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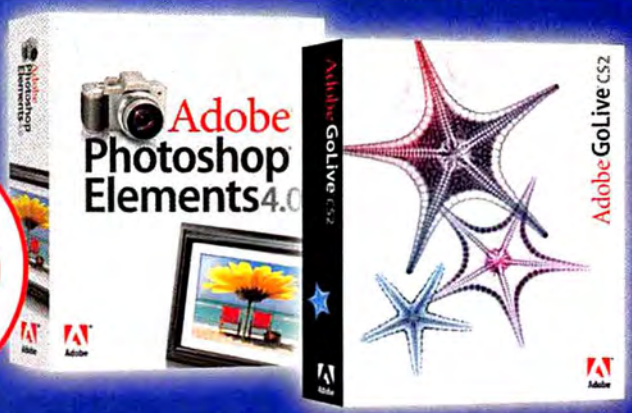

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FEATURES

ONLINE VIDEO

104 Video Everywhere

Formerly an Internet novelty, videos—amateur shorts and commercial full-length movies alike—are proliferating online. Here's your complete guide to downloading and watching TV shows, films, and clips wherever you are, along with smart tips for bringing your own motion-picture masterpieces into the Web spotlight.

DIGITAL CAMERAS

123 Sophisticated Shooters

The latest point-and-shoot cameras have acquired some fancy features—such as luxuriously large LCDs, antishake protection, Wi-Fi connectivity, or wide-screen shooting modes—that were once found only in advanced models. We test ten newcomers to see how well they perform their new tricks and how smoothly they handle the bread-and-butter tasks of taking great, easy shots.

COVER STORY

86 59 Ways to Make Software Do More

Starting to notice signs of age in the no-longer-new versions of applications you use every day? Don't trade them in or scrap them just yet. Our tips tell you how to get better mileage out of popular productivity and security apps—from Microsoft, Adobe, Symantec, and more—all without springing for an upgrade.

Cover design by Greg Silva.

ON THE COVER

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COMING UP IN OCTOBER

Ultimate Upgrades: Whether you want to extend your PC's life or build a hot rod, we show you how.

The Best ISPs: Find out which providers offer the best broadband services, prices, and reliability.

Ultrafast Wi-Fi: We test the latest products and discuss the importance of 802.11n upgradability.

Social Networking: Learn to use these sites for fun and work—and ensure your kids use them safely.

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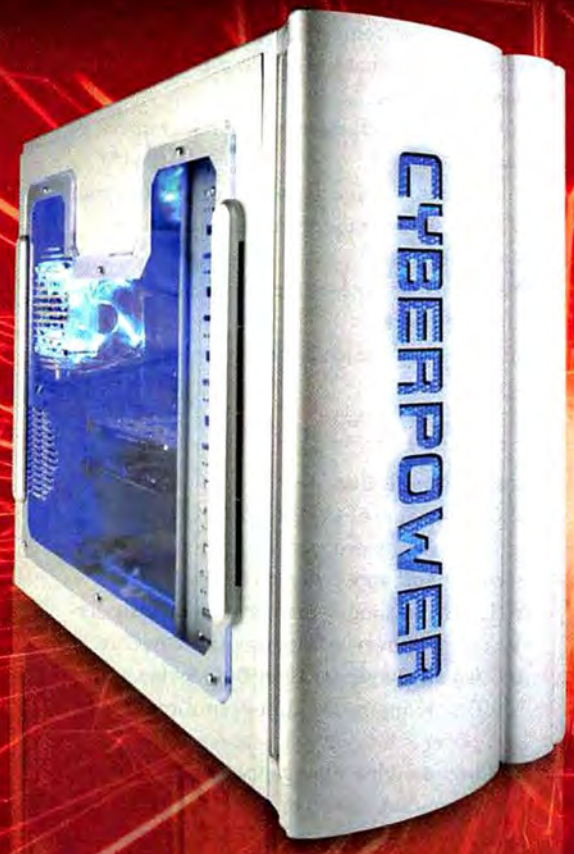

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TECHLOG

HARRY McCRACKEN

Now Online: The Best PCWorld.com Yet

We've rethought our site to reflect the way you buy and use technology today.

BY JUST ABOUT every possible measure, PCWorld.com is on a roll—from the surging number of tech-savvy visitors who rely on it each month to the impressive collection of editorial awards it's racked up lately. What better time than now, we asked ourselves, to reinvent it?

That's exactly what we've done with the all-new version that's now live at www.pcworld.com. This is not just a top-to-bottom upgrade to an already popular online destination. It's the single most ambitious makeover that we've given the tool known as PC World—on the Web *or* in print—in our 23-year history.

JUST SOME OF the folks behind our new site: From left, Editor Bud McLeod, Creative Director Robert Kanes, General Manager Ulla McGee, Deputy Art Director Pierre Granier, and Senior Web Producer David Lake.

One glimpse will tell you that the site has taken a great leap forward. Its bold new look and feel are the work of MetaDesign, a renowned design shop whose clients have included everyone from tech companies such as Adobe and Apple to leaders in their fields like *The Economist* and Nike.

"Our intent was to create a strong, highly recognizable environment," explains Robert Kanes, PCW's creative director. "All of the changes we made provide cues to enhanced functionality, new features, and improved navigation."

Which is another way of saying that the beauty of the new site is way more than skin deep. And it all revolves around the mission we've always had: To help smart people choose, buy, and use tech products for work, home, and everywhere in-between. The technology users who served as guinea pigs during the early stages of our redesign process urged us not to tamper with that mandate.

That's not to say that they didn't have their own suggestions for making PCWorld.com even more useful. Actually, they had scads of them. Such as:

"Help me find stuff a lot more quickly." We know that the vast majority of our visitors come to the site with a specific goal in mind, whether they're researching a cell phone purchase or troubleshooting a balky copy of Windows. So a key objective in designing the site was making it as easy as possible to track down relevant information and tools.

For instance, the new left-hand navigation system lets you explore the site by topic (such as Laptops, Cameras, and Security), while links along the top lead to *types* of content, like reviews and blogs. Our search engine now lets you filter down results to subcategories with a single click. And the slick new Review Finder does exactly what its name says.

"Make the reviews more useful." Lab-testing-based product evaluations remain at the heart of PCWorld.com, and their new format provides both quicker takeaway and deeper research options. Most reviews include basic specs up top, a Pro and Con summary, our PC World Rating, and a much wider collection of product photos.

"Allow me to personalize my PC World." If you're a registered site member—and there's never been a better time to sign up—you'll be able to customize our home page with modules that will display the freshest content on your favorite tech topics.

Ever since there's been a PCW, people have been clipping and saving articles from it—and now every story on the site has an "Add to My Pages" option. You can tuck up to ten items into a personal library that's always one click away.

"Let me share advice and ask questions." More than any iteration of PCW before it, this one will be what Bud McLeod, the site's editor, calls "an ongoing conversation." Registered members will be able to post reviews, comment on any article, and participate in a wealth of discussions in new message forums. In short, the site won't simply consist of work performed by a few dozen editorial staffers mostly in a building in San Francisco—it will be a collaboration between the millions of far-flung, well-informed tech users who make up the PC World community. ▶

PHOTOGRAPH: ROBERT CARDIN

That's a lot of change, and it's just a sampling of the improvements, large and small, that you'll discover throughout the revamped PCWorld.com. For more information about the new site, browse to find.pcworld.com/54298.

And don't get *too* comfortable: We're just getting started. "This is a far superior place, but we want to hear ideas for making it even better," Bud says.

Got opinions on what we're up to, or thoughts about what we should tackle next? E-mail me at harry_mccracken@pcworld.com—or better yet, stop by our forums and join the conversation. ■

Harry McCracken, editor in chief of PC World, *blogs at blogs.pcworld.com/techlog.*

GUIDED TOUR

INSIDE OUR POWERFUL NEW WEB DESTINATION

THROUGHOUT PCWORLD.COM, the left-hand navigation system leads directly to content on specific topics, from desktop PCs to business products. Meanwhile, links across the top of each page take you to types of content—reviews, news, services, and more.

PCWORLD.COM'S NEW FORMAT for product reviews features bigger, better photos (hover your mouse pointer over the thumbnails to browse them). Reviews also include quick specs and pros and cons—plus, you can post your own reviews and see what other members of the PCW community have to say.

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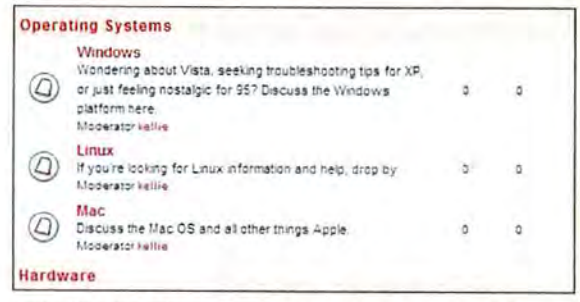

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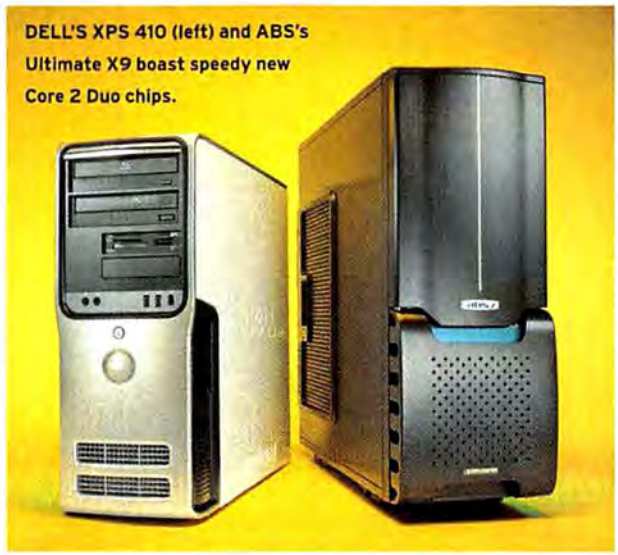
Blazing Core 2 Duo

LOOK OUT, AMD. INTEL'S CORE 2 DUO CPUs HAVE RECLAIMED THE DESKTOP PERFORMANCE LEAD. THE 'CONROE' CHIP IS HERE, AND IT'S AS FAST AS ADVERTISED. BY ERIC DAHL

FOR THE PAST few years, if you wanted a top-performing PC, you would get one with an AMD chip. No more. Intel's high-performance Core 2 Duo desktop chip line has arrived, and in our tests they handily recaptured the power desktop crown from AMD.

Formerly called "Conroe," Intel's Core 2 Duo processor line has the fastest CPUs ever to run our motherboard/CPU test bed. A reference system outscored one equipped with AMD's high-end Athlon 64 FX-62 chip by 17 percent on our WorldBench 5 test suite. We also tested shipping PCs based on Core 2 Duo chips, including a water-cooled, overclocked ABS system that posted the highest WorldBench 5 score ever, a mark of 181.

All of our Core 2 Duo configurations performed impressively, and the higher-end models in particular should allow power users to complete demanding multimedia work on their PCs faster and to perform multiple computing tasks at once more efficiently. Gaming, too, will receive a boost from PCs with the new chips.



DELL'S XPS 410 (left) and ABS's Ultimate X9 boast speedy new Core 2 Duo chips.

The Core 2 Duo line ranges from the 1.86-GHz E6300 chip ($183) with 2MB of cache to the 2.93-GHz Core 2 Extreme X6800 chip ($999) with 4MB of cache; all have a 1066-MHz system bus. Although Core 2 Duo chips are designed to use the same Socket 775 interface as current Pentium 4 and Pentium D chips, they require new chip sets, so you will have to get a new motherboard to reap the huge performance gains. By the time you read this, Core 2 Duo motherboards with Intel chip sets as well as chip sets from nVidia and ATI should be available.

Core 2 Duo PCs should be on sale now, with some configurations checking in at surprisingly reasonable prices.

POWER TO SPARE

FOR OUR TESTS of motherboards and CPUs, we swapped first a 2.93-GHz Core 2 Extreme X6800 chip and then a 2.67-GHz Core 2 Duo E6700 chip into a test bed using a motherboard equipped with Intel's new 975X Express chip set (boards with Intel's new P965 Express chip set handle Core 2 Duos, too). We compared the results with those

PHOTOGRAPHS: MARC SIMON

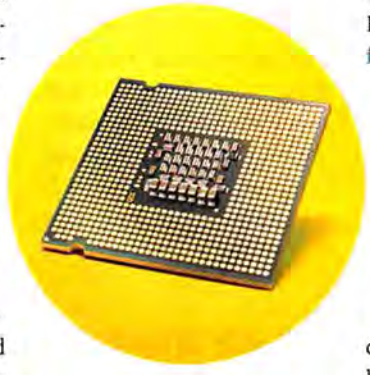
from an identical setup featuring AMD's new DDR2-capable AM2 platform and its top-of-the-line FX-62 chip.

Both Intel setups bested the AMD-based unit on every test in WorldBench 5 as well as on each of our gaming tests (see chart, page 24). The improvement on WorldBench 5's multitasking tests, which involve running a browsing session in Mozilla while encoding a file with Windows Media Encoder, was particularly dramatic. We also recorded notable gains in Photoshop and similar graphics apps.

The reference PC using the Core 2 Extreme X6800 chip scored 160 on WorldBench 5, 17 percent higher than the 137 earned by the system using AMD's 2.8-GHz Athlon 64 FX-62. And the PC with the less expensive E6700 chip got 153 on WorldBench 5—still 12 percent better than the FX-62 PC's mark, and 8 percent higher than that of the AMD-based Xi Mtower 64 AGL-SLI, previously the fastest system we had tested.

In addition to our lab-built systems, we tested shipping PCs. Dell's $2350 XPS 410—a relatively mainstream system based on the midrange 2.4-GHz E6600 CPU—shipped with 2GB of RAM, an nVidia GeForce 7900GS graphics board, and two 320GB SATA drives configured in a Raid 0 array. That machine (whose price includes a 20-inch widescreen LCD) earned a score of 138 on WorldBench 5, matching the score posted by AMD's high-end FX-62 chip on our motherboard test bed.

But even those results pale in comparison to the numbers posted by the overclocked ABS unit. The $4199 water-cooled ABS Ultimate X9—which came loaded with 2GB of RAM, two Radeon X1900 Crossfire graphics boards, a pair of superfast Western Digital 150GB SATA drives configured in a striped RAID array, and a Core 2 Extreme X6800 chip overclocked from 2.93 GHz to 3.5 GHz—turned in a WorldBench 5 score of 181. This system is not a likely choice for typical buyers, but



its score is by far the highest we've seen from any system. And it may indicate just how much headroom Intel's Core microarchitecture possesses.

ARCHITECTURAL IMPROVEMENTS

WE DOUBT THAT ABS could have wrung such strong overclocking performance out of its Core 2 Extreme system if Intel hadn't focused on reducing power consumption in the Core microarchitecture.

Intel's previous generation of Pentium Extreme Edition chips drew up to 135 watts of power. The Core 2 Extreme X6800 draws only 75 watts, according to Intel's thermal design specification; and the more mainstream Core 2 Duo parts sink that number to 65 watts. As a result, apparently, ABS found the space to dramatically overclock its system. Moreover, the design should enable system vendors to build high-performance PCs in smaller, quieter cases.

From the start, Intel's Core microarchitecture focused on multiple CPU cores, high performance, and low power consumption. Using lessons it learned in building its successful Pentium M mobile CPUs, Intel first improved its mobile line and released the Core Duo CPUs. (For details on those chips see "Notebooks Rev Up With Dual-Core Tech," find.pcworld.com/54502.) Then it set out to greatly boost the performance of its desktop chips, while reducing their power consumption. For example, when your PC runs just a few simple apps or sits idle, the Core 2 Duo can clock down or shut off parts of its logic to conserve power.

Much of Core 2 Duo's performance advantage over its Pentium predecessors is due to an additional execution unit on each CPU core. (Core 2 Duo chips have four such units per core versus the Pentium D's three per core.) The extra unit per core, plus some clever coding that lets the chip fuse common groups of instructions into single instructions, allows Core 2 Duos to outperform Pentium D chips running at higher speeds.

A staggering 4MB of L2 cache keeps the higher-end Core 2 Duo chips supplied with the data they need to keep running at full speed, and Intel has worked hard to tune their prefetching algorithms, which preemptively cache the appropriate data before the CPU needs it.

While most dual-core chips dedicate a fixed amount of cache to each core, the ▶

IN BRIEF

Product Pipeline

MACHO CELL PHONE: Sprint Nextel and Motorola released the i580, a walkie-talkie cell phone with a rubberized exterior that meets military spec 810F for rain, dust, shock, vibration resistance, and more. Features include a 1.3-megapixel digital camera, and the i580 supports GPS-based services such as TeleNav, MapQuest FindMe, and Trimble Outdoors. This clamshell-style phone, which costs about $280 after rebates and discounts are factored in, comes with a removable 64MB SD Card, Bluetooth support, and a color display. find.pcworld.com/54556

FIREFOX BETA 2.0: Mozilla Corporation has introduced a beta version 2.0 of its free Firefox Web browser, adding functionality and security. A spelling checker integrated in the browser alerts you to typos when you input text into Web forms and blogs. Another feature lets you recover a tab window after you accidentally shut it. The beta candidate includes a filter that blocks phishing sites. find.pcworld.com/54554

Core 2 Duo provides shared access to its entire 4MB of cache. And the chip can distribute that cache between its cores as needed. If one core is churning away at an especially complex task, it can use most of the L2 cache while the other core runs a simpler task that demands less cache memory.

AMD'S RESPONSE

CORE 2 DUO processors give Intel a clear performance advantage over AMD for the first time in years. But don't count the latter company out.

AMD recently introduced aggressive price cuts, lowering the cost of its Athlon 64 FX-62 from $1031 to $827, while mainstream chips like the 2.4-GHz Athlon 64 X2 4600+ dropped from $558 to $240. And later this year, AMD will launch 4x4, an enthusiast platform that enables systems to use a pair of high-end dual-core chips. Although applications and games that take full advantage of multiple CPU cores are still rare, the performance—and price—of 4x4 systems will probably be quite high.

Further in the future, AMD will open up its HyperTransport bus, allowing other firms to design specialized coprocessors and accelerators and drop them onto the superfast bus AMD uses to shuttle data between the CPU, RAM, and other key system components. Such coprocessors could be built into a CPU package for multisocket PCs or designed as add-in boards for a new slot type dubbed HTX. This initiative, called "Torrenza," will debut on servers, where multisocket systems are already common and where specialized chips could accelerate Java code or database operations. Desktop and gaming applications are farther away.

> Top Core 2 Duos boast a staggering 4MB of shared cache.

However, though 4x4 and Torrenza are interesting, neither is likely to have a large mainstream impact. AMD's true answer to Core 2 Duo will arrive in 2007, when it is expected to launch its next-generation CPU architecture, dubbed "K8L." K8L and single-chip quad-core CPUs will be compatible with 4x4 motherboards, according to AMD.

Meanwhile, no matter what their budget, demanding PC users now have a terrific option in the Core 2 Duo line.

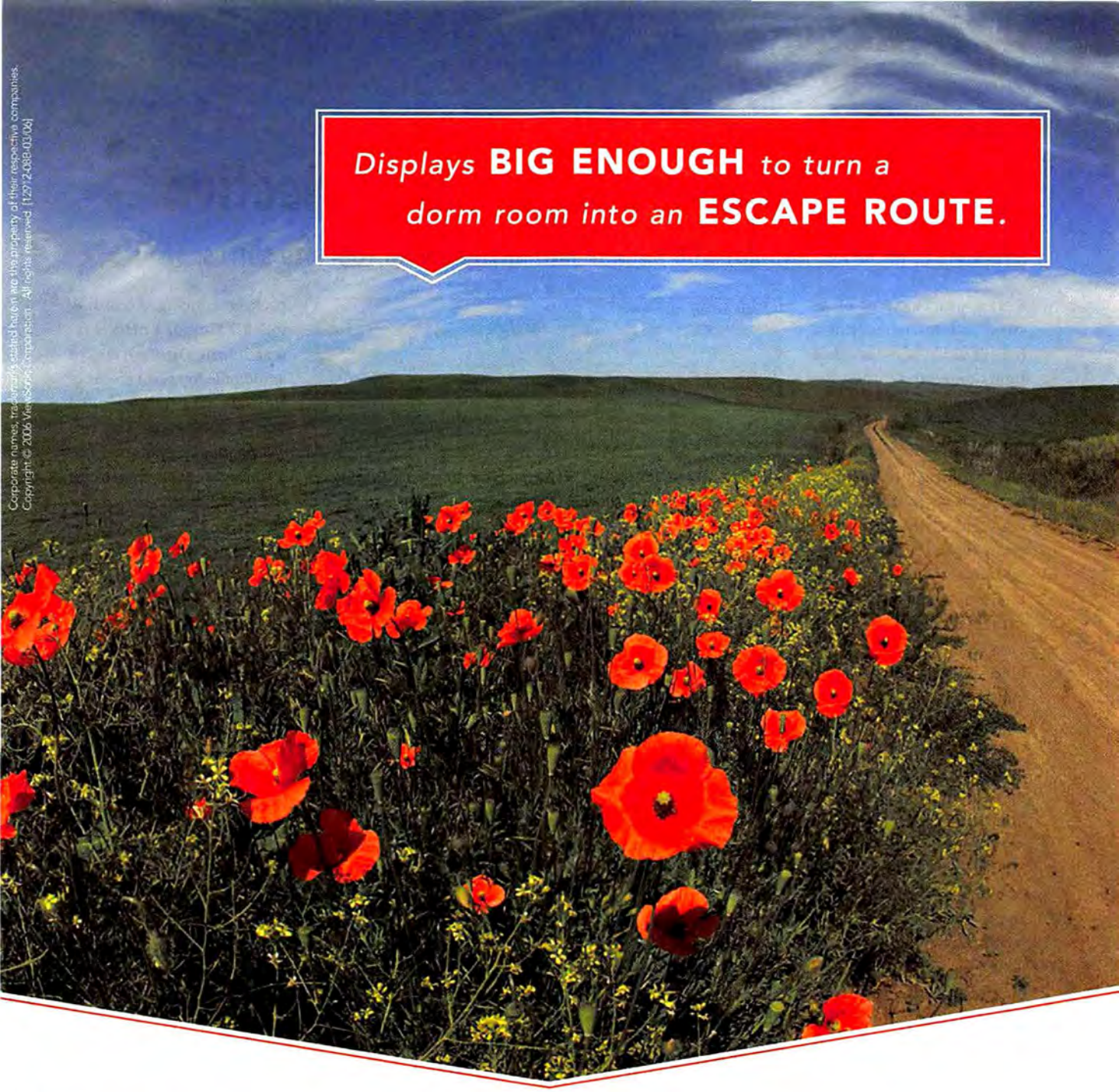
TEST REPORT

CORE 2 DUO PROCESSORS PROVE CLEAR WINNERS FOR INTEL

SYSTEMS WITH INTEL'S Core 2 Duo chips outpaced systems with AMD's fastest Athlon 64 FX-62 CPU on nearly all tests in our WorldBench 5 benchmark, and in all of our gaming tests as well. For additional test results, go to find.pcworld.com/54542.

TESTED SYSTEM	CPU	WorldBench 5 (Faster)	PRODUCTIVITY TESTS (TIME IN SECONDS)				GAMING TESTS (FRAMES PER SECOND)[1]		
			Multitasking test	Adobe Premiere 6.5	Adobe Photoshop 7.0.1	Ahead Nero Express	Doom 3	Far Cry	Return to Castle Wolfenstein
REFERENCE PC									
Intel Core 2 Extreme PC	2.93-GHz Core 2 Extreme X6800	160	279	273	222	181	157	205	n/a
Intel Core 2 Duo PC	2.67-GHz Core 2 Duo E6700	153	296	283	235	185	151	193	n/a
AMD Socket AM2 FX-62 PC	2.8-GHz Athlon 64 FX-62	137	362	308	274	187	123	145	n/a
Intel Pentium D 940 PC	3.2-GHz Pentium D 940	113	500	434	351	199	103	111	n/a
OUT-OF-BOX CORE 2 DUO PC									
ABS Ultimate X9[2] find.pcworld.com/54544	2.93-GHz Core 2 Extreme X6800	181	**252**	**239**	**189**	**152**	**208**	**269**	**313**
Dell XPS 410[3] find.pcworld.com/54582	2.4-GHz Core 2 Duo E6600	138	382	306	237	208	146	181	199
OUT-OF-BOX COMPARISON PC									
Xi Mtower 64 AGL-SLI	2.6-GHz Athlon 64 FX-60	142	341	283	298	160	n/a	n/a	156
Micro Express Micro-Flex 3464[4]	3.4-GHz Pentium 4 650	111	672	326	421	212	n/a	n/a	140

TEST Center **CHART NOTES:** Reference PCs are systems built by the PC World Test Center using motherboards that support given processors and a common set of components; these PCs were configured with 2GB of DDR2-667 memory, a pair of SATA hard drives in a striped array, and an nVidia GeForce 7800GT-based graphics card. Italicized systems are non-Core 2 Duo machines whose test results are cited for purposes of comparison. All systems ran Windows XP Professional and had 2GB of RAM unless otherwise noted. Higher is better for WorldBench 5 and gaming tests. Elsewhere, lower is better. Bold denotes best scores. Tests conducted by PC World Test Center. For details on how we test, go to www.worldbench.com. All rights reserved. **FOOTNOTES:** [1]Tests run at 1024 by 768, 32-bit color without antialiasing. [2]This system was liquid-cooled and overclocked to 3.5-GHz. [3]This system ran Windows XP Media Center Edition. [4]This system had 1GB of RAM.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SECURITY

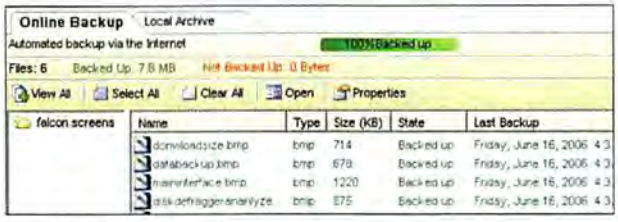
Security Software Expands Protection

SYMANTEC, MCAFEE, AND AOL ADD BACKUP AND ANTIPHISHING TOOLS TO SUITES.

A NEW GENERATION of security software embodying a holistic vision of PC health is right around the corner. Besides offering updated security features, new software from AOL, McAfee, Microsoft, and Symantec promises backup services and PC tuning utilities, with a different, yearly service type of pricing.

Microsoft kicked off the new trend at the end of May with its launch of Windows Live OneCare, which combines antivirus, antispyware, and firewall tools with Windows' defragging and cleanup utilities in one easy-to-use interface. OneCare also backs up data to CDs, DVDs, and external hard drives—though not to network drives or online storage. See our review of OneCare (find.pcworld.com/54470) for full details.

Not to be outdone, established security companies McAfee and Symantec are assembling competing offerings; even AOL is throwing its hat into the ring. McAfee's new all-in-one package, Total Protection, came out in public beta in June, with a final version scheduled for late summer. Symantec's entry, Norton 360, should appear by March 2007; and on July 13, AOL unveiled a members-only beta of its Total Care suite. AOL will make the final version of Total Care available to nonsubscribers, though the company is not commenting on pricing; no final release date has yet been announced.



MCAFEE'S BETA VERSION of Total Protection offers a new backup feature in addition to traditional security, with 1GB of online storage.

In addition to firewall, antispyware, and antivirus protection (AOL uses McAfee's engine for antivirus scanning), all three new products will add varying types of antiphishing features. OneCare lacks these defenses, probably because they're built into the new Internet Explorer 7. Like IE 7, AOL's limited feature blocks known phishing Web sites; McAfee's and Symantec's more sophisticated offerings can also analyze other Web sites and rate the sites' safety.

AOL, McAfee, and Symantec are also trying to outdo OneCare by supplementing their backup services with online storage. McAfee's Total Protection beta currently comes with 1GB of online storage. Symantec is still firming up pricing and features for its online backup service, and AOL says that it will be offering online backups, but not in time for the July 13 beta.

Priced at $50 per year for three PCs, OneCare is less expensive than traditional security suites, which tend to run $50 and up for a single PC (plus a yearly antivirus subscription fee). The cost covers all software updates, too; most traditional products do not. Clearly, consumers have found Microsoft's package enticing: According to NPD Group, a market research firm, OneCare ranked among the top eight pieces of software sold in the United States during its first two weeks on retail shelves.

Chris Swenson, director of software industry analysis for NPD Group, expects similar pricing for Total Protection and Norton 360, though neither McAfee nor Symantec has specified prices. He also anticipates improved customer service as the companies compete. Microsoft offers free phone-based tech support, compared to McAfee's $3-per-minute and Symantec's $30-per-incident phone support. Symantec is building real-time chat into its products, and AOL says its pricing will vary depending on the level of support it provides.

NORTON 360 WILL include proactive antiphishing protection that analyzes sites for fraudulent behavior.

Microsoft's giant leap into the security software market caused quite a shake-up—and according to Swenson, that's a positive thing: "Consumers will benefit in the end."

—*Narasu Rebbapragada*

FEATURES COMPARISON

NEXT-GENERATION SECURITY

TOMORROW'S SOFTWARE WON'T stop with antivirus. Backups and cleanup utilities are becoming standard features.

SOFTWARE	Antivirus, antispyware, and firewall	Antispam	Antiphishing	PC utilities	Backup
AOL Total Care	Yes	No	Yes[1]	Yes	Yes
McAfee Total Protection	Yes	Yes	Yes	Yes	Yes
Microsoft Live OneCare	Yes	No	No[2]	Yes	Yes[3]
Symantec Norton 360	Yes	Yes	Yes	Yes	Yes

FOOTNOTES: [1]Limited; only blocks access to known phishing sites. [2]Antiphishing is included in Internet Explorer 7. [3]Limited; no network or online backup.

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HIGH-DEF DVD

An Elegant Player for High-Def Movies

SAMSUNG'S BLU-RAY DVD PLAYER PROVES TO BE WELL-CRAFTED BUT PRICEY.

HD DVD MOVIE players are no longer your only high-def DVD living-room option: Samsung has shipped its $1000 BD-P1000, the first living-room player that uses rival format Blu-ray, and Sony Pictures and Lions Gate have released high-def Blu-ray movies to complement it.

Which type is better? We found little difference in image quality, but you'll get a more elegant player with the Samsung Blu-ray device. However, it costs twice as much as one of Toshiba's HD DVD players.

HIGH-DEF VIEWS

WE PUT THE Samsung player through its paces and compared it with two HD DVD models from Toshiba, the $499 HD-A1 and the $799 HD-XA1. (For further details on the HD DVD players and on a Blu-ray burner for PCs, read "DVD Goes High-Def," find.pcworld.com/54466.)

We can't directly compare movies played in the two HD formats because, as yet, none have come out in both Blu-ray and HD DVD. But both formats use the same video codecs (MPEG-2, MPEG-4 AVC, and VC1), and the disc formats should have no effect on how they play movies. In informal tests, each approach showed itself capable of producing stunning images, with far greater detail and depth than standard-definition versions of the same movies. The players differed very little in SD playback quality, but the Toshiba models delivered a slightly crisper image.

A word of warning: Though high-def yields far better image quality than standard-def, HD movies aren't perfect. In the Blu-ray films I've watched thus far, some scenes exhibited more noise than I expected from HD; on the other hand, some titles, like *Ultraviolet*, were sharp and eye-catching throughout. My experience with HD DVD was similarly mixed, with more artifacts cropping up in certain movie scenes than I had anticipated.

