (\$30; find.pcworld.com/56115) can streamline the operations if you're uncomfortable working with Windows' tools. Users with lots of



IN WINDOWS DISK management, you'll see your drives and can partition them with a few clicks.

PC upgrade experience can save some dough when they add a new drive by buying it bare—no kits, utilities, or OS. Such a drive works well if you're not planning to use it as a boot disk or if you intend to install Windows fresh (for step-by-step help with the installation process, see our video at find.pcworld.com/56114). ■

Christopher Null is a veteran journalist who covers technology topics daily through his blog at find.pcworld.com/56216.

Disable the Insert Key

NOTHING GOOD HAS ever come from the <Insert> key. Although you have many ways to disable it, here's a simple one: In Word, click *Tools•Customize•Options•Keyboard*. In the Categories box (look in the left pane), select *All Commands*. In the Commands box (right pane), select *Overtype*. In the 'Current keys' box, highlight *Insert* and click *Remove*.

Save Money on Tech Purchases

IN MANY CASES, when you buy a desktop PC, you're best off getting the minimum amount of RAM you can, since upgrading it yourself later is cheaper and a simple process. Also, never buy the fastest CPU on the market, which will always carry a significant price premium. You'll save hundreds by purchasing a processor one or two rungs down, and you're unlikely to notice much performance difference.

10 THINGS EVERY MOBILE USER SHOULD KNOW

BY JAMES A. MARTIN

Make your next gadget-laden journey as painless and productive as possible.

Before You Go

1 Take your iPod instead of your laptop. An iPod (and other portable USB storage devices) can hold computer files, Outlook data, Internet Explorer favorites, desktop wallpaper, and in some cases, applications. Connect the iPod to a borrowed PC, and voilà—it's like having access to your own computer. Later, sync the iPod with your PC back home. The Migo (\$30; www.migosoftware.com) and MojoPac (\$30; www.mojopac.com) utilities each provide this capability.

2 Get your faxes as e-mail attachments. Send2Fax.com charges \$2 per month plus 15 cents per page to forward faxes as PDF files in e-mail.

3 Post a reward in case your laptop is lost. Raise your chances of being reunited with a lost laptop by registering it with StuffBak.com. You'll receive a sticker to put on your notebook, informing others of a reward for its return. To contact you, the finder dials the toll-free number on the sticker or goes to the StuffBak Web site. A \$6 sticker provides two years of free return service.

4 Pack your laptop bag with five essentials. You should always take (A) a grounded (three-prong) extension cord with at least three outlets so you can recharge multiple gadgets; (B) blank CDs, for transferring files to another PC or burning tunes to play in the rental car; (C) an RJ-11 phone cord, because you never know when you'll need one; (D) an ethernet cable, for the same reason; and (E) your AC adapter, with airline and car power adapters.

5 Research your seat. Before booking a flight, head over to SeatGuru.com. Charts reveal which seats on domestic and international flights have the greatest width and pitch and provide in-seat power ports.

On the Road

1 Get directions on your phone.

Google Maps for Palm, BlackBerry, and other smart phones shows nearby businesses, gives directions, and delivers real-time traffic info (in 30 U.S. markets). Grab the free app at find.pcworld.com/56095.

2 Use your phone as a modem. Most Bluetooth phones (and some others) include data-modem capabilities, enabling you to use your phone to connect your laptop to the Web wirelessly. Check with your carrier for a connection kit and compatible data plan.

3 Go to an airline lounge to stay connected. If there's no hotspot at the airport, you can often connect through a lounge. With a Priority Pass (www.prioritypass.com) you gain admission into 500 lounges in some 300 airports. Standard membership is \$99 per year plus \$24 per visit. Also, some clubs now offer \$50 day passes.

4 Find a hotspot. Listing more than 120,000 hotspots worldwide, JiWire.com is the place to go when you're sniffing around for a Wi-Fi connection. And its Hotspot Helper software (\$25 per year; free ten-day trial) lets you locate hotspots offline, too.

5 Create your own hotel hotspot. Some hotel rooms still offer only wired broadband access. But a portable router—such as Apple's AirPort Express (\$129; find.pcworld.com/56093) or Linksys's Wireless-G Travel Router (\$100; find.pcworld.com/56094)—lets you create your own wireless network, so you're not shackled to the uncomfortable guest-room desk. ■





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Build the Perfect Browser

BY ERIK LARKIN

We tested dozens of add-ons to find tools that make the new versions of Internet Explorer and Firefox even more useful.

TODAY'S BROWSERS ARE sophisticated and highly functional programs—but they can become so much more. Here are 46 great (and free) add-ons for Internet Explorer 7 and Firefox 2 that offer safer browsing, easier site sharing, improved searching, faster news gathering, and more. Plus, we offer tips to help you manage add-ons in both apps without bogging down your browser. To download any extension listed in this story, go to find.pcworld.com/56100. For many more add-ons, visit www.ieaddons.com (for Internet Explorer) or addons.mozilla.org (for Firefox). ▶



ILLUSTRATION: ENRICO VARRASSO

BROWSER BOOSTERS

TOO GOOD TO languish under a *Miscellaneous* tag, these great add-ons don't fit into our other categories.

FOR DOWNLOAD LINKS, point your browser to find.pcworld.com/56100.

Quero Toolbar This navigation-bar replacement blocks some advertisements and gives you plenty of other useful options, but its best feature is that you can use it to convey a more-familiar IE 6 look upon much of the IE 7 interface.



THE QUERO TOOLBAR puts things back where you expect them to be.

After installing the toolbar, choose *Hide standard address/navigation bar* under the Appearance option. Then consult "Master IE 7 Add-Ons" on page 90 for advice on how to rearrange the toolbars to your liking; for example, you may want to move the menu bar back up top.

Unfortunately, though Quero does include a set of 18 search engines in its search box, you can't add more.



ADBLOCK PLUS AUTOMATICALLY blocks a wide range of online ads.

Adblock Plus This is one of the most popular Firefox add-ons, and for good reason: Adblock Plus ►

BOOKMARKS AND SEARCHING

Instant Information Access

MANY BROWSER ADD-ONS automatically save your bookmarks online and allow you to reach them from any PC, or they synchronize all of your regular bookmarks among multiple systems.

Some of the add-ons in this category also introduce better searching or sync your log-on information in multiple browsers—and one even checks for spyware.

Foxmarks An extension that focuses on performing one function exceptionally well, Foxmarks synchronizes your regular Firefox bookmarks between multiple computers. It has excellent setup options, too.

Yahoo Toolbar One of this application's many features is the ability to create Web-based bookmarks (separate from your system-based bookmarks) that are accessible from any of your other browsers that have the toolbar installed. The applet also provides quick access to Yahoo Mail and other Yahoo services, and includes a free Norton spyware scanner.

Google Toolbar This program supports Web-based bookmarking, in much the same way that Yahoo Toolbar does. It throws in a spelling checker and a form autofilling feature, but overall it doesn't tie in with the panoply of available Google services as well as Yahoo Toolbar does with the corresponding Yahoo universe.

1-Click Answers With this add-on in place, you can right-click any word or phrase on a page and get a small pop-up with a definition or explanation from Answers.com. To turn off the annoying news pop-ups, change the appropriate setting in Preferences, which you can access via a system tray icon.

Google Browser Sync Synchronize your choice of bookmarks, saved passwords, browsing history, and cookies among multiple browsers with this handy



GOOGLE BROWSER SYNC can link multiple Firefox browsers to share everything from bookmarks to saved site log-ins.

application. If you have trouble getting the tool to sync your bookmarks properly (I often did), your best bet is to use this add-on for passwords and cookies and to use Foxmarks for bookmarks.

IE Inline Search Inline Search adds a useful Firefox-like page-search bar to the bottom of your browser window when you click the <Ctrl>-<F> hotkey.

Kikoz Bookmarks Pro Create a bookmarks sidebar that can import all of your bookmarks from IE, Firefox, and Opera and make them accessible from any IE 7 browser that has the extension installed. You can also share your Kikoz bookmarks with other Kikoz users.

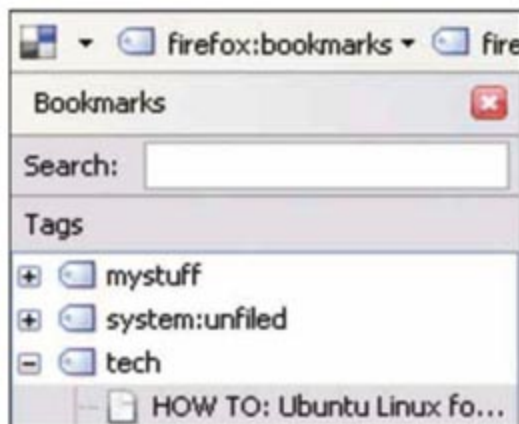
Expand the search box You can add many more search engines to the quick-search boxes located in the upper-right corner of either browser. In IE, click the down arrow located to the right of the box and choose *Find More Providers*. In Firefox, click the arrow to the left of the box, and choose *Manage Search Engines* and then *Get More Search Engines*.

Share Your Favorite Finds

SOCIAL BROWSING EXTENSIONS harness the power of collective clicking to help you find and share the best of the Web. You can save, tag, and share a link to a hilarious new video—or an insightful market analysis—with a select group or with the world at large.

StumbleUpon This supreme time-waster and Firefox favorite is now available for Internet Explorer as well. Click a button and commence stumbling onto a huge variety of sites that have earned a thumbs-up from other Stumblers in one or more categories of your choice, or enter a particular search term in the toolbar's search box and see what comes up. Influence others' meanderings with your own site ratings and tags to help categorize sites.

Del.icio.us Save Web pages to Del.icio.us and label them with tags simply by clicking a couple of navigation-bar buttons. Afterward, access those bookmarks from anywhere, share them with friends, and browse the Del.icio.us site to see what other people think is interesting.



FULLY CONVERT TO social bookmarks by using the Del.icio.us Bookmarks plug-in.

Del.icio.us Bookmarks Del.icio.us bookmarks are typically stored separately from your regular bookmarks; this add-on integrates them so that every new



BLAZE A TRAIL across the Web by dropping markers and comments on any Web site with Trailfire.

bookmark acts like a Del.icio.us bookmark. You can also view bookmarks by tags.

Trailfire This innovative new approach to site sharing has you create a "trail"—an overlay of small markers—anywhere on a succession of sites. You can add your own critiques or call out parts of a page with comments that show up when visitors mouse over a marker. All the markers in a given trail are displayed in a sidebar, where you can click through each step or skip ahead.

Trails may be private or public, and you can share them by posting or e-mailing a link. You can also toggle whether you want to view other people's markers as you browse. The company is working on adding functionality that will show trails and markers only for selected friends.

eSnips.com Clip text, images, videos, or entire pages from sites with a toolbar from eSnips, and upload them to 1GB of free storage. Tag your uploaded clippings, recorded voice, or video to share it with friends or with the world.

Clipmarks Click this toolbar button, click and drag to "clip" a section of a Web page, and then save and share your clips, with tags that you define, on Clipmarks' site. You can also use the applet to print a selected portion of a page.