Such visual hiccups probably won't go away. A slew of variables influence how any HD movie looks, including the condition of the original film, the codec used to encode the video, the quality of the encoding process, the bit rate of the encoding, and the player's decoder chip set. Also relevant are the intentions of the director and cinematographer. Some films are purposely shot soft, others dark and grainy, and others ultra-sharp and vibrant. If you're concerned about these issues, read user reviews of specific HD titles before buying.

STYLISH FINISHES

EVEN AFTER YOU remove the Blu-ray versus HD DVD factor from the equation, these players differ significantly in usability and performance.

The tapered Samsung unit has a comfortable remote control; an easy-to-read LCD display; and a ten-in-two media card reader for viewing photos or listening to MP3s. In contrast, both Toshiba models are a bit bulky; the LCD display recalls a dot-matrix printer; and there's no media reader. The Samsung is quieter, too, though if you have *Pirates of the Caribbean* blasting over your five-channel surround-sound system, you won't hear any of these players whirring.

The Samsung was generally faster than either Toshiba model at navigating discs (the Toshibas were tested without the maker's June firmware update), and its remote responded quickly. It even resumes playback where you left off, whether you press stop or power it down—a nice touch. But sometimes the Sony Blu-ray discs were a bit sluggish at accessing chapters, prompting a pesky Windows-like hourglass to appear.

The Toshiba models may be a bit more future-proof than the Samsung. Both Toshibas have two USB ports, plus an ethernet jack for access to advanced interactive features when titles offer it and for downloading firmware updates. Samsung's player lacks both USB and ethernet.

SAMSUNG'S BD-P1000 ($1000) is the first living-room player to handle Blu-ray high-definition movies.

WAIT TO BUY

THE HIGH-DEF DVD format war is far from over, and a slew of new hardware is due in the fall and winter.

Living-room recorders, however, won't arrive until next year. And both LG Electronics and Samsung have discussed producing multiformat players; Ricoh recently demonstrated optical technology that would make such players possible (see *Plugged In*, page 32, for more). If you can wait to see HD movies at home, hold off purchasing until you have more choices.

—Melissa J. Perenson

PHOTOGRAPH: MARC SIMON

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OPERATING SYSTEMS

Windows Genuine Annoyance?

PRIVACY EXPERTS AND PC USERS ALIKE BLAST MICROSOFT'S ANTIPIRACY TOOL

A MICROSOFT PROGRAM designed to thwart software piracy has instead opened a Pandora's box of privacy concerns. PC users cried foul when Microsoft's Windows Genuine Advantage (WGA) software frequently phoned home to Microsoft servers and apparently flagged some legitimate copies of the Windows operating system as pirated. The incident spawned two lawsuits and has raised concerns about what Microsoft is adding to its software updates.

WGA consists of two parts. WGA Validation is required for downloading some pieces of software from Microsoft Web sites, but Microsoft says that it is not required for receiving critical security fixes through Automatic Updates. The software sends a PC's Windows license key to Microsoft, which checks the key against ID numbers in a database of putatively pirated copies of the OS.

If the software discovers a match, users receive a recurring alert from WGA Notifications warning them that they are running an illegitimate copy of Windows. But the program doesn't prevent the user from continuing to run Windows. As yet, WGA Notifications (rolled into Automatic Updates in April) is not a mandatory download.

In June, Lauren Weinstein, who is a cofounder of the Internet information and discussion resource group People for Internet Responsibility, found out that WGA Notifications sent data to Microsoft every time someone rebooted an affected PC.

A June 29 Microsoft statement confirmed that some PCs working with a version of WGA Notifications installed during the pilot phase checked a server-side configuration setting at each log-in to determine whether WGA Notifications should run or not. Microsoft has since removed that version of WGA Notifications from its update servers; and the company has released instructions for uninstalling it (find.pcworld.com/54534).

> "It's more a screw-up on Microsoft's part—one they've admitted."

Still, privacy experts debated whether these check-ins—and the initial lack of documentation about them—made the WGA program spyware.

Plaintiffs in two class-action lawsuits, one filed in California and the other in Washington, claim that WGA violates those states' antispyware legislation; but Weinstein doesn't buy the plaintiffs' argument.

"It's not stealing information or damaging [computers]," Weinstein reasons. "It's more a screw-up on Microsoft's part—one they've admitted."

In its statement, Microsoft reiterated that newer versions of WGA (distributed through Automatic Updates) do not connect to Microsoft after every reboot. Instead, they connect and validate keys at least once every 90 days, or whenever Microsoft rolls out an update to WGA. Microsoft has also denied rumors that WGA will eventually include a kill switch to stop unvalidated copies of the operating system from running.

Harvard spyware researcher Ben Edelman questions the appropriateness of Microsoft's decision to release a noncritical, non-security-related update to Windows users via the operating system's Automatic Updates mechanism.

"They are supposed to be security updates, and supposed to be robust, commercially viable code," Edelman says about the WGA service. "This was neither."

WGA MISFIRES

OTHER REPORTS circulating through the Internet cited instances in which WGA had sent repeated piracy pop-ups to people who owned legitimate copies of Windows. Robert Grosshandler, the Evanston, Illinois–based founder of iGive.com, said his computer ran a legitimate copy of Windows prior to a service call. But upon the PC's return, he began getting WGA Notifications alerts.

"Who knows what had been done to the drive," Grosshandler mused. "[It] had been out of my hands for a while."

Grosshandler said that he made a single half-hour call to Microsoft to revalidate his license key. "Throughout, I was given the presumption of innocence," he says.

For users who are receiving invalid license pop-ups, Microsoft has provided a fix (find.pcworld.com/54536) that may help them reset the license keys if their copy of Windows is legitimate. Other users may need to call the toll-free number displayed on the WGA Notifications dialog box.

Yet another option: Independent programmers have created a WGA Notifications removal tool, which will exorcise the piracy-alert demons afflicting your PC. You can download the tool from find.pcworld.com/54520.

—Andrew Brandt

ILLUSTRATION: JOE ZEFF

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PLUGGED IN

ERIC DAHL

Blu-ray, HD DVD in One Drive?

PLUS: WI-FI-READY MP3 PLAYERS; AN OS IN YOUR WEB BROWSER.

HIGH-DEFINITION DISC HYBRID

The Buzz: The war between Blu-ray and HD DVD over high-definition disc formats rages on, with no sign yet that either camp will throw in the towel. But thanks to some new optics developed by Ricoh, you might not have to choose between the two. The Ricoh design enables a single drive to read Blu-ray discs, HD DVDs, CDs, and DVDs—by using a special diffraction plate that lets the drive focus its laser at the different depth each disc uses. That's a welcome bit of technology in a format battle that seems to be growing more unsettled by the day. The first players on both sides have shipped, but Sony recently delayed its stand-alone Blu-ray player until late October. And if it can't get the player ready until then, how can the Blu-ray–equipped PlayStation 3 possibly... Ah, never mind.

Bottom Line: Look, I'm as psyched about high-def discs as the next guy, but the rising uncertainty around Blu-ray and HD DVD has finally managed to turn me off. So do me a favor and wake me in a couple of years, when multiformat drives should be available and possibly even affordable.

MP3 GETS READY TO HANDLE WI-FI

The Buzz: The celestial jukebox is finally headed to your pocket. Maybe. MusicGremlin recently introduced the first Wi-Fi–equipped MP3 player. The 8GB, $299 model, which is available at www.musicgremlin.com, uses a built-in 802.11b connection to let you wirelessly sync tracks from your PC, beam songs to other MusicGremlin players, and access online subscription services. And it's possible that MusicGremlin will prove to be only the beginning. Microsoft is rumored to have in the works a wireless media player called Zune that may support free conversion of some or all of the audio tracks you purchased at the Apple iTunes Music Store.

Bottom Line: If Microsoft pulls off a nice Wi-Fi–enabled design, we'll really have something. The MusicGremlin is a cool idea, but its current player is too chunky to take off.

FUTURE TECH

50TB ON A SINGLE DVD

IF BLU-RAY'S 50-PLUS gigabytes of storage isn't enough for you, here's a storage technology to watch. Several researchers at Harvard Medical School have produced a prototype of a protein coating they believe will eventually store up to 50 terabytes on a DVD-size disc. By modifying a light-sensitive protein found in microbes that live in salt marshes, the team created a medium resilient enough to store data for years. NEC, which has been codeveloping the technology, hopes to have a USB thumb drive a year from now, and a DVD-size disc a year after that. But experience tells me tech like this usually belongs in the "five years away" bucket.

HERE\NOW

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2. **FABRIK:** Very slick, hypervisual online media storage is now in public beta. myfabrik.com
3. **FIREFOX 2.0 BETAS:** Our favorite browser is gearing up for its next major release. find.pcworld.com/54540
4. **DIGG 3.0:** Popular, socially ranked news site has gained lots of neat enhancements. digg.com
5. **TRIP PLANNER:** Cool Yahoo application lets people compile, save, and share their vacation plans. travel.yahoo.com/trip

OS IN YOUR BROWSER

The Buzz: What's the next logical step after Web-based applications? How about an OS in your browser? YouOS (youos.com) is just that: a personalized desktop environment, complete with file manager and applications. Included are a browser, an IM client, a text editor, e-mail, and hooks to popular sites. The apps will hardly spur you to ditch Word, but YouOS is an intriguing concept. Why stop at configurable home pages, when you can build an entire desktop environment?

Bottom Line: An interesting alpha, albeit one fraught with metaphysical questions. If my YouOS crashes, what does that say about me? ■

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.*

ILLUSTRATION: GORDON STUDER

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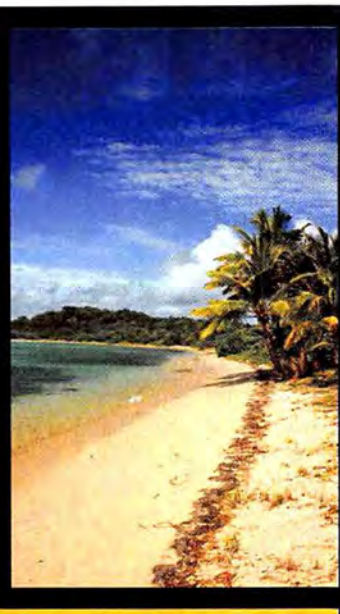

SPEAKERS
Leo Laporte
David Pogue
Harry McCracken
Deke McClelland
Eddie Tapp

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	Bottom line: The chunky G6 won best in show by performing well in our image-quality tests and pr		
2	Olympus C-7070 Wide Zoom Best Buy $450 find.pcworld.com/48091	86 Very Good	• Image quality: Superior • Battery life: Superior • Overall design: Good
	Bottom line: The C-7070 has been around a while, but it has winning image quality and a bargain		
3	Canon PowerShot Pro1 [illegible] find.pcworld.com/43164	81 Very Good	• Image quality: Very Good • Battery life: Good • Overall design: Good
	Bottom line: The Pro1's compact case makes it a pleasant camera to tote. Its battery life could be		
4	Canon PowerShot S2IS $499 find.pcworld.com/48088	79 Good	• Image quality: Very Good • Battery life: Fair • Overall design: Good
	Bottom line: This is Canon's only model with an optical image stabilizer—rare on a still camera—b		

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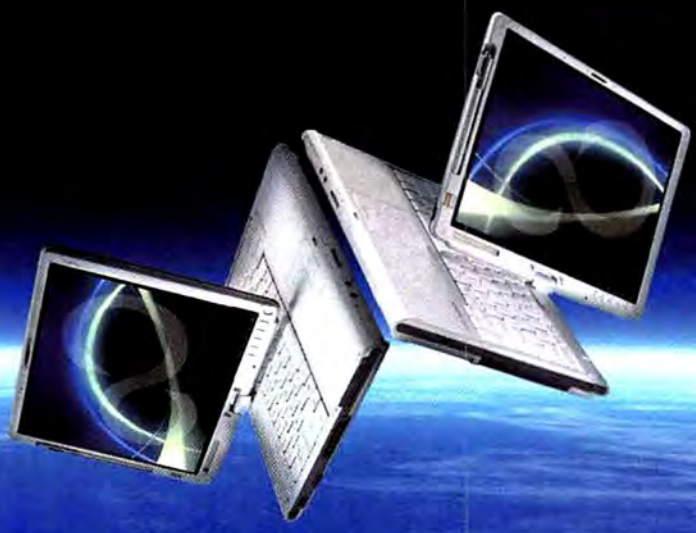

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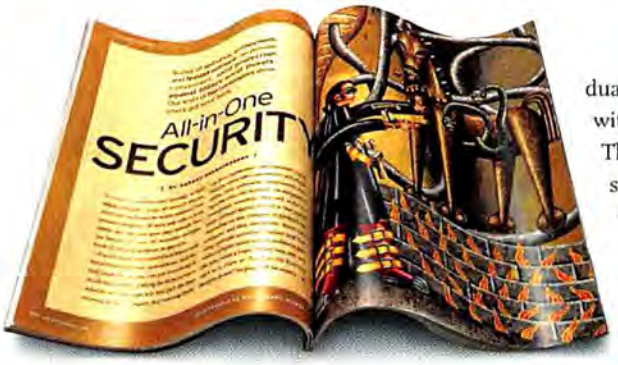

PHOTOGRAPH: MARC SIMON

SECURITY SUITES: READERS' SAY

YOUR JULY ARTICLE "All-in-One Security" left out a major ratings factor, renewability. Until my latest subscription ran out, I had been running Norton's Internet Security Suite 2002. The only part of the suite I was still using was the antivirus segment. When I contacted Symantec about renewing this year, I was told that it no longer supported that program and that I would have to purchase a brand new one, despite my protests.

Philip Strom, Santa Fe, New Mexico

I WAS DISAPPOINTED you did not mention V-Com's SystemSuite 6 Professional. I have been using SystemSuite for several years, and I have found it very adequate in protecting my computers. It provides a full range of utilities such as antivirus, firewall, antispyware, hard-drive maintenance, diagnostics, and repairs.

Carl Osborne, Milford, Connecticut

SURPRISINGLY, YOU DID not mention how much of a slowdown some of these programs cause. I recently purchased a dual-core Dell laptop that came with McAfee Security Center. This may be the most bloated software I have ever encountered. Fully installed, it loads no less than ten start-up programs and adds a good 20 to 30 seconds to my Windows load time, with a noticeable slowing while the suite's programs run.

Howard Marans, Fairfax, Virginia

BEST PRODUCTS OF 2006?

THE JULY COVER story, "The 100 Best Products of the Year," does not mention Gmail. I have used Gmail for almost a year now and—even though it may still be considered a beta product—I have been very pleased with its easy-to-use interface and features. It has a huge amount of space for saving all your messages, and it is very well organized. (No annoying ads, either.)

Barb Valdez, Tularosa, New Mexico

I'VE GROWN EXTREMELY tired of everyone heaping praise on Apple and its iPods. The player sounds terrible. A player that can't offer anything but simple audio and video playback? And has no radio, no type of recording, and no easy way to serve as a portable hard drive? I would gladly pit my Cowon iAudio X5 [www.cowonamerica.com] against anything from Apple—the sound quality alone should change your mind.

Michael S. "Boomer" Mullin
Silver Spring, Maryland

I WAS DISAPPOINTED that you chose Yahoo as Web Company of the Year. I think Shi Tao, Li Zhi, and Jiang Lijun would be even more disappointed. They are Chinese cyberdissidents who are in jail because Yahoo opened their private e-mail accounts to the Chinese police.

Yahoo's products deserve to be considered objectively, but the only award that the company should receive is Moral Disgrace of the Decade.

Bruce Burger, Seattle

...AND THE 'WORST' LIST

REGARDING YOUR ONLINE story "The 25 Worst Tech Products of All Time" [find.pcworld.com/54284], I must comment on Free-PC.com (number 23).

Even though its business model was flawed, it had a great impact on my life. I had my Compaq Presario Free-PC for only a month when the company went under; they let me keep the machine and helped remove the marketing software.

That PC got me through four years of college, providing a box to start a Web design company that paid my expenses. The PC died once I graduated, and I had to pay $1000 to get the hard disk recovered, but I am now a systems integration analyst at Lockheed Martin, and I still run that Web design firm on weekends.

Ian Lotinsky, Gaithersburg, Maryland

YOUR LIST IS very funny and sadly true. Remember Windows 2.01 and 3.0? Or OS/2 and the gazillions of floppy disks to install? Aren't we using Windows XP only because most competition has been killed? Today, as products go from bad to worse, we need more healthy competition for the sake of technology advancements and better quality. Printing a "10 Worst" list every year could help.

Ralph Joedicke, San Jose, California ▶

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TRUST BUT VERIFY GPS

PC WORLD HAS recently reviewed Internet mapping services and GPS devices ["Sony's First GPS Comes Up Short," July; "Never Ask for Directions Again," May]. They are not always trustworthy.

Two people perished in early April in our part of Montana after using a map downloaded from the Internet. They were sent onto a road that local people know is closed a good portion of the year. They became stranded in an area with no cell-phone service and died of hypothermia while trying to walk in the snow for help.

These mapping and navigation services do not take into consideration extreme weather or road conditions. You should ask about your route when you stop for gas or a meal at a restaurant. People will certainly tell you if you are making a mistake following these maps.

Barbara Welborn, Trout Creek, Montana

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

CORRECTIONS

IN THE AUGUST *Internet Tips*, we should have said that the 'about: about' Uniform Resource Identifier works only in Mozilla, not Firefox.

In July's "All-in-One Security," we should have said that Windows Live OneCare does not have integrated antispam protection.

In the July *Hassle-Free PC*, the item on using the blind-copy feature of e-mail should have said that, in Outlook Express, the first step is to create a new message; then select *View* and check *All Headers*.

In July's "New Applications Make Backup Chores Easier" (*Reviews and Rankings*), we should have noted that to restore files with NTI's Shadow 3 you must use Windows Explorer.

The July edition of *Gadget Freak* should have said that the Philips SRU9600 universal remote control is available at Sharper Image stores.

PC World regrets the errors.

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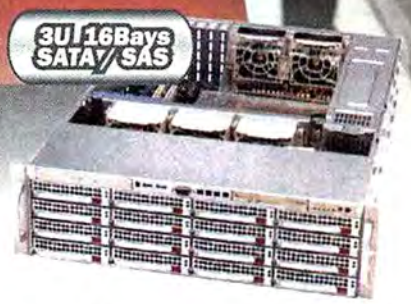

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IF YOU'VE BOUGHT and booted a new PC lately, you've probably noticed that it comes with a lot of extras you didn't ask for: in-your-face pop-ups and desktop icons, mostly hawking trials of Internet services or software, or upgrades to limited versions of applications preloaded on your hard drive.

Unsightly, annoying, and often unwanted, this plethora of marketingware can be a time-consuming pain to remove from your system. But if your new computer happens to be a Dell, help is available in the form of the Dell De-Crapifier—which, simply put, uninstalls much of the, er, crap.

Jason York, a Detroit-area electrical engineer, wrote the De-Crapifier and made it available for free via his blog (find.pcworld.com/54018) after helping a friend set up a new Dell computer.

"We were getting really frustrated," York recalls. "All of this stuff was popping up at us. And it was a new PC—it should have run faster." So he decided to put together a script to deal with the offending software.

DESKTOP JUNGLE

BUT WHAT CONSTITUTES crap on a PC? And what can you do about it? I headed to the PC World Test Center to find out.

I was shocked when I looked at a Dell Dimension E310 we'd recently received for review and found some 20-odd icons on the desktop. While the clutter is plain ugly, the icons aren't the real annoyance. That comes when you boot the PC, and some of the apps associated with those icons come to life, so to speak, with windows urging you to sign up for Internet service, register some of the preinstalled trialware, or buy software and services.

A Dell system we tested a few months ago included the MyWay Search Assistant; Dell's privacy policy confirms that the software gathers personal information (but only if you allow it to). I saw no sign of it on the newer Dell E310. But I did find a collection of casual game trials, put together by a company called WildTangent—along with a utility that gathers usage statistics and periodically "phones home" with them. Some privacy hawks consider MyWay and the WildTangent utility to be spyware; at the very least, they are two more things that draw on your system's resources.

Dell is certainly not the only vendor to ship PCs that market third-party goods and services. An HP Media Center had a comparable arsenal of pitches (including a WildTangent-based games bundle); a Lenovo desktop had a smattering of stuff, and a Xi Computer PC was almost—though not quite—clean.

Dell failed to respond to repeated phone and e-mail queries about this subject, but Chris Larsen, manager of HP's software marketing group for consumer notebooks, concedes that some PC buyers do complain about "junkware or shovelware," and says HP is constantly working to make its marketing partners aware of practices that irritate customers. But he also pointed out that if no one ever bought the products and services marketed on new PCs, vendors would not pay HP to preinstall the offers. And those not-insignificant revenue streams help keep computer prices low, Larsen adds.

On the Dell system I looked at, a McAfee VirusScan screen was the first thing I saw upon bootup—an ad that demanded I activate a free trial and concealed most of the desktop. I'm all for PC protection, but this ad was too much.

Again, we're not simply talking about appearances here. Take a look at the system tray of a Windows PC when you finish booting it up and clicking through pop-ups. Even though you may not be running a single application, all those icons denote processes that are sucking up RAM and CPU cycles. James Motch, our test center's benchmark development manager, says that on one occasion, a ▶

ILLUSTRATION: MICHAEL KLEIN

BEFORE AND AFTER the De-Crapifier: Applying the utility to a Dimension E310 cleaned up some but not all of the standard slew of desktop icons.

brand-new PC that had been set up for several days had run out of memory when the lab got around to testing it because all those processes had created a memory leak.

Another problem: Even if you remove all the preinstalled software and marketing icons, you'll probably get them back if you have to restore your system. Most vendors don't give you a plain Windows disc these days—at least not for free. If you do a system restore with the supplied discs, you'll get exactly what you started out with—apps, pop-ups, desktop icons, and all. If you want a disc with just the Windows version that came with your system, you must pay Dell or HP $10 extra when you buy. HP's Larsen says that this is to cover shipping and handling; he also points out that HP's support team found that users who needed to restore Windows often had lost the discs they'd received when the PC was new—so HP now uses a hard-drive image on a partition. And, he adds, if users restored Windows with no other software—such as security apps—they'd be exposed to viruses and spyware the moment they connected to the Internet.

I used version 1.3 of the De-Crapifier, and it worked pretty well, except that it didn't eradicate everything I thought it should. But the application can't check for software it isn't aware of. Also, the application doesn't address icons that merely link to Web sites—it's designed for uninstalling executables and Registry keys that launch processes.

So you may still have some cleanup to do. Start by looking through the applications in Add/Remove Programs and get rid of those you don't want.

Then go to the Startup folder—click *Start•All Programs* (or *Programs* if you are using the Windows Classic Start menu)—to look for apps you don't want running whenever you boot Windows. Delete their icons, and then go to the Windows Registry (in the Start menu, click *Run*, type in **regedit**, and then click *OK*) and look at the entries for the following two keys: (1) HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Run, and (2) HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Run. This is where applications put their commands for processes that check for updates and perform other tasks you ▶

PRIVACY WATCH

How to Make Sure Your Security Software Is Working

SPURRED BY PHENOMENAL demand, the security software industry is mushrooming. That's a good thing: With the sophistication of hackers and snooping apps at an all-time high, we need all the security we can get. And no single anti-malware application is likely to provide complete protection. A layered approach running a variety of programs, each helping to cover the others' shortcomings, works best for dealing with new threats.

For instance, you might need a "raw PC analysis" tool that reviews the apps that start automatically with Windows and stops any spies from loading on their own. The best known of such utilities is HijackThis (find.pcworld.com/53706), which identifies many startup programs and processes but doesn't say whether any pose a real threat. Security firm XBlock Systems' X-RayPC (free, www.x-raypc.com) tries to help with that: Click its Online Analysis button, and it identifies the apps known to be 'good' programs, narrowing the search for a parasite.

Antivirus software is a must, of course, but it's not foolproof. If you get hit with a virus before the company that makes your antivirus software has released a virus definition, a virus scan may tell you your machine is clean. If you find a suspicious file on your system and your antivirus software hasn't raised an alarm, you can get a second opinion at two free sites: Virustotal.com, where you can upload a suspect file and run a comprehensive scan using 23 separate antivirus products; or Jotti (virusscan.jotti.org), which scans files slightly more quickly because it uses only 15 different antivirus engines.

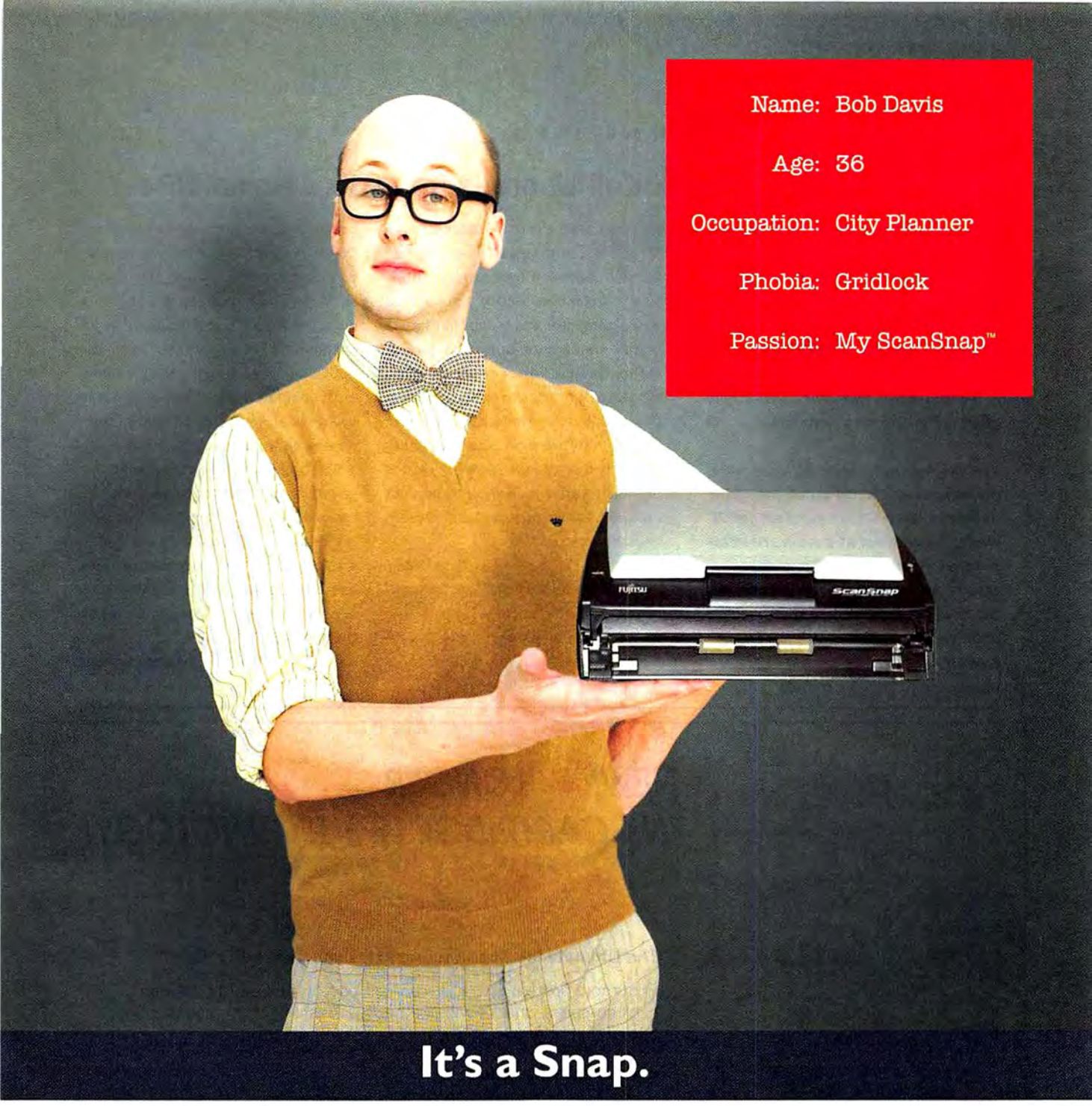
Both antivirus and antispyware applications try to catch new threats by detecting certain types of telltale characteristics and behaviors. But how can you gauge the effectiveness of your program's behavior-based protection?

Spycar (free from www.spycar.org) is a suite of utilities that probe how your antispyware or antivirus app reacts to the behaviors spyware engages in: Changing the Windows Hosts file (which could redirect your browser to malicious sites), adding favorites to the Internet Explorer menu, or changing parts of the Windows Registry. Any worthwhile security scanner should watch for these warning signs and prevent these actions.

Running Spycar won't harm your system, but if you can run the program without your antispyware or antivirus program going apoplectic, it's time to buy new security software.

–Andrew Brandt

ILLUSTRATION: MARK MATCHO



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might prefer to do manually. After you make a backup of the Registry (see find.pcworld.com/54030 for instructions), delete entries for unnecessary processes.

To rid your new system of other annoyances, look at the *Step by Step* column in this issue on breaking in a new PC (page 132). When you've got your system the way you like it, use a disk-imaging tool to create your own restoration disc.

Cleaning a new system may feel like laundering a new shirt, but it's worth the effort to have the system you want. ■

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

Intuit Upgrade Requires Original Discs

I USE INTUIT'S QuickBooks accounting software. The last upgrade I bought from Intuit was to QuickBooks 2001. I purchased a new computer and found that I can't install my copy of QuickBooks on it without a new key code. I contacted Intuit, but it refuses to provide me with one, insisting that I must buy a new version of its software because it no longer supports QuickBooks 2001. I think it is outrageous that you can buy a product but can't use it five years later. Is there anything I can do?

Tony Medley
Marina Del Ray, California

***On Your Side* responds:** Medley's problem didn't stem simply from Intuit's policy of "sunsetting" support for older QuickBooks versions. After we contacted the company, Intuit was able to find Mr. Medley's upgrade key code, but this did not resolve the problem because he did not have his original copy of QuickBooks on his system. The QuickBooks 2001 upgrade wouldn't install unless it could see an earlier version of the software already installed.

That problem is not uncommon—often you must install the original version of an application first and then upgrade it. So make sure you hang onto your original discs as well as the upgrade ones. Nevertheless, as a gesture of good faith, Intuit sent Medley a copy of QuickBooks 2006.