► BROWSER BOOSTERS

automatically blocks online ads, based on their source URL. You can easily turn it off or tell it to display ads when you visit certain sites.

Bayden IE Power-UPS Supercharge your right-click! This collection of tools gives you new options in the right-click menu, such as looking up selected text on Wikipedia or hiding all of the images on a page at once for easier reading. There's also an option for speeding up broadband page-load times by using additional simultaneous connections.

Mouse Gestures You can save time (and a little wrist strain) by using particular mouse gestures to execute common commands. For example, you can quickly go back a page by holding the right mouse button and moving the mouse to the left.



LOAD IE-ONLY PAGES directly into Firefox with the well-made IE Tab.

IE Tab If you use Firefox but at times need to visit sites that display correctly only in Internet Explorer, this extension is for you. Right-click a link and choose *Open in IE Tab*, and you'll see the page in a Firefox tab as rendered by IE. Click a browser icon to alternate between the different views while staying in the same tab.

IE View It behaves like IE Tab, except that it starts up Internet Explorer to display a selected page.

► BROWSER BOOSTERS

IESpell Gain a right-click 'Check Spelling' option for text that you've entered into forms and fields.



FOXYTUNES ADDS MUSIC control buttons directly to your browser.

FoxyTunes Another Firefox favorite that is now available for IE, FoxyTunes introduces a toolbar that lets you control a multitude of media players (including iTunes, WinAmp, and Windows Media Player) from inside the browser. Foxy indeed.

LeechGet Ideal for the inveterate power-downloader, LeechGet handles downloads in an external program that runs from the system tray. It can accelerate downloads by splitting files into different parts and pulling them all down at the same time. If you use Firefox, you'll need to install an extension as well as the main application to use LeechGet.

StarDownloader Like LeechGet, this program adds a download manager that runs outside the browser in the system tray. LeechGet may have more options than this application, but StarDownloader has a more straightforward interface.

All-in-One Sidebar This excellent extension creates a cleaner Firefox interface by collecting the normally separate array of add-ons and download windows and pulling them into a highly functional sidebar. ►

EXTENSION TIPS

Master IE 7 Add-Ons

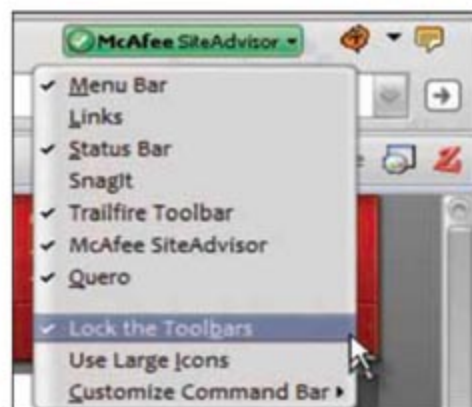
WISH YOU HAD a manual for operating IE's new add-ons manager? These explanations of the viewing options should help:

• **'Add-ons currently loaded in Internet Explorer':** You'll typically come here for basic management.

• **'Add-ons that have been used by Internet Explorer':** Unlike the preceding option, this one shows all ActiveX controls, which load only when you visit a Web page that calls on them. Be careful before deleting any controls—you may have to reinstall third-party software to restore their controls if you ever want them back.

• **'Downloaded ActiveX controls':** This option shows only controls that you've downloaded from the Web and installed. They're generally safe to delete, because you can always redownload them.

• You can enable or disable add-ons in the new manager; but to uninstall them, you'll need to go to Add or Remove Programs in the control panel.



UNLOCK THE TOOLBARS to move add-on elements and make the best use of space.

• When you go to Add-Ons for Internet Explorer (www.ieaddons.com) and use the Advanced Search, a bug in the filtering for IE 7 add-ons won't show the many tools that work in both IE 7 and IE 6. Microsoft says it's trying to fix the problem.

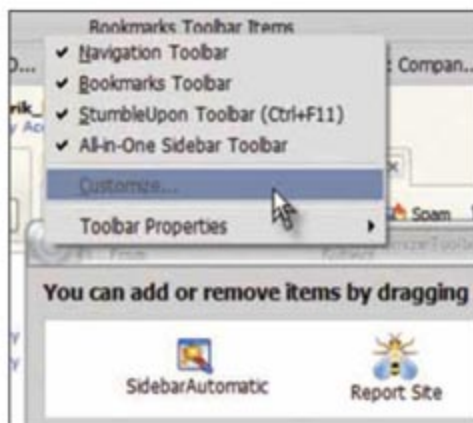
• You can clear unused icons from the Command Bar (next to the tabs) by right-clicking it and choosing *Customize Command Bar*•Add or Remove Commands.

Firefox Extension Expertise



GET THE MOST from your trove of Firefox add-ons with these management tips:

• To maximize precious toolbar space, right-click a toolbar, choose *Toolbar Properties*, and select *Icons only*. You'll have to



RIGHT-CLICK A TOOLBAR and choose *Customize* to find hidden add-on buttons.

remember what the icons represent, without text reminders, but in return you'll get a lot more open space for buttons.

• To get rid of icons that you don't want, right-click a toolbar again, and choose *Customize*. You can drag and drop buttons between the ones shown and the ones that already appear on the toolbar.

• The Firefox Addons site should be redesigned by the time you read this, making navigation and search easier. But in case it's not, to find an add-on whose name you already know, you're better off going to a search engine and typing **site: addons.mozilla.org name of add-on**.

• MR Tech's Local Install is the ultimate metatool for managing your add-ons. It also enables you to load old (and yet often still usable) add-ons. Be forewarned, however: It requires expert setup.

Better Browsing Safety

BOTH IE 7 and Firefox 2 have welcome new built-in antiphishing features designed to block known phishing sites and (in the case of IE 7) to warn against unknown ones. But no single solution can spot every ill-intentioned site, especially when phishing outposts go up and down more often than a bank of elevators, in an effort to evade blacklist blocking. Supplement your security with these tools.

SiteAdvisor Get a warning icon next to potentially dangerous results from popular search engines, along with an icon in your status bar that indicates the risks and annoyances associated with the page you're viewing. The professional version of this McAfee service includes features such as e-mail and IM link checking for \$20 per year.

LinkScanner Lite Much the same as SiteAdvisor, this add-on performs real-time site scanning in search of active attacks. You can scan a given URL on demand, and you can use LinkScanner side-by-side with SiteAdvisor. A Firefox version of LinkScanner is in the works; and a Pro version that automatically scans all links on a page costs \$30 per year.

Password Hash This excellent tool lets you use a single password at your end but achieve the safety of generating a unique and robust password at each site. While you continue typing the same password at each site you visit that requires one, Password Hash converts that one familiar string on the fly into a series of safe and unique passwords—one for each site. And you never have to learn the special coding to benefit from its protection.

| |
|---|
| Site Address |
| <input type="text" value="http://www.mybank.com"/> |
| Site Password |
| <input type="password" value="*****"/> |
| Hashed Password |
| <input type="text" value="uWr6W5UES3zr"/> <input type="button" value="Generate"/> |

PASSWORD HASH ALSO offers a Web site form for use when you don't have access to the add-on.

Noscript JavaScript is a very useful type of Web programming, but many online attacks exploit it. Use this plug-in to block sites from running JavaScript in Firefox until you explicitly say it's okay.

OpenDNS Not technically an add-on, OpenDNS can make your surfing faster and safer by introducing Windows configuration changes to your DNS set-



MAKE FREE USE of OpenDNS name servers with quick changes to your Internet settings.

tings, a necessary part of all browsing. It will block known malicious sites and help correct fumble-fingered mistakes such as typing *pcworld.cmo*. But consult your IT person before changing it at work, since you might need to keep work DNS settings to reach company servers.

RoboForm This password manager will fill in forms for you and automatically log you in to sites. You'll need an additional extension to use it with Firefox, however.

Netcraft Toolbar Use Netcraft Toolbar to get a second line of defense for blocking phishing sites that might have snuck by your browser's built-in protection. ▶

► BROWSER BOOSTERS

Yahoo Mail Notifier This app tucks a small icon into the lower-right corner of your browser to identify the number of unread Yahoo e-mail messages you have. You can configure it to show new e-mail alerts, too.

Gmail Notifier This program functions in much the same way as the Yahoo Notifier, but (surprise!) for Gmail.

IE 7 Menu-on-Top Tweak This one-trick pony modifies the Registry so that the classic Menu bar goes back to the top your screen. But your other toolbars move above the navigation bar as well, so you might prefer to use the Quero Toolbar (see page 88).

ForecastFox Another longtime Firefox favorite, ForecastFox adds a highly configurable toolbar showing local weather conditions and forecasts from Accuweather.com or other weather sites. Mouse over the toolbar for more detailed information, or click the toolbar to visit the site.



FORECAST FOX DISPLAYS at-a-glance weather reports in a customizable toolbar.

PDF Download If you have ever growled in frustration after accidentally clicking a PDF link and then watching your browser screech to a standstill, PDF Download can help. Whenever you click a PDF link, you'll get a pop-up asking whether you want to open the PDF as usual in the browser or save it. (Alternatively, you can change your browser settings—under Options•Content•File Types—to open PDF documents externally with Adobe Reader instead of with the potentially slower browser plug-in.) ▶

► BROWSER BOOSTERS

Chromatab This program helps you navigate by introducing colored tabs that signal the particular site being loaded; you assign the tab colors initially, and Chromatab does the rest. Since pages keep their assigned tab color, you'll soon associate a common destination with a certain color.



CHROMATAB ADDS a dash of color to make it easy to recognize tabs.

Tweak Network Settings Speed up your browsing by using this application to access under-the-hood network settings via a Tools Menu options window. Two buttons included on the Tweak Network Settings interface let you quickly switch back and forth between default and suggested 'Power' settings. This arrangement is not a good idea for dial-up connections, but it could accelerate broadband load times at many sites.

FOR DOWNLOAD LINKS, point your browser to find.pcworld.com/56100.

RSS READERS

News Junkie Power-Ups

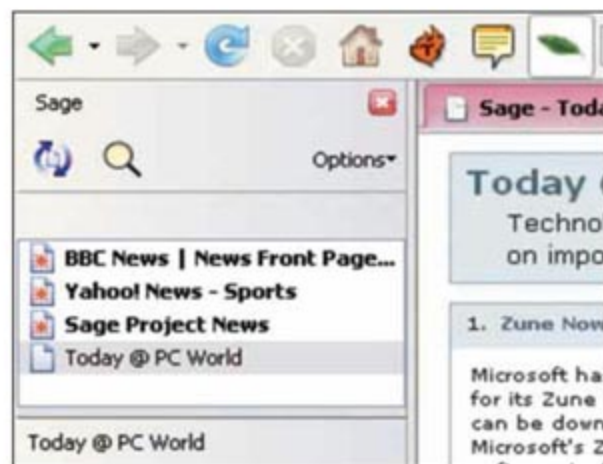
BOTH INTERNET EXPLORER and Firefox now have RSS feed management, but neither browser's built-in features shine. Firefox's Live Bookmarks feature improves significantly under the influence of some excellent free add-ons like Sage. So far, IE doesn't have an equivalent, but Microsoft says that IE's new feed management is meant to serve as a platform for other applications to build on—and some of these are starting to appear.