–Amber Bouman

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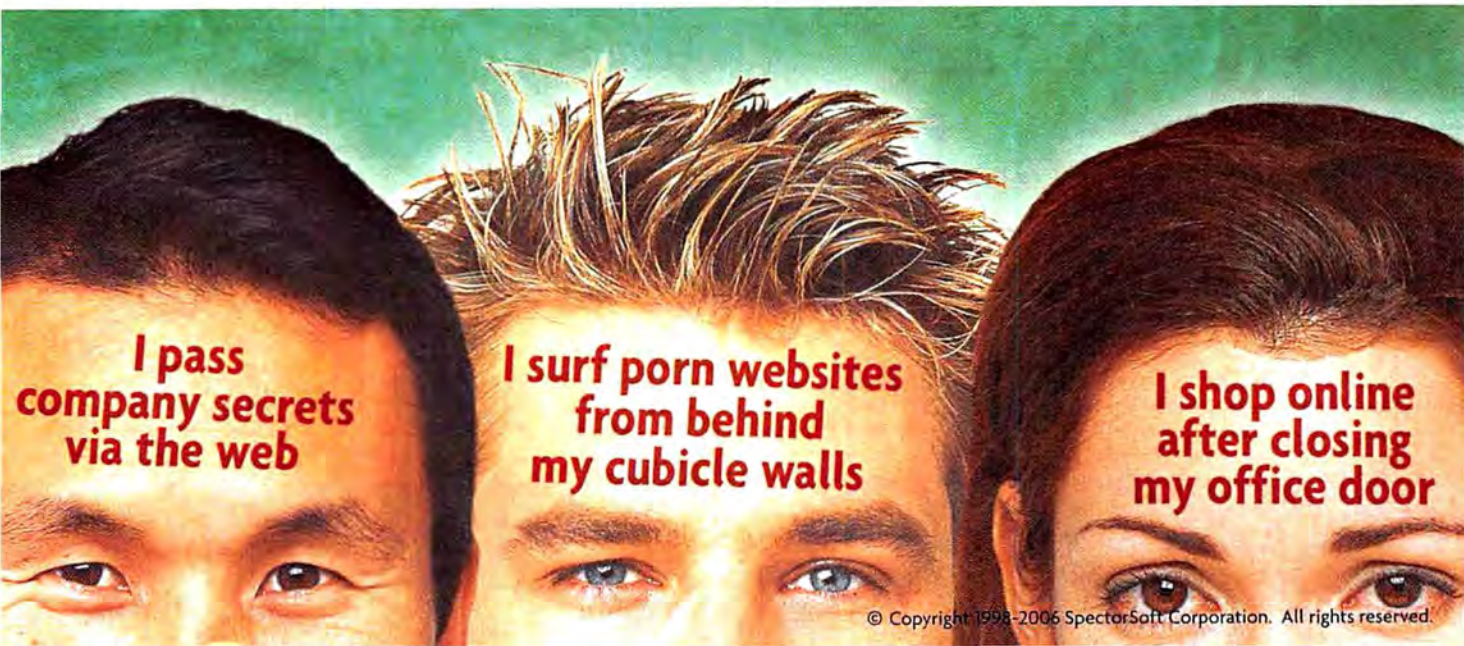

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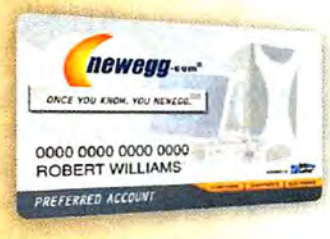

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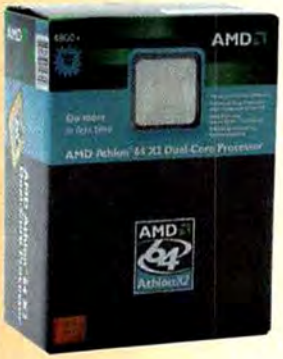

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HASSLE-FREE PC

STEVE BASS

Ten Sure-Fire Fixes for a Problem PC

Treatments include six free tools, a CMOS repair, and an unfreezing trick.

IS YOUR PC troubled? Maybe it has the blues (it wants to be a Mac). More likely, it's suffering from any of a dozen things, such as a corrupt file, a bad app, or even a moribund CMOS battery. Read on for PC therapy.

The Hassle: *My PC freezes periodically. How do I unfreeze it without losing my work or having to reboot?*

The Fix: In Task Manager, select the *Processes* tab, choose *Explorer.exe*, and click *End Process*. (Just ignore the scary message.) Select *File•New Task (Run...)*, type **explorer**, and click *OK*.

The Hassle: *Your advice helped me unfreeze my system—but it keeps happening, and I can't go on like this. What now?*

The Fixes: Start with the usual suspects: Scrub your Temp and Internet cache folders. First, use CleanCache 3.0 (see *Tool of the Month* below). Then run Windows' Check Disk utility with *Automatically fix file system errors* and *Scan for and attempt recovery of bad sectors* checked. (Open My Computer, right-click the drive, select *Properties*, choose the *Tools* tab, and click the *Check Now* button under 'Error-checking'.) Also, send your antispyware and antivirus tools into action.

No luck? Try getting rid of damaged ActiveX programs. From Control Panel, choose *Internet Options*, the *General* tab, *Settings*, and *View Objects*. Right-click to delete any items marked 'Damaged' in the Status column. You might have a corrupted file, so run System File Checker to verify (and, if necessary, reinstall) those files on your system: Click *Start•Run*, and then type **CMD**. In the command window, type **sfc /scannow** and wait awhile; the scan seems to take forever to complete.

If your PC is still having problems, they may be more deep-rooted. You'll have to try a few techniques to figure out which program or process is causing the freezing. Sysinternals has three superb free diagnostic tools. FileMon gives you a real-time view of every running program and lets you know what it's doing, recording and time-stamping each action an app takes; watch for a specific program's behavior just before a freeze. RegMon does the same for the Registry, while Process Explorer does the dirty work on Windows processes. All are available at find.pcworld.com/53854.

The Hassle: *Periodically, my PC boots to a black screen with a message saying that my hard drive doesn't exist. When I reboot, Windows loads and everything's fine. Well, almost—the clock is always wrong. Help!*

The Fix: You have a dying CMOS battery on your motherboard. You'll first need to record the system's existing CMOS settings, which you can find in the PC Setup program. When you boot up the machine, you should see on-screen PC Setup access instructions before Windows starts. Use a digital camera to snap an image of each page, or record the details with pencil and paper. For another option, read "Make a Backup of Your CMOS" in the June 2005 *Answer Line* (find.pcworld.com/53862). Then buy a fresh battery at Radio Shack (about $5) and follow the steps at Live-Repair (find.pcworld.com/53864). ■

Contributing Editor Steve Bass writes the Bass 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.*

TOOL OF THE MONTH

Make Your PC Sparkling Clean

IF YOU WANT to free your computer of useless system files, try CleanCache 3.0 (find.pcworld.com/53866). This free program removes Windows' temporary files, Office's Most Recently Used history, and browser cache files. I prefer judicious cleaning, so I use the 'Clean Checked Items' option rather than 'Run Complete Cleanup'. One gripe: CleanCache has a setting to preserve useful cookies; but even with it turned on, you will have to click 'Remember my Address and Password' again on many of the sites you visit. I let CounterSpy, my antispyware program, manage cookies instead. Note that CleanCache requires Microsoft's .Net Framework, which you can get at find.pcworld.com/53986.

ILLUSTRATION: JASON SCHNEIDER

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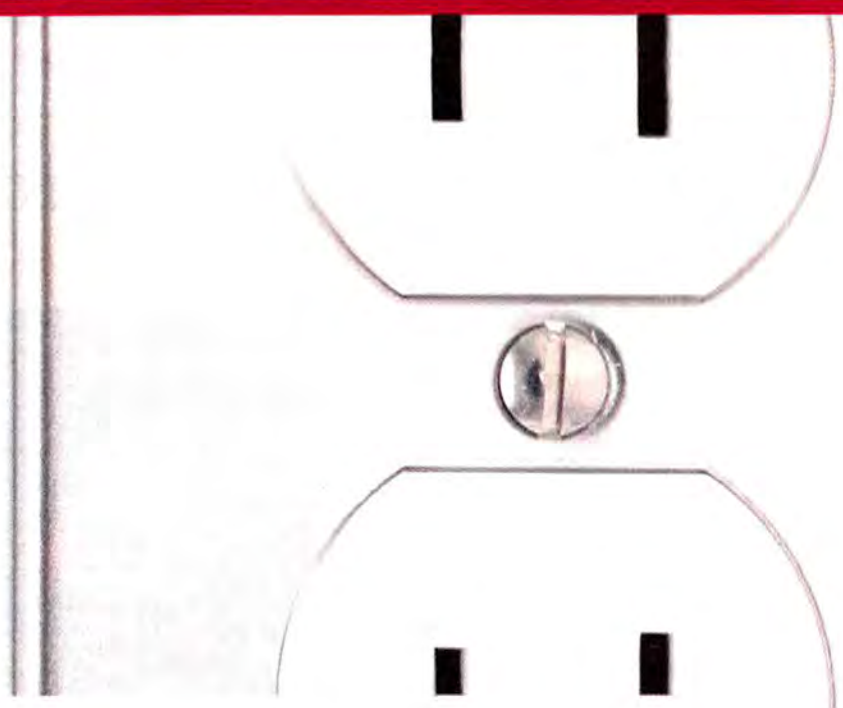

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GADGET FREAK

DAN TYNAN

Six Rules for Rescuing Dead Gadgets

Don't toss that broken gizmo just yet—you may still be able to save it.

THE KIDS WERE watching an insipid show about teen superheroes when my 10-year-old said with more enthusiasm than usual, "Dad, the TV set is on fire."

Sure enough, sparks were flying out of the back of our 42-inch Gateway plasma TV, and the room smelled like burning plastic. I hustled the kids into the kitchen and singed my fingers yanking the power cord out of the wall. (Turns out my experience wasn't unique; a class action lawsuit claiming defects in Gateway's plasma power circuits was pending at press time.)

Then I started calling some repair shops. The TV was out of warranty and would cost at least $1200 to fix. That hurt worse than my fingers. Should I repair it or replace it? And what about all the other dead gadgets in my closet? To answer those questions, I had to ask more.

How dead is it? If you've run over your cell phone, or lightning has fried your laptop, it's time to buy a new one. But failures are often caused by bad software or a loose connection, says David Milman, CEO of Rescuecom (www.rescuecom.com), a franchised PC support business that Milman says gets a surprising number of repair calls for VCRs and iPods.

In most cases, you can pay a small fee to have the problem diagnosed. Milman says Rescuecom techs will typically spend an hour sussing out the problem; hourly rates for diagnosis and fix start at $88 and go up depending on where you live. Alternatively, you can bring the balky item to any Radio Shack store and pay $20 for an estimate, says Matt Burns, manager of store operations projects for the chain.

How old is it? The technology underlying gear like MP3 players and cell phones changes so fast that products are obsolete by the time you buy them. In contrast, devices such as VCRs, speakers, tube-based TVs, and turntables haven't changed much in ten years, so new models won't be a lot better than what you have now. The less digital something is, the better a candidate it is for repair—assuming you can find the parts. Electronix.com and

PartStore.com stock a healthy selection of electronics parts. For rare or vintage parts, try UltraElectronicActive.com.

How much will it cost? This is the money question—literally. "I apply the '40 percent rule,'" says Thom Howard, a technical consultant for Crutchfield (www.crutchfield.com) in Virginia. "If the repairs cost less than 40 percent of the price of a new one, I say fix it."

Here's my own Fix or Forget Algorithm (FoFA): If the thing cost more than $100 new, is less than three years old, and can be repaired for less than 50 percent of the price of a new model, then I'll pay to have it fixed—if my wife approves, of course.

Where do you go? Ask the original manufacturer for recommendations on repair shops in your area, or peruse the list of authorized service centers on its site, advises Howard. And be sure to obtain a written guarantee. For example, Rescuecom's site states that if the repair technician can't fix a problem, you don't pay a dime for the service, while Radio Shack warrants its repairs for 90 days.

What about your data? Before you drop your gadget off, back up any data that's on it—if you can. Most PDAs and MP3 players automatically do this by syncing to your hard drive. For pointers on backing up your phone, check out Grace Aquino's recent *Dialed In* column (find.pcworld.com/54226).

Can you fix it yourself? If pro repairs are too costly, you can always pry the device open and tinker with it yourself (unplug it first). Start by reading the detailed consumer electronics FAQ compiled by longtime electronics guru Sam Goldwasser (find.pcworld.com/54224). You can also tap the collective wisdom at Fixya.com, a repair-oriented social networking site.

So I applied my FoFA to the plasma. The thing cost $3000 three years ago, but higher-resolution models go for $2000 today. And the kids no longer watch that stupid show, so my wife is happy. But I'm going to wait for the price of LCD sets to drop before I replace our broken TV.

Anybody want a dead plasma? ■

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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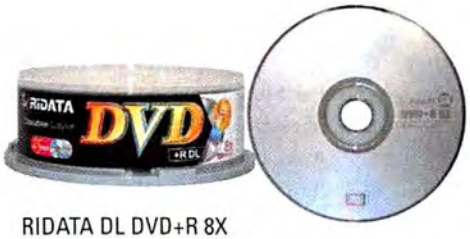

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BUGS & FIXES

STUART J. JOHNSTON

Excel Holes Add to Office Woes

Also: How to disable problematic WGA notifications; crashing iPod Shuffles.

EVEN THOUGH Microsoft has just delivered one of its largest batches of security patches ever—including one for a critical hole in Word that I cited last month—hackers and researchers have found three new (and as yet unpatched) holes involving Excel.

Two of the bugs permit attacks when you open a doctored Excel spreadsheet stored on a Web site or sent as an e-mail attachment. The first is clearly related to the way Excel handles memory, and could enable an attacker to take control of your PC. It hits Excel versions 2000 through 2003 for Windows, and Excel 2004 and v. X for Mac (see find.pcworld.com/54218 for a Microsoft blog posting that addresses the Excel issues).

According to Microsoft, the second problem, which can arise if you click a poisoned link in a spreadsheet, is caused by a deeper bug in the part of Windows that handles hyperlinking. At press time, the company had not said what versions of Windows are affected. A third flaw, recently reported to a hacker site, involves an attacker's use of an Office feature to embed a doctored Flash movie, for example, in an Excel spreadsheet or other Office document.

Exploitable holes in Office outpace the available fixes.

Microsoft says that fully patched Windows systems already incorporate a "kill bit" designed to protect against malicious add-ins of the third variety. But at least one attack has exploited the Excel memory-related bug noted earlier. And proof-of-concept code, which real-world attacks are based on, is already available for the second, hyperlinking vulnerability. So—as always—you should treat unexpected e-mail attachments with extreme caution, even if they appear to come from someone you know and trust. Microsoft planned to release at least one patch via Windows Update by mid-July; you can obtain it at find.pcworld.com/54230.

OTHER CRITICAL HOLES CLOSED

MICROSOFT'S MOST RECENT group of 21 patches closed a Word hole from May that was the target of a zero-day attack, plus a host of other problems, including eight critical vulnerabilities. Any of the eight could allow "remote code execution," which is shorthand for letting an attacker exercise free rein over your PC. Windows Media Player, PowerPoint, Internet Explorer, and other apps all got patched.

Microsoft distributed the patches via Windows Update. Run it manually from the Start menu if you've disabled Automatic Updates, or find direct download links and more information on the patches at find.pcworld.com/54254. ■

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

DISABLE WGA NOTIFICATIONS

I MENTIONED LAST month that Microsoft has been distributing a small notification program via Automatic Updates that issues constant nagging reminders if Windows Genuine Advantage suspects you of running an unlicensed version of Windows.

Well, recent revelations that the app "phones home" to Microsoft (see find.pcworld.com/54252) and significant public outcry have prompted the company to post instructions (see find.pcworld.com/54256) for manually disabling and removing the program (you can't remove it via 'Add or Remove Programs').

IN BRIEF

iPod Shuffle Ills

SOME USERS OF the popular Apple music player have endured seemingly random failures (find.pcworld.com/54232). Apple's instructions for resetting Shuffles (find.pcworld.com/54234) work for some owners, but only if iTunes or the iPod Updater still recognizes the Shuffle. Frustrated users and owners of dead Shuffles have tried to help one another on Apple's support forums (see find.pcworld.com/54236).

Laptop Drain Fix

REMEMBER THE WINDOWS XP SP2 laptop power bug that drains batteries extra quickly (find.pcworld.com/53966)? Microsoft has quietly patched it. Get the fix at find.pcworld.com/53968.

Adieu to Win 98/Me

THE HOURGLASS HAS run out for Windows 98, Windows 98 Second Edition, and Windows Millennium Edition. As of July 11, Microsoft no longer provides new security patches for those OSs.

BUGGED?

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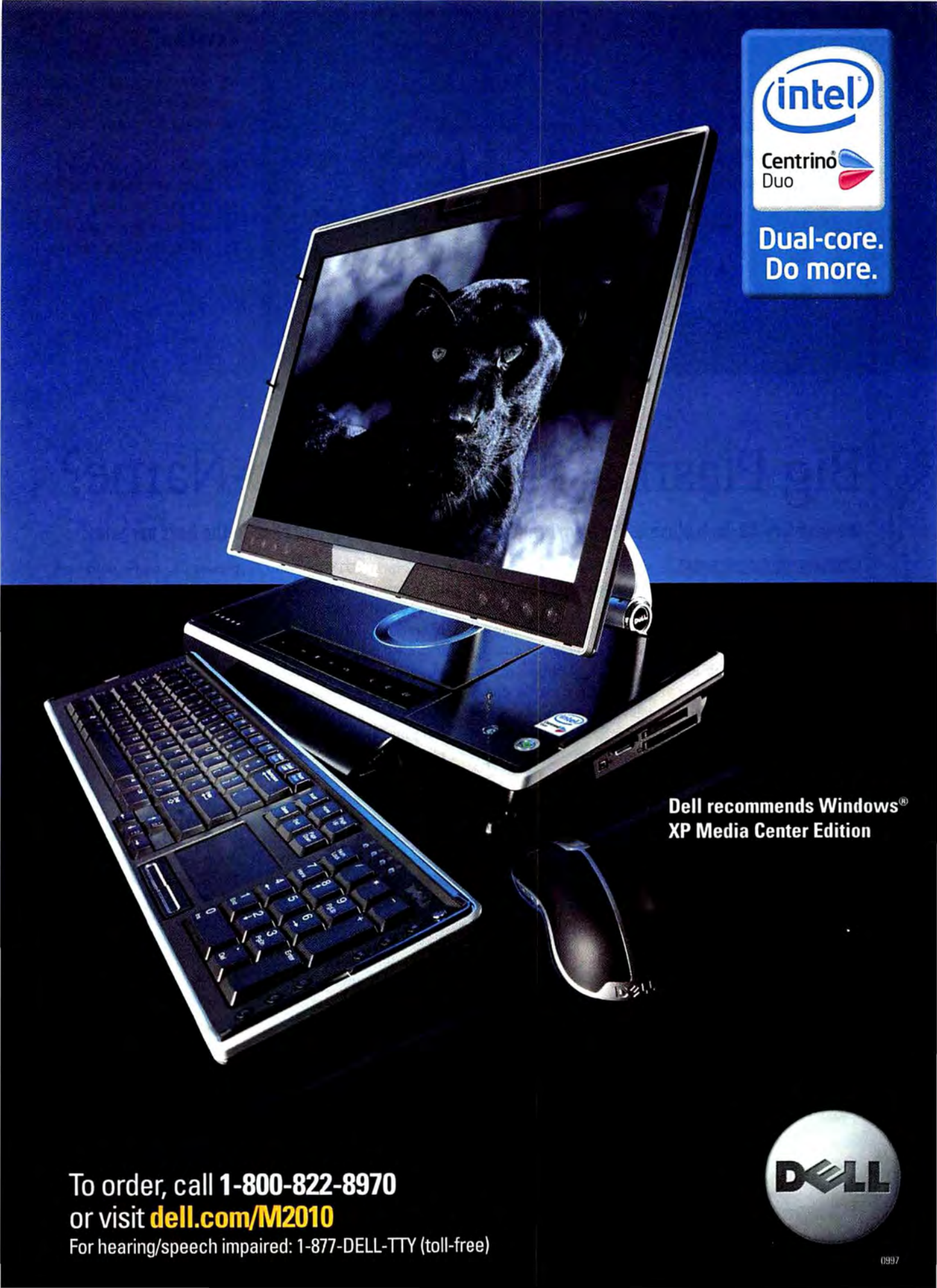
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REVIEWS & RANKINGS

EDITED BY TOM MAINELLI AND NARASU REBBAPRAGADA

REVIEWS

62 SONY VAIO VGN-AR190G, TOSHIBA QOSMIO G35-AV650
66 MCAFEE SITEADVISOR, SCANSAFE SCANDOO
68 LG ELECTRONICS FUSIC, SONY ERICSSON W810
70 ALEXSYS TEAM 2
75 CREATIVE ZEN V PLUS
75 ATP ELECTRONICS PETITO

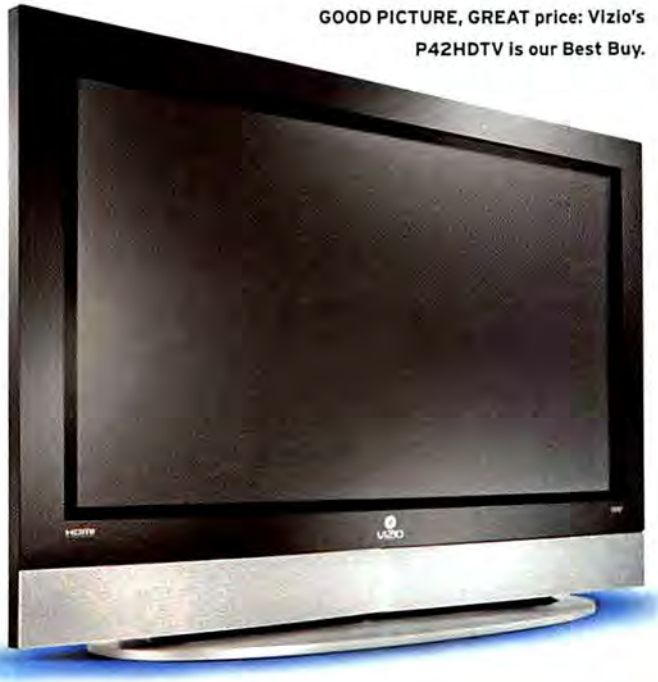
Big Plasmas: Name or No-Name?

We test five 42-inch plasma TVs from brands known and unknown—and choose the best bargains.

PLASMAS

TEST Center

IF YOU'RE READY to make the foray into high-definition TV, a big and beautiful 42-inch plasma set could be just the ticket. But which one? Famous makers enjoy trusted reputations, and they offer sets with fancy features and eye-catching designs. Those factors make it easier to justify paying over $2000 for an HDTV. Newcomers to the scene may not have name recognition or supply the cushy extras—in fact, their offerings may be downright rudimentary—but some deliver the HD goods, without charging a premium.



GOOD PICTURE, GREAT price: Vizio's P42HDTV is our Best Buy.

A 42-inch HDTV is a natural fit for many living rooms. "It's basically a similar size in screen height to the 34-inch CRT, so it's a size people are very comfortable with," says Ross Young, president and founder of research company DisplaySearch. And plasma vendors don't just want you to buy a plasma—they want you to buy a 42-inch plasma. "The panel factories are optimized for 42-inch panels, so they can make as many 42-inch panels as 37-inch," says Young.

As Young observes, "the plasma manufacturers aren't going after a lot of sizes." They're concentrating on 42- and 50-inch screens. Even though a 42-inch plasma's resolution of 1024 by 768 pixels falls a few columns short of the perfect high-def aspect ratio—a problem that 42-inch LCDs don't have—plasmas get little competition from LCDs in the 42-inch arena. Few LCD factories make 42-inch panels, instead leaving plasmas to battle with one another. This competitive market brings buyers a wide selection and low prices.

To help you select which of these myriad plasmas is right for you, we tested five 42-inch HD plasma models with 1024 by 768 resolution. Representing the better-known—and pricier—end of the spectrum are the $3000 LG Electronics 42PC1DA and the $2399 Philips 42PF9631D. The group's cheaper challengers are the $1700 AOC A42HD84, the $1800 Maxent MX-42HPM20 plasma monitor, and the $1599 Vizio P42HDTV.

AND THE WINNER...

ON OUR VALUE-BASED chart, the attractively priced Vizio P42HDTV soars to the top and wins Best Buy honors. Price alone doesn't determine chart placement, of course; the Vizio earns its laurels with strong image quality for the price. Its bright screen showed details well in our tests. In fact, this low-cost powerhouse's

PHOTOGRAPHS: MARC SIMON

78 DELL ULTRASHARP 2407WFP, HP LP2465
80 CREATIVE ZEN AURVANA IN-EAR HEADPHONES, SENNHEISER MX 55 VC STREET, SHURE E500PTH EARPHONES
82 CARMD
82 AOL AIM PHONELINE
64 TOP 10 GRAPHICS BOARDS
72 TOP 5 PDA/PHONES
76 TOP 5 ULTRAPORTABLE NOTEBOOK PCs

82

80

overall performance score just trailed that of the $2399 Philips model and earned a rating of Good. Our only complaint about the P42HDTV's screen was that it had a tendency to oversaturate greens.

You might suppose that a $1500 HDTV would take it easy on the features—and you would be right. The Vizio offers only a handful of menu settings (on the plus side, this minimalist approach prevents confusion over a plethora of options) and a basic remote control that requires a sharpshooter's precision to register on the TV. Vizio provides no weekend tech support, but the thorough manual and setup poster should suffice for typical installations. One surprising bonus: The P42HDTV's picture-in-picture function offers multiple options, letting you decide the size and position of the inset image.

Even at its $3000 asking price, the LG 42PC1DA gives the Vizio a run for its money. This sleek beauty won our juried image-quality tests handily, earning the only Very Good score for overall TV quality. Its realistic color and sharp contrast received our highest rating of Superior.

The LG led the pack in features and design, too. This HDTV set is a breeze to set up, thanks to clearly labeled, widely spaced, horizontally positioned ports. Selecting screen settings is easy as well, through its advanced tweaking options and hugely useful adaptive picture mode. This mode shows the screen in four panes, applying a different setting in each. Picking the version you prefer is much simpler this way than via the usual optometrist-like "Which looks better, number one or number two?"

LG'S GORGEOUS 42PC1DA proved itself a screen star on our tests.

Every plasma on this chart includes speakers, but only the LG's delivered rich sound that made us sit up and take notice. And of all the plasmas in our review group, only the 42PC1DA includes a CableCard slot. With any of the other models, cable subscribers will need to make room for a digital cable box.

Another well-designed set, the Philips 42PF9631D, includes a comfortable remote with lighted buttons—very easy to use in a dark room. The set's most unusual feature, Ambilight, casts colored light on the wall behind the TV; you can program the lights to respond at different paces and intensities optimized to complement the action on screen. Not only does this look nifty and make movies more engaging, but according to research that Philips cites, it might be better for your eyes. (That said, if you find Ambilight a nuisance, you can turn it off.) Impressive sound accompanies the ▶

VISIBLE, EASY-TO-REACH INPUTS distinguish the LG model (top); the Vizio set's inputs, though harder to reach, are color-coded.

visuals, too: The 42PF9631D includes digital audio inputs and outputs so that you can obtain high-quality digital sound when getting it through HDMI isn't an option.

The Philips scored second overall in image quality, earning a rating of Good. It outscored all of the other sets in our bright-lights test, maintaining vivid colors and strong contrast under bright lights. Though its price is the second highest of any plasma set on the chart, bear in mind that this model wasn't available on our pricing date, so we had to go with its $2399 list price. Street prices are usually lower, often substantially so.

GOOD, BETTER, BEST (from top): Vizio's plain-Jane remote, LG's spiffier device, and Philips's long remote with lighted buttons.

NOT READY FOR PRIME TIME

AOC's $1700 A42HD84 suffered from weak colors, with the reds and greens appearing especially feeble. Our test jurors called its picture "pale" and "washed out." Though this model is an HDTV, it puzzlingly forgoes a high-performance HDMI input. HDMI is customary on HDTV units; all the other plasmas on this chart include it (in fact, the LG and Philips models each offer two HDMI inputs). However, the AOC is also the only one of these plasmas that offers DVI input, which is handy for connecting to a computer. Perhaps this port could be useful for attaching to a living-room PC, but given this TV's image quality, a conference room setting seems a better bet. The image quality may lose a bit of *Lost*, but it's fine for PowerPoint.

Maxent's MX-42HPM20 isn't actually an HDTV—or any kind of TV, for that matter. Since this $1800 model has neither an analog NTSC nor a digital ATSC tuner, it's technically a plasma HD monitor. If you already have a separate tuner (on a cable box, for instance), this omission may not be a problem, but you should understand the difference before plugging in this plasma and settling down with a bowl of popcorn. In this regard, the MX-42HPM20 is like its 50-inch cousin, the MX-50X3, which we reviewed in our July issue.

Unfortunately, this Maxent fared less favorably with our jury than the 50-incher did. We found its screen dark and its colors off, showing reddish skin tones and unrealistic greens. This plasma is reasonably simple to use, though that's due in large part to a dearth of features. Worse, its menus display and respond very slowly, so changing the few settings that exist is time-consuming. Even if you are on a budget, you can find better bargains elsewhere.

	42-INCH HDTV	PCW Rating	Performance	Features and specifications
1	Vizio P42HDTV Best Buy $1599 find.pcworld.com/53984	82 Very Good	• HDTV: Good • SDTV: Good • DVD: Good • Overall design: Good	• 1024-by-768-pixel screen • Tuners: one NTSC, one ATSC • Inputs: one HDMI, two component • No CableCard slot
	▸ **Bottom line:** A bright screen helps this budget model attain competitive image quality at a price that trounces rivals' prices.			
2	LG Electronics 42PC1DA $3000 find.pcworld.com/53998	80 Very Good	• HDTV: Very Good • SDTV: Very Good • DVD: Very Good • Overall design: Very Good	• 1024-by-768-pixel screen • Tuners: one NTSC, one ATSC • Inputs: two HDMI, two component • CableCard slot
	▸ **Bottom line:** This beauty delivers excellent sound and image quality, and ports are easy to identify and reach—but it all adds to the bill.			
3	Philips 42PF9631D $2399 find.pcworld.com/54014	79 Good	• HDTV: Good • SDTV: Very Good • DVD: Very Good • Overall design: Very Good	• 1024-by-768-pixel screen • Tuners: one NTSC, one ATSC • Inputs: two HDMI, two component • No CableCard slot
	▸ **Bottom line:** Elegant set offers above-average image quality and design; built-in ambient backlighting adds an unusual touch.			
4	AOC A42HD84 $1700 find.pcworld.com/53982	79 Good	• HDTV: Good • SDTV: Fair • DVD: Good • Overall design: Good	• 1024-by-768-pixel screen • Tuners: one NTSC, one ATSC • Inputs: DVI, two component • No CableCard slot
	▸ **Bottom line:** Attractive, low-priced model disappoints on TV quality, but it would make a great conference room monitor.			
5	Maxent MX-42HPM20 $1800 find.pcworld.com/53996	69 Fair	• HDTV: Fair • SDTV: Fair • DVD: Poor • Overall design: Good	• 1024-by-768-pixel screen • Tuners: none • Inputs: one HDMI, two component • No CableCard slot
	▸ **Bottom line:** This HD plasma monitor is easy to use, but its image quality is a letdown. Menus are slow to display and respond.			

CHART NOTES: Prices and ratings are as of 6/6/06. NTSC tuners provide analog TV reception; ATSC (digital) tuners provide high-definition TV reception when an HDTV signal is available. For information on how we test plasma HDTVs, go to find.pcworld.com/54532.

NAMES TO KNOW

TO A CERTAIN degree, you do get what you pay for. The two most expensive models we tested—those from big names LG and Philips—were tops in performance, features, and design. That said, not every TV watcher demands colored ambient lights, extra picture settings, or the pinnacle of image quality. LG's 42PC1DA paints the prettiest picture, and Philips's 42PF9631D provides fascinating features, but the humble Vizio P42HDTV combines the lowest price here with remarkably good display quality to offer the best bang for the buck. When screen quality and value come together like this, a formerly little-known brand becomes a name worth remembering.