Sage This clean and functional news reader displays inside your browser and uses a bookmarks folder to store feed subscriptions. Paired with a bookmarks synchronizer like Google Browser Sync or Foxmarks, it offers easy access to all your feeds from any browser.

Bloglines Browser Plug-In Add new feed subscriptions to your personalized Bloglines feed bookmark page instead of to IE's Favorites center. You have to register for a free Bloglines account first.

Newsgator Desktop Sync This application synchronizes feeds from Internet

Explorer's Favorites via a Newsgator feed page. With this tool, unlike with the Bloglines Browser Plug-In, your feeds remain stored in IE's Favorites, and a separate program that runs from the system tray handles the synchronization.



SAGE SUPERCHARGES FIREFOX'S RSS support with a well-designed and easy-to-use news reader.

Wizz RSS News Reader This news reader will enable you to back up (and restore) your feed list to (and from) an online server—but Sage has a more intuitively organized interface. ■

Erik Larkin is a PC World associate editor and die-hard browser tinkerer.

ADD-ON GOTCHAS

Watch Out for Too Much of a Good Thing

ALL OF THE add-ons discussed here are free—but they can still cost you. Each uses a certain amount of system memory and could increase the time it takes your browser to start up. Add too many, and you'll notice a definite slowdown.

In informal tests, we compared the amount of memory used by Internet Explorer and Firefox with and without Google Toolbar, FoxyTunes, SiteAdvisor, and Trailfire add-ons.

Also, some add-ons don't play nicely together. It's almost impossible to test the whole universe of possible add-on combina-

| BROWSER | Memory required | |
|---------------------|-----------------|--------------|
| | Without add-ons | With add-ons |
| Firefox 2 | 34MB | 44MB |
| Internet Explorer 7 | 50MB | 70MB |

LIKE ANY OTHER program, browser add-ons consume resources. Keep an eye on memory usage as you build your own perfect browser.

tions in advance, but using two incompatible ones could break your browser.

If your browser is acting up and you want to see whether your extensions are at fault, try starting either browser without add-ons: For IE 7, click **Start•All Programs•Accessories•System Tools** and then select **Internet Explorer (No Addons)**. For Firefox 2, click **Start•All Programs•Mozilla Firefox** and then choose **Mozilla Firefox (Safe Mode)**. Then you can selectively disable particular add-ons by using the add-ons manager in either browser.

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Keystrokes Typed



Web Sites Visited



Programs Launched



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A few minutes a day of personal surfing, online shopping and chatting may seem harmless, but consider this...

A recent study concluded that employees spend an average of 75 minutes per day using office computers for non-business related activity (surfing porn, gambling, shopping or even searching for sex online). That translates into an annual loss of \$6250 per employee or more than \$300,000 per year down the drain for a company of just 50 employees.

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company secrets
via the web

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from behind
my cubicle walls

I shop online
after closing
my office door

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JUKEBOX IN YOUR POCKET

With video features, new ways to connect to music services, and more, the latest audio players do a lot more than just play MP3s. Our lab tests of 21 models reveal today's best buys.

BY PAUL JASPER | TESTING BY TONY LEUNG

THE LATEST GENERATION of portable audio players offer interesting new features and more storage, and the best of them deliver excellent sound quality. The highest-capacity player we've tested recently is the 80GB Apple iPod, which can store around 20,000 popular songs of average length and compression level. The Microsoft Zune has a neat new wireless sharing feature, and the SanDisk Sansa e260R integrates easily with the Real Rhapsody online music service. ►

PHOTOGRAPHS BY MARC SIMON



CREATIVE ZEN V Plus **Best BUY**



Best BUY APPLE IPOD



APPLE IPOD NANO



CREATIVE ZEN VISIONM

Many models appear similar at first glance. We point out differences in features and performance to help you weigh which is the right player for you.

SOUND-QUALITY TESTS

THE PC WORLD Test Center conducted sound-quality tests on the 21 players we reviewed for this story, using an ATS-2 analyzer provided by Audio Precision, a maker of audio test and measurement equipment. The first test assessed the output level each device could attain before reaching 1 percent distortion, generally regarded as an acceptable threshold. A second test determined the frequency response using 30 tones ranging from 20 Hz to 20 kHz. The lab also measured crosstalk (how much the left and right channels blend, thereby narrowing the stereo field), signal-to-noise ratio, and total harmonic distortion. Obviously, the less distortion and noise an audio player creates, the better it sounds.

In our tests, the hard-drive-based players tended to deliver better audio quality than the flash-based models did. A top-performing flash player such as the iPod Nano, however, offers better sound quality than many hard-drive models do.

ONLINE STORES

TO BUY MUSIC, owners of Apple iPods must shop at the iTunes Store, which supports only AAC-encoded files. But owners of devices that support the PlaysForSure digital rights management system (which uses the WMA format) can select from a range of stores such as Napster, Urge, Wal-Mart, and Yahoo Music Unlimited. Notably missing from the list of players compatible with PlaysForSure, oddly, is Microsoft's Zune, which doesn't support PlaysForSure and works only with the Zune Marketplace DRM system.

FLASH PLAYERS

THE TOP SPOT on our flash players chart went to the Creative Zen V Plus, in part because the product is reasonably priced and well designed. The 2GB model we tested sells for \$140, but a 4GB unit costs just \$40 more. Apple's second-generation iPod Nano placed a close second. The device offers even better audio quality, though it delivers fewer features. We tested a 4GB model that sells for \$199. You can also buy a 2GB version for \$149 or an 8GB unit for \$249.

Samsung prices its 2GB YP-T9JQB at an attractive \$125. The 4GB iRiver Clix provides a large screen and an interesting user interface, and costs \$200. MobiBlu's 2GB US2 costs a low \$130 and delivers very good audio quality.

Each of the players on our chart is compact enough to slip into a shirt pocket, but still roomy enough for a color screen. You can view photos stored on the players, but the screens are so small (most of them measure 1.8 inches or less) that it's hard to make out much detail. The iRiver Clix has the largest display, at 2.2 inches. All except the iPod Nano play videos, but,

again, the little screens make them barely usable in this capacity. In addition, few flash-based players support anything other than their native video format, so you must use the player's video conversion software before moving files to the device; two exceptions are the iRiver Clix and the Samsung YP-T9JQB, which can play MPEG-4 files natively.

All of the players except the MobiBlu US2 support the display of album cover art while songs are playing.

CONTROLS AND FEATURES

THESE FLASH PLAYERS' navigation systems share many similarities, though some designs take a little getting used to. The iPod Nano is the most intuitive. The Creative Zen V Plus is nearly as easy once you learn that holding down the back button gives you a menu of options, but its small joystick requires some fiddling compared with the iPod's signature touch-sensitive thumbwheel. The iPod interface is the slickest one we've tried—scrolling through long lists of songs or artists requires only a light touch.

The Samsung YP-T9JQB and the MobiBlu US2 each have four-way controls on their fronts with a select button positioned in the center, making it easy to navigate menus and operate the most common functions. The SanDisk Sansa e260R, which failed to place on our chart due in part to its subpar audio quality, adds a rotating ring for scrolling through lists; unfortunately, the ring protrudes, getting in the way of the directional buttons. In lieu of buttons, the entire face of the iRiver Clix rocks in four directions, a novel and easy-to-use approach.

FM, RECORDING, BATTERIES

THE IPOD NANO is the only player on the chart without an FM radio. For the rest of the players, tuning in to channels is usually quite easy, but you often have to consult the manual to set up the station presets. All of the radio-equipped



SAMSUNG'S T9 IS inexpensive, but sound quality isn't great.

models except the Creative Zen V Plus let you record from the radio, but only the MobiBlu US2 lets you schedule a recording. Reception quality varies widely—all of the players use their headphone cords as antennas, and you'll likely notice some interference and dropouts as you move around. Of course, if you spend a lot of time listening to the radio, you're missing the point of an MP3 player.

You can use any of the flash-based players in our review except the Nano as a handheld voice recorder, but the sound quality makes this feature better suited for quick personal reminders than for, say, heavy note-taking in class. For better-quality recordings, get a player that has a line-in jack so you can plug in a microphone or connect directly to your audio source. The Zen V Plus has such a jack.

The players recharge their proprietary batteries from your computer's USB port and can play from 14 to 30 hours. Only the Sansa e260R has a battery you can replace yourself. Its \$20 battery kit even

includes a screwdriver for removing the four small screws on the back of the player.

DOWNLOADS

EACH AUDIO PLAYER maker recommends a different way to upload music, photos, and video clips to your player. For the iPod Nano, you use iTunes, which allows you to easily rip CDs, organize your music collection, and sync your music with the player when you connect it to your computer. The software is well integrated with the iTunes Store. The Sansa e260R uses RealNetworks' Rhapsody software, which offers an attractive interface and works seamlessly with its online store. The iRiver Clix uses Windows Media Player to manage your media library and sync the player. Creative's Zen V Plus comes with two applications:

THE IRIVER CLIX has a big, 2.2-inch screen.



The first, Creative Media Explorer, offers basic playlist management and browsing functions. The second, Creative MediaSource Player/Organizer, helps you manage your music library.

The MobiBlu US2 comes with a PC-based app for transcoding videos to the player's native MJPEG video format. MobiBlu supplies no uploading software, but suggests using Windows Explorer to copy content to its device. However, you could use Windows Media Player to ►

FEATURES COMPARISON

TEST Center TINY, TALENTED PLAYERS

SMALL FLASH-BASED PLAYERS are best suited for active users. Creative's Zen V Plus has a great price and lots of features.

| | FLASH-BASED PLAYER | PCW Rating | Performance ¹ | Features and specifications | Bottom line |
|---|---|------------------------|--|---|---|
| 1 | Creative Zen V Plus Best Buy \$140 find.pcworld.com/54300 | 82 Very Good | <ul style="list-style-type: none"> Overall audio quality: Very Good Signal-to-noise ratio: 73dB Overall design: Very Good | <ul style="list-style-type: none"> 2GB Creative Media Explorer, Creative MediaSource FM, voice recording, photos, videos 1.6 ounces | Light, capable audio player delivers high-quality audio and also plays videos, though the screen is small. |
| 2 | Apple iPod Nano \$199 find.pcworld.com/56041 | 79 Good | <ul style="list-style-type: none"> Overall audio quality: Superior Signal-to-noise ratio: 81dB Overall design: Good | <ul style="list-style-type: none"> 4GB iTunes Photos 1.4 ounces | The Nano has an elegant design and top-notch audio quality. But it limits you to using the iTunes Store. |
| 3 | Samsung YP-T9J0B \$125 find.pcworld.com/55999 | 78 Good | <ul style="list-style-type: none"> Overall audio quality: Good Signal-to-noise ratio: 76dB Overall design: Good | <ul style="list-style-type: none"> 2GB Samsung Media Studio FM, voice recording, photos, videos 1.7 ounces | The T9 is easy to use and offers many features, but its audio quality fell a little short of the competition's. |
| 4 | iRiver Clix \$200 find.pcworld.com/55997 | 77 Good | <ul style="list-style-type: none"> Overall audio quality: Very Good Signal-to-noise ratio: 78dB Overall design: Good | <ul style="list-style-type: none"> 4GB Windows Media Player FM, photos, videos 2.5 ounces | This attractive player provides a high-resolution 2.2-inch screen and easy-to-use controls. |
| 5 | MobiBlu US2 \$130 find.pcworld.com/55998 | 76 Good | <ul style="list-style-type: none"> Overall audio quality: Very Good Signal-to-noise ratio: 81dB Overall design: Fair | <ul style="list-style-type: none"> 2GB Video and image conversion software FM, voice recording, photos, videos 1.1 ounces | Dual headphone jacks, a built-in radio, and good sound quality make the affordable US2 worth considering. |

CHART NOTES: Ratings and prices are as of 1/9/07. For details on how we test audio players, go to find.pcworld.com/53160. **FOOTNOTE:** ¹Higher signal-to-noise ratios are better.

sync music with the US2 or the iRiver Clix, or you could use other free software, such as Napster or Rhapsody.

You can play music files on the iPod Nano only if you've uploaded them using the iTunes software or a compatible third-party program that can sync with an iPod, such as J.River Media Center or Rhapsody. An iTunes option configures the player as a USB mass-storage device, but any media files you've dragged and dropped via Windows Explorer won't be playable on the device. The other players on our chart do let you use Explorer, though most require you to drop files into a specific folder in order for them to play.

The SanDisk Sansa e260R and the Kingston K-PEX 100 (another player that missed our chart) are notable for their inclusion of media slots. (Not surprisingly, both companies make media cards.) Each of these players accepts tiny media (microSD for the SanDisk, miniSD for the Kingston). Of the two media types, microSD cards are the more expensive,

running upward of \$70 for a 2GB card; the same capacity in a miniSD Card starts at about \$25.

SOUND QUALITY

FOR OVERALL AUDIO quality, the iPod Nano was the only model on our flash players chart to earn a score of Superior, though several of the other devices received a mark of Very Good. The Nano produced little distortion when played at high volume, as did the Samsung YP-T9JQB.

The iRiver Clix produced a well-rounded frequency response, taking top honors in that test. Conversely, the SanDisk Sansa e260R had the worst frequency response of all the units, a showing that contributed to its missing our chart.

The iPod Nano and the MobiBlu US2 introduced the least amount of hum or hiss, delivering the highest signal-to-noise ratios of the flash-based players.

THE MOBIBLU US2 has dual headphone jacks.



The Zen V Plus did the best job of keeping its channels distinct, thus generating the widest stereo field of the bunch. To view the complete results of these tests, see each player's test report in our online chart at find.pcworld.com/56217.

FEATURES COMPARISON

TEST
Center

BIG PLAYERS, BIG SCREENS FOR VIDEO

THESE LARGE-CAPACITY DEVICES hold a lot of tunes, and have roomy, high-resolution screens for viewing photos and video.

| | HARD-DRIVE-BASED PLAYER | PCW Rating | Performance ¹ | Features and specifications | Bottom line |
|---|--|------------------------|--|--|--|
| 1 | Apple iPod Best \$249 BUY find.pcworld.com/50078 | 82 Very Good | <ul style="list-style-type: none"> Overall audio quality: Very Good Signal-to-noise ratio: 78dB Overall design: Very Good | <ul style="list-style-type: none"> 30GB iTunes Photos, videos 4.7 ounces | The iPod offers a high-resolution screen that's terrific for video, and the controls are very intuitive. |
| 2 | Creative Zen VisionM \$250 find.pcworld.com/52236 | 82 Very Good | <ul style="list-style-type: none"> Overall audio quality: Very Good Signal-to-noise ratio: 83dB Overall design: Very Good | <ul style="list-style-type: none"> 30GB Creative Media Explorer, Creative MediaSource FM, voice recording, photos, videos 5.8 ounces | The VisionM has a touchpad and delivers great-looking video. However, it needs a dongle to sync files. |
| 3 | Toshiba Gigabeat S30 \$250 find.pcworld.com/54634 | 81 Very Good | <ul style="list-style-type: none"> Overall audio quality: Very Good Signal-to-noise ratio: 86dB Overall design: Very Good | <ul style="list-style-type: none"> 30GB Windows Media Player FM, photos, videos 4.5 ounces | The Gigabeat offers TiVo Series2 and Xbox 360 integration. But navigation could be more intuitive. |
| 4 | Apple iPod \$349 find.pcworld.com/55248 | 81 Very Good | <ul style="list-style-type: none"> Overall audio quality: Very Good Signal-to-noise ratio: 76dB Overall design: Very Good | <ul style="list-style-type: none"> 80GB iTunes Photos, videos 5.5 ounces | Apple's latest iPod boasts a superb screen and tons of storage, in addition to an easy-to-use interface. |
| 5 | Microsoft Zune \$250 find.pcworld.com/55755 | 80 Good | <ul style="list-style-type: none"> Overall audio quality: Superior Signal-to-noise ratio: 85dB Overall design: Very Good | <ul style="list-style-type: none"> 30GB Zune (customized Windows Media Player) FM, photos, videos 5.6 ounces | Boasts a 3-inch LCD and limited Wi-Fi connectivity, but it lacks PlaysForSure compatibility. |

CHART NOTES: Ratings and prices are as of 1/9/07. For details on how we test audio players, go to find.pcworld.com/53160. **FOOTNOTE:** ¹Higher signal-to-noise ratios are better (the Toshiba Gigabeat S30 scored highest on this test).

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for easy storage.*

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HARD-DRIVE PLAYERS

ALL OF THE hard-drive players on our chart deliver impressive sound quality. Apple's fifth-generation iPod sports the easiest-to-use interface, which helped the 30GB version earn our Best Buy. The player lacks some features found on competing models, however, such as an FM tuner, voice recording, and support for online music services—all of which the Creative Zen VisionM offers. The Toshiba Gigabeat S30 and the Microsoft Zune have well-designed interfaces, but they don't match the elegance of the iPod's.

Of the hard-drive players, the 30GB iPod is the thinnest, at 0.4 inch; the Gigabeat is the lightest, at 4.5 ounces. The Zen VisionM and Zune are chunkier and weigh an ounce or so more. That may not sound like much, but you'll feel the difference with the player in your pocket.

VIDEO TO GO

THE MICROSOFT ZUNE has a bright, 3-inch LCD. The screens on the Toshiba Gigabeat and the iPods are slightly smaller. All of them offer the same (relatively)

high resolution of 320 by 240 pixels. The Gigabeat's 2.4-inch display and the 2.5-inch screens on the Zen VisionM and the iPod are fine for watching a sitcom during your morning commute, but paying attention to a full-length movie could become a chore. Also keep in mind that the Gigabeat's display is oriented vertically, so you'll have to turn it 90 degrees to watch video. If you want to watch a lot of video on a portable device, consider one with a spacious, 4-inch-plus screen; see "Media Players: Big-Screen Portables for Watching Movies," on page 102.

Finding video for these players is becoming easier. Apple's iTunes Store sells TV shows at \$2 an episode, and last September added movies. Recent films cost up to \$15 each, while older titles sell for \$10. Toshiba partners with Vongo to offer movie downloads for Gigabeat devices. Vongo sells movies for \$4, or you can opt for a \$10-per-month membership, which lets you watch as many as you like. As of press time, Zune Marketplace didn't sell video.

Amazon's Unbox video download service offers \$2 TV shows, and sells most movies for \$8 to \$15. Unbox also "rents" movies for viewing within 24 hours for just \$4. Unbox works with players certified for Microsoft's PlaysForSure Video, including the Gigabeat and the Zen VisionM.

Two other options: You can transfer recorded shows from a TiVo Series 2 digital video recorder to your Gigabeat or Zen VisionM (doing so to an iPod is possible, too, but requires a \$25

conversion application). You can transfer video from a Windows Media Center PC to the Gigabeat or Zen VisionM, as well.

CONTROLS AND FEATURES

NONE OF THE other players' controls quite match the iPod's thumbwheel for ease of use. The Zen VisionM has a vertical touchpad, though using it along with the four surrounding buttons gets con-

THE
TOSHIBA
GIGABEAT
S30's
navigation
could be
easier.



APPLE'S
80GB IPOD
has a great
screen and
tons of
storage.



fusing. The Zune's circular control looks like a thumbwheel but works as four directional keys; nonetheless, navigating the Zune is a breeze. The Gigabeat has a four-way control and a select button that are just as easy to operate, though you'll need to consult the small buttons on the device's side panel to adjust volume, play/pause, and skip between songs. Every player has a hold button to protect against unintentional key presses.

Navigating the menus is surprisingly similar across all of the players, though each has its quirks. At the top level, selecting the iPod's Now Playing option shows the currently playing song. The Zen VisionM offers a similar feature, but you have to drill down one level to the Music Library. On the Zune you must press the back button repeatedly to get there. The

Zune and Gigabeat use their left and right buttons as shortcuts while you're in the menus, so you can quickly skip between, say, different artists while viewing a list of their albums. The iPod and Zen VisionM have a search option that allows you to scroll through letters to spell out the name of an artist, an album, and so on—it's actually quicker than it sounds. The Zen VisionM's menu button presents a context-sensitive set of options that you can use, for example, to display the details of a track or to delete it.

All of the hard-drive players we tested, except the iPod models, have built-in FM tuners. Each device provides at least 25 channel presets. The Zen VisionM lets you assign names to the presets, but the Zune picks up the station ID as well as transmitted data and displays the title of the currently playing song. Only the Zen VisionM can record—it does so through its built-in microphone and from the radio. The Zen VisionM also can display video and photos on a TV, but you must attach an included dongle, which has an

A/V-out jack. For iPods, you'll need to buy the optional Universal Dock (\$39), which supplies similar connections.

ZUNE'S WIRELESS SHARING

MICROSOFT MAKES MUCH of the Zune's ability to wirelessly beam songs, playlists, and photos to other Zune players. However, received tracks disappear from the Zune's inbox after either three days or three plays. You can tag these tracks for purchase from the Zune Marketplace when you next sync the device. ▶

ONLINE SERVICES

RENTING MUSIC: BOATLOADS OF TUNES FOR A MONTHLY FEE

MANY OPTIONS EXIST for buying music files online, but a subscription service could expose you to many more new artists. And renting songs may be the least expensive way to populate your audio player with music.

The best-known services are Napster To Go, Real Rhapsody, Urge, Virgin Digital, and Yahoo Music Unlimited. Most of them charge about \$15 a month for a plan that lets you load an unlimited number of files onto your portable audio player. Most also offer \$10-a-month plans, but those usually prevent you from moving the files off of a computer and onto a portable player. Some discounts are available if you pay annually.