—Laura Blackwell

PHOTOGRAPH: MARC SIMON

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PC WORLD

Toshiba and Sony Laptops Sport Next-Gen DVD

DESKTOP REPLACEMENTS

TEST Center THE FIRST notebooks supporting the next generation of optical media are here, fueling the battle between the two high-definition DVD formats. Sony's $3499 VAIO VGN-AR190G comes with a Blu-ray Disc burner, while Toshiba's $3000 Qosmio G35-AV650 offers an HD DVD drive. Both of these units permit you to watch stunning high-definition movies on their own screens or on a connected HDTV, but we preferred Toshiba's G35-AV650 for its lower price, better ergonomics, and smoother movie-viewing experience.

Large desktop replacement models, the 10.4-pound Toshiba laptop and the 8.3-pound Sony portable both have glossy 17-inch wide-screen displays that are capable of the 1920 by 1200 resolution required for showing high-definition content. The Toshiba's screen, however, uses two lamps instead of one for greater brightness. Both systems feature an HDMI port with HDCP support for connecting to an HDMI-equipped HDTV. If your TV lacks HDMI, though, you're out of luck, since the notebooks' other video outputs—S-Video, composite, and VGA—don't support a high-definition signal. The Sony outputs video at 1080p, while the Toshiba outputs video only at the lesser 1080i, a disappointment considering that Hollywood studios are beginning to encode their discs at 1080p resolution.

SONY'S STYLISH VAIO VGN-AR190G plays Blu-ray movies, but with a few glitches.

HD DVD VS. BLU-RAY

AS FOR THE optical drives, the Sony model has more features: It's the first mobile optical drive to write to high-capacity Blu-ray write-once and rewritable media (albeit at just 1X). By contrast, the drive in the Toshiba portable is merely an HD DVD-ROM, capable of reading HD DVD movies but not writing to discs. Also, the G35-AV650's ability to play media without booting into Windows does not currently extend to playing HD content, and a future Toshiba firmware update for "instant on" playback of HD DVD movies is as yet undetermined.

The movie-viewing experience was better on the Toshiba than on the Sony. (Not that HD DVD movies are superior, just that the experience of playing movies on the Toshiba was easier.) While we were testing, we didn't have the same movie in both formats, so we had to settle for watching *The Last Samurai* in HD DVD on the Toshiba and *House of Flying Daggers* in Blu-ray on the Sony.

Video on the Toshiba model exhibited incredible detail and depth. Playback on the Sony unit was less satisfying: The images had bright, deep color, but whether viewed on the unit's display or on a 1080i plasma TV over the HDMI cable, the video wasn't consistently smooth. We also encountered some finicky resolution issues when we switched between the VGN-AR190G's HDMI input and its built-in laptop screen. Sony attributes these problems to the notebook's nVidia graphics driver and InterVideo DVD playback software, and says it will release a patch.

Both notebooks feature a 2-GHz Core Duo T2500 processor, 1GB of DDR2 SDRAM, and 200GB of storage. The Toshiba produced average gaming performance with its 256MB nVidia GeForce Go 7600 graphics controller, while the Sony did a little better with the GT version of the same chip set. Both laptops produced a solid score of 96 in our WorldBench 5 tests, too. However, the Toshiba was the winner in battery life tests, lasting 3 hours versus the Sony notebook's 2 hours.

TOSHIBA'S QOSMIO G35-AV650 offers smooth playback of HD DVD discs.

Both portables let you plug in coaxial antennas (no HDTV support), and both include built-in TV tuners, Windows XP Media Center Edition, and remote controls. We liked the keyboard and touchpad on the Toshiba better. The Sony notebook's keys were not as well defined, and mouse buttons were poorly designed.

Despite a few limitations, the Qosmio G35-AV650 is a solid, powerful portable that won't disappoint early adopters. Likewise, if you don't mind the heft and need a mobile, high-definition video production system, the VAIO VGN-AR190G should deliver.

—Danny Allen and Melissa J. Perenson

Qosmio G35-AV650
Toshiba
PCW Rating 86 Very Good
Big and heavy, this portable offers good ergonomics and battery life, and plays HD DVD movies on a beautiful 17-inch screen.
List: $3000
find.pcworld.com/54208

VAIO VGN-AR190G
Sony
PCW Rating 79 Good
This pricey notebook has a vast screen; plus, its Blu-ray burner lets you write to high-capacity discs and play Blu-ray movies.
List: $3499
find.pcworld.com/54270

PHOTOGRAPHS: MARC SIMON

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TOP 10 GRAPHICS BOARDS

nVidia Owns Mainstream, ATI Tops Power

TEST Center NVIDIA-BASED boards dominate the mainstream list this month, led by our new Best Buy, the $289 XFX GeForce 7900 GT 470M Xtreme. Although its fan is a bit noisier than some other cards', the XFX board delivered excellent performance, handy video-capture capabilities, and a high-quality software bundle. As a result, it outscored the top mainstream performer, EVGA's overclocked e-GeForce 7900 GT KO, which lands on the chart in the third position.

CHART TOPPER: XFX'S GeForce 7900 GT 470M Xtreme.

Asus's EAX1900XTX card, based on an ATI chip, tops the power group, having outperformed the pricier EVGA e-GeForce 7950 GX2 in most tests. However, the dual-GPU GX2 leads the way at 1920 by 1200 resolution and above.

—Danny Allen

ONLINE

FOR MORE INFORMATION about the graphics boards reviewed in this chart, including details on how we tested them, go to find.pcworld.com/54076.

	MAINSTREAM BOARD	PCW Rating	Performance	Features and specifications
1	XFX GeForce 7900 GT 470M Xtreme Best BUY $289 find.pcworld.com/54066	80 Very Good	• Battlefield 2: 72 fps • Half-Life 2: 105 fps • Quake 4: 93 fps	• 256MB nVidia GeForce 7900 GT • Two DVI-out, S-Video-in/out, component-out
	▸ **Bottom line:** Though a little noisy, this card offers excellent performance, VIVO (video-in/video-out) features, and a premium software bundle.			
2	EVGA e-GeForce 7600 GT KO $155 find.pcworld.com/54068	78 Good	• Battlefield 2: 56 fps • Half-Life 2: 75 fps • Quake 4: 65 fps	• 256MB nVidia GeForce 7600 GT • Two DVI-out, S-Video-out, component-out
	▸ **Bottom line:** This single-slot card features a World Class-winning graphics processor unit, good performance, and a great price.			
3	EVGA e-GeForce 7900 GT KO SuperClocked $290 find.pcworld.com/54070	78 Good	• Battlefield 2: 74 fps • Half-Life 2: 113 fps • Quake 4: 106 fps	• 256MB nVidia GeForce 7900 GT • Two DVI-out, S-Video-out, component-out
	▸ **Bottom line:** Overclocked out of the box, this single-slot card delivered blazing test performance for its price range.			
4	XFX GeForce 7600 GT XXX Edition $190 find.pcworld.com/52708	77 Good	• Battlefield 2: 58 fps • Half-Life 2: 77 fps • Quake 4: 68 fps	• 256MB nVidia GeForce 7600 GT • Two DVI-out, S-Video-out, component-out
	▸ **Bottom line:** Good performance at a reasonable cost make this dual-DVI-out card easy to recommend.			
5	PowerColor Radeon X1800 GTO $235 find.pcworld.com/54074	75 Good	• Battlefield 2: 53 fps • Half-Life 2: 78 fps • Quake 4: 48 fps	• 256MB ATI Radeon X1800 GTO • Two DVI-out, S-Video-in/out, composite-in/out, component-out
	▸ **Bottom line:** Reasonably priced, good-performing card includes plenty of extras, such as cables and multimedia software.			
	POWER BOARD			
1	Asus EAX1900XTX Best BUY $539 find.pcworld.com/53720	84 Very Good	• Battlefield 2: 79 fps • Half-Life 2: 116 fps • Quake 4: 84 fps	• 512MB ATI Radeon X1900 XTX • Two DVI-out, S-Video-in/out, composite-in/out, component-out
	▸ **Bottom line:** Fantastic board offers excellent performance, plus plenty of software and accessories, but it's a little loud.			
2	ATI All-In-Wonder X1900 $350 find.pcworld.com/53718	83 Very Good	• Battlefield 2: 74 fps • Half-Life 2: 101 fps • Quake 4: 64 fps	• 256MB ATI Radeon X1900 • DVI-out, S-Video-in/out, composite-in/out, component-out
	▸ **Bottom line:** Top-of-the-line card offers TV-tuner capabilities, a great software bundle, and graphics power to spare.			
3	EVGA e-GeForce 7950 GX2 $600 find.pcworld.com/54064	83 Very Good	• Battlefield 2: 76 fps • Half-Life 2: 114 fps • Quake 4: 118 fps	• 1GB nVidia GeForce 7950 GX2 • Two DVI-out, S-Video-out, component-out
	▸ **Bottom line:** Expensive dual-GPU card performs well at standard resolutions but edges rivals only at ultrahigh visual settings.			
4	PNY GeForce 7900GTX Limited Edition $525 find.pcworld.com/52704	82 Very Good	• Battlefield 2: 79 fps • Half-Life 2: 119 fps • Quake 4: 116 fps	• 512MB nVidia GeForce 7900 GTX • Two DVI-out, S-Video-out, composite-out, component-out
	▸ **Bottom line:** Speedy card isn't dramatically faster than its predecessor, but it is easier to find and to afford.			
5	Asus EN7900GT $300 find.pcworld.com/53716	82 Very Good	• Battlefield 2: 73 fps • Half-Life 2: 110 fps • Quake 4: 100 fps	• 256MB nVidia GeForce 7900 GT • Two DVI-out, S-Video-out, composite-out, component-out
	▸ **Bottom line:** Board offers a tempting combination of great performance and accessories at a reasonable price.			

CHART NOTES: Prices and ratings are as of 7/7/06. All game performance times are in frames per second; higher numbers are better.

PHOTOGRAPH: MARC SIMON

HP recommends Windows® XP Professional

intel
Centrino® Duo
Dual-core. Do more.

Outperform. Outprotect. The 17" widescreen HP Compaq nx9420 Business Notebook with Intel® Centrino® Duo Mobile Technology and integrated fingerprint reader helps secure your business—anywhere. It offers desktop power and stunning high-end graphics, without the desk.

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Scandoo and SiteAdvisor Make Surfing Safer

SECURITY SOFTWARE

THE GLORY DAYS of carefree Web surfing are over, due to the growing ranks of untrustworthy sites that bust your browser and drop ID-stealing malware onto your system. Fortunately, two innovative, free services—Scandoo (public beta) and SiteAdvisor—can help you surf the Web safely. Both use automatic crawlers to scour the Internet for potentially dangerous Web sites, and each uses color-coded icons to signify risk factors for the sites that appear in your Web search results.

I'm a big fan of SiteAdvisor's detailed analysis, seamless browser integration, and indicator icon for currently viewed sites. But Scandoo, through analysis and community feedback, can flag search results based on URL category filters (such as nudity).

Launched in March and snapped up by McAfee in April, SiteAdvisor is a free plug-in for Internet Explorer and Firefox that automatically color-codes both search results and sponsored links in Google, MSN, and Yahoo. A red icon indicates that the site clearly runs afoul of SiteAdvisor's tests for spam, downloaded malware, and links to other malicious sites. Yellow means the site is questionable; green means the site is clean. You can obtain more details and a link to all the testing data if you pass your mouse over the icon. A browser icon displays the color rating for the site you're currently viewing, as well. If a site is exceptionally bad, SiteAdvisor blocks access to it in Internet Explorer but not in Firefox.

SCANDOO SUPPLIES ONLY a generic warning about sites marked with a bug.

SITEADVISOR OFFERS DETAILED information behind a site's rating.

SCANDOO'S WEB FILTERING

TO USE THE Scandoo service, you must run your searches through its Google-like Web site or install an IE 7 or Firefox plug-in that adds Scandoo as an option to either browser's integrated search box. You can get results from Google and MSN; support for Ask.com and Yahoo is coming.

Scandoo's analysis is far less detailed than SiteAdvisor's. You'll see a black bug icon to the left of results where Scandoo's crawler found a threat. You can mouse over the icon, but there's really no point—you'll get only a generic message saying the site 'may represent a potential web risk'. Also, Scandoo currently does not rate any sponsored links, though the company plans to add this functionality soon.

Scandoo's key advantage over SiteAdvisor is that it lets you flag sites using any of 26 different Web category filters. The service marks any search results that match your selected filters with a red icon. In our informal tests, we saw no significant flaws with Scandoo's site categorization. The service won't block the site in question, either, so you can still visit it if you want; you'll just receive some advance warning about its content.

SiteAdvisor says that it is looking closely at adding Web category filtering, but for now the feature is the deciding factor between the services. If you don't need such filtering, SiteAdvisor's deep analysis and seamless browser integration are far superior to Scandoo's generic warning message for search results only.

—Erik Larkin

Scandoo (Beta)
ScanSafe
PCW Rating 87 Very Good
Service offers only basic security analysis, but lets users classify sites by Web-filtering categories.
Free
find.pcworld.com/54206

SiteAdvisor
McAfee
PCW Rating 93 Superior
Browser plug-in gives detailed security test results for Web sites appearing in searches.
Free
find.pcworld.com/54204

ILLUSTRATION: TAVIS COBURN

GOTCHA!

Laptops That Aren't

"DO NOT LEAVE the bottom of the computer in contact with your lap or any surface of your body for extended periods. Prolonged contact with your body could cause discomfort and potentially a burn." That's Apple's cautionary advice about allowing its notebooks to touch your person, but the problem isn't just a Mac thing. With all the powerful technologies packed inside today's notebooks, the bottoms of many portables get hot, hot, hot. Long-term, using a laptop on your lap could be hazardous to your health—or at least your comfort.

What to do? One option is to use a lap desk, like those available from Levenger (find.pcworld.com/54170). Such desks not only put some distance between lap and laptop but provide a flat surface that helps a notebook keep its cool.

–Harry McCracken

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Sony Ericsson Trumps LG With Music Features

MUSIC PHONES

WHY BOG DOWN your pockets carrying both a cell phone and an MP3 player when new handsets from LG Electronics and Sony Ericsson pull double duty? I tried shipping versions of the LG Fusic and the Sony Ericsson W810, the latter being the newest in Sony Ericsson's Walkman line of phones. Both models could fill in for your music player in a pinch, but neither will replace a top-of-the-line unit like the iPod just yet. Of the two, I preferred the W810's music features.

LG'S EASY-TO-HOLD FUSIC makes for comfortable calling.

As phones, both devices work well, offering adequate voice quality. The clamshell-style Fusic is more comfortable to hold next to your ear, while the boxy candy bar–style W810 can be awkward to hold during long conversations. The W810's impressive talk-time battery life was 10 hours, the maximum we measure in our lab tests. The Fusic lasted only 4 hours, 47 minutes—a poor performance compared with that of standard cell phones we've recently tested.

Both handsets pack plenty of extras: The W810 offers a 2-megapixel camera, a Memory Stick Duo slot, and an FM radio. The Fusic includes a 1.3-megapixel camera and a microSD Card slot. It lacks a radio, but has an FM transmitter for broadcasting your music over FM frequencies to, for example, your car radio. In my tests, though, the transmitter did not function consistently.

W810 FOR MUSIC

MUSIC AND MULTIMEDIA features are what set these two phones apart. Both store MP3 and AAC music files on the included memory card for playback on the phone, and both automatically pause and resume songs when you receive a call. Beyond that, however, the W810 comes closer to replicating a stand-alone MP3 player, no doubt reflecting Sony's Walkman roots. The Fusic, meanwhile, feels more like an accessory to Sprint's music store.

When you start up the W810, you choose between launching just the Walkman functions or all of the phone's features. (You can also turn off the Fusic's phone features for use where cell phones are not permitted, but you have to scroll through the menus first.) The W810 comes with easy-to-use PC software for transferring songs onto the included 512MB Memory Stick Duo card. Unfortunately, it does not let you create playlists on your PC—you can do that only on the phone. My chief complaint about the W810 concerns its navigation controls, although I adjusted to them quickly: The small handset holds so many features that all of the controls—including those for the music player—are tiny. The device also has no room for dedicated send and end buttons.

SONY ERICSSON'S EXPENSIVE W810 lives up to its Sony Walkman musical roots.

When closed, the pearly-white Fusic resembles an iPod, but the similarities end there. (It bundles swappable colored faceplates, too.) The Fusic comes with no music transfer software; you're on your own to drag your audio collection over to the included 64MB microSD Card.

The Fusic is closely tied into the multimedia services of Sprint's Power Vision network. Directly from the handset, you can access Sprint TV, sign up for a subscription to Sirius Satellite radio, and purchase over-the-air song downloads from Sprint's music store. The store is easy to use, but at $2.50 per song (with one copy of the tune for your phone and another copy for your PC) it's pricey. Plus, you can't mix songs you purchase with your own songs in one playlist, either.

Despite its lack of over-the-air music downloads, the W810 is the more impressive device overall. It won't come cheap, however. An unlocked handset costs $499; we tested a Cingular unit, which the carrier is expected to offer later this summer for less. (Pricing has not yet been determined.) The Fusic, available now, costs $330 with a two-year service agreement from Sprint; its price advantage melts, though, once you start building up your audio collection through Sprint's expensive music store.

— Liane Cassavoy

Fusic

LG Electronics

PCW Rating 72 Good

Though designed to look like an iPod, the Fusic can't replicate the music features of Apple's units.

Street: $330 (with a two-year contract from Sprint)

find.pcworld.com/54200

W810

Sony Ericsson

PCW Rating 80 Very Good

Sony draws on its Walkman background to create this impressive cell phone and music player hybrid device.

List: $499 (unlocked handset)

find.pcworld.com/54198

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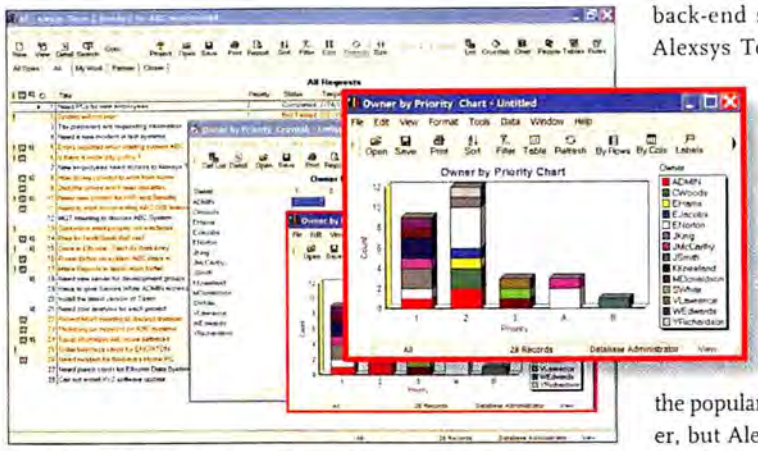
Manage Collaboration With Alexsys Team 2

SMALL-BUSINESS APP

Alexsys Team 2, a client-server-based software package, assists businesses in organizing customer-service-oriented project teams such as help desks. This relatively inexpensive software provides an easy-to-set-up framework for managing collaboration, but also offers depth and versatility if you need them.

I reviewed the newly released version 2.8, which runs on the included Paradox database. The single-user offering costs $155; a 20-user package is $2400. Team 2's unique project management and collaboration tools include the oddly named but versatile crosstab capability, which lets you quickly develop reports and charts to assess the status of project tasks. Version 2.8 also has drag-and-drop support for attachments, a password expiration policy for improved security, and support for additional SQL databases. The software also comes with customizable templates for creating assorted customer-service forms; for example, a corporate help desk could design an e-mail support ticket that lets an administrator assign a technician or set the response priority. Alexsys says that Team 2 is so versatile that a prison uses it to manage the monitoring of inmate mail, and that a golf course uses it to schedule greens maintenance.



THE ODDLY NAMED but versatile crosstab capability lets you quickly develop reports and charts to assess the status of project tasks.

Alexsys has crafted a well-designed interface, although I wish the company would spice up the program's rather dull-looking screen displays. Most small businesses will be up and running within an hour or two, while businesses with complex workflows that must pass through several people at various stages may require many more hours to set things up. The collaboration tools within Team 2 are more powerful than most small organizations will need, but the extra headroom will come in handy should a business add to its ranks down the line.

The company offers several other editions of Team 2, which differ mainly in their back-end server databases. Alexsys Team 2 Pro works with Microsoft SQL, Oracle, or MySQL servers and is suitable for larger installations. Unfortunately the app currently does not support remote access on the popular Apache Web server, but Alexsys says that it is working to add the feature.

Team 2 has the best printed manual I've seen in years, a hefty 554 pages chock-full of information, complete with index. It includes examples and mini-case studies that show which option is best under different circumstances. It's a delightful throwback to the 1990s, when a program manual actually showed you how to use the software.

Team 2 has no direct competitors. A close rival is Cerberus Helpdesk (find.pcworld.com/54312), which efficiently organizes help desk response but can't easily adapt to other collaborative applications. If your business is struggling to keep teams of employees on track, Alexsys Team 2 could be just the thing to focus their efforts on top-priority tasks.

—Richard Morochove

Alexsys Team 2 Standard 2.8.4
Alexsys
PCW Rating 78 **Good**
Affordable application offers good task-tracking and team-management tools.
List: $155, single-user package (multilicense discounts available)
find.pcworld.com/54202

ILLUSTRATION: TAVIS COBURN

TECH TREND

Intel Plugs Electron Leak

INTEL HAS FOUND a way to insulate the circuits on its microprocessors on three sides, not just one. This could enable a 45 percent increase in future chips' speed or a 35 percent reduction in total power used.

The "tri-gate" method helps to prevent electricity from leaking between wires as chip manufacturing processes shrink from 90 nanometers to 65 and below.

The technology is still on the drawing board, but when it's ready, Intel designers probably can apply it to new chips quickly because the manufacturing process should be able to employ existing equipment in the fabrication plants.

Intel has said it will be making more chips using a 65-nm process than 90 nm by the third quarter of 2006 and will move to 45 nm in 2007 and 32 nm by 2009.

–Ben Ames

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hp invent

TOP 5 PDA/PHONES

Treo 700p, Sidekick 3 Tops Among PDA/Phones

TEST Center THREE MAJOR NEW products appear on this month's chart: Motorola's Q, Palm's Treo 700p, and T-Mobile's Sidekick 3.

The Treo 700p replaces its predecessor, the Treo 650, atop the chart. Despite a steep price ($650 with a two-year contract from Sprint) and unimpressive battery performance, the 700p wowed us with its thoughtful design and lightning-fast speed. Like the Windows Mobile–based Treo 700w (number four on our chart), the 700p includes support for high-speed EvDO networks, which makes surfing the Web using its Blazer Web browser a real pleasure. The unit also features a speedy 312-MHz Intel XScale processor and 128MB of total onboard memory, making the device feel noticeably faster than the 650 at most tasks. But, as noted, the 700p offers mediocre battery life: It lasted just under 5 hours in our battery tests.

The number two–ranked Sidekick 3 performed much better in our battery tests, offering a robust 9 hours of talk time. Danger's latest iteration of its messaging-geared device impressed us overall, and T-Mobile offers the device for a reasonable $300 (with a two-year contract). Its swivel design opens to reveal a remarkably comfortable QWERTY keyboard that plays to the Sidekick 3's data-first strengths. Composing e-mail and instant messages is a breeze. Using the device as a phone is less pleasing: You have to swivel it open to dial a number, and then swivel it closed to talk.

T-MOBILE'S SIDEKICK 3 features an excellent keyboard.

Motorola's superslim Q came in at number five on the chart. This sleek Windows Mobile smart phone looks great, but we were less impressed with its design for day-to-day use: The BlackBerry-like scroll wheel felt stiff, and the keyboard was tough to navigate. Starting up the device and accessing the Internet also seemed a bit sluggish. At 4.1 ounces, it is easy to carry around, but given its lackluster battery performance of just 5 hours, 38 minutes in our talk-time tests, you might want to consider toting a charger along as well. Priced at only $300 (with a two-year contract from Verizon Wireless), the Q is a bargain for a PDA/phone.

We tested one other new hybrid model that just missed our chart: RIM's BlackBerry 8700g. The device does offer some notable improvements over the 8700c, which we tested for our June chart. The 8700g works with T-Mobile's speedy EDGE network and adds support for popular IM clients, including AIM, ICQ, MSN Messenger, and Yahoo Messenger. Its talk-time battery life also proved quite good at 9 hours, 35 minutes. Unfortunately, this $400 unit—like all BlackBerry devices—lacks a camera.

—Liane Cassavoy

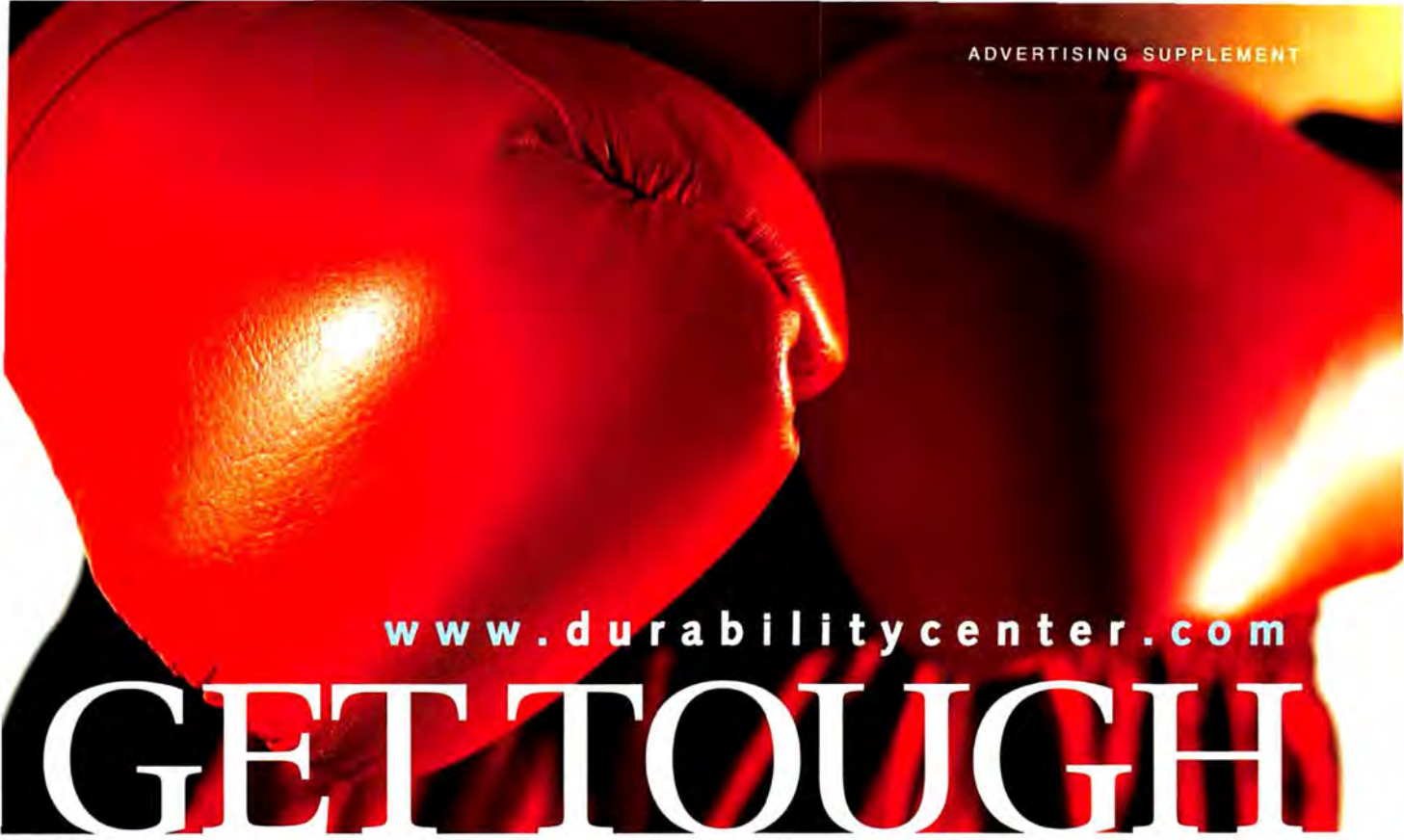
	PDA/PHONE	PCW Rating	Performance	Features and specifications
1	Palm Treo 700p Best Buy $650 NEW find.pcworld.com/53784	81 Very Good	• Battery life (hours:minutes): 4:59 • Battery life score: Fair • Overall design: Superior	• Carrier: Sprint • Style: candy bar • Weight: 6.4 ounces • Camera resolution: 1.3 megapixels
	▸ Bottom line: Blazing performance and EvDO support make this Treo a winner, but its short battery life is less than impressive.			
2	T-Mobile Sidekick 3 $300 NEW find.pcworld.com/54136	80 Very Good	• Battery life (hours:minutes): 9:00 • Battery life score: Superior • Overall design: Good	• Carrier: T-Mobile • Style: swivel • Weight: 6.7 ounces • Camera resolution: 1.3 megapixels
	▸ Bottom line: A great keyboard and stellar messaging make this model a great option if you value data features more than voice calling.			
3	T-Mobile MDA $400 find.pcworld.com/52652	79 Good	• Battery life (hours:minutes): 10:00 • Battery life score: Superior • Overall design: Good	• Carrier: T-Mobile • Style: slide • Weight: 5.3 ounces • Camera resolution: 1.3 megapixels
	▸ Bottom line: Slick hybrid lets you easily hop onto Wi-Fi hotspots for e-mailing, Web browsing, and instant messaging.			
4	Palm Treo 700w $500 find.pcworld.com/51418	79 Good	• Battery life (hours:minutes): 5:27 • Battery life score: Fair • Overall design: Very Good	• Carrier: Verizon • Style: candy bar • Weight: 6.4 ounces • Camera resolution: 1.3 megapixels
	▸ Bottom line: If you like the feel of the Treo but want the Windows Mobile operating system, then the 700w is for you.			
5	Motorola Q $300 NEW find.pcworld.com/54148	78 Good	• Battery life (hours:minutes): 5:38 • Battery life score: Fair • Overall design: Good	• Carrier: Verizon • Style: candy bar • Weight: 4.1 ounces • Camera resolution: 1.3 megapixels
	▸ Bottom line: This slim, stylish Windows Mobile smart phone is fashionable, but it needs extra-cost software to edit office documents.			

CHART NOTES: Prices and ratings are as of 7/7/06; prices are based on a two-year service agreement.

ONLINE

FOR MORE INFORMATION about the PDA/phones reviewed in this chart, including details about how we tested them, go to find.pcworld.com/54306.

PHOTOGRAPH: CHRIS MANNERS



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Creative's Zen V Plus Rivals iPod Nano

DIGITAL AUDIO

TEST Center

SAY WHAT YOU will about the patent dispute between Creative and Apple (see find.pcworld.com/54522 for more information), both companies make some darned good MP3 players. Creative's latest effort—the Zen V series of flash-based players—is aimed directly at Apple's popular iPod Nano line. And judging by the 2GB, $170 Zen V Plus I tested, it offers some serious competition to the Nano, whose comparable 2GB model was $30 more expensive at press time.