THE FORMAT FINE PRINT

OF COURSE, YOUR player will need to be compatible with the service. For example, the Sansa e260R has close links to Best Buy's Digital Music Store, which runs on Real's Rhapsody 4.0 service. The service includes Rhapsody Channels, which automatically update the player with new music each time you sync.

In most cases, a PlaysForSure device will work with most of the five services mentioned here—but despite the moniker, compatibility is not always guaranteed. For example, the Toshiba Gigabeat S30 is incompatible with Yahoo Music Unlimited. Worse, the Microsoft Zune doesn't use the PlaysForSure DRM format, and so will work only with Microsoft's Zune Marketplace. Apple iPod owners can't rent music, period: iPods work only with iTunes, which doesn't offer a subscription service.

Nevertheless, a PlaysForSure device is currently your best bet for enjoying wide-ranging compatibility. Though files purchased from Rhapsody 4.0 will play on both PlaysForSure

devices and iPods (though not the Zune), audio files rented from the Rhapsody To Go subscription service will play only on PlaysForSure devices. As you might expect, these services won't let you burn rented tracks to a CD.

Typically, a subscription service requires that you download songs to your PC and then transfer them to your music player. If you want to conserve hard-drive space, you'll like that Rhapsody 4.0 allows you to drag files directly from its download list to your player (the files temporarily reside in your PC's cache, but don't remain on your hard drive).

SYNCING AND EXPIRATION

THE SANDISK SANSA e260R is the first player we've tested that touts special integration with an online music subscription service (the R stands for Rhapsody). One plus is that the



RHAPSODY TO GO displays all of your tunes—both rented and purchased—in a song library for later transfer to your player.

e260R will notify you when your subscription is about to expire. That's a helpful feature considering that you could lose all your music if you forgot to renew your subscription and then tried to sync your player—a likely scenario if you and your player spend an extended amount of time away from your PC.

—Eric Butterfield

Eventually, Microsoft plans to link the Zune up with PCs and Xbox 360 game consoles using wireless connections; but for the time being, you need a USB cable to sync the player with your PC.

BATTERIES, SOUND QUALITY

ALL OF THE hard-drive players on the chart can recharge their battery from a computer's USB port, though the Gigabeat comes with a separate charger. The dongle that's included with the Zen VisionM serves the same purpose in addition to providing mini-USB cable and A/V connections.

The Zune scored the highest overall in our audio-quality tests, but the other hard-drive devices were nearly as good.

The iPods achieved the clearest sound at high volumes in our maximum-output-level test, and they delivered the widest stereo field (exhibiting very little cross-talk). All of the players performed well at reproducing a variety of frequencies in our frequency-response test. We registered very little distortion from the Zune. The Gigabeat had an excellent signal-to-noise ratio, while the iPods generated slightly more noise, which means that you may notice some hiss from them during quieter music passages. ■

Paul Jasper is a technology consultant and freelance writer based in San Francisco. Eric Butterfield is a senior associate editor for PC World.

THE
MICROSOFT
ZUNE has a
3-inch
screen and
Wi-Fi.



HANDHELD VIDEO

MEDIA PLAYERS: BIG-SCREEN PORTABLES FOR WATCHING MOVIES

IF YOU WANT to watch TV shows or movies on a handheld device, you'll want more than just an audio player that's capable of playing video. Portable multimedia players are superior for watching video because they have bigger screens.

The largest display on an audio player in this story is the Microsoft Zune's 3-inch LCD. By comparison, the screens on portable multimedia players look huge. The \$450 Archos 604 WiFi has a bright, 4.3-inch wide-screen display with a resolution of 480 by 272 pixels (the audio players on our charts top

out at 320 by 240 pixels). Video and photos looked very attractive on the bigger screen. Also, the Archos display is a touch screen, handy for selecting photos and scrolling through a slide show. The \$499 Wolverine Data ESP 5120 has a 3.6-inch display, but it isn't a wide screen. Images appeared less sharp on its 320-by-240 screen than on the Archos device, and I noticed jagged edges on some objects—but it was still more enjoyable to watch than any of the audio players were.

MOVIE DOWNLOADS, EXTRA FEATURES

BOTH THE ARCHOS model and the Wolverine device support PlaysForSure, so you can play movies from a compatible video download service, such as CinemaNow or Amazon's Unbox. The selection from these sites is limited, however: At press time CinemaNow offered fewer than 1000 movies for purchase, and Amazon's Unbox listed 1570.

The Archos 604 WiFi's 30GB hard drive is somewhat meager, considering the size of video files. A 50-minute episode of *Star Trek* that I downloaded from Unbox took up 240MB; the movie *Office Space*, which runs 90 minutes, used up almost 1.7GB. The Wolverine's much larger 120GB hard drive makes it the better choice for portable backup storage—particularly for photographers, since the device has memory card slots that support seven formats.

The Archos has no card slots but offers wireless connectivity and the Opera browser. It can record TV programs as well, though this requires an optional dock, which costs \$80. Also, the 604 WiFi has a kickstand so you can prop it up—on an airplane's food tray, for example.

—Eric Butterfield



MOVIES
LOOK GREAT on the Archos
604 WiFi's 4.3-inch wide screen.



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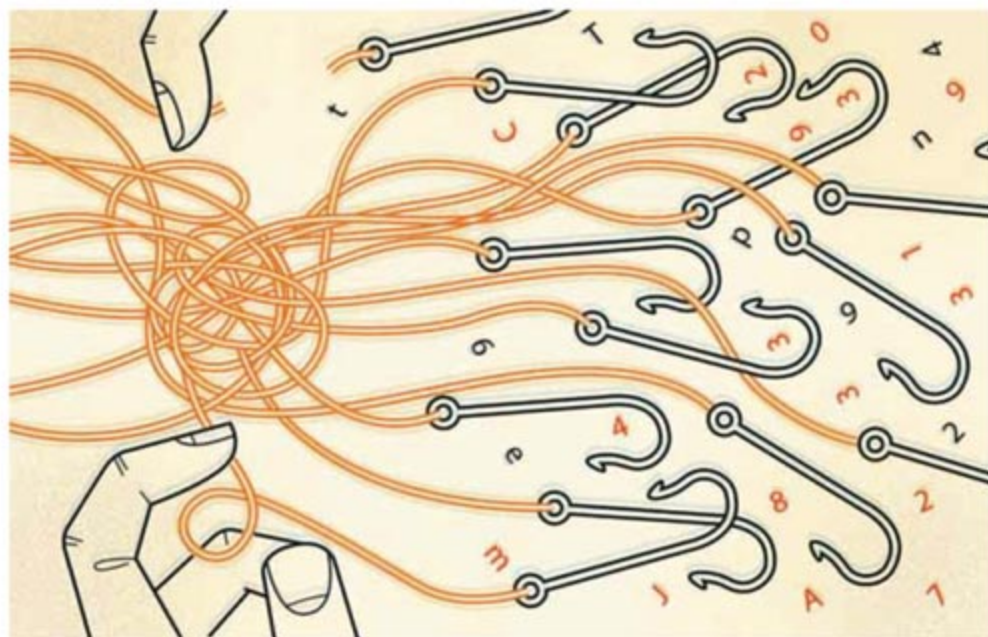


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INTERNET TIPS

SCOTT SPANBAUER

Thwart the Three Biggest Internet Threats of 2007

THE SAME INTERNET connection that lets you reach out and touch millions of Web servers, e-mail addresses, and other digital entities across the globe also endangers your PC and the information it contains about you. Here's how to stymie the three gravest Internet risks.

THREAT #1: IE

INTERNET EXPLORER HEADS the list of top Internet security attack targets in the most recent joint report of the FBI and

security organization SANS Institute (www.sans.org/top20). One reason: As the most widely used browser, IE provides the biggest payoff for malicious hackers who set out to exploit its flaws.

The biggest problem with IE is its reliance on Microsoft's ActiveX technology, which allows Web sites to run executable programs on your PC via your browser. Security patches and upgrades, including Windows XP's Service Pack 2 and the recently released IE 7, make ActiveX

safer, but the inevitable flaws that allow malware to circumvent those security measures—combined with the reality that we computer users are often a credulous lot—make ActiveX a risk not worth taking. Happily, with very few exceptions (such as Microsoft's Windows Update site), you can browse the Internet effectively without ActiveX.

To disable ActiveX in IE 6 and 7, choose *Tools•Internet Options•Security•Custom Level*, scroll to 'Run ActiveX controls and plug-ins', and select *Disable* (see **FIGURE 1**). Click OK, Yes, and OK to close the dialog boxes. To enable ActiveX on a known and trusted site, click *Tools•Internet Options•Security*, choose *Trusted Sites*, click *Sites*, enter the site address in the text box, and click *Add*. Uncheck *Require server verification (https://)* for all sites in this zone, and click *Close* and OK.

If you leave ActiveX enabled, you may quickly encounter malware-harboring sites and e-mail attachments that ask you to let them install their ActiveX controls on your system. Unless you're 100 percent certain that the control is safe and legitimate, don't allow it.

Regardless of which browser is set as the default on your system, always keep Windows (and IE) updated to minimize your risk. To keep Windows XP up-to-date, visit update.microsoft.com (you'll have to use Internet Explorer) and install Service Pack 2, if you haven't already. Next, choose *Start•Control Panel•System*, and click the *Automatic Updates* tab. Select *Automatic (recommended)* if you trust Microsoft implicitly, *Download updates for me, but let me choose when to install them* if you trust the company a little bit, or *Notify me but don't automatically download or install them* to play it

ILLUSTRATION: HARRY CAMPBELL

120 INTERNET TIPS

Protect yourself against the three gravest Web dangers: IE, phishers, and malware; 2007 security toolkit.

124 WINDOWS TIPS

Sync your PC's music files with any mobile device using Windows Media Player; a billable-hour tracking app.

126 HARDWARE TIPS

Upgrade an old PC with external devices you can use with your next system; a flexible USB/FireWire hub.

128 ANSWER LINE

What to do when your PC freezes up; synchronize Outlook on two computers; copy Excel formulas.

130 DIGITAL PHOTO TIPS

Quick and simple ways to manage your PC's growing image collection; tag images in Vista's Photo Gallery.



safest. (Go to find.pcworld.com/56084 for more on Windows updates.)

Whichever option you choose, click OK to download and install the most recent security patches. If you stick with IE, upgrade to version 7, which improves ActiveX security. Still, the best way to reduce your PC's vulnerability to ActiveX exploits is to download and install another browser, and set it as your default browser. Mozilla's Firefox is the most popular IE alternative. Unfortunately, Firefox's growing popularity has enticed malware authors to exploit its own flaws. While no software is perfectly secure, many experts (including me) think the Opera browser is safer than either IE or Firefox.

THREAT #2: PHISHING AND IDENTITY THEFT

YOU'VE PROBABLY SEEN your share of phishing attacks, which look like communications from your bank, PayPal, eBay, or another online account. The message may ask you to click a link that leads to a bogus Web page, complete with realistic user-name and password log-in fields, or it might ask for a credit-card number. The fake address often resembles the real institution's URL—'citibank.fakesite.com' in place of 'citibank.com', for example. The phisher's site and e-mail message may even load images from your bank, or have links to the institution's own Web site.

When you take the bait, the phisher harvests your data, and either sells it to someone else, or uses it to drain your account right away. A variant called spear phishing identifies you by name in the

lure message or Web site, making the sham even harder to spot. Typo-squatting is a related trick in which phishers set up a fake site at an address slightly different from the real one ('www.amazom.com' instead of 'www.amazon.com', for example) in hopes that fast-typing customers will land there and not notice their typo.

You may have read that your bank will never send you an e-mail asking you to

yet, pick up the phone and call a customer service agent (if you can find one via the bank's automated phone system).

The place you're most likely to notice that your credit card or bank account has been compromised by a phishing attack or identity theft is on the statement you receive from them via mail. Check it carefully for unauthorized charges, and report any to the institution immediately.

Both IE 7 and Firefox 2 include new antiphishing settings that can compare links to databases of known phishing sites before displaying the page. (As we went to press, Opera planned to include a similar feature in the Opera 9.1 browser.) IE 7 asks you a couple of times if you'd like to enable its phishing filter during installation; say yes. To enable this feature, choose *Tools•Phishing Filter•Turn On Automatic Web-site Checking*, and click OK.

Firefox 2's phishing filter is enabled by default, but it uses a static downloaded list of known phishing sites. To query Google's more up-to-date Phishing Protection service instead, choose *Tools•Options•Security* and select *Check by asking Google about each site I visit* (see **FIGURE 2**). Note that you'll have to accept the service's licensing agreement.

Many firewalls and other security programs include identity-protection features that scan the stream of data leaving your PC for sensitive information, such as passwords or social security and credit card numbers, and then block the unauthorized transfers. For more information on these products, see "All-in-One Security" at find.pcworld.com/56006. ▶



FIGURE 1: DEACTIVATE ACTIVEX CONTROLS in Internet Explorer 6 and 7 to put drive-by browser hijacking on ice.

log in to your account, and it shouldn't, though it does happen on occasion. The vast majority of messages that appear to come from financial institutions are phishing attacks, so assume that such messages are bogus and avoid opening them at all, let alone clicking any links they contain. If you are concerned that the bank or other service is really trying to notify you of a problem with your account, open your browser manually and log in to the site directly, or better

Resist the temptation to post personal information on your Web page, blog, or social site (Facebook/MySpace) account. Identity thieves, spammers, and online predators are always on the lookout for such data. Browse to find.pcworld.com/56007 for an explanation of the risks to both adults and children, and for tips on what you can do to avoid the dangers.

THREAT #3: MALWARE

EVERY DAY, VIRUS, spyware, and adware creators come up with new, ingenious ways to gain access to your PC. These steps will help keep you safe:

Think before you click: Attached files that end with .exe, .com, .bat, and .scr, as well as scriptable document files, including .doc and .xls, can infect your PC with a single click. Many e-mail programs block access to executable-file attachments.

Use a spam filter: Though some malware makes its way onto your computer via drive-by browser hijacking (see "Threat #1" above), e-mail is its other main source. Install a junk-mail filter to reduce your chances of activating malicious scripts embedded in messages.

Update your antivirus software: Allowing your antivirus software to continue running after its subscription has expired is actually worse than using no antivirus software at all: Not only do you lack the crucial virus signature database updates, but you expose your system to malware



FIGURE 2: SET FIREFOX TO USE Google's more up-to-date list of suspected phishing sites to protect you as you browse.

that targets known flaws in antivirus software. My personal favorite free antivirus app is Grisoft's AVG Anti-Virus Free (find.pcworld.com/56008). Go to find.pcworld.com/56009 for our antivirus-software recommendations.

Get a second opinion: Install and use only one antivirus program at a time on your computer because multiple real-time scanners will conflict with one another. If you have doubts about your program's effectiveness, however, use a free online virus scanner, such as Panda Software's ActiveScan (located at find.pcworld.com/56010; see FIGURE 3) or Trend Micro's HouseCall (found at find.pcworld.com/56011).

Download with discretion: Any program you download and run on your system could potentially result in a lethal infection or zombification. Download software only from reputable online sources (such as PCWorld.com's Downloads section) that first scan all of their download files for any malware.

Use a bidirectional firewall: Windows XP and Vista each come with a firewall that blocks incoming attacks; it's enabled by default in Windows XP Service Pack 2 and later. For the best protection, you'll also want to block unwanted outgoing connections made by malware on your PC that attempts to either connect to a remote server or send out spam. Vista's firewall can be set up to do that, but configuring it is not a job for the average Windows user. Instead, get one of several free bidirectional firewall programs, such as Zone Labs' ZoneAlarm Free (find.pcworld.com/56014) or Agni-

tum's Outpost Firewall Free (find.pcworld.com/56015). Most commercial security software suites also include a firewall program.

Use antispyware: Spyware, adware, and some browser cookies slow down your system, cause crashes, and track your online activity. Antispyware utilities work

much like antivirus software, detecting and removing the unwanted software from your PC. We picked Webroot's Spy Sweeper 5 (\$30 per year) as our favorite in our "Spyware Fighters" antispyware roundup (find.pcworld.com/56016).

Upgrade from XP: Service Pack 2 makes Windows XP much safer, but the operating system still has security holes, and it remains a top target for malware authors. Windows Vista's new user access controls ask your permission before launching new programs, which reduces the



FIGURE 3: DON'T TRUST YOUR ANTIVIRUS? Scan your PC online for free with Panda Software's ActiveScan service.

chances that malware can leap from the Web to your PC automatically, though some Vista bugs have already been found. Both the Mac OS and Linux offer even stronger safeguards against program launching, and they are rarely the targets of malware attacks, which makes it very unlikely that Web-hosted attacks—or any other kind—will afflict computers running those operating systems. ■

Send your questions and tips to nettips@spanbauer.com. We pay \$50 for published items. Go to find.pcworld.com/31523 for more Internet Tips. Scott Spanbauer is a contributing editor for PC World.

INTERNET TOOLKIT 2007

- Internet Explorer 7: Microsoft (free), find.pcworld.com/56017
- Firefox 2: Mozilla Foundation (free), find.pcworld.com/51630
- Opera 9.1: Opera Software (free), find.pcworld.com/51632
- Outpost Firewall: Agnitum (free), find.pcworld.com/51634
- ZoneAlarm 6: Zone Labs (free for personal use), find.pcworld.com/51638
- AVG Anti-Virus: Grisoft (free), find.pcworld.com/51146
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WINDOWS TIPS

SCOTT DUNN

Sync Your PC's Tunes With Windows Mobile Devices

YOU DON'T NEED an MP3 player to listen to your favorite tunes and podcasts. If your PDA, smart phone, or other Windows Mobile device has enough memory, you can sync playlists to the mobile edition of Windows Media Player using versions 10 and 11 of its big sibling for XP.

To transfer playlists, you need Microsoft's ActiveSync utility (find.pcworld.com/55987). Connect your device to your system and install the software. ActiveSync may ask which kinds of files to sync (Outlook's calendar and contacts, Favorites, Media). If you don't get that choice (or want to change the settings later), select

down to launch Windows Media Player, or choose *Start•All Programs•Media Player* (if its icon isn't already in your Quick-Launch toolbar) to launch the app manually. If you just connected your mobile device, you may be prompted to choose Automatic or Manual synchronization. If not, or to change this later, look for the button bar at the top of the player window (below the menu bar if it's visible), and click *Sync* to enter Sync mode.

To configure syncing in Media Player 10, click *Set up Sync* above the left column, or click the *Sync* button at the top of the window, select the submenu for your mobile device, and then choose *Set up Sync*. The check box at the top toggles automatic synchronization. To automate your syncs, use the controls in this dialog box to select the playlists you want to keep synchronized with your mobile device (see **FIGURE 1**). Click *OK*.

If you choose the manual option, you can create a sync list via drag-and-drop in Sync mode (version 11) or Library mode (version 10). In version 10, if the far-right column says *Now Playing List* or *Burn List*, click that drop-down to select *Sync List*.

To create a sync list, drag files from playlists, your library, or Windows Explorer, and drop them in the right column. When you're ready to copy files, click *Start Sync* above the left column.

One convenience of the automatic option: Whenever you modify the chosen

playlists, ActiveSync will update your mobile device the next time you connect the unit to your system, even if Media Player is not running at that moment.

FIX DEFRAG PROBLEMS

IN THE OCTOBER issue, I explained how to run XP's disk defragmenting utility (defrag) from a command line for easy automation (find.pcworld.com/55988). Unfortunately, as reader James M. Haberman of Sarasota, Florida, points out, on some systems this utility hangs and never finishes the job. If you then open Task Manager (right-click an empty part of the taskbar and choose *Task Manager*) and click the *Processes* tab, you'll see in the CPU column that defrag.exe is at 100 percent CPU usage.

Microsoft has a fix for the problem, but it's intended only for machines experiencing these specific symptoms. Rather than making the fix available online, Microsoft suggests that you contact its Product Support Services department if you need the update. Look for contact info at find.pcworld.com/55989. ■

Send your Windows-related questions and tips to scott_dunn@pcworld.com. We pay \$50 for published items. Visit find.pcworld.com/31607 for more Windows Tips. Scott Dunn is a contributing editor for PC World.

WINDOWS TOOLBOX

Count Billable Hours With Working Time Tracker

IF YOU USE your computer to work on multiple projects at once, you may find it hard to track how much time you spent on each for reports and invoices. AllNetic's Working Time Tracker lets you create time counters for multiple tasks. If your PC is inactive for a specified time, the utility asks if you want to deduct that period from the task time. If you resume after a break but forget to restart your time tracking, it will prompt you so that you don't lose those billable hours. Download a 30-day trial version at find.pcworld.com/55990; pay a \$30 registration fee for use beyond that.

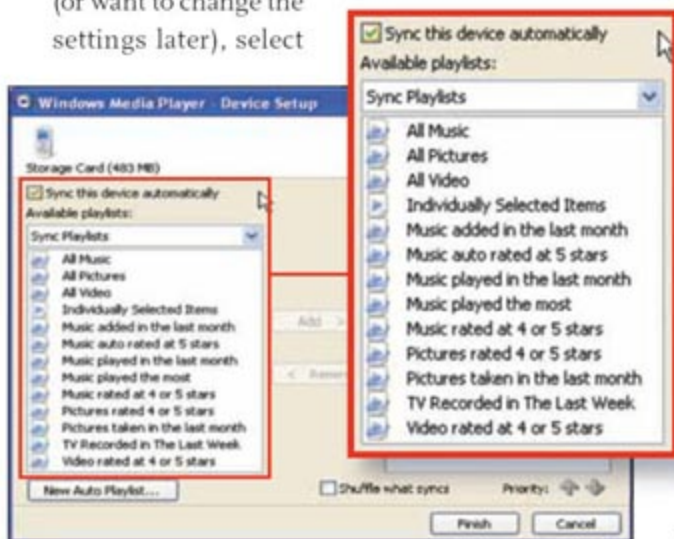
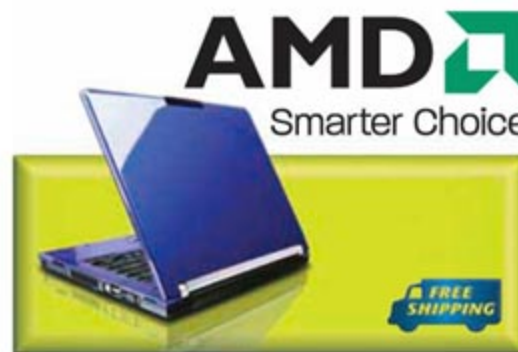


FIGURE 1: SET UP AUTOMATIC music syncs with your Windows Mobile device via the Device Setup dialog box.