The Zen V and Zen V Plus each come in 1GB, 2GB, and 4GB capacities. In both lines of players, each version includes a voice recorder, a line-in jack, and a 1.5-inch-diagonal OLED (organic light-emitting diode) screen that displays photographs with great clarity indoors but not the best visibility outdoors. The Zen V Plus also plays video files and provides an FM tuner. The Zen V models work well with Plays For Sure subscription content and can handle the standard complement of MP3, WMA, and Audible files.

MUSIC TO YOUR EARS

LIKE CREATIVE'S OTHER MP3 players, the Zen V Plus offers impressive sound quality. In *PC World*'s audio tests, it ranked slightly below but within range of both Apple's iPod Nano and Creative's Zen Nano Plus. It posted the best score in our cross-talk test, which measures whether sound from one channel leaks into the other. With a five-band equalizer for tweaking the audio, the Zen V Plus also sounded great in my listening tests, playing a variety of high-bit-rate MP3 files.

The Zen V Plus can play video clips, but the viewing experience was less than impressive. Although the device ships with Creative's Video Converter application for downsampling movies to the correct format, watching anything more than a short clip on the unit's 128-by-128-pixel, 1.5-inch screen just seems silly.

LIGHT LIKE THE IPOD

WHILE THE ZEN V models are about twice as thick as iPod Nano players, they are also shorter, just as light, and very comfortable to use. A small joystick and several hard buttons control most of the navigation. The responsive interface allows you to move quickly through stored tracks, photos, and video clips. In addition, you can customize the device's menus, build and save playlists on the fly, choose from among several built-in color schemes, and set a photo stored on the player as a background image.

The Zen V Plus is a little light on bundled accessories, coming in the box with just a line-in cable, a very short USB cable, and a strangely mismatched carrying pouch. (The pouch looks like the same carrying case that came with the much larger Zen Vision M.) Protective cases are available from Creative's Web site.

A standard mini-USB port resides on top of the Zen V Plus—a nice design choice in a world where so many device manufacturers use proprietary connectors. Unfortunately, the player's sync speed isn't the greatest. Filling my 2GB test unit took approximately 40 minutes over a USB 2.0 connection. With its integrated battery, the Zen V Plus is rated for a respectable 15 hours of audio playback.

Overall, the 2GB Zen V Plus offers impressive sound quality and useful customization options. The player is a more than worthy competitor to Apple's pricier iPod Nano.

—Eric Dahl

CREATIVE'S ZEN V Plus looks slick and plays video, and it sounded great in our audio tests.

Zen V Plus
Creative
PCW Rating 81 Very Good
Light, capable audio player does video and is a viable alternative to Apple's iPod Nano.
List: $170
find.pcworld.com/54300

QUICK TAKE

The Petito Flash Drive

ATP ELECTRONICS' MINUSCULE Petito brings us closer to the day that someone will lose data due to accidentally inhaling the device it's stored on. This USB 2.0 flash drive is incredibly small. At 1.65 inches long, it's just slightly more than twice the size of a standard USB plug—and only because of an eyelet that lets you wear the Petito on a chain around your neck. That is, if you're the type who believes in wearing storage devices as a fashion statement.

Like lots of small things, the Petito is also quick: Transferring a 324MB folder to the Petito was consistently faster than other flash drives I've tried. A 1GB Petito carries a list price of $90; a 512MB model costs $60, and a 256MB model costs $35.

find.pcworld.com/54228

–Edward N. Albro

PHOTOGRAPHS: MARC SIMON

TOP 5 ULTRAPORTABLES

New Lenovo Boasts Top-Flight Performance

TEST Center OUR CHART OF ultraportable laptops this month hosts both stalwarts and newcomers. Lenovo's classy ThinkPad X60s retains the number one spot and our Best Buy nod, thanks to its excellent performance (including stellar battery life) and top-notch design. The other two returning systems are the fourth-ranked Fujitsu LifeBook P7120 Notebook and the fifth-ranked HP Compaq nc4200 Notebook PC.

Two machines make their debut: the HP Compaq tc4400 and the Lenovo 3000 V100.

The HP Compaq tc4400 is a compact, convertible tablet. The $2179 model's design features such thoughtful touches as a fingerprint reader at the top of the screen—so it's usable in both tablet and laptop modes—as well as a <Ctrl>-<Alt>-<Del> button at the side of the screen, for easy access in tablet mode. However, this laptop is a bit bulkier than you might expect of an ultraportable. In addition, the device weighs 4.6 pounds, a little heftier than competing ultraportables we've seen. Its WorldBench 5 performance was quite strong (it achieved a score of 88); but its tested battery life, though good at 4 hours, 11 minutes, was more ordinary.

The other new kid in town is Lenovo's 3000 V100. This ultraportable model comes in at a lower cost than the flagship ThinkPad X60s—and it doesn't match its pricier sibling's excellence of design. Most notably, the keyboard took a little getting used to, and we hated the ultrastiff mouse buttons, to the point that we found it necessary to switch to an external mouse.

A STRONG PERFORMER, Lenovo's 3000 V100 has versatile multimedia capabilities.

Design complaints aside, however, this system didn't skimp on either features or performance. It includes such niceties as an ExpressCard slot and instant-on multimedia. And its performance rocked the house, earning the V100 a high-flying WorldBench 5 score of 93, the third-best result that we've seen for an ultraportable. Its battery life was decent enough, too, running just over 4 hours in our trials.

Each of the four other models we tested this month had shortcomings that kept them off the chart. Acer's TravelMate 3002WTCi looks sharp, costs a reasonable $1199, and weighs just 3.2 pounds, but it lacks an integrated optical drive; and when you add on an external DVD-ROM/CD-RW combination drive and power supply, its travel weight soars to 5.3 pounds.

Averatec's $1399 AV1150-EW1 and $950 AV2260-EH1 differ slightly in specs and size, but neither packs performance punch, and each has a mediocre keyboard. HP's $1649 Compaq nc2400 offered nearly 5 hours of battery life, but the lithe, compact unit performed poorly, placing last among notebooks tested under WorldBench 5.

—Melissa J. Perenson

	ULTRAPORTABLE NOTEBOOK	PCW Rating	Performance	Features and specifications
1	Lenovo ThinkPad X60s Best BUY $2299 find.pcworld.com/52694	83 Very Good	• WorldBench 5 score: 83 Very Good • Overall design: Very Good • Tested battery life: 8:21	• 1.66-GHz Core Duo L2400 • 12.1-inch screen • 3.5 pounds • DVD-ROM/CD-RW
	▸ **Bottom line:** Strong performance, battery life, and keyboard make this expensive business notebook a winner.			
2	HP Compaq tc4400 $2179 NEW find.pcworld.com/54194	79 Good	• WorldBench 5 score: 88 Very Good • Overall design: Very Good • Tested battery life: 4:11	• 2-GHz Core Duo T2500 • 12.1-inch screen • 4.6 pounds • CD-RW
	▸ **Bottom line:** Bulky but easy-to-use tablet omits an integrated optical drive (our test unit came with an external CD-RW).			
3	Lenovo 3000 V100 $1599 NEW find.pcworld.com/54191	77 Good	• WorldBench 5 score: 93 Superior • Overall design: Good • Tested battery life: 4:02	• 2-GHz Core Duo T2500 • 12.1-inch wide screen • 4.4 pounds • DVD+R DL/DVD±RW
	▸ **Bottom line:** Stellar performer's specs include ExpressCard and instant-on multimedia—but the mouse buttons are too stiff.			
4	Fujitsu LifeBook P7120 Notebook $2099 find.pcworld.com/52028	75 Good	• WorldBench 5 score: 60 Fair • Overall design: Very Good • Tested battery life: 6:26	• 1.2-GHz Pentium M ULV 753 • 10.6-inch wide screen • 2.8 pounds • DVD+R DL/DVD±RW
	▸ **Bottom line:** Cleverly designed, stylish laptop makes a fine ultraportable. A high price is its only significant drawback.			
5	HP Compaq nc4200 Notebook PC $1549 find.pcworld.com/52024	74 Good	• WorldBench 5 score: 79 Very Good • Overall design: Good • Tested battery life: 5:12	• 1.86-GHz Pentium M 750 • 12.1-inch screen • 3.9 pounds
	▸ **Bottom line:** This business-oriented laptop has no optical drive, but it successfully marries portability and a great keyboard.			

CHART NOTES: Prices and ratings are as of 6/26/06. For each model, weight listed does not include AC adapter, power cord, or optical drive.

ONLINE

FOR MORE INFORMATION about the ultraportable notebook PCs reviewed in this chart, including testing details, browse to find.pcworld.com/54524.

PHOTOGRAPH: MARC SIMON

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Now you see it. Now they don't.

Dell, HP Offer Slick 24-Inch LCDs

MONITORS

TEST Center

IF YOU WANT to go big with your next desktop LCD, neither HP's LP2465 nor Dell's UltraSharp 2407WFP will disappoint. Both 24-inch wide-screen monitors offer expansive 1920-by-1200-pixel resolution, highly adjustable stands, and fairly reasonable prices. In this close matchup the Dell wins, thanks to a few extra features.

The 2407WFP lists at $879 (but Dell often sells it for well under $800). Its sleek industrial design includes a thin black bezel and a silver stand that permits you to tilt, pivot, and raise or lower the monitor.

HP'S LP2465 IS a high-quality display with a sturdy and very adjustable stand.

The 2407WFP supplies a plethora of video connections (DVI, VGA, composite, component, and S-Video among them), as well as support for HDCP (High-bandwidth Digital Copy Protection). Upcoming high-definition media such as Blu-ray and HD DVD discs may require an HDCP-compliant monitor (along with a compatible operating system and graphics card) for optimal display of content. Dell also offers picture-in-picture functions, a nine-in-two media card reader, and four USB 2.0 ports on this monitor.

HIGHLY ADJUSTABLE

YOU ACCESS AND navigate the Dell model's on-screen menu using four buttons located at the display's bottom-right corner. The icon-based menu is fairly simple to use, and it offers a large number of options. Among the adjustable settings are three display modes: desktop, multimedia, and gaming. Earlier this year, Dell customers complained of image-quality issues when using the desktop mode on the 20-inch 2007WFP (see find.pcworld.com/54156). Dell claims to have fixed the problem on all of its shipping display units, and we didn't encounter such image-quality issues during our testing of the 2407WFP.

The monitor fared pretty well in the PC World Test Center, where our jury views and rates a series of screen shots of text, graphics, and photo-based documents at the unit's default factory settings. Voters awarded the Dell a text rating of 76, a graphics rating of 77, and an overall rating of 76 (all of these marks fall in the Good range). Jurors praised the Dell's crisp text and overall image quality, but they also noted a faintly green cast to white screens.

THE DELL ULTRASHARP 2407WFP has a solid picture, lots of ports, and HDCP support.

The other monitor here, the $869 HP LP2465, tested slightly higher with our jury, posting a text score of 79 (Good) and a graphics score of 80 (Very Good), for an overall rating of 79 (Good). The display was particularly strong with photographs and offered slightly better details and contrast than the Dell did at default settings. This sharp-looking monitor has a thin silver bezel, and its sturdy black base lets you easily raise and lower, tilt, and pivot the screen. You access HP's intuitive on-screen menu via four buttons located at the center of the bottom bezel. The menu includes a handy screen that keeps a running total of the usage hours for the LCD.

PORTS: DVI ONLY

THE ONE AREA in which the monitor falls down is connectivity. HP is clearly targeting the LP2465 at business users, but that's no reason to limit the monitor's video inputs to two DVI ports. You get no VGA (the display does come with a DVI-to-VGA adapter), no component, no S-Video, and no HDCP support, either.

As a result, the Dell edged past the HP in our overall ratings. If you need a giant-size display with lots of connectivity options, the Dell 2407WFP will serve you well; but if you require a monitor with only basic DVI connections and want a little better default picture, consider HP's LP2465.

—Tom Mainelli

LP2465

HP

PCW Rating 80 Very Good

Unit has excellent image quality and a highly adjustable stand, but lacks HDCP support and has limited connectivity options.

List: $869

find.pcworld.com/54152

UltraSharp 2407WFP

Dell

PCW Rating 83 Very Good

Highly adjustable unit features good image quality, numerous connectivity options, and support for HDCP.

List: $879

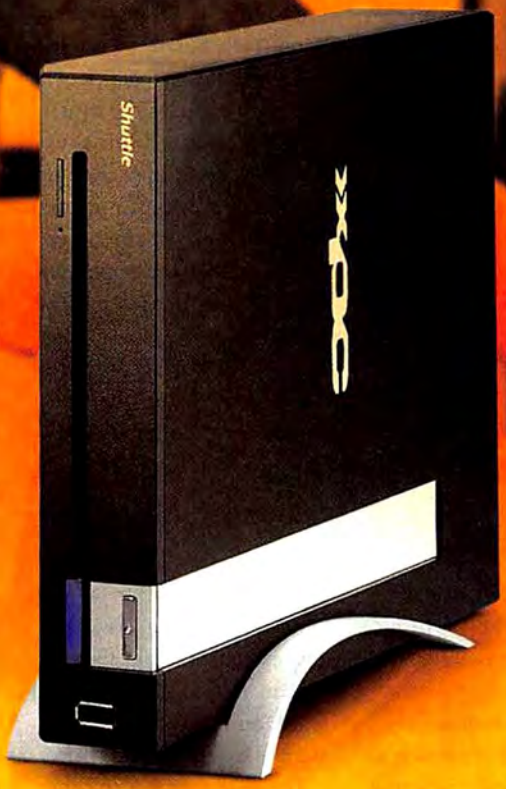
find.pcworld.com/54150

PHOTOGRAPHS: MARC SIMON

Shuttle®

intel Core™ Duo inside™

In this case, little means everything.



MOVIE MUSIC GAMES PRODUCTIVITY INTERNET

Work and play in style on the new Shuttle XPC X100.

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Innovative In-Ear Headphones for All Budgets

HEADPHONES

EVEN THE BEST MP3 player is useless without a decent pair of headphones. Three new earphone models from Creative, Sennheiser, and Shure aim to improve your on-the-road listening—whatever your budget. Shure's **E500PTH** set was by far my favorite of the group; the Sennheiser earbuds were also impressive.

SHURE'S EARPHONES, THOUGH expensive, sound exquisite.

Priced twice as much as some MP3 players, the sound-isolating, $499 E500PTH in-ear headphones simply amaze thanks to a three-driver design (most Shure models have only two drivers) that pumps out exquisite sound over a full range of frequencies.

An innovative feature is the E500PTH's bundled Push-to-Hear module. At the flick of a switch, it silences the music from your player, while a microphone pipes the sound of the outside world into your ears. The module, which runs on a AAA battery, is bulkier than I'd like, but it's invaluable for anyone who has stood in line for coffee deciding between removing one's earphones or yelling "What?" a lot while ordering a latte.

GOOD SOUND, PRICE

SENNHEISER'S $40 **MX 55 VC Street** earbuds offer their own innovation with a "Twist-to-Fit" extension: Place the earbud in your ear, twist it forward, and its little stabilizer wedges the speaker into place.

The headphones also come with a number of interchangeable plastic sleeves that help you attain a perfect fit. They work well—the pieces stayed comfortably in place in my ears even while I was running. My favorite addition is the adapter that places a small rubber flange around the speaker, providing the tiniest bit of sound isolation.

SENNHEISER'S WELL-PRICED SET (top) plays better than Creative's offering.

As earbuds go, the MX 55 units sound quite nice. The bass response won't blow you away, but the headphones produce clear, detailed sound that's a definite upgrade over a standard set of earbuds.

Creative's $99 **Zen Aurvana** set isolates sound, but the light, minimalist design has significant drawbacks. Bumps and brushes against the Aurvana's thin headphone cable are very audible, and uneven sound quality caused me to have considerable trouble finding an appropriate volume on MP3 players. At low volumes the bass seemed weak and mushy, and when turned up high, the Aurvana units sounded harsh, bright, and fatiguing. When I did find the perfect level, however, the audio was pleasing.

—Eric Dahl

E500PTH Sound Isolating Earphones

Shure

PCW Rating 87 Very Good

Pristine sound quality and the innovative Push-to-Hear feature come at a steep price.

List: $499

find.pcworld.com/54250

MX 55 VC Street

Sennheiser

PCW Rating 85 Very Good

Relatively inexpensive earbuds sound good, fit great.

List: $40

find.pcworld.com/54248

Zen Aurvana In-Ear Headphones

Creative

PCW Rating 79 Good

Creative's first attempt at in-ear headphones offers light weight and passable audio quality.

List: $99

find.pcworld.com/54246

PHOTOGRAPHS: MARC SIMON

ASK OUR EXPERTS

Are Third-Party Batteries Safe?

I HAVE FOUND several sources on the Net selling notebook battery replacements. How do these third-party firms sell vendor-branded batteries, and is it safe to buy from them?

William Sympson, FPO, AE (Area Europe)

Associate Editor Danny Allen responds: The notebook manufacturers we spoke with unsurprisingly recommended that you buy batteries either directly from them or through authorized resellers. The common reasoning is that while third-party batteries may appear to meet the correct size and electrical specifications, the quality and construction can't be guaranteed. A third-party battery could void your notebook's warranty—and, if faulty, might even damage it. Start out by determining if a retailer is truly authorized to sell branded parts, and cross-check its listed part codes against those on the vendor's Web site.

Need information or advice about a buying decision? Drop us a line at askourexperts@pcworld.com.

ASUS Recommends Microsoft® Windows® XP

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- 12" Ultrabright Widescreen Display
- 512 MB DDR2
- 100 GB Hard Drive
- 4x Super Multi DVD-RW DL
- 1.3 Megapixel Swivel Camera

W2J – Personal Multimedia Center
- Intel® Centrino® Duo Mobile Technology
- Microsoft® Windows® Media Center 2005
- 17" Ultrabright Widescreen Display
- 1024 MB DDR2
- 100 GB Hard Drive
- ATI MOBILITY™ RADEON™ X1600 256 MB
- 8x Dual Layer Slot-Loading DVD-RW

W3J – Performance in Style
- Intel® Centrino® Duo Mobile Technology
- Microsoft® Windows® XP Pro
- 14" Ultrabright Widescreen Display
- 1024 MB DDR2
- 100 GB Hard Drive
- ATI MOBILITY™ RADEON™ X1600 256 MB
- 8x Super Multi DVD-RW DL

A6Jc – Value and Performance
- Intel® Centrino® Duo Mobile Technology
- Microsoft® Windows® XP Pro
- 15.4" Ultrabright Display
- 1024 MB DDR2
- 100 GB Hard Drive
- NVIDIA GeForce Go 7300 128 MB
- 8x Dual Layer DVD-RW

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CarMD Takes Your Vehicle's Pulse

AUTO DIAGNOSTICS

AS THE SAYING goes: Trust your friends, but cut the cards. So even if you trust your auto mechanic, consider using the $90 CarMD to make sure that you're not being charged for unnecessary repairs.

Slightly bigger than a standard cell phone, CarMD plugs into the On-Board Diagnostics II port of any 1996 or later car or truck model (under the dashboard in most vehicles). The unit gave my wife's 2001 Honda Civic the green light just minutes after I unpacked it. The device shows a green check mark if your car passes CarMD's diagnostics, a yellow question mark if it finds a pending problem or inconclusive results, and a red X if the vehicle needs service. CarMD says that a yellow or red light means that a car might fail a state emissions test.

To get the lowdown on any glitches the unit discovers, you load the CarMD software from a CD onto your PC and then plug the device into your computer's USB port. The CarMD.com Web site loads automatically in your browser. After you register your car, the site produces a report describing possible fixes, and the relevant diagnostic codes.

Click one of the Fix tabs to see the items in need of repair or replacement, the unit cost, the quantity, and the total cost of the repair. The site even adjusts prices for four U.S. regions. You can generate three reports each month on up to three vehicles, but you can use CarMD's green, yellow, or red indicators on as many vehicles as you choose.

While we're not auto experts, CarMD seems like a smart, valuable investment. Just having more information on the health of your car will give you peace of mind.

—Dennis O'Reilly

CARMD DOWNLOADS YOUR car's diagnostic information.

CarMD
CarMD.com
PCW Rating 88 **Very Good**
This fast, simple diagnostic tool gives you complete, downloadable information about your car's onboard systems.
List: $90
find.pcworld.com/54182

AOL AIM Phoneline Offers Well-Priced Calling

INTERNET TELEPHONY

AOL'S AIM PHONELINE lets AIM instant messaging users make Internet-based phone calls. I found the service easy to use, with good call quality most of the time.

The service offers users free local phone numbers (dubbed "AIM Digits"), suitable for calling landline and cell phone numbers. Receiving calls is free; making them is not. AOL charges $15 per month for outbound calls, including unlimited calls to the United States, Canada, and over 30 other countries. (To call other AIM users, you can use the free AIM Talk voice chat.)

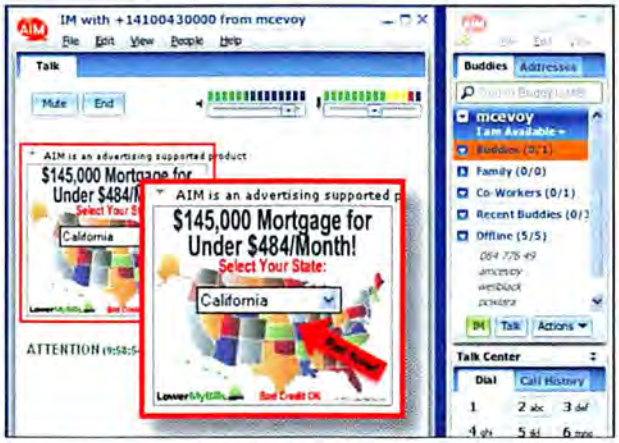
To use AIM Phoneline, you must install the latest version of AOL's free, ad-driven AIM Triton software plus a set of PC headphones with a mic. You'll also need patience, as it can take days for the service to kick in after you sign up. AOL says it uses the time to set up the E911 emergency service for outbound calls—a feature that is unavailable with many competing services.

The phone features are built right into the AIM application; online voice mail also comes with your account.

Audio quality on nine out of every ten calls was good; however, when I did experience a poor-quality call, it was really bad. The voices at both ends sounded stuttered, sentences frequently disintegrated into mumbo jumbo, and I would hear an annoying buzz. (Quality problems could be due to a variety of factors.)

The obvious comparison is to VoIP pioneer Skype, whose beta 2.5 version had better call quality (see review at find.pcworld.com/54314). All the same, AIM Phoneline is big news for AIM users who want to make phone calls and who don't mind being tethered to their computer to do so.

—Aoife M. McEvoy



AIM PHONELINE CHARGES $15 for outbound calls, and you'll need the AIM Triton software, which doles out an ad with every call.

AIM Phoneline
AOL
PCW Rating 79 **Good**
A good deal for AIM users who intend to make tons of calls (domestic and international) from their PC.
Free for incoming calls; $15 per month for outgoing calls
find.pcworld.com/54180

PHOTOGRAPH: MARC SIMON

Cures for Lost and Damaged Data

R-Studio 3.0 and other business continuity solutions from R-Tools lead the charge in restoring data

IN A CLIMATE WHERE USERS MUST GET access to business-critical data to serve customers and stay ahead of the competition, **R-Studio 3.0** from R-Tools is proving to be the ideal solution for recovering vital data lost to viruses, attacks, hardware failures, or operating system crashes.

This affordable undelete and data recovery software features an algorithm that lets users increase the quality of file recovery and recover files not recognized in the file system metadata. Further, R-Studio 3.0 supports both UFS1 and UFS2 file systems as well as enhanced remote host scanning procedures that analyze data on the remote host rather than on the local host to speed up data recovery and get users the information they demand.

PC WORLD ADVANTAGE MARKETING

Bundled with R-Studio 3.0 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 3.0 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, allowing 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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PC WORLD

Web Wonder

With the new FileMaker Pro 8.5, users can easily harness dynamic information on the Internet to maximize productivity.

These days,

the data you need to get your job done is often found on the Internet. The problem is: how to access that ever-changing Web-based information quickly, and then move it into applications to act upon it. Typically, this is a multistep, time-consuming, and confusing process.

Now the FileMaker Web Viewer, a breakthrough feature in the new FileMaker Pro 8.5, unites the world of Web information with easy-to-use database solutions.

The FileMaker Web Viewer delivers Web data on demand within the user's database solution. It does all this and more by combining FileMaker database functionality with live Web data into one convenient and user-friendly solution.

With FileMaker Pro 8.5 and FileMaker Web Viewer, users need not store instantly obsolete information in their databases. Rather, users can view the very latest Web data within the solution.

With FileMaker Pro 8.5's new FileMaker Web Viewer, you can map the location of your customers on the leading mapping sites.

Good-to-go Web addresses

Working with FileMaker Web Viewer is easy. For example, FileMaker Web Viewer can calculate a URL for a map Web site based on information in the database's address and city fields. As the user browses each record in the database, FileMaker Web Viewer displays a map of the location specified in the current record.

The FileMaker Web Viewer contains predefined Web Addresses that are ready-to-use, including:

- **Maps:** Map the location of your sites or customer offices on the leading mapping sites.
- **Search:** See up-to-the-minute news on your customers and vendors, and search for information that impacts your organization.
- **Finance:** View the latest financial news.
- **Tracking:** Track packages that you shipped or are expecting to receive.
- **Web encyclopedia:** Get related articles from the world's largest multilingual, free-content encyclopedia on the Internet.

Users can easily add Web content using these predefined Web Addresses as well as customize the Web Viewer.

Users can specify the information their database will use to retrieve data from the Web. Once it's set up, the Web Viewer retrieves up-to-date Web data for every record in the database.

So instead of separately accessing a Web site, searching for the desired Web data, and copying and pasting that information back into a different document or application, FileMaker Pro 8.5 allows users to simply link directly to the Web information they want, automatically. Creating links to specific Web sites from which users want to import real-time, current data is as simple as typing a URL into a dialog box that the FileMaker Web Viewer provides.

The applications of this astonishing new feature of FileMaker Pro 8.5 are almost limitless. For example, distributors of plumbing supplies for consumers and builders need to keep constant track of changes to features and prices of everything from sinks to faucets to showerheads. In the past,

this meant copying the information in PDF form from the manufacturer's site back into the distributor's database. This consumed storage space as well as employees' time, and the information needed to be updated constantly.

With the FileMaker Web Viewer, the distributor just builds a link to the database file for the part in question. When an employee summons the file, a window pops up with all the latest pricing and feature information. The PDF no longer needs to be stored locally, clogging up the distributor's database. More importantly, the employee has instant access to the latest information needed to serve the customer immediately.

Eliminating the wait

FileMaker Web Viewer makes instant work of those regular calls from customers checking on the shipping status of their orders. By linking directly to popular shipping sites like Federal Express, UPS, the U.S. Postal Service, and others, the current shipping status of an order appears when the customer record is summoned from the FileMaker database.

That's a far cry from the traditional solution of copying the shipping information, leaving the database session to go out to the shipping site, pasting in the shipping information, then returning to the database session to answer the customer's query. And again, none of the Web-based information needs to be stored in FileMaker when the user merely wants to access it. Users can even link individual customer records directly to the local weather or local sports information to give customer service staff conversational "ice breakers."

To view a video demonstration of FileMaker Web Viewer and see the Web Viewer Gallery of real-world solutions, visit www.filemakertrial.com/pcworld.

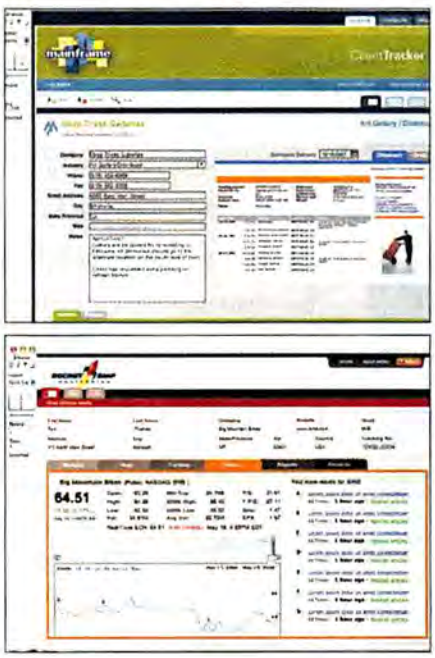
For retailers doing competitive pricing, the FileMaker Web Viewer can dramatically slash the time it takes to keep tabs on what the competition is doing. Heretofore, checking on the competition's pricing meant plastering the conference room walls with newspaper ads from competitors, or doing exhaustive and repetitive searches through online comparative pricing services. Now retailers can have instant access to the information they need so that they can respond in real time to maintain a competitive edge.

Build it once, then let your database deliver Web info

With FileMaker Web Viewer, users can link directly to online comparative pricing services such as Froogle, Yahoo Shopping, or Shopping.com. As the user scrolls through the database or list of items for which he or she wants comparative pricing, the most current pricing information pops up instantly, right there with information on the item itself from inside the FileMaker database.

And for companies involved in transportation, shipping, or logistics, FileMaker Web Viewer helps speed people and packages to where they need to go. For example, taxi dispatchers are constantly bombarded by cabbies asking for directions to an address. With FileMaker Web Viewer, the dispatcher can link the dispatching ticket system directly to MapQuest or Google Maps and then instantly deliver the correct directions to the cabbie with the electronic dispatch ticket.

The productivity-enhancing uses of FileMaker Web Viewer in FileMaker Pro 8.5 are limited only by the imagination of users. For more information or to test-drive FileMaker Web Viewer, visit www.filemakertrial.com/pcworld.



FileMaker Pro 8.5 allows you to link directly to the Web information you want.

New FileMaker Pro 8.5:

Web Data Delivered. On Demand.

The New FileMaker Pro 8.5 lets users easily manage, customize, and share information, whether they are working on Windows or Macintosh platforms. Among the productivity-boosting features of FileMaker Pro 8.5 are:

- Ability to connect your information to important Web data you rely on every day, such as search engine sites, location mapping sites, package tracking sites, and more.
- FileMaker Pro 8.5 is a Universal Application, optimized for Intel-based Macs and PowerPC Macs, as well as Windows XP and 2000.
- The new FileMaker Learning Center includes nearly 30 step-by-step video tutorials, how-to guides, and a wealth of other training aids available through the 30 FileMaker Starter Solutions to let users get up and running and be productive almost immediately.
- Capability to convert Microsoft Excel spreadsheets into versatile FileMaker databases with simple drag-and-drop functionality.
- Ability to store and manage just about any file type, including images, PDF documents, Microsoft Office files, movies—you name it.
- Ability to save information as Adobe PDF or Microsoft Excel documents for easy data sharing and exchange.

59 Ways to Make Software Do More

With these tips and tools, your everyday applications—from Office to IE, Firefox to ZoneAlarm—can become faster, more powerful, and easier to use.

BY ROBERT LUHN ♦ ILLUSTRATIONS BY DOUG FRASER

SOFTWARE VENDORS WOULD love it if we upgraded immediately to every new release of their products, but that's hardly necessary: There's plenty of life left in the programs we've been using for years. Here are 59 ways to get more out of the most popular programs from Microsoft, Adobe, Symantec, and other vendors. These tips and free or low-cost downloads will let you make mincemeat of your ever-growing workload.

First, visit your software vendors' sites, including Microsoft Office Update (office.microsoft.com/officeupdate), to download and install the latest patches and updates. You'll want to try the new Web-service alternatives to deskbound programs that Laurianne McLaughlin describes in "Sites That Work the Web" on page 88. Before downloading, check out my Download Rules, which you'll spot throughout the story. Browse to find.pcworld.com/54530 for a list of all the application add-ons mentioned. ▶

FRASER

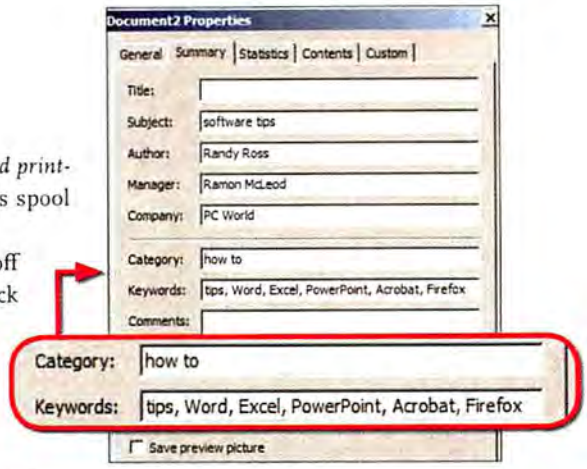
Microsoft Word 2003

EVERYONE LIVES IN Word, but it's a house beset by trapdoors, windows that stick, and a sometimes leaky roof. In short, it could stand some improvement.

MAKE WORD RUN FASTER Sometimes I think Microsoft intentionally configures Word to run slowly. Click *Tools•Options* and make the following changes to improve Word's speed and attitude: On the View tab, uncheck the *Animated text* box. If you use Word in Normal view, check *Wrap to window*. On the General tab, uncheck *Provide feedback with animation*. If you work with many documents, bump the 'Recently used file list' entries to 9 (the highest setting). If you use simple AutoShapes, uncheck *Automatically create drawing canvas when inserting AutoShapes*. On the Spelling & Grammar tab, uncheck *Check grammar as you type* and *Check grammar with spelling*. Really need speed? Turn off the on-the-fly spelling checker too, by unselecting *Check spelling as you type*. On the Print tab, turn off *Background printing*; most printers and networks spool print jobs plenty fast. Click *OK*.

Is Word still dragging? Turn off the other automatic features. Click *Tools•AutoCorrect Options*; and on the AutoFormat As You Type tab, uncheck all the boxes under 'Apply as you type' and 'Automatically as you type'.

REVIVE DEAD DOCUMENTS When Word crashes, it often trashes your document. But when Word restarts, the Microsoft Office Application Recovery feature may offer you a replacement document. If it does, check the file carefully and save it under a different name. If it doesn't, use Windows Explorer to make a backup copy of the damaged file; then switch to Word and open the original damaged document, but click the Open button's drop-down arrow and select *Open and Repair*. Word will try to fix the file. No good? If you've set up Word to make backup copies, look for your file with a .wbk extension tacked on; most of your data may still be there. If not, open the damaged document with WordPad and collect as much usable material as you can.



FIND FILES FASTER by adding descriptive keywords via the Document Properties box.

SUPERCHARGE SEARCH Smart searching requires documents stuffed with metadata—descriptive keywords that Word can search for. First tell Word to prompt you for the Properties dialog box. Select *Tools•Options*, click the *Save* tab, and check the *Prompt for document properties* box. When you try to save a new document, the Properties box will ask for input. (To add this data to an existing doc-

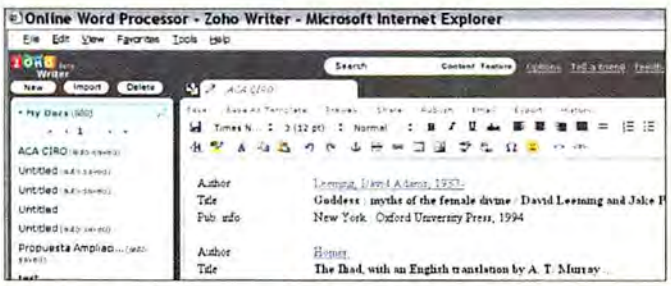
WEB SERVICES

SITES THAT WORK THE WEB

AJAX AND OTHER new Web technologies allow you to do a lot more in your browser today than you could just a couple of years ago. These new Web-based apps (many of them free) promise to make your work life better.

• **PRODUCTIVITY BOOSTERS:** ThinkFree Online (www.thinkfree.com)—a free, ad-supported Web service—delivers sprightly word processing, spreadsheet, and presentation applications in your browser. Create new .doc, .xls, or .ppt files, or work with existing Office files, all of which are reopenable in their corresponding Microsoft Office app. The service (currently in beta) offers 1GB of online storage, so you can keep key files offsite.

Writely.com, Google's cool little Web-based word processor, has closed its beta-test participation for now; but for an alternative, try Zoho Writer (www.zohowriter.com). The beta site imports existing Word docs of any size and complexity, and exports PDFs, .doc files, or .html files. If you need a svelte document editor for Web work, consider INetWord (www.inetword.com); it has a spelling checker and several document templates.



WORK ON WORD files in your browser via the Zoho Writer service, currently in beta.

• **E-MAIL DELIVERY SERVICES:** The free Dropload service (www.dropload.com) lets you park files as large as 100MB on a Web server for seven days; you send the recipient an e-mail with a link for downloading the file. SendThisFile (www.sendthisfile.com) offers a similar free service for individuals; you should expect to see some ads, though, and the files must be retrieved within three days.

• **CALENDARS TO SHARE:** Google Calendar (calendar.google.com) has an ad-free interface (unlike Yahoo's calendar), and

ument, open it and select *File•Properties*.)

On the Summary tab, enter the basic information—Title, Subject, keywords (for example, "restructuring," "goals for 2007"), Comments, and so on. Need more? Click the *Custom* tab and enter additional properties—Client, Department, and so on. You can even create custom fields: Enter a name in the Name box, choose its type, enter a value that you define, and click the *Add* button.

To search for documents, select *File•File Search*. In the Other Search Options area to the right, choose the drives or folders to search, the file types to find, and so on; then click the *Go* button.

LOCK UP YOUR DOCS Word can secure your documents to a moderate degree. Choose *Tools•Options*, and then click the *Security* tab. To prevent unauthorized edits, type a password in the 'Password to modify' box; to disallow unauthorized viewing, type a password in the 'Password to open' box. To permit editing (to fill in a form, for example, or to use tracked changes), click the *Protect Document* button and make your choices.

But Word's lockbox is easily picked. Try creating a watermarked PDF of your document with Docudesk's deskPDF Professional ($30, find.pcworld.com/54106). The tool can generate tamper-proof PDFs using 128-bit security that restricts viewing, copying, pasting, and printing.

USE WORD'S OWN security features to control what others can do to your documents.

USE WORD AS A CALCULATOR Word used to have a Calculate function on the Tools menu. Select numbers anywhere in the text, and, with a click, Word could add, divide, and more. Press <Shift>-<Insert>, and the result was pasted into your document. Word could even resolve expressions such as '(5+5)*(3+3)'. This feature remains part of Word; it's just hidden. To make it resurface, select *Tools•Customize*, and choose the *Command* tab and then *Tools* in the Categories panel on the left. Over in the right panel, locate Tools Calculate, grab it, and drag it over to a Word toolbar. To use the feature, highlight numbers in your document and click the new *Tools Calculate* button on your toolbar. The results appear in the status bar in Word's lower-left corner.

KEEP DOCUMENTS CONNECTED Your business proposal contains links to Excel worksheets, logos, and even parts of other Word documents. But if you put that proposal on your laptop and leave town, you will lose all the linked material.

You can embed the material in the ▶

fast searches of your calendar entries. This beta service could be a viable personal-calendar option if you're satisfied with quick, free, and simple. Another free beta, CalendarHub (www.calendarhub.com) provides nice calendars, easy sharing, group invitations, and publishing, with no ads as yet.

Kiko (www.kiko.com) sends reminders via IM or text message. Two calendar URLs let you share all or some of your events with anyone. The free service doesn't yet stay in sync with Outlook, but the company is working on it.

• **SITES FOR ORGANIZERS:** Use Backpack (www.backpackit.com) to organize everything from hiring someone to preparing for a trip. Store notes, links, files, pictures, and maps—all the data you need.

Voo2do (voo2do.com), a free task and project manager, organizes your items by priority and deadline, and tracks the time you spend on various tasks.

Remember the Milk (www.rememberthemilk.com) stores random info. Add tasks via e-mail and send reminders to yourself or others in a slew of ways.

• **PROJECT MANAGEMENT AND COLLABORATION:** Basecamp (www.basecamphq.com) tracks and manages group projects. The service's prices start at $12 per month for a personal plan, and at $24 for business plans. (A free trial is available.)

• **THE LATEST IN SEARCH:** When a question stumps you, browse to Answers.com, which is particularly adept at technology questions. The next time someone asks what blogs are saying on a subject, give Ask.com's blog search feature (find.pcworld.com/54128) a try; it will clue you in to hot blogs on almost any topic.

–Laurianne McLaughlin

VOO2DO.COM'S FREE SERVICE lets you keep tabs on all of your tasks.

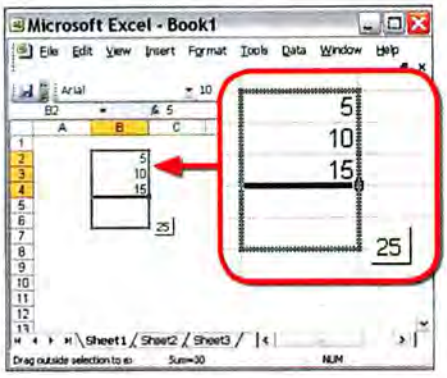
document, but then you lose automatic updating. Here's a fix: When inserting graphics, select *Insert•Picture•From File*, select the file, click the little down arrow on the right side of the Insert button, and choose *Insert and Link*. Word will thereupon store a copy of the picture for use when the linked file isn't available, and it will update the picture whenever the file becomes available again.

For files and other objects, you can either break the links or take all the files with you. To break links, choose *Edit•Links*, select all the links, click the *Update Now* button, and then click *Break Link*. To take the files with you, use the Links dialog box to see which files you need, and copy them all to a folder on your computer. In the Links dialog box, click the *Change Source* button to alter each source file's location. And use the free Word Hyperlink Checker (find.pcworld.com/54102) to find and scotch dead hyperlinks.

Microsoft Excel 2003

PEOPLE USE THE world's most popular spreadsheet program to manage everything from multinational corporations to Little League baseball teams. Unfortunately, many of Excel 2003's best tools are difficult to find. And some of its most useful features require a third-party add-on. These tips and downloads will jet you through your worksheets and make the program work the way you want it to.

ENTER DATA IN A FLASH Why waste time typing a data series into Excel when you can use the fill handle to enter the data in one step? The program generates all kinds of numeric and text sequences for you automatically, and it can even figure out custom sequences as you create them. For example, type **January** into a cell, select it, and hover your pointer over the black square (the fill handle) at the bottom-right of the cell. Drag the fill handle down or to the right to fill in values 'February', 'March', and so on. Or enter another series—say, **5**, **10**—in adjacent cells (you'll need at least two entries to see the effect), select the cells, and drag the fill handle to have Excel fill in '15,' '20', '25', ... to the end of your selection. If you want Excel to copy the series, press the **<Ctrl>** key as you drag (it will repeat the series as many times as you have room for).



CUT DOWN ON your data-entry chores—Excel can fill in series with the yank of a cell's handle.

SUMMARIZE YOUR DATA AUTOMATICALLY One of my favorite Excel 2003 features is the program's data list, which treats a set of columns and rows as they would be treated in a database table. This enables the program to total columns automatically. It also allows you to change a column's summary operation. For example, if you have a table with columns containing customer ID numbers and rows recording each of their orders, you can create a data list by typing a set of column headers into a worksheet, selecting the header cells, and then choosing *Data•List•Create List*. Check the *My list has headers* box and click *OK*. A new data list appears, complete with a data entry row. Now if you'd like to add a summary row at the bottom of the table, you can do so by selecting *Data•List•Total Row*. If you would like to change the default 'Sum' summary operation that any cell in the Total row uses, you just select the cell, click the down arrow that appears, and choose a different summary operation (Average, Max, Min, and so forth).

EXPAND YOUR NAMED RANGES Excel lets you define named ranges so your formulas are more descriptive. (For example, you can replace '=SUM(C2:C25)' with '=SUM (Bonus)'.) Although Excel's named ranges are usually static cell ranges, such as 'C2:C25', you can create a dynamic named range that expands as you add new data. To rename a range and make it dynamic, note the worksheet's name (such as 'Bonus') and the address of the first data cell in it that's not a column header (such as 'C2'). Click *Insert•Name•Define*; enter the worksheet name in the 'Names in workbook' field. In the 'Refers to' field, type **=OFFSET(Bonus!C2,0,0,COUNTA(Bonus!$C:$C))** with no spaces, and then press **<Enter>** to create the named range. This formula defines your named range, counts the number of nonblank cells in column C (starting from cell C2), and extends the range by that number of cells.

NAME THE DATES If someone sends you a worksheet with dates in *mm/dd/yyyy* format ('10/23/2006'), you can add the days of the week that those dates fall on, with just a few quick swipes of your mouse. Simply select the dates, right-

DOWNLOAD RULES

AVOID TOOLS THAT TRACK

DON'T USE download tools—your movements may be recorded. (At least search for the program in the spyware database at www.spywareguide.com beforehand.) Avoid downloading anything iffy. Be especially wary if you can't see an obvious revenue source for the program and it's not open-source software. Don't let a site install an ActiveX control unless it has been digitally "signed" by a reputable company. Finally, don't download illegal or pirated software, which is much more likely than a legitimate program to include malware.

click them, choose *Format Cells*, pick *Date* in the Category list on the left, choose *Wednesday, March 14, 2001* in the Type list on the right, and click *OK*. Now the days of the week are paired with their corresponding full calendar dates. To create a date with a custom pattern, choose *Custom* in the Category list, and in the Type box on the right, select the format you prefer. For example, selecting 'd-mmm-yy' will cause Excel to convert '10/23/2006' into '23-Oct-06'. For a list of date codes, go to find.pcworld.com/54078 and scroll down to the page's "Formatting Codes" section.

REFORMAT YOUR EXCEL view to quickly create a presentation screen.

FIND TARGET VALUES Does your boss ask you questions like, "How much do we have to reduce our labor costs by so they represent no more than 20 percent of our expenses?" Put down that aspirin, and let Excel do the heavy lifting with its Goal Seek feature. Open the relevant worksheet, select the cell containing the labor-cost number, and choose *Tools•Goal Seek*. Type the target value in the 'To value' field, and enter the address of the cell that you want to change (in this example, the labor expense cell) in the 'By changing cell' field. Press **<Enter>**. If a solution is possible, Goal Seek displays the result. If not, it tells you there is no solution.

EXCEL DOES POWERPOINT You don't have to depend on PowerPoint to create every presentation slide you make. Excel's often-overlooked View function presents your data pretty effectively, too. If you have a worksheet with five cells documenting, say, departmental expenses, simply select the cells and choose *View•Zoom*. In the dialog box, choose *Fit selection* and click *OK*. To save this view, select *View•Custom Views*, click the *Add* button, supply a name for the view, and press **<Enter>**. To recall the view, choose *View•Custom Views*, select the view from the list, and then click the *Show* button.

SHARE A PIVOTTABLE, NOT THE DATA Businesses large and small use Excel's PivotTables to summarize their important data. But PivotTables often contain sensitive data, so you might very well hesitate to share them. One simple strategy is to separate your PivotTable from its underlying data. To do so, right-click the PivotTable's worksheet tab at the bottom of the screen, and select *Move or Copy*. In the 'To book' drop-down, click *(new book)* and then *OK*. Excel will move the worksheet to a new workbook. Give the new workbook a different file name from the original, and save it. Now you can distribute the workbook holding your PivotTable without exposing the source data.

Microsoft PowerPoint 2003

PETER NORVIG (a Google bigwig) once said, "PowerPoint is like having a loaded AK-47 on the table: You can do very bad things with it." But maybe PowerPoint is misunderstood. Delve into these tips and tools for making it work better.

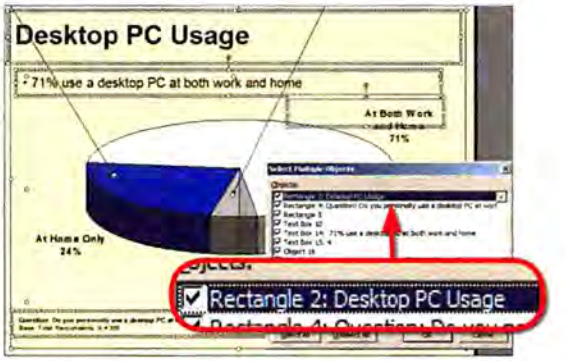
LET'S GET SMALL PowerPoint users quickly learn that presentation files can get real big, real fast. One way to keep 'em small is to turn off Allow Fast Saves (*Tools•Options*, click the *Save* tab). Another is to use the options from PowerPoint's Insert menu instead of dragging and dropping photos, sounds, and other files from Windows Explorer onto a slide (and thereby creating an embedded OLE Server with lots of overhead in your file).

Finally, your pictures shouldn't use any more pixels than the screen projecting them does. For instance, if you use an XGA projector, a picture taking up a fourth of a slide shouldn't exceed 256 by 192 pixels, and an image filling an entire slide shouldn't top 1024 by 768 pixels.

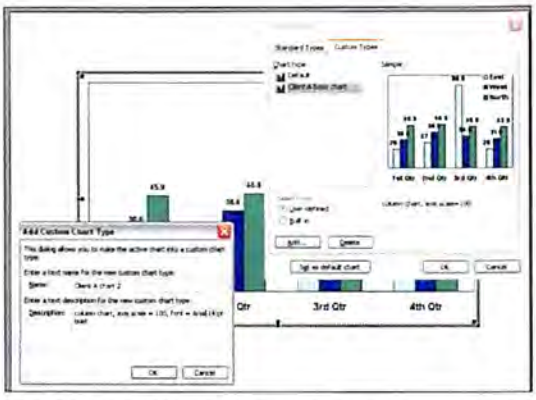
BUILD PRESENTATIONS IN WORD Before you create a presentation in PowerPoint, build it (or at least its skeleton) in Word. The trick? Apply just a handful of styles to your text, and then shift the file to PowerPoint using *File•Send to•Microsoft Office PowerPoint*. Any text tagged in Word with Heading 1 becomes a slide title in PowerPoint. Text tagged with Heading 2 becomes a primary bullet, Heading 3–styled text turns into second-level bullets, and so on. (You can apply styles in Word by using the Task Pane available at *Format•Styles and Formatting*, or by selecting levels or promoting/demoting text in Word's Outline View.)

Note: Text set in the Normal style won't transfer, nor will tables, charts, graphics, and other objects in your Word document. Be prepared to use *Edit•Copy* and *Edit•Paste Special* to move these items from Word into PowerPoint.

SEE EVERYTHING AT ONCE PowerPoint's Select Multiple Objects tool is invaluable when you need to click objects in a slide that other objects are hiding. To add it to your toolbar, select *Tools•Customize•Commands*, choose *Drawing* in the Categories panel, and drag the *Select Multiple Objects* tool to a toolbar. Click the *Close* button. Choose the *Select Multiple Objects* icon, and a dialog box, ▶



THE SELECT MULTIPLE Objects command lets you easily identify all the objects in a complicated PowerPoint slide.



CREATE A CUSTOM chart in PowerPoint and then modify it.

listing all of the objects on your slide, will pop up. Check the box next to the objects you want to select, and click *OK*.

The next time you add objects to a presentation, plan ahead. Insert the object, double-click it, and type descriptive text in the Web tab. This information will show up when you use Select Multiple Objects—handy if you're trying to remember what the object is.

SET UP CUSTOM CHARTS PowerPoint comes with a bushel of prefab chart types, but it's simple to create reusable variations that you define. Double-click a chart in your presentation, and select *Chart•Chart Type•Custom Types*. Click the *User-defined* radio button and then the *Add* button. Type in a name and description for the chart, and click *OK* to add it to your list of user-defined charts.

Still, user-defined charts won't retain color changes you make to PowerPoint's standard palette, nor will they travel with presentations or templates. If you want to share user-defined charts with colleagues, locate GRUSRGAL.GRA (usually in C:\Documents and Settings*userprofile*\Application Data\Microsoft\Graph), send a copy to your colleagues, and have them replace their GRUSRGAL.GRA file with yours. Warning: This action will overwrite any user-defined charts that they created!

GROW AND SHRINK PowerPoint offers an animation called Grow/Shrink that causes the selected objects to do just that. But you get no delay function. So if you want to enlarge a photo, fly some text over it, and then shrink the photo, the Shrink function won't work.

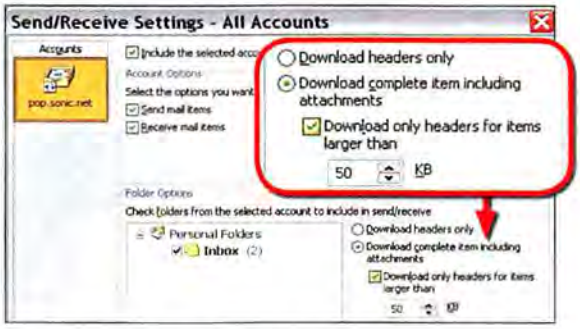
The fix is to create the animation in stages. Right-click the picture on the slide and select *Custom Animation*, click the *Add Effect* button in the task pane to the right, select *Emphasis•Grow/Shrink*, and leave the default setting of '150%' in the Size drop-down. This will enlarge the animation. Now animate the text. Finally, select the picture again, click *Emphasis•Grow/Shrink*, enter **66.7** in the Size drop-down, and press **<Enter>**. This will trigger the shrink. Note: To determine how much to reduce objects, use the formula (Target percent/Grown percent) × 100. In this case, (100/150) × 100 = 66.7 percent.

Microsoft Outlook 2003

AFTER THE TELEPHONE, Outlook may be the most ubiquitous (and maddening) communications tool around. These tips will help you gain more control over the messages that enter your inbox, as well as the ones that leave your outbox.

DOWNLOAD HEADERS ONLY Nothing is more frustrating than downloading a humongous e-mail only to find out that it's spam—or only slightly better, pictures of Aunt Sally's latest knitting project. To make Outlook give you a chance to screen large messages and decide for yourself when to download the files, click *Tools•Options•Mail Setup•Send/Receive*, choose *All Accounts*, and click the *Edit* button. Select the *Download complete item including attachments* option (it likely is checked by default), and choose the *Download only headers for items larger than* box. Set a threshold size for messages (the default is 50KB), and click *OK•Close•OK*. From now on, when Outlook encounters a message larger than the threshold size you selected, it will download only the header.

CONTROL YOUR AUTOMATIC RETURN RECEIPTS Outlook lets you limit your return-receipt requests to the addresses you specify. To create your list of addresses with receipt requests, select *Tools•Rules and Alerts* and click the *New* ▶



INSTRUCT OUTLOOK TO download only the headers of all the messages you receive that have large files attached to them.

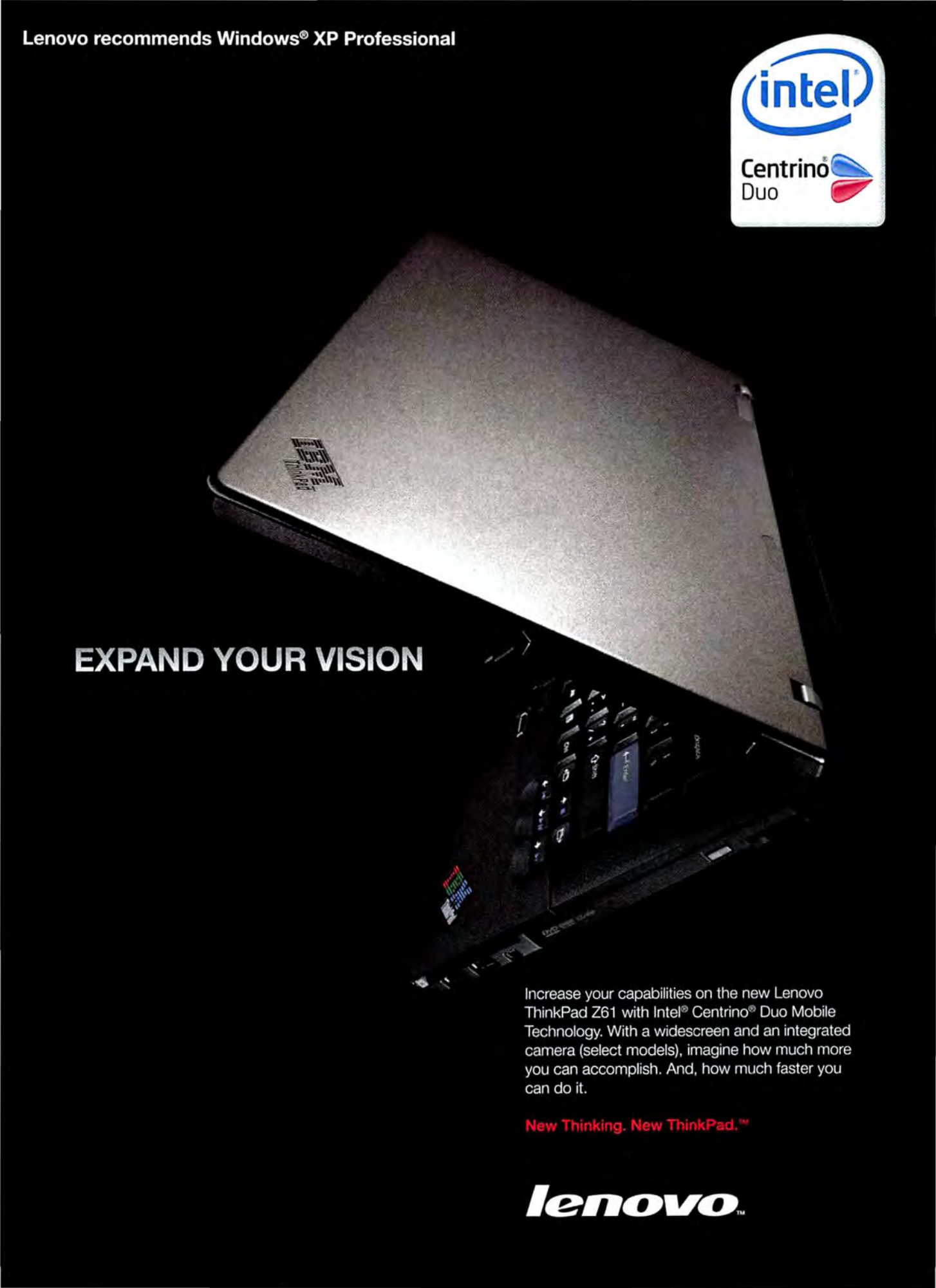
DOWNLOAD RULES

BE WARY OF BETA VERSIONS

NEVER download and install beta software releases except on a computer that you don't rely on. Make sure the PC is backed up, and that it has Windows' System Restore turned on. Read the software's end-user license agreement (EULA), which may restrict use, state that adware or other tracking software is included, or even require you to file beta reports.

Never let your browser automatically extract the contents of the zipped files you download. This is a common way to unleash a virus. Make sure your antivirus program scans the zipped file first, and then extract the uncompressed files manually.

Lenovo recommends Windows® XP Professional



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ThinkVantage Client Security™[2] – Strong security as a standard feature

system features
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Intel® Core™ Duo Processor T2300[3]
Intel® Pro/Wireless 3495ABG[4]

Genuine Windows® XP Professional[5]

12.1" XGA TFT (1024x768)

Travel Weight 3.15 lbs[6]

512MB[7] memory, 60GB Hard Drive[8]

Integrated Fingerprint Reader

TopSeller Model
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Option
ThinkPad Carrying Case[9] – Leather Ultraportable
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distinctive innovations
ThinkPad Productivity Center – ThinkPad help at your fingertips

system features
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ThinkPad T60

distinctive innovations
Integrated Fingerprint Reader

system features
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Intel® Core™ Duo Processor T2300
Intel® Pro/Wireless 3495ABG

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512MB memory, 60GB Hard Drive

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Travel Weight 4.65 lbs and only 1" thin[11]

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ThinkPad T60

distinctive innovations
Integrated Fingerprint Reader

system features
Intel® Centrino® Duo Mobile Technology
Intel® Core™ Duo Processor T2400
Intel® Pro/Wireless 3495ABG

Genuine Windows® XP Professional

15" XGA Display (1024x768)

512MB memory, 80GB Hard Drive

CD-RW/DVD Drive, ATI x1300 64MB Graphics

Travel Weight 5.3 lbs and only 1" thin

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Option
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ThinkCentre A52 Tower

distinctive innovations
Rescue and Recovery™ – One-button recovery and restore solution

system features
Intel® Pentium® D Processor 820 (2.80 GHz) with revolutionary Intel dual-core technology

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512MB memory

80GB Hard Drive, CD-ROM

6 USB 2.0 ports (2 Frontside)

TopSeller Model
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Option
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$229 with system purchase | **$249** PN 9417AC1 Regular Price

ThinkCentre A52 Tower

distinctive innovations
Rescue and Recovery™ – One-button recovery and restore solution

system features
Intel® Pentium® D Processor 820 (2.80 GHz) with revolutionary Intel dual-core technology

Genuine Windows® XP Professional

512MB memory

160GB Hard Drive, DVD Recordable Drive

6 USB 2.0 Ports (2 Frontside)

TopSeller Model
$729 PN 8288G5U

Option
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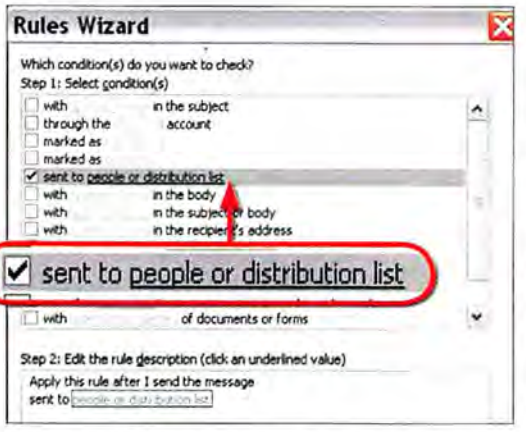


USE THIS RULES feature to control who receives e-mail with return receipts from Outlook–and who doesn't.

Rule button. Choose *Start from a blank rule*, select *Check messages after sending*, and click *Next*. Check *sent to people or distribution list* in the top box. At the bottom of the screen, click the *people or distribution list* link. Now select only the people who should receive e-mail with return receipts. Click *OK•Next*, and check *notify me when it is delivered*. Click *Next* twice. Enter the rule's name in the Step 1 field, and complete the process by clicking *Finish•OK*.

Microsoft Internet Explorer 6

INTERNET EXPLORER 6 is woefully out-of-date, but folks are stuck with it until version 7 arrives. (Browse to find.pcworld.com/54526 for our first look at the IE 7 beta.) To stretch the current release's features, apply a little finesse with these tips and freebies for your browsing pleasure.

INTERNET EXPLORER DOES TABS When Internet Explorer 7 finally ships (only the Shadow knows the actual date), it will include tabs. But you can give IE 6 tabs now, with the free Maxthon browser (find.pcworld.com/54044) built around IE. Besides adding tabs, Maxthon lets you perform common tasks by moving the mouse in certain ways. It also blocks ads, erases your Web browsing tracks, provides a built-in RSS reader, and more. Maxthon can easily pull in your IE Favorites as well, but other preferences don't transfer over.

FIND FAVES FAST Are you sick of scrolling through IE's clunky Favorites list? Save your sanity by installing Dz-Soft's free Favorites Search (find.pcworld.com/54092). Once the program is ensconced on IE's toolbar, a click summons a quick-search box. Enter a keyword, and voilà—a list of clickable bookmarks appears. You can search a bookmark's name and/or the URL itself, automatically create a handy Last Items Found folder, and more. Note that your anti-spyware program may alert you to the presence of a browser helper object; but in this case the object doesn't constitute a security risk.

YOU DON'T NEED to wait for browser tabs: Maxthon shows each of your open Internet Explorer 6 windows under a separate tab.

LAUNCH IE YOUR WAY Need Internet Explorer to load in a specific way? You can launch IE from Windows' *Start•Run* box by using various switches. For example, type **iexplore -e**, and the app launches with a Windows Explorer pane on the left and IE on the right. Type **iexplore -k**, and IE launches in full-screen kiosk mode—no toolbars, no address bar, nothing. (To close the window again, simply press **<Alt>-<F4>**). Type **iexplore -nohome**, and IE displays a blank page. You can also combine switches with URLs. For example, to open IE in kiosk mode to PCWorld.com, type **iexplore -k www.pcworld.com**.

WITH A FEW tweaks to the Windows Registry, you can beautify your Internet Explorer toolbar.

PRINT WITHOUT GRAPHICS When you print a Web page with IE, you probably care more about the text than about the graphics and ads. If a Web site has a "printer-friendly" link, you're set. If not, tell IE to print your page, minus pictures.

Open Notepad and type:

IMG { display: none !important;}

Download: NoImages.css [right-click and select: Save Target As]

Save the file as **Imagesoff.css**. When you're ready to print, go back to Internet Explorer, select *Tools•Internet Options*, click the *Accessibility* button, and check the *Format documents using my style sheet* box. Click the *Browse* button, navigate to and select the *Imagesoff.css* file, click *Open*, and then click *OK* twice. IE will stop displaying most (but not all) of the images. If, after printing your page, you want IE to display images again, go back and uncheck the *Format documents* box.

FULL-SIZE WINDOWS–ALWAYS Sometimes when you right-click a link and select *Open in New Window*, you get a cramped, half-size pane. To see a full-screen window every time, teach IE this trick: Shut down all instances of IE, except one. Right-click any link, and select *Open in New Window*. Close the original browser window, and resize the remaining window manually by dragging each side as far as it will go. (Don't click the Maximize button to do this.) Hold down the **<Ctrl>** key and click the × at the top-right of the page to close IE. From now on, IE will open new windows full-size.

QUICK KEYBOARD SURFING These two keyboard classics save tons of time, and let your mouse cool its casters. First, to push the cursor into IE's address field, type **<Alt>-D**. Next, type the core address (such as **pcworld**) and press **<Ctrl>-<Enter>**, and both the 'www.' and '.com' will be ▶

slapped around it. Press **<Enter>**, and IE will take you to the site. (Note: These shortcuts also work in Firefox.)

DESIGN YOUR OWN TOOLBAR Tired of IE's drab toolbar? Add any .bmp file as a background. If the file is small, IE will tile it for you. (Don't go smaller than 10 by 10 pixels, however.) The steps: Open the Registry editor by selecting *Start•Run*, typing **regedit**, and pressing **<Enter>**. Go to and select *HKEY_CURRENT_USER\Software\Microsoft\Internet Explorer\Toolbar* in the left pane, and right-click in the right pane. Select *New•String Value*, and type **BackBitmapIE5**. Double-click this new key. In the 'Value data' box, enter the path of the .bmp file you want to use, and press **<Enter>**. Exit the Registry and close IE. The next time you open IE, you'll see your custom background image on the toolbar. To remove the background, delete the BackBitmapIE5 key.

DOWNLOAD RULES

SCAN BEFORE, SCAN AFTER

PCWORLD.COM'S Downloads section and most other popular download sites generally sterilize the files in their libraries and require publishers to follow certain standards. Visitors often post warnings on user review pages. If you must download from a vendor—even a big name—scan the file for viruses before you run it.

Protect yourself by installing a firewall (for example, the free-for-nonprofit-and-nonbusiness-use ZoneAlarm; see page 100), a reliable antivirus package like Norton AntiVirus, and a good spyware scanner such as Webroot's Spy Sweeper (free trial, $30 to keep; find.pcworld.com/54222).

Mozilla Firefox 1.5

IF YOU CONSIDER Internet Explorer too big a target for online dastards, the Mozilla Foundation's Firefox may have appeal as a safer browser alternative. Here are several ways to get more out of Firefox.

RUN IE INSIDE FIREFOX Some sites work properly only when viewed in Internet Explorer, including Microsoft's valuable Windows Update site (update.microsoft.com). The free IE Tab extension (find.pcworld.com/54108) allows you to run Internet Explorer from within Firefox. When you visit a page that requires IE, the extension fires up Microsoft's rendering engine and permits you to surf without a hitch. (If IE Tab doesn't kick in, right-click the page and choose *View Page in IE Tab*.) You can even set specific sites to open with IE when you visit them in Firefox: Choose *Tools•IE Tab Options*, click the *Sites Filter* tab, type the address into the URL box, and click *Add* and then *OK*.

RESTART FIREFOX IN SAFE MODE Sometimes Firefox gets tripped up by an extension or theme for the browser. Like Windows XP, Firefox has a safe mode that loads a barebones version of the program, without extensions and custom settings. First, completely close Firefox. Now click *Start•Run*, type **firefox.exe -safe-mode**, and press **<Enter>**. The resulting dialog box lets you reset toolbars, controls, bookmarks, and user preferences. When you're done, click *Continue in Safe Mode*.

CHANGE YOUR THROBBER PAGE The small circular icon in Firefox's upper-right corner that twirls when the browser is working is called the "throbber." When you click it, you jump to the "Welcome to Firefox" page. But you can tie the throbber to a different page: Type **about:config** in the address bar, and press **<Enter>**. Type **browser.throbber.url** in the Filter box, and then double-click this entry in the list beneath. In the 'Enter string value' field that appears, type the desired URL and press **<Enter>**. The throbber will henceforth take you to that site.

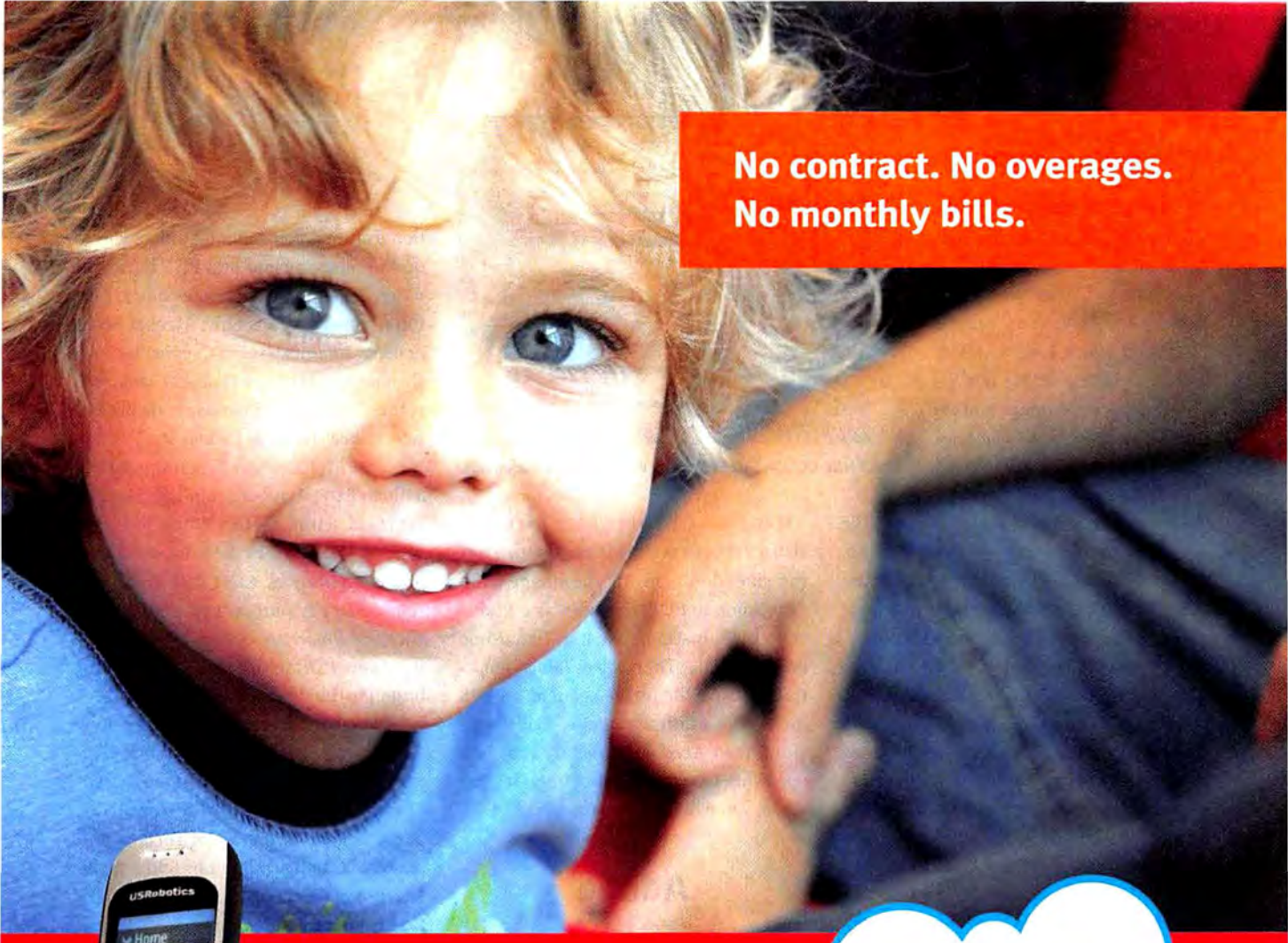
RECOVER FROM A FIREFOX CRASH When Firefox crashes, you have to restart the browser and reopen tabs for the sites you were visiting—what a hassle! The free Tab Mix Plus add-on (find.pcworld.com/54110) provides a raft of useful tab controls. Once you've installed the program, when Firefox crashes, simply restart the browser and choose *Tools•Session Manager•Last Session*. The program's Session Manager even remembers all your closed tabs, so if you accidentally close one, you can reopen it in a jiffy.

CHANGE FIREFOX'S THROBBER icon so that clicking it will lead you to whichever Web site you choose.

Adobe Elements 4 & Photoshop CS2

A PICTURE IS worth 10,000 clicks—if you're trying to make something look just right in Photoshop (or even its little sibling, Photoshop Elements). Herein, ways to keep the clicks to a minimum.

FASTER ELEMENTS Though Elements is pretty swift, it could be swifter. When it loads, turn off the Welcome screen and shave about 10 to 20 seconds off the startup time. At the bottom left of the startup screen, click the *Start Up In* drop-down, choose *Editor*, and close the Welcome screen. Two other time-savers: Press **<Ctrl>-J** to duplicate the current layer, and press **<Ctrl>-<Alt>-<Shift>-E** to copy everything you see in the current image to a new layer. These two tricks let you keep your corrections and continue working without flattening the image. ▶



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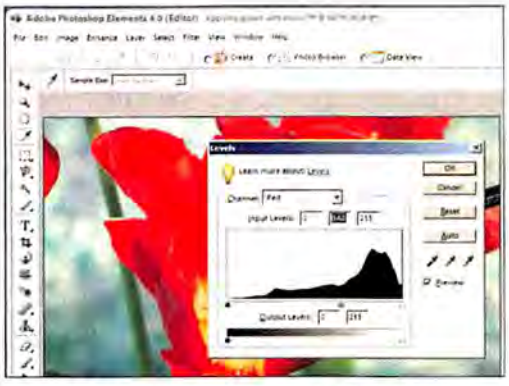


BALANCE COLORS IN Elements, via the Levels dialog box.

BALANCE YOUR COLORS Elements lacks a Color Balance feature (something Photoshop has had for years). But fear not, Photoshop maven Richard Lynch says: Use Elements' Levels dialog box instead. Open the image and select *Enhance•Adjust Lighting•Levels* (or press **<Ctrl>-L**). Select *Red*, *Green*, or *Blue* from the Channel drop-down, and then move the gray slider immediately below the graph. The Red channel balances red and cyan; the Green channel, green and magenta; and the Blue channel, blue and yellow.

AUTOMATE PHOTOSHOP CS2 The ability to record and play back steps makes Actions a powerful, time-saving tool, especially since actions can be assigned to function-key combinations. Say you want to access some tool presets without opening the Tool Preset palette. Press **<Alt>-<F9>** to open the Actions palette, click the *Create new set* button (the tiny folder icon) on the palette, and name the set. Then click the *Create new action* button next to it, name the action, assign a function-key combination (for example, **<Shift>-<F2>**) to it, and click the *Record* button. Walk through the steps, click the square *Stop* button on the palette, and close the palette. The next time you want to select that tool preset, just press **<Shift>-<F2>**. One caveat: Adobe's implementation is a little uneven. If one keyboard combo doesn't work, try another!

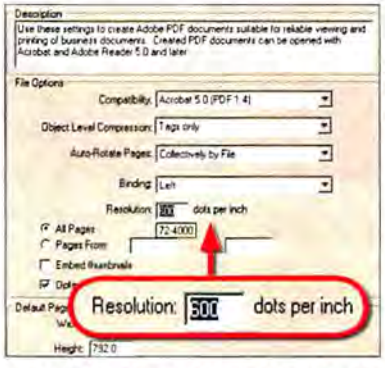
INSTANT WEB PHOTO GALLERIES If you want to share pictures but lack the skills to create a Web site of your images, rest easy. Photoshop CS2 can create a dozen different photo galleries for you in a flash. Select *File•Automate•Web Photo Gallery*, pick a template from the *Styles* drop-down, select *Banner* from the *Options* drop-down, and in the Site Name field enter a title; then select the folder holding the images you want to use, size them, and pick a destination folder to hold the generated HTML and other files. Click *OK*, and Photoshop processes your images and generates the Web pages.

MAKE SHARP, SMALL PDFs To create a sharp PDF of a scanned image with a tiny file size, don't "print" the image from Photoshop to PDF, or save it as a Photoshop PDF. Instead, save it in Photoshop as an EPS file. Then select *Image•Mode•CMYK*. Save the image again as an EPS file, under a different name. Exit Photoshop, load Acrobat Distiller, and then open this second EPS file. When it's finished, you will have a sharp, small PDF.

Adobe Acrobat 7

ACROBAT IS ESSENTIAL for anyone involved in publishing—or for that matter, anyone who wants to create portable documents or capture Web pages with a click. (We refer, of course, to the full Acrobat package—beginning with the $299 Acrobat Standard edition.) But even this capable app needs a nudge.

VIEW NOTES It's simple to use a full Acrobat package to add a note to a PDF. Click the *Comment & Markup* toolbar icon, and select *Add a Note*. The problem? Acrobat pushes the note halfway off-screen. The fix: Select *Edit•Preferences*, choose *Commenting* in the Categories list, and uncheck the *Create new pop-ups aligned to the edge of the document* box.



CUSTOMIZE ADOBE ACROBAT PDFs with your own presets. Need faster printing? Reduce resolution to 300 dots per inch.

HIDE THOSE NOTES Acrobat's annotation feature is convenient—unless you're on the receiving end of a PDF buried in notes. To suppress the notes quickly (in full Acrobat versions only; Acrobat Reader users are stuck), select *Comments•Show Comments & Markups•Hide All Comments*. If the Commenting toolbar is displayed, select *Show•Hide All Comments*.

ACROBAT YOUR WAY When you "print" a file to PDF, Acrobat defaults to its poky standard settings. Here's how to create your own settings. In the print dialog box of any application, select *PDF Printer* (or *Adobe PDF*) as your output "device," and click the *Properties* button. Then choose the *Adobe PDF Settings* tab. Click the *Edit* button to the right of the Default Settings field, and you can create a new preset.

For faster desktop printing click *General*, and change 600 to **300** in the Resolution field. For smaller on-screen PDFs, select *Images*. In the 'Color Images' and 'Grayscale Images' sections, change the Downsample settings to *100 pixels per inch* for image resolutions that exceed 100 pixels per inch. In the Monochrome Images sections, set the values to *300 pixels*. Click the *Save As* button and name the preset.

MATCH A FACE Ever wonder why a PDF of a Web page doesn't resemble the Web page? Maybe the Web site won't let Acrobat download its fonts. Or maybe Acrobat isn't trying to download them. To change this behavior, open Acrobat, click the *Create PDF* button, and select *From Web Page*. Next, click the *Settings* button and, in the File Type Settings, select *HTML* and click the *Settings* button. Click the *Fonts and Encoding* tab, and then check the *Embed Platform Fonts When Possible* box. Click *OK* twice, and back at the 'Create PDF from Web Page' dialog box, click *Create*.

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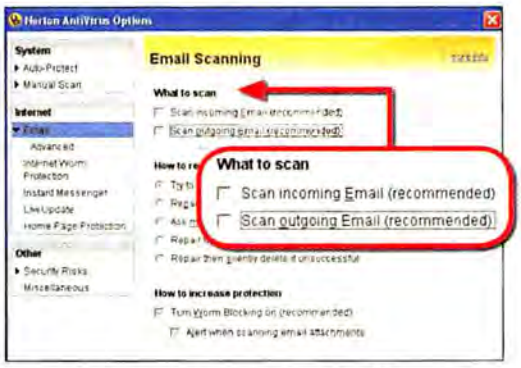
Symantec Norton AntiVirus 2006

UNTIL A SAFER world arrives, an antivirus utility such as Norton AntiVirus 2006 is essential for any PC user. These tips will bolster your virus protection.

SPEED UP YOUR VIRUS CHECKER Never run a disk scan while streaming audio or other big files from the Internet, or while running any program that actively accesses the hard drive. If you have a sturdy, up-to-date firewall in place, you can disable NAV's Auto-Protect feature when you're not using the Internet or any other network (including e-mail); Auto-Protect is a performance hog. Just be sure to scan every download for viruses before you open it and after you update your virus definitions. If Norton's LiveUpdate is running too slow, go to find.pcworld.com/54112 and download the latest security updates and virus definitions there.

INTEGRATE YOUR ANTIVIRUS AND FIREWALL If you install NAV on a system protected by the ZoneAlarm Internet Security program (which has an antivirus tool of its own), NAV will urge you to uninstall ZoneAlarm. Ignore it and click the *Next* button. NAV will install just fine. When your PC reboots, you'll find that ZoneAlarm's virus checker is disabled. Flipping between the two virus scanners is easy: In NAV, select *Options•Norton AntiVirus*, uncheck all the boxes to disable NAV, and end by rebooting your PC. A message will pop up, asking whether you want to enable ZoneAlarm's antivirus scanner. (If the message doesn't appear, double-click ZoneAlarm's icon in the system tray, and activate its antivirus and spyware features manually.) Reverse the preceding steps to revive the virus scanner that's built into NAV.

TURN OFF WHAT YOU DON'T NEED If you exclusively use Web-based e-mail—such as Gmail or Yahoo Mail—that you access via your browser (not through Outlook, Mozilla Thunderbird, or any other e-mail client), you can safely turn off Norton AntiVirus's automatic e-mail protection: Click *Options•Norton AntiVirus*, select *Email* in the left pane, and uncheck *Scan incoming Email* and *Scan outgoing Email*.



SWITCH BETWEEN NORTON AV and ZoneAlarm Internet Security e-mail scans by unchecking these options.

DOWNLOAD RULES

PUT EVERYTHING ON A CD

PUT YOUR antivirus, spyware scanners, and other rescue utilities on one CD. Then, if disaster strikes, you can clean up your PC with programs on the disc, without having to download anything.

Back up your browser bookmarks, templates, inboxes, and other preference information. If you're faced with reinstalling Windows, this will make your life a lot easier. Browse to find.pcworld.com/54134 for more on preparing your PC for disaster. When you save the files, give them descriptive names. If you need to maintain the original file name, combine the two, as shown here: VideoGacker2.0--Vgkk200-dz.exe.

Zone Labs ZoneAlarm

ZONEALARM CONTINUES TO be the firewall defender of choice, but you can make it work even better with a few simple tweaks. (Note that these tips also work with ZoneAlarm Pro; $50 for a one-year subscription.) Browse to find.pcworld.com/54118 to download the free version, and visit find.pcworld.com/54120 to obtain the 15-day trial of the Pro release.

YOU CAN TAKE IT WITH YOU If you're a road warrior, constantly moving from home to office to airport to client with trusty (and encrypted) laptop in tow, preconfigure ZoneAlarm for all the network address ranges and subnets you want it to accept. Your home and office network can go in your trusted zone, as can any remote offices you visit regularly. Otherwise, instruct ZoneAlarm to challenge new and unknown networks by popping up a warning when you attempt to access them. At that point, you can accept them case-by-case, or classify them as Trusted, Internet, or Blocked.

TRACK ATTACKS ON YOUR PC ZoneAlarm is a first-rate firewall, but it can't tell you much about who's trying to break into your system, nor can the program report the information to the proper authorities. That's where the VisualZone utility comes in. This free add-in performs a "backtrace" that attempts to locate the would-be intruder's IP address, physical location (more or less), and Internet service provider. With a single click, you can report the incursion to DShield, a service that tracks threats as part of the SANS Internet Storm Center. Browse to find.pcworld.com/54124 to download your copy of VisualZone. ■

Robert Luhn is a former PC World *editor who enjoys formatting floppy disks. Laurianne McLaughlin is a Massachusetts-based freelance writer.* *Special thanks to Preston Gralla, Richard Lynch, Jim Felici, Guy Hart-Davis, Echo Swinford, Curt Frye, and Jim Aspinwall.*

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All of a sudden, videos are all over the Web. Here's how to find them and watch them anywhere, whether on your PC, TV, or mobile device.

VIDEO EVERYWHERE

BY JIM FEELEY

APPLE SAYS IT has sold over 30 million videos through its iTunes Store since October 2005. That's impressive. But YouTube, currently the most popular site for sharing amateur video, claims to serve up 100 million video viewings each day. That's stupefying.

These days, everything from Hollywood films and TV shows to clips from ordinary users is available right in your browser. Even cell phones are in on the act, with news, sports, and lots of short video segments just a dial away. But although video options are proliferating at an astonishing pace, problems persist, including format incompatibility across platforms, license restrictions on content, and—still—a limited selection of good videos.

Following is your guide to surfing the new video wave, with tips for viewing movies on your PC and on the go, plus pointers on sharing your own Oscar-caliber material. ▶

ILLUSTRATIONS BY DOUG ROSS

VIDEO ON DEMAND, THE WEB WAY

YOU COME HOME tired and eager to watch a film or a TV show. Trudging over to the video store or waiting for Netflix is out, and *Arrested Development* was cancelled. So you turn to the mother lode of all media, the Web. You should be able to find what you want there, right?

You have a lot of options these days, from TV shows and short films on sites like iTunes or Google Video to movies on CinemaNow or Movielink (see chart). Such sites make it easy to watch films on a laptop or PC, or perhaps a mobile player (without illegally ripping a DVD). And of course, you never have to leave home to get the film, or worry about returning it.

The challenge remains finding material that is worth watching and that approaches the kind of image quality you're used to—and that is better or cheaper than what's on your home recorder, or what you can get from Netflix or Amazon.

WEB OF FILM

SITES SUCH AS CinemaNow and Movielink offer downloads of new and old films and videos. A standard film runs around 1GB and costs $1 to $4 to view for 24 hours from the first viewing. The Starz-sponsored Vongo, which also provides movies, lets you have unlimited downloads and viewing for $10 per month; the other sites, however, get new movies months earlier than Vongo does, and Vongo's list of available titles changes frequently, just like cable, so a movie there one week may be gone the next.

With broadband service, you can start watching a movie soon after it begins downloading, though the file transfer may take an hour or three to complete. To be safe, wait 10 to 15 minutes to begin viewing; I had occasional problems when playback caught up with the download. Images are worse-than-DVD quality, and you may have to watch the film with the service's own player, and be restricted to viewing it on the PC you download to.

The selection of titles can charitably be described as mixed, though some recent releases are concurrent with their DVD debut. Compared with the 60,000 titles on Netflix, each online site offers a small array of titles. Even a typical independent video store has more titles—for now.

Selection and quality should improve. Many industry experts believe online services will inevitably become the primary form of video delivery—even Netflix has discussed plans for a download service.

MUST-SEE NET TV

MOST MAJOR NETWORKS and producers make some recent and archival TV shows available through their own Web sites, as well as on iTunes, AOL's In2TV, Google

FEATURES COMPARISON

COMMERCIAL VIDEO SOURCES: ITUNES STANDS OUT

ITUNES' SELECTION, VIDEO quality, and ease of use distinguish it from the rest of the pack, though it lacks feature films.

VIDEO SERVICE	Price range[1]	Number of commercial titles[2]	Stream or download	Viewable on	Comments
AOL In2TV www.in2tv.com	Free	400	Stream	PC	Currently has up to ten episodes of about 40 Warner Brothers TV series, including *The Ben Stiller Show*, *Kung Fu*, and *Welcome Back, Kotter*. No downloads or feature films.
Best Bet Apple iTunes find.pcworld.com/54482	$2	6000	Download	PC, Mac, iPod	Has approximately 150 television series, 60 short films, and 3000 music videos. Provides decent searching, consistent pricing, and good video quality. Must access through iTunes. No rentals, feature films, or burning to DVD for TV.
CinemaNow www.cinemanow.com	$3-$4 to rent,[3] $10-$20 to buy	5000	Both	PC, select Windows portables	Provides about 600 Hollywood films, 3300 minor films and videos, and 80 HD titles. Lots of music videos, some adult material. Some films are downloadable on the DVD release day. Requires Internet Explorer. Downloads can take 1 to 3 hours. Most burned DVDs play only on a PC.
Google Video video.google.com	$0.50-$15; most $1-$5	6000	Both	PC[4]	Offers a dozen CBS TV series. Has NBA games 24 hours post-game ($4). Some files available for only a 24-hour rental. Most downloads require its player; some play only while the PC is Web connected. Good search, but poor browsing. Good and goofy paid content. No burning to DVD for TV.
Movielink www.movielink.com	$1-$5 to rent,[3] $9-$20 to buy	1500	Download	PC	Has about 650 Hollywood titles, plus over 800 independent and foreign films, cartoons, and TV shows, to rent; has about 800 titles to buy. Some films are downloadable on the DVD release day. Requires Internet Explorer. Downloads can take 1 to 3 hours. Burned DVDs play only on a PC.
Vongo www.vongo.com	$10/month, $4 for pay-per-view titles[3]	1600	Download	PC, Microsoft's PlaysForSure portables	Includes a live stream of Starz TV. Supports a few portable players, such as the Toshiba Gigabeat S. Requires Internet Explorer. Files average 0.5GB to 1.5GB, and take 1 to 3 hours to download. You must download and view files within Vongo's application.

CHART NOTE: Features listed are as of June 2006. **FOOTNOTES:** [1]Price ranges are per download, unless otherwise stated, and reflect the majority of the service's options. Deals or special content may be priced lower or higher. [2]As of June 2006. [3]Unlimited viewing during a 24-hour period. [4]Free video content is also available for iPod and PSP.

Video, and others. Each site may offer only a few shows from one or two studios.

For example, CinemaNow carries just two series, one season each of *Babylon 5* and *The Dukes of Hazzard*. iTunes carries about 150 series from Disney/ABC, NBC, and MTV, including current shows like *Law & Order* and *The Office*. Network shows typically cost $2 to $4 per episode.

A growing body of content is viewable for free, with the revenue coming from commercials. As a trial, ABC released free downloads of a few popular shows such as *Desperate Housewives* and *Lost* the day after they aired, with ads. Google Video, too, is experimenting a bit with ad-supported video. AOL's ad-supported In2TV presents many old Warner Brothers shows, such as *Max Headroom* and *The People's Court*, with new ads.

Increasingly, you see well-produced, original Web content, as well. For example, both CBS's Innertube (www.cbs.com/innertube) and MTV Overdrive (www.mtv.com/overdrive) offer clips from broadcast shows along with online-only reality, talk, and magazine shows.

ABCnews.com, NBC, and others present free nightly newscasts along with single-story videos. Some local stations have good content, too: Check out southwest Florida's Studio 55, which has a high-quality, daily news video podcast at naplesnews.com/studio55.

However, most free programs play as Flash Video (.flv) files on the provider's site—no easy downloads for offline viewing. And you can't subscribe to or watch content from all sites with one viewer. Although Blinkx.tv and Yahoo both offer improving Web-wide video search, no one has the equivalent of a comprehensive program guide that makes both commercial and sharing sites searchable in one place. Also, with today's broadband, high-def video takes too long to download, and content is scarce. (If you want to try HD, CinemaNow does have 80 titles.)

Moreover, unless your PC is connected to your TV, you have few ways to easily bring Web content to your living room. TiVo's TiVoCast (www.tivo.com) and Akimbo (www.akimbo.com) offer two of the few alternatives: Each service downloads videos from partner sites to its set-top box for TV viewing. TiVoCast has launched with ten partners, such as iVillage and the *New York Times*, while Akimbo has 100 partners, with video ranging from A&E's biography and history shows to short movies from iFilm to clips from the Karaoke Channel.

Most commercial content providers currently avoid distributing their libraries via RSS feeds and peer-to-peer, presumably due to concerns about file trading. However, Warner Brothers' agreement with P-to-P developer BitTorrent to use its technology to sell and distribute movies and shows suggests that Hollywood's hesitancy may be lessening. ▶

THE FLASH-BASED GOOGLE Video Player provides pop-up thumbnails to ease navigation in downloaded videos.

USAGE RULES

Digital Video Rights and Wrongs

WHAT CAN YOU do with the video you buy and download off the Web? The answer depends on where you got the content. Most sites that have copyrighted content such as commercial movies prohibit reselling or redistributing the video file and use digital rights management schemes to back that up.

Beyond that, restrictions vary by the site. For example, you can use the videos you buy from iTunes on up to five authorized devices such as PCs and iPods. Google Video's copy-protected content—which includes most of its good commercial videos—plays only in its viewer app or on a PC with a live Net connection. Neither site lets you burn video to DVD for living-room playback.

With one exception, CinemaNow and Movielink also prohibit you from burning films to DVDs that play on living-room players. The exception is a group of adult titles on CinemaNow that you can burn to DVDs. Movie studios are observing the success of this limited offering to determine whether to allow such disc burning for mainstream films. (Movielink recently said it plans to offer this capability—via Sonic Solutions' software—once studios give the go-ahead.)

WITH THE RIGHT gear, your favorite shows, movies, and video clips can accompany you wherever you go. Mobile video devices come in two categories: lightweight players such as the Apple iPod, Creative Zen, and Sony PlayStation Portable (PSP), onto which you download content from your computer or the Web; and video-capable cell phones that pull in prepackaged clips of news, sports, and other short content. You'll find a wider selection of material—and slightly better video quality—with the players, but phones offer fresher content.

PREPPED TO PLAY

THE IPOD AND PSP have the most market share and thus have the broadest support from tool developers and content providers. In addition to the iTunes Store and the 250 films on PSP-compatible 2.5-inch UMDs (Universal Media Disc), inexpensive programs such as MoviePod ($10) and PSPWare ($15), both from Nullriver (www.nullriver.com), provide drag-and-drop batch conversion of common video files into clips compatible with iPods or PSPs, and then automatically download the files to the players.

The Web has plenty of content, too. Google Video, for example, has downloadable iPod and PSP versions of the free videos on its site. Even CinemaNow, a movie download site partly financed by Microsoft, has hinted at possible future support for iPod and PSP.

Want an easy way to receive RSS video feeds for your iPod or PSP? FireAnt (www.fireant.tv), Videora (www.videora.com), and soon Democracy Player (www.getdemocracy.com) each can find, download, convert, and sync RSS video feeds to these mobile devices, not just to your PC. FireAnt is currently the most evolved, and it integrates Yahoo video searching, but Democracy Player has a lot of potential. All three are as easy to use as a typical RSS news reader.

Apple and Sony aren't the only players in town. Palm Desktop, which ▶

VIDEO PODCASTS

Vodcast Playlist

MOST VODCASTS AREN'T worth your time. These are.

TECH FOCUS

- **DL.TV:** Discussion of hands-on product reviews, trends, and news. dl.tv
- **Diggnation:** Tech talk stemming from the biggest stories on Digg.com. revision3.com/diggnation
- **commandN:** News and reviews of tech trends and gear. commandN.tv
- **Beet.tv:** Good interviews with media technology luminaries. beet.tv

JUST FOR FUN

- **Ask A Ninja:** A white ninja answers life's oddest questions. askaninja.com
- **AtomFilms To Go:** Short comedy, drama, and other films. atomfilms.com
- **Cult of UHF:** Where else can you see *Hercules Against the Moon Men*? cultofuhf.libsyn.com
- **Strong Bad Email:** Funny animated answers to mail. homestarrunner.com

COMING ATTRACTIONS

Broadcast TV on Phones?

CURRENT CELL-PHONE VIDEO offerings are underwhelming, but two (incompatible) technologies coming soon will let more carriers provide multiple live TV channels. DVB-H (Digital Video Broadcasting-Handheld), promoted by Motorola, Nokia, and Intel, and FLO (Forward Link Only), from Qualcomm's MediaFLO USA division, will both beam live video to your phone; each requires an overlay network on top of a 3G network.

Current 3G nets have unicast capabilities, which work well for calls with a signal traveling between a single transmitter and receiver. But unicast networks bog down if many users demand the same content; extra bandwidth is needed for each additional viewer of, say, a live World Series clip. DVB-H and FLO will let 3G networks multicast: One transmitter will reach many receivers.

In the U.S., Hiwire and Modeo are building DVB-H networks; no cell carriers have announced plans to use them yet. Verizon has signed up for FLO.

The network roll-outs should begin in late 2006 and throughout 2007. Also on the way: TDtv, from the Sprint-funded IPWireless, which runs over existing 3G nets. You may also hear talk of firms' using WiMax, also known as 802.16 (a wireless broadband standard with longer range than 802.11 Wi-Fi), on handheld devices, but no plans have been announced.

SPRINT TV'S LIVE channels today offer a preview of future services.

PHOTOGRAPH: MARC SIMON

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is bundled with all Palm OS devices, includes QuickInstall, an app that can perform drag-and-drop conversion of many types of video for playback on the handheld. The open-source Core Pocket Media Player (www.tcpmp.com) is a bit finicky, but also lets Palm, Windows Mobile, and other devices (though not the iPod) play a wide range of popular video files.

Windows Media devices have less downloadable video available than iPods and PSPs do, with CinemaNow the main commercial source for films. But you can use Windows Media Player 10 or 11 to convert several video formats into files compatible with the increasingly interesting Portable Media Center players from Creative, iRiver, Toshiba, and others. Prices for such devices range from $200 to $800, with 20GB to 30GB mainstream players available for around $300.

To watch TV shows as you go about town, you have several options. If you already subscribe to TiVo, download the company's new $25 Desktop Plus software, a one-time purchase that lets you move video from your TiVo onto an iPod, a PSP, a Treo, or certain Nokia devices. If you already own a Windows XP Media Center Edition PC, you can use WMP 10 or 11 to easily transfer your stored video from the PC to compatible devices.

APPLE'S VIDEO IPOD can store and play back hours of video.

Some services go further, like the $30 SlingPlayer Mobile (www.slingmedia.com; review at find.pcworld.com/54548). Although not all the glitches have been worked out, it lets you use a newer Windows Mobile device, such as the Motorola Q, on a 3G (third-generation) phone network to remotely watch and control your TV and DVR via the $200 Slingbox TV-streaming device. For free, Orb Networks (www.orb.com) offers similar features for devices with Windows Media Player (review at find.pcworld.com/54546).

CALL FOR VIDEO

WHILE HANDHELDS LET you easily *watch* video anywhere, in most cases you must load the player before you leave home, or use a separate service. New cell phones and networks let you *receive* video anywhere—well, anywhere there's a fast 3G network such as EvDO or UMTS. Check with your provider to find out if you have service in your area; if so, for $15 to $25 per month added to your cell phone bill, Cingular, Sprint, and Verizon will give you unlimited access to a rather small selection of games, music, and video (see chart).

The services have a lot of content overlap. All offer short clips from the usual suspects such as CNN, The Discovery Channel, ESPN, Fox, The Weather Channel, and others. Typically you can view a few music videos, recent sports and news highlights, or movie trailers. Most channels aren't live but are updated regularly.

Currently Sprint offers the most options and has a feature the others don't: live video feeds. Your device can get live news feeds from ABC, C-SPAN, Fox, and other sources. You can also see over a dozen channels that show the same video feed going to television sets.

But just because you can see video on your cell, doesn't mean you'd want to.

Navigating the menus, plus waiting for the media players to load and the content to buffer, can take 10 to 30 seconds. The clips are often highly compressed files at 176-by-144-pixel resolution and 15 frames per second, playing on just part of the phone's screen. Even good images are so tiny that it's not fun to look at them for long. Not that you can—most phone content is less than 3 minutes long; anything longer may rebuffer every minute or so.

My rule for mobile video is simple: The smaller the screen, the more basic and personal the content. *Lawrence of Arabia*? No. Sports highlights? Perhaps. Talking heads and short, focused clips? Okay. Hilarious video podcasts from Strong Bad Emails? Now you're talking! ▶

PHOTOGRAPH: MARC SIMON

FEATURES COMPARISON

SPRINT HAS MOBILE VIDEO ADVANTAGE

FOR NOW, SPRINT offers more video choices than its rivals do, at a reasonable price.

PHONE VIDEO SERVICE[1]	Pricing[2]	Claimed download speeds	Technology	Comments
Cingular Video find.pcworld.com/54476	$20/ month	400-700 kbps	UMTS[3]	Smooth playback. Slow menus, basic-cable-like channels, disappointing $5-per-month HBO clips. Service in only 16 metro markets.[4]
Best BET Sprint TV find.pcworld.com/54478	$15-$25/ month	400-700 kbps	1xEvDO	Numerous channels, including oddball and live content others lack. Somewhat complex setup and pricing. Videos buffered slowly.
Verizon V Cast Video find.pcworld.com/54480	$15/ month	400-700 kbps	1xEvDO	One of the least expensive plans. Channels buffered less slowly than others. Content by usual suspects, such as CNN, ESPN, and Fox.

CHART NOTE: Features listed are as of June 2006. **FOOTNOTES:** [1] T-Mobile has no current offering. It plans to roll out a North American mobile-phone video service in 2007. [2] In each case, the cost is in addition to your regular phone plan. [3] Some areas already have the faster HSDPA network available. [4] As of June 2006.

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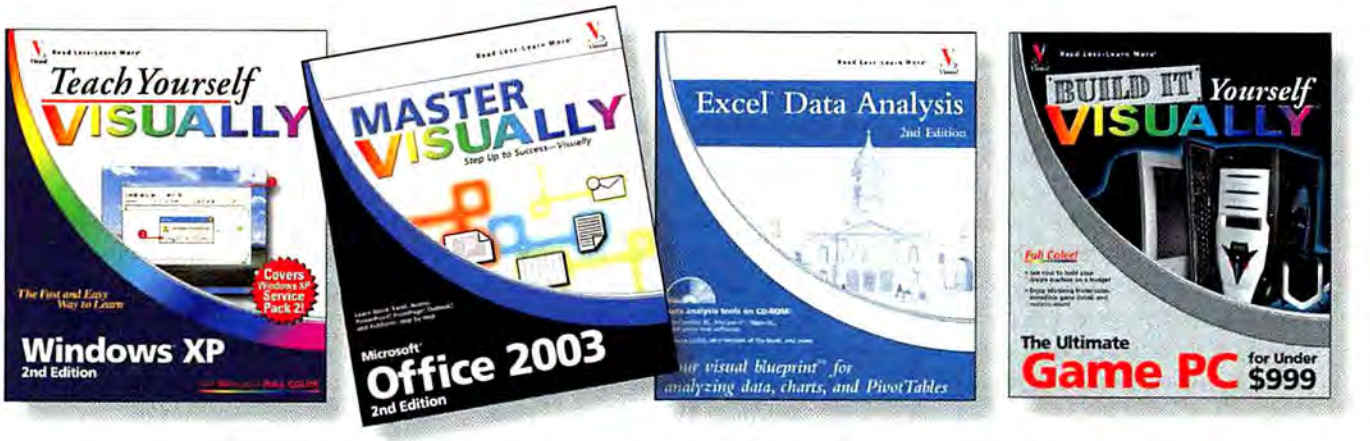

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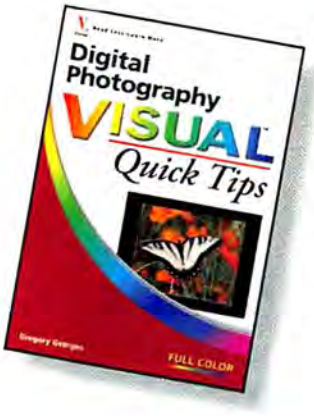

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YOUR VIDEO, ON THE WEB

YOU JUST CAME back from a vacation in Cancun, and you want to wow your family with videos of your Jet Ski prowess. Or maybe you got your friend's "sick day" hole-in-one on your cell phone, and you want to share it with your buddies but not your boss. Or perhaps you caught dramatic rescues of flood victims and want to share the clip with the world.

YouTube and the dozens of easy-to-use, free video-sharing sites like it can help you do all those things. Many of the sites offer the same core features; where they differ is in their popularity, their support for video to and from mobile devices, and their ability to restrict viewing to people you select (see chart on page 114).

SHARE AND SHARE ALIKE

VIDEO-SHARING SITES ARE currently more similar than they are distinctive, and the services will probably become even more alike as they draw inspiration from one another. Typically they let you upload MPEG, QuickTime, and Windows Media formats, which the sites will then convert to Flash Video (.flv) files for hosting and playback. Flash offers good image quality and fast playback, and over 95 percent of systems already run it. Practically every site gives HTML links to embed your video in your blog or other Web page, or you can e-mail the link to friends and family.

JUMPCUT LETS YOU edit your own and others' clips via a browser-based interface, then publish to the Web or deliver to a cell phone.

All the sites present some hassles, as well. Over most DSL and cable lines, expect to spend 3 to 20 minutes uploading a 3-minute clip. Most services have a license to use your clips any way they want, and you must indemnify them from any liability for your content.

But such sites still have differences, a key one being traffic. According to online market researcher Hitwise, in late spring YouTube was by far the most frequented sharing site with 43 percent of all visits to video sites. Popularity has its downside: Although recent, well-known, and highly rated videos are called out to visitors, the 35,000 new clips added each day make it easy for your opus to get lost in the YouTube video jungle.

If you want a breadth of video options for delivery to different devices, other services merit consideration. Google Video automatically generates downloadable iPod and PSP versions of free content. Several services, like Eyespot, offer ▶

EDITING TOOLS

Prep Your Video for Sharing

TO WHIP YOUR raw video into shape and make it into a pretty good file for Web sharing, you don't have to spend much—or anything at all. Microsoft's free Windows Movie Maker 2.1 provides enough tools to perform simple file edits. Its output is limited, however, to Windows Media and DV-AVI.

To save in other formats, you'll need a tool like Apple's $30 QuickTime 7 Pro for Windows (www.apple.com/quicktime). It's easy to use and will export in many formats, including MPEG-4. If you don't want to use two apps to prep your video, you could let your chosen sharing site do the conversion and compression for you, or use more complete tools.

In $100 apps such as Pinnacle Systems Studio Plus 10.5 Titanium Edition and Ulead VideoStudio 10 Plus, you get more features and output flexibility. They handle all common video formats (plus high-def video from HDV camcorders), allow more flexible editing, create nice graphics, and can output to MPEG-2 or MPEG-4 for DVD, Web, iPod, and PSP playback. (For reviews of these applications and compression tips, see find.pcworld.com/54552.)

You can eliminate desktop editing entirely with sites like Eyespot, Jumpcut, and VideoEgg, where users first upload raw footage and then edit it through Web-based interfaces. Uploading your raw files might take a while, and the editing features are more limited than those in Windows Movie Maker. But the sites simplify editing phone video, encourage users to let others integrate their footage and projects with their own, and make such integration easy—very Web 2.0.

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delivery to mobile phones. If you're creating longer pieces, you may need a site that doesn't limit file size or length, like Google Video or Ourmedia.com.

Several sites, like Eyespot, Jumpcut, and YouTube, also let you send clips via MMS (Multimedia Messaging Service) over high-speed cellular networks such as EvDO and UMTS directly to your account's page. Sprint and Verizon offer similar—though less flexible—features that let their users upload and share videos. And services such as Abazab.com and Umundo.com let you send phone video via MMS directly to your pages on MySpace and My Yahoo, for example. All are free (for now), with Jumpcut's simple editing making it the most attractive.

Once your video is posted, controlling who sees it is difficult—just ask Hollywood. Or Paris Hilton. If you need some privacy, send clips to a site that supports private groups where you specify who can see your video. Know, however, that privacy features can be defeated, so if you're worried about any dire consequences if your video gets out, don't post it at all.

No site stands far above the rest, but Eyespot's balance of innovative cellphone features, private groups, downloadable clips, and online editing and mixing raises it just a bit above its peers.

However, with many of these services being up-front about their beta status, and others in denial, the situation may change tomorrow as new features debut and sites try to figure out how to pay for all the technology and bandwidth they're giving away. Sites like VideoEgg get revenue from licensing their uploading technology to AOL, while Revver and others insert ads into submitted videos (some share revenue with submitters).

Video sharing has become so popular, Microsoft is getting into the game. Its YouTube-like project, code-named Warhol, is scheduled to go live by year's end, though no details are currently available.

Regardless of coming changes, one thing will remain constant: On the Net, only a thin line separates professional and amateur content—which means you could be the next Web-video idol. ■

Jim Feeley is a writer and a producer at POV Media, a California production firm.

ONLINE EXTRAS

Reviews & Tips

GO TO find.pcworld.com/54550 for reviews of video-capable devices, plus more tips on creating, editing, burning, and converting your video.

FEATURES COMPARISON

EYESPOT TOPS COMPETING VIDEO-SHARING SITES

IN AN EVER more crowded field, Eyespot has the edge for now, thanks to its editing tools and mobile delivery options.

SHARING SITE	Playback format	File upload limit	Upload from cell phone	Integrated video editing	Make videos private	Download videos	Comment
Best Bet Eyespot www.eyespot.com	Flash	50MB	Yes	Yes	Yes	Yes	Edit tool supports trimming, transitions, effects, and a separate audio track. Members can mix other members' clips in their own. Downloads for PC and iPod but no auto-conversions. Phones get videos via MMS. Limits files to 50MB.
Google Video video.google.com	Flash for Web viewing, MPEG-4 and/or GVI for downloads	Unlimited	No	No	No	Yes[1,2]	Unlimited file uploads, a simple interface, plus high viewership. All users will soon be able to charge for video viewing. Most downloads must be viewed with its player app. Google must approve and post clips, which can take days.
Grouper www.grouper.com	Flash for previews, WMV for downloads	Unlimited	No	Yes	Yes	Yes[2]	Lets you post directly from a Webcam. Uses peer-to-peer for download distribution. Up to 3 minutes of a video can be streamed as a preview or downloaded; longer files must be downloaded and viewed in the Grouper app.
Jumpcut www.jumpcut.com	Flash	50MB	Yes	Yes	Yes	No	Nice editing tools with trimming, transitions, effects, and audio, plus useful search, in a single interface. Encourages members to share and mix clips with other members. No downloads or mobile player support. Small community.
Revver www.revver.com	.mov	100MB	Yes	No	No	Yes[2]	Short ads attached to the end of each video; submitter gets about half of the ad revenue. Videos are also formatted for iPod and registered on local iTunes application. Site may delete videos not generating enough views.
VideoEgg www.videoegg.com	Flash	5 min	Yes	Yes	No	No	Can post directly to Blogger, eBay, and TypePad. You must install its plug-in to edit (trim start and end points), encode, and upload; the plug-in handles all file conversion. Inserts ads into videos (submitter does not share in the revenue).
YouTube www.youtube.com	Flash	100MB	Yes	No	Yes	No	Can post directly to Blogger, BlogSpot, and LiveJournal. Allows you to create a channel—a mix of your own content and other content you aggregate. Very popular, but videos can get lost in the crowd.

CHART NOTE: Features listed are as of June 2006. **FOOTNOTES:** [1]Some copyrighted content cannot be downloaded. [2]Supports downloads to iPod and PSP as well as to PC.

Acer recommends Windows® XP Professional.

August/September 2006

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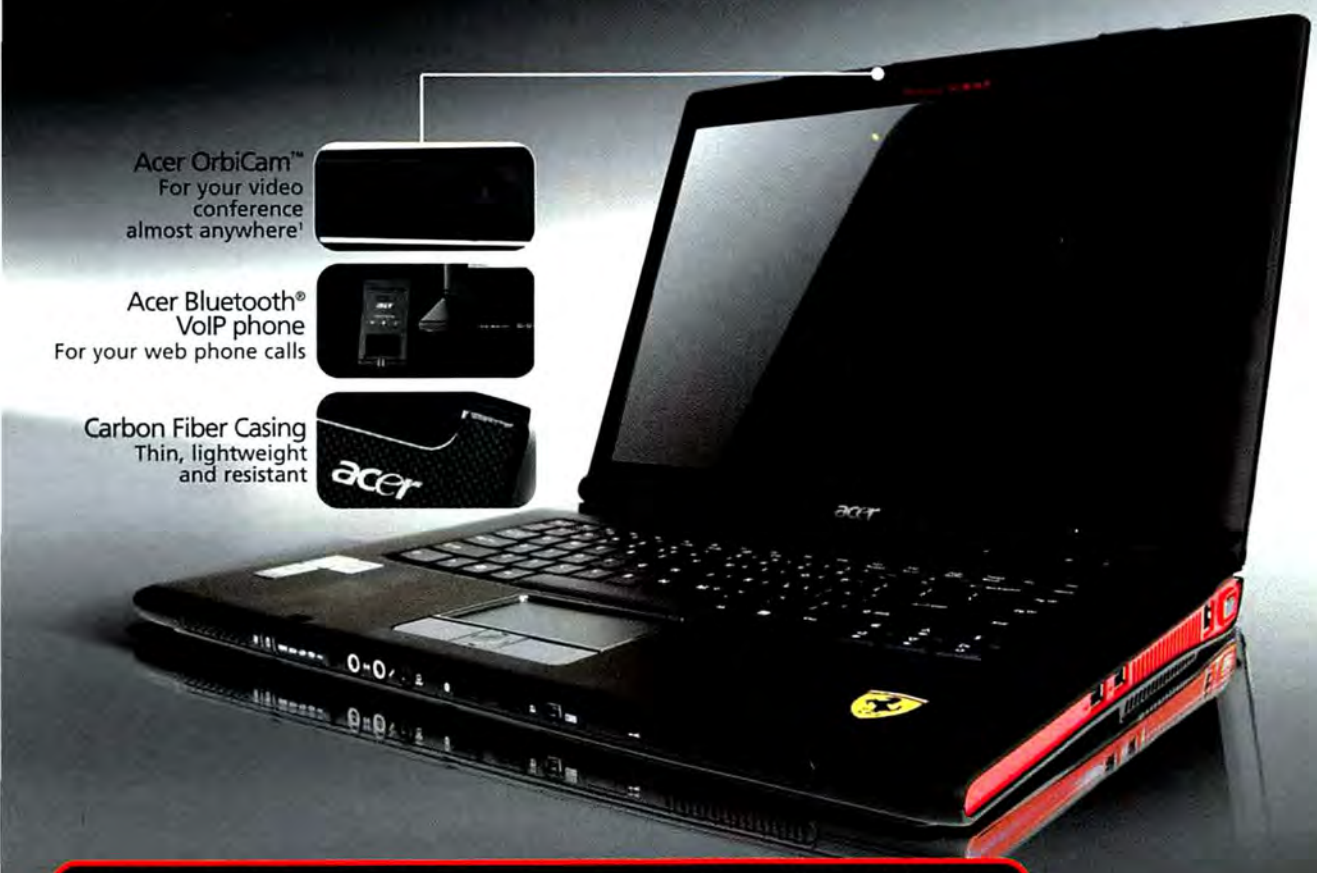
Ferrari 5000

DRIVINGINNOVATION



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- Optical mouse
- One-year limited warranty[4]

AMD Turion 64 X2 MOBILE TECHNOLOGY

Empowering Technology

Ferrari 5005WLMi

$2,299

(LX.FR506.119)

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Acer F-20"

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- 1680 x 1050 native resolution
- 800:1 contrast ratio
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- 176° vertical viewing angle
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- VGA, DVI-D signal connectors
- 300 cd/m² brightness
- 8ms gray-to-gray response time
- External power adapter
- Gloss black/red color

$449

(ET.L380B.063)

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- ATI® Radeon® Xpress 1150 graphics
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- Optical mouse
- One-year limited warranty[4]

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- Internal power adapter
- Silver color

24" WIDE-SCREEN

Acer AL1916 Fbd
$249
(ET.1916B.0DF)

Acer AL1916 Fbd

- 19" TFT LCD
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- 150° horizontal viewing angle
- 135° vertical viewing angle
- VGA, DVI-D signal connectors
- 300 cd/m² brightness
- 2ms gray-to-gray response time
- Internal power adapter
- Black color

NEW MODEL

Acer AL1916W Ab
$195
(ET.1916B.W08)

Acer AL1916W Ab

- 19" wide-screen TFT LCD
- 1440 x 900 native resolution
- 700:1 contrast ratio
- 150° horizontal viewing angle
- 130° vertical viewing angle
- VGA signal connector
- 300 cd/m² brightness
- 5ms response time
- Internal power adapter
- Black color

5MS RESPONSE TIME

Acer AL1916 Ab
$205
(ET.1916B.008)

Acer AL1916 Ab

- 19" TFT LCD
- 1280 x 1024 native resolution
- 700:1 contrast ratio
- 140° horizontal viewing angle
- 140° vertical viewing angle
- VGA signal connector
- 300 cd/m² brightness
- 8ms response time
- Internal power adapter
- Black color

$24 PRICE CUT!

Acer AL1717 Bbmd
$159
(ET.1717B.MD8)

Acer AL1717 Bbmd

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- 700:1 contrast ratio
- 150° horizontal viewing angle
- 135° vertical viewing angle
- Two 1.0W integrated speakers
- VGA, DVI-D signal connectors
- 300 cd/m² brightness
- 8ms response time
- Internal power adapter
- Black color

BUILT-IN SPEAKERS

Acer AL1706 Ab
$149
(ET.1706B.008)

Acer AL1706 Ab

- 17" TFT LCD
- 1280 x 1024 native resolution
- 500:1 contrast ratio
- 140° horizontal viewing angle
- 140° vertical viewing angle
- VGA signal connector
- 270 cd/m² brightness
- 8ms response time
- Internal power adapter
- Black color

NEW MODEL

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Acer® Aspire™ 5100

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Excludes extension of International Traveler's Warranty.

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PD120D

- 2000 ANSI lumens
- XGA (1024 x 768) native resolution
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- PC and Mac compatible

Acer PD120D

$809

(EY.J2201.012)

$90 PRICE CUT!

PICTURE BY DLP TEXAS INSTRUMENTS

PD100

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- SVGA (800 x 600) native resolution
- 2000:1 contrast ratio
- 16.7 million displayable colors
- PC and Mac compatible

Acer PD100

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(EY.J2101.006)

Projector Accessories

Acer projectors come with these accessories: remote control (batteries included) with laser pointer; carrying case; lens cap; CD-ROM user's guide; quick-start instructions; AC power cord; VGA (D-sub) to component/HDTV adapter; VGA (15-pin D-sub), composite video (RCA), S-video, USB and audio (mini-to-mini phone jack) cables. For permanent placement of a projector in a conference room or classroom, you'll want an easy-to-install Ceiling Mount. Also, consider keeping a Replacement Lamp on hand for your Acer projector.

Replacement Lamp

$199

(EC.J2101.001)

- Expected life in hours: 2,000 standard mode, 3,000 economy mode
- Designed for Acer PD120D and PD100

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(EZ.PCM03.007)

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Acer recommends Windows® XP Professional.

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Acer Aspire 3102WLMi

$649

Mobile AMD Sempron™ Processor 3200+
Genuine Windows® XP Home Edition
(LX.ABK05.071)

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[1] Depends on availability of PC-supported connections and location.

[2] Enhanced Virus Protection (EVP) is enabled by Microsoft® Windows® XP Service Pack 2. By default, EVP will protect the user's Windows operating system only. Users must enable the protection of their applications and associated files to be protected from memory buffer overrun attacks. AMD and Microsoft strongly recommend that users use third-party anti-virus software as part of their security strategy.

[3] When referring to storage capacity, GB stands for one billion bytes and MB stands for one million bytes. Some utilities may indicate varying storage capacities. Total user-accessible capacity may vary depending on operating environments.

[4] For a free copy of the standard limited warranty end-users should see a reseller where Acer products are sold or write to Acer America Corporation, Warranty Department, P.O. Box 6137, Temple, TX 76503.

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Sophisticated SHOOTERS

Bigger LCDs and advanced features, such as antishake protection and Wi-Fi connectivity, separate these ten compact cameras from your average point-and-shoot. Our tests reveal which ones have the best combination of fresh capabilities and solid basics.

BY ERIC BUTTERFIELD

MODELS IN THE newest crop of point-and-shoot cameras offer plenty of fancy features, some of which were previously found only in pricey advanced models. Every camera we tested for this story has one (and often more) of the following: a big (3-inch) LCD, in-camera panorama stitching, antishake ▶

PHOTOGRAPHS BY JOHN KUCZALA

ADVANCED FEATURES (from top): The Casio Exilim EX-Z600 offers antishake, Nikon's Coolpix S6 has a big LCD, and Samsung's Digimax L85 can connect to an HDTV.

technology, built-in wireless, a ruggedized case, and ultralong battery life.

These features sound enticing, and they tend to work as promised, but none of them—by itself—can make a great camera. Before you buy, you'll need to consider which bells and whistles really matter and whether they outweigh other shortcomings a camera may have. Our test results can help you decide.

We evaluated ten models that have at least one of the exemplary features mentioned above. We also tested two simpler models in this class so you can see how they compare to the pricier cameras.

PREVENT BLURRY SHOTS

ONCE FOUND ONLY in high-end cameras, antishake technology has become increasingly common in point-and-shoot models. This technology goes by different names depending on the camera maker, but in all cases it aims to prevent blurry photos due to shaky hands or low-light shooting conditions. Five of the cameras we tested offer this feature: the Canon PowerShot SD700 IS, Casio Exilim EX-Z600, Fujifilm FinePix F30, Nikon Coolpix P4, and Olympus Stylus 720 SW. In our informal tests, all of them did a very nice job of sharpening a potentially fuzzy image.

The Nikon P4 employs the most interesting technique: Its VR (vibration reduction) feature, which a dedicated button triggers, shifts elements in the camera's lens to compensate for movement; the other four models use electronic processing.

Another tactic for preventing too-fuzzy images is to increase the camera's sensitivity to light. With a higher ISO—or light sensitivity—setting, a camera can use a faster shutter speed in low ambient light, and thus can more easily capture a sharp image without having to use its flash.

Point-and-shoot cameras used to top out at ISO 400, but eight of the models here go beyond that. The Fujifilm FinePix F30 offers the highest rating, at ISO 3200. But the Olympus Stylus 720 SW is hardly a slouch, offering up to ISO 1600, and the Sony Cyber-shot DSC-W100 can shoot at up to ISO 1250. However, digital noise gets worse at higher ISO settings. See "Shooting in Low Light Increases Digital Noise" on page 127.

SONY'S DSC-W100 has high ISO settings for use in low light.

BIGGER SCREENS

TWO OF THE cameras here come with 3-inch LCDs: Nikon's Coolpix S6 and HP's Photosmart R927. The Nikon screen offers a very crisp picture, though it isn't as bright as the LCD on some other models. Two other cameras have almost as much screen real estate: The Kodak EasyShare V610 has a 2.8-inch LCD; and the Casio Exilim EX-Z600, a 2.7-inch screen. The Casio's LCD is particularly bright—helpful for shooting in bright sunlight.

One concern with a big LCD screen is that it may drain a camera's battery quickly—and three of the four models just mentioned seemed to bear this out, delivering below-par battery life times. The Nikon S6 took 245 shots on one charge, HP's R927 captured just 114 images, and the Kodak V610 quit at 148 shots. But the Casio EX-Z600 bucked the trend, reaching the ceiling of 500 shots that we use in our tests.

USE WI-FI TO SEND PHOTOS

IF YOU'RE TIRED of connecting cables in order to print your photos or to move them to a PC or laptop, you might consider a camera that has built-in Wi-Fi or Bluetooth. The Nikon Coolpix S6 offers the former, and our reviewer didn't hit any snags when sending photos wirelessly to a laptop 50 feet away. Similarly, the Kodak EasyShare V610 sent photos to a cell phone via Bluetooth without a hitch.

PANORAMAS AND WIDE MODE

STITCHING MULTIPLE PHOTOS together into a panorama used to be the purview of software, but now some cameras can combine your photos before you offload them. Both the HP Photosmart R927 and the Kodak V610 offer this feature, though the HP can stitch together up to five photos versus the Kodak's three.

Another talent new to point-and-shoots is the ability to capture photographs in an aspect ratio appropriate for display on a wide-screen TV. But you may not always

THE 2.5-INCH LCD on the Fujifilm FinePix F30 is very sharp and especially bright.

get the Hollywood treatment you expect. For example, the Samsung Digimax L85's wide mode is 16:8, not 16:9, so images we took didn't fit properly on an HDTV set.

Here is an up-close look at each camera's features and performance, starting from the highest-rated model. (For more point-and-shoot digital camera reviews, go to find.pcworld.com/54584.)

Casio Exilim EX-Z600

MOST NOTABLE FEATURES: antishake technology, excellent battery life, perspective correction, lowest-priced model here

THE $299 EXILIM EX-Z600 has stamina: It's one of only two cameras here that took 500 shots on one battery charge in our test (the other is the Fujifilm FinePix F30), far above the average of 297 shots.

One of the low-priced EX-Z600's more unusual features is its built-in perspective correction, which makes a rectangular object shot at an odd angle look as though you had taken the shot straight-on. Another novelty is the eBay scene mode, which recorded a test shot