Tools•Options and check the appropriate boxes. The first time you check the Media option, you may see a list of requirements, including version 10 or later of Windows Media Player. Click *OK* to close that announcement and *OK* once more to close the Settings dialog box.

Click *Setup must be completed* next to the Media icon at the bottom of the win-



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HARDWARE TIPS

KIRK STEERS

Useful Upgrades That Will Outlast Your Aging PC

OFTEN THE BEST way to get an old system up to speed is to stay outside the box. Spending a few extra dollars now on an external hard drive or other outside-the-case component can save you time and trouble—and maybe a little money—when you finally do buy a new PC. Not only do external devices offer quick and easy upgrades, but they'll also work with your future PC, so you can subtract those items from the new system's invoice.

Consider buying a bare Serial ATA hard drive, even if your current PC lacks SATA support. Put the drive in a USB enclosure like Addonics' \$60 External Drive Enclosure UF (find.pcworld.com/56035), and you'll have an external device that can boost your storage now and easily move on to your next PC as well. Then your SATA drive can move into the new machine, while your old parallel-ATA drive heads to the enclosure. For a quiet external drive, look for a heat-dissipating aluminum housing that doesn't require an additional fan. If you hunt around for an affordable bare drive, you should be able to build an external drive for less than you'd pay for a comparable preconfigured external storage device.

Your system will talk to external USB 2.0 and FireWire drives more slowly than to internal drives connected to the PATA or SATA bus (although these drives are

OLD AND NEW

I/O Bus Transfer Speeds

| BUS | Use | Maximum data-transfer speed |
|---------------------|-----------------------------|-----------------------------|
| External | | |
| FireWire 400 | Devices | 400 mbps |
| USB 2.0 | Devices | 480 mbps |
| FireWire 800 | Devices | 800 mbps |
| Old internal | | |
| PATA/133 | Hard drives, optical drives | 1.06 gbps |
| PCI | Expansion cards | 1.06 gbps |
| New internal | | |
| SATA/1500 | Hard drives, optical drives | 1.5 gbps |
| PCI Express x1 | Expansion cards | 2 gbps |

FIGURE 1: EXTERNAL buses can't match the speed of older PCs' internal buses—and even those have been surpassed in newer PCs.

quick enough for most backup and other data storage tasks; see **FIGURE 1**). External SATA drives are comparable in speed to internal models, however. You can add

an external SATA port to an older PC by installing a host adapter, such as the \$40 eSATA II-150 PCI i/e from SIIG (find.pcworld.com/56033).

Buying a "SATA II" product is not essential because no current hard drive can sustain a data-transfer rate sufficient to saturate the 150-megabits-per-second bus on a SATA device as it is. Having the 300-mbps bus supported by the SATA II spec matters only when you are using a multi-drive RAID setup. If you buy a SATA II controller card, however, it will support both generations of SATA drives.

An external sound card such as the \$80 Audio Advantage SRM from Turtle Beach (find.pcworld.com/56089) can improve sound quality and add such high-end audio features as 5.1 or 7.1 surround-sound audio to a ho-hum, value system with mediocre audio capabilities.

DOUBLE UP ON AUDIO

I'D LIKE TO listen to music through my external speakers and use my Skype headset for VoIP calls at the same time, but Windows doesn't support such simultaneous audio channels. Is there a quick fix?

Jan Holt, Tampa, Florida

CLICK Start•Control Panel•Sounds and Audio Devices (in Categories view click Sounds, Speech, and Audio Devices first). Choose the Audio tab. To play MP3 files through your speakers, which use the sound card, and to simultaneously use a VoIP headset, which uses its own audio processor, launch your MP3 player, select the sound card as the playback device under 'Sound playback' and 'Sound recording', and then launch your VoIP software and change the playback device settings again. For both, make sure 'Use only default devices' is unchecked. This also works to switch playback between your headphones and speakers. ■

Go to find.pcworld.com/31511 for past Hardware Tips columns. Send your tips and questions to kirk_steers@pcworld.com. We pay \$50 for published items. Kirk Steers is a PC World contributing editor and the author of PC Upgrading and Troubleshooting Quick-Steps from McGraw Hill/Osborne Press.

A USB/FIREWIRE HUB WITH PLENTY OF FLEXIBILITY

SOMETIMES THINKING OUTSIDE the box means getting rid of the box altogether. That's what LaCie has done with its \$80 Hub (find.pcworld.com/56040), a spherical combination USB/FireWire hub. It looks like a large white onion that has sprouted four USB 2.0 ports and two



FireWire 400 ports, each sitting at the end of its own inches-long tentacle. The device's rounded shape makes it easy to tilt in any direction. This hub is a great solution for anyone who has struggled to plug a gadget into an overcrowded conventional hub.



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ANSWER LINE

LINCOLN SPECTOR

What's the Best Way to Unstick My Frozen PC?



HOW DO I get my computer going again when it freezes and doesn't respond to the keyboard?

Name withheld upon request

IS IT REALLY frozen, or just very slow? Take a short break, and if everything's working again when you get back, clear the cobwebs by clicking *Start•Turn Off Computer•Restart* (be patient; it could still be slow).

If you're still stuck but your keyboard works, press **<Ctrl>-<Alt>-** to open the Task Manager (in Windows 2000, you'll have to click a *Task Manager* button; in Windows Vista, the button is *Start Task Manager*). Click the *Applications* tab, and check the Status column for any application that is 'Not Responding'. If you find one, select it and click *End Task*. Next, click the *Processes* tab and look for any process running at 100 percent CPU utilization (or 50 percent, if you have a dual-core system). If there are none, select *Shut Down • Restart*—or press **<Alt>-U**, and then **R**—to reboot Windows gracefully.

If your keyboard and mouse are unresponsive, press your **<Caps Lock>** key while looking down at your keyboard. If the indicator light doesn't change, your keyboard and your PC aren't communicating. Move your mouse around while looking at the screen. If the pointer doesn't budge—even after a few seconds' wait—your mouse is out, too. Either your PC needs a hardware reboot, or you have a keyboard and mouse problem.

If they're wired, unplug the mouse and keyboard, then plug them in again. If they're wireless, press their reset buttons.

or change their batteries—or do both.

Your last resort is to try a hardware reboot. You may lose whatever work wasn't saved when the problem started, but if you have no choice, press and hold your system's power button for five seconds.

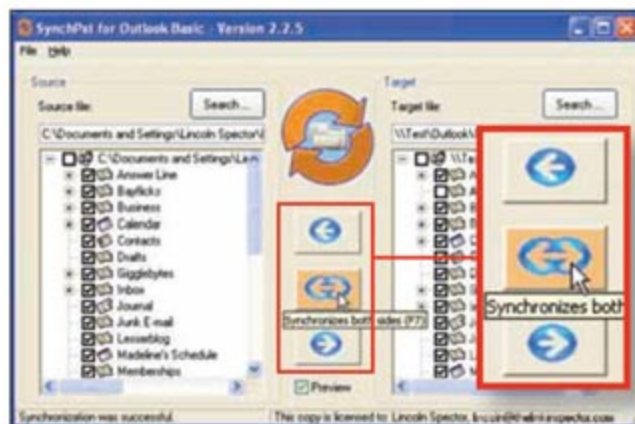


FIGURE 1: SYNC YOUR OUTLOOK inbox and other data on two or more PCs with the SynchPST synchronization service.

If that doesn't turn your machine off, unplug the power cord. On a notebook, you may also have to remove the battery.

Your next boot-up may take longer than usual; Windows runs additional diagnostics whenever it doesn't shut down properly. However, if Windows doesn't reboot at all, see "What to Do When XP or 2000

Won't Boot" (find.pcworld.com/56021). To prepare for your next Windows failure, read "Emergency Boot CDs for PCs Without Floppy Drives" (find.pcworld.com/56022). And for more tips, see "Why Is My PC Acting Oddly?" (part of "Common PC Problems Solved: The Ultimate FAQ") at find.pcworld.com/56023.

SYNCHRONIZE OUTLOOK



HOW DO I synchronize my Outlook data on two computers?

James Singer,

Crescent City, California

YAHOO'S FREE SERVICES can sync Outlook's address book, calendar, notepad, and to-do list, but not its e-mail. They require a free Yahoo account; sign up at www.yahoo.com. Log on to this account, click *Mail*, and then choose the *Calendar* tab. Click *Sync* to download and install Intellisync for Yahoo, which syncs your Outlook data with Yahoo's services. To share your e-mail, you'll have to use your ISP's Web-based e-mail service, and then add the account to your Outlook inbox. To sync a work account, try SynchPST (free demo available at find.pcworld.com/56024; see **FIGURE 1**). The \$40 Basic version meets all of my needs, but the \$70 Professional version adds mail-sync automation and password protection.

Send questions to answer@pcworld.com. Answer Line pays \$50 for published items. See find.pcworld.com/31577 for additional Answer Line columns. You'll find Contributing Editor Lincoln Spector's humorous and other writings at www.thelinkinspector.com.

LOCK CELL REFERENCES WHEN YOU COPY AN EXCEL FORMULA

WHEN YOU USE Microsoft Excel's Copy or Paste option (or when you <Ctrl>-drag) to move a formula to a new location, the program maintains relative cell references. For instance, if you copy cell C5, containing =A3*B4, to cell F8, that cell will have the formula =D6*E7. Most of the time, this is what you want. But not always. To copy the exact formula to a

different cell, select the cell containing the formula, press **<F2>** to edit the formula, enter **<Shift>-<Home>** to select it, and then press **<Ctrl>-C** to copy it. Press **<Esc>** to exit cell editing. Now you can paste the formula, unchanged, into any cell. You can also record a macro for the copy/paste process by selecting **Tools•Macro•Record New Macro**.

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DIGITAL PHOTO TIPS

DAVE JOHNSON

Organize Your Digital Photo Collection for Free

IF YOU'VE HAD your digital camera for more than a few months, chances are your hard drive is overdue for a spring cleaning, despite what the calendar says. It's much easier to find the photos you need when they're organized. Programs such as Adobe Photoshop Elements and Corel Photo Album are designed for just this sort of task, but you can take control of your digital photo collection without spending much (or any) money, with these low- and no-cost options.

Rename files in batches: Your digital camera assigns seemingly meaningless names like 'DSCN0001' and 'PC000023' to pictures. Renaming each by hand can take hours. Instead, select a set of photos—say, the 20 or 30 you took at Thanksgiving. Right-click the selection and choose *Rename*. Type a descriptive label such as **Thanksgiving-2006** and press **<Enter>**. The photos take that name, with a sequential number tacked on to the end, making it easier to find relevant photos by scanning the names or using Search. Rename pictures regularly; if you

procrastinate, you'll have thousands of images to rename, and it'll never get done.

Try nuclear-powered renaming: You don't have to depend on Windows to organize your files with smarter file names. The

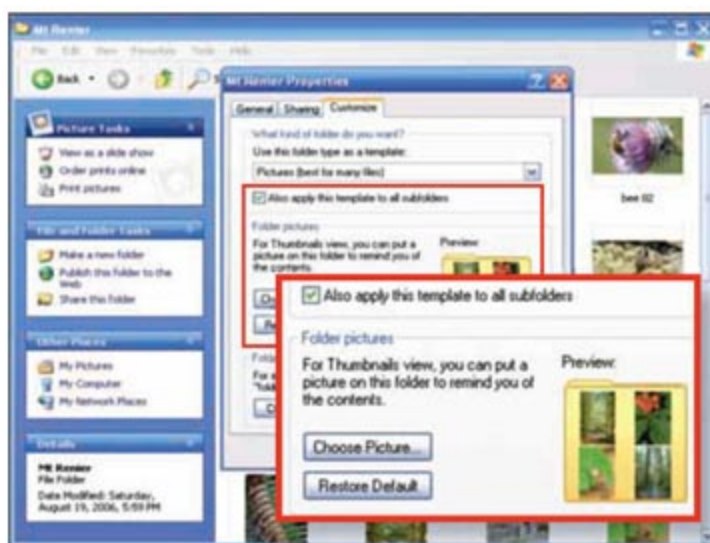


FIGURE 1: FORCE PHOTO FOLDERS to show a thumbnail view of your images, by using Windows XP's folder customization dialog box.

\$10 utility Name Dropper (find.pcworld.com/56086) enables you to create a slew of name fragments and assign them to a dozen buttons. To rename photos, you simply combine the fragments into descriptive compound names. Siren (find.pcworld.com/56087), a free alternative,

gives you access to the metadata associated with your photos—including camera model, ISO, exposure data, lens information, and date taken. You can combine this data into file names to see all you need to know about the photos at a glance.

Rotate easily: You can rotate your sideways images in batches, as well. If many photos on your computer are turned sideways (probably because you snapped the shots with your camera turned on its side), select them and then right-click to gain the option of rotating them clockwise or counterclockwise. Make your choice, and Windows will do the rest.

View their thumbnails: We humans are visual animals. Even if you give every photo you take a descriptive name, you'll

still find it easier to locate a specific image if you can see what it looks like. Windows XP tries to show you thumbnails when it finds folders full of photos, but sometimes the OS gets confused. If XP represents the contents of a folder of photos as nondescript icons, choose *View•Thumbnails* (or *View•Filmstrip* if you want a large preview of the selected photo). If you can't find those options on the menu at all, select *View•Customize This Folder*, and in the folder template menu choose *Pictures (best for many files)* (see FIGURE 1). Click

Also apply this template to all subfolders, and finish the operation by clicking OK.

Get some free help: When it comes to organizing your photos, Windows XP isn't especially helpful. Enlist the aid of some freeware to find your pictures more easily. Both Adobe's Photoshop Album Starter Edition (which is a stripped-down version of the photo organizer that comes with Photoshop Elements; find.pcworld.com/55991) and Google's Picasa (find.pcworld.com/55992) allow you to group pictures with descriptive labels and then place the photos into albums. ■

Dave Johnson writes the regular Digital Focus column for PCWorld.com. His columns are collected at find.pcworld.com/56039.

TAGGING YOUR PHOTOS IS EASIER IN WINDOWS VISTA

IF YOU RECENTLY upgraded to Windows Vista—or if you bought a new computer with Vista preinstalled—use Windows' Photo Gallery application to organize and find your photos. At last, the ability to attach descriptive tags to images is baked right into Windows. Using tags to find photos is easier than relying on file

names, because you can annotate the pictures with several terms, such as the people, places, and things in the images. Afterward, browse the tags list in Photo Gallery and click to filter your photo collection instantly by that tag. It's a fast way to dig up a specific photo—no matter where or when it was taken.

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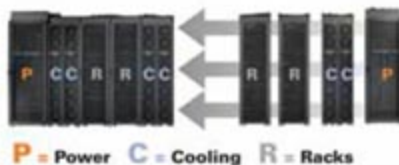
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Toolbar Review

There has never been a better time to use a toolbar with your Internet browser. Toolbars can provide users with numerous features such as Pop-up Blocking, Driving Directions, Adult Content Filtering, Security Features, Spyware Detection, Games and more. Toolbars are a convenient and powerful addition to your browser, making it easier than ever to navigate the Internet.

The comparison chart below will help you decide which toolbar is right for you.

| Toolbar Comparison Chart | | | | |
|-------------------------------|------------------|--------|--------|-----|
| Toolbar Features: | Advanced Toolbar | Google | YAHOO! | msn |
| Search Engines | 100+ | 1 | 1 | 1 |
| Search Tabs | ✓ | | | |
| Blocks Pop-Up Ads | ✓ | ✓ | ✓ | ✓ |
| Calendar Application | ✓ | | | |
| RSS News Reader w/Ticker | ✓ | | | |
| Auto Form Filler | ✓ | ✓ | | ✓ |
| Adult Content Blocker | ✓ | | | |
| Spyware Remover | ✓ | | ✓ | |
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| File Shredder | ✓ | | | |
| Add Buttons for Software | ✓ | | | |
| Add Buttons for Webpages | ✓ | ✓ | ✓ | |
| Screensaver Launcher | ✓ | | | |
| Games Links | 70 | 0 | 10 | 10 |
| E-mail Provider Links | 52 | 0 | 1 | 1 |
| News Provider Links | 88 | 0 | 1 | 0 |

With its vast array of features and incredible ease of use, the Advanced Toolbar stands out from the competition. It's a powerful web tool that allows you to choose from over 100 search engines, 80 plus news sources, 50 plus email providers and can be completely customized to meet your needs. The Advanced Toolbar does not record any user data, has a very straight forward privacy policy and is totally spyware and adware free. You can get a free copy of the Advanced Toolbar at <http://www.advancedtoolbar.com> and take advantage of everything this incredible toolbar has to offer.



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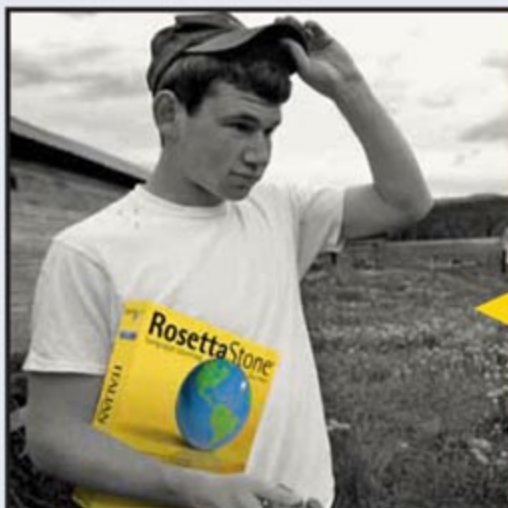


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* Bureau of Labor Statistics, U.S. Department of Labor, "Occupational Outlook Handbook, 2006-07 Edition."



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Home-Theater Setup: It's Goofy!

COMING SOON: A much-needed short film called *How to Install Your Home Theater*. It's from Disney, an outfit that clearly knows a lot about home entertainment, and in a casting coup, they've found the most appropriate star you could imagine: Goofy. I am not making this up.

Talk about a perfect mating of star and subject! When your TV was analog, all you had to do to set it up was connect a couple of cables and plug it in. But in today's digital world? Well, in one sketch for the movie, Disney's dim bulb grapples with a fistful of a mere 15 cables. That's a simplification far greater than the four-fingered hands found throughout Disney World, since that number of wires is just enough to hook up a 7.1 speaker system...and nothing else.

I have no idea what else the cartoon will include, but given what it's like to set up stuff in the real world, I can guess:

HD? Gawrsh! Goofy successfully hooks up some HDMI and component cables, but he doesn't get a picture. In a wacky scene with technician Donald Duck, he finds out about the mismatch between his 1080i HDMI 1.1 receiver and his 1080p HDMI game console.

Red to red: After puzzling over cryptic labels such as Y, Pb, and Pr, Goofy manages to connect a five-wire component cable to his receiver. But nothing looks or sounds right. Eventually, Mickey Mouse figures out that his pal has swapped the red audio cable and the red video cable. Boy, does the Goof see red!

Hide and seek: Goofy tries to link seven speakers and a subwoofer and then hide all of the cables. The process takes so

long that you'll see this sequence only on the DVD version's deleted-scenes reel.

Remote chances: Goofy tries to get the universal remote control to work. Buttons fly. Imaginable hilarity ensues.

Obese-city: Thanks to misconfigured screen width, funhouse-mirror-stretched fat people populate Goofy's home movies and football games. Panicking, he uses both hands and both feet to try to squeeze and stretch the screen into proper shape.

Not HD: When he tunes to a local high-definition channel, Goofy gets a fuzzy,

Getting ready to go
HDTV? You'll laugh...
until you cry.



squarish image with black bars on both sides. After fiddling with dozens of settings and seeing no improvement, he calls the station. The Big Bad Wolf answers and informs him that many shows broadcast on the "HD" channel are really in plain old standard definition.

Not HD, part II: Goofy attempts to play a Blu-ray disc in an HD DVD drive—or was that an HD DVD disc in a Blu-ray drive? Eventually he gives up and plugs in his trusty old Betamax VCR.

Too short: Goofy decides to add a DVD-Audio player to his home-entertainment mix—but the six-headed audio cable isn't quite long enough. The entire equipment cabinet comes crashing down, and the giant flat-panel television shatters over his head. He chucks all the equipment out the window, and with an air of great relief gazes at it strewn across his lawn.

The easy way: Sick of big screens, Goofy settles down on the sofa, inserts a pair of white buds into his floppy ears, and watches video on the screen of an iPod. It's a speech from Disney's largest stockholder, Steve Jobs, on the wonders of technology. Goofy gives the audience a happy wink.

Then the iPod's picture suddenly flickers into nothingness as the battery dies—forever. Cue the laugh-filled teaser for Disney's next cartoon: *Goofy's Genius Bar*. ■

Contributing Editor Stephen Manes is cohost of PC World's Digital Duo (www.pcworld.com/digitalduo) on public television. Browse to find.pcworld.com/31595 to see additional Full Disclosure columns.



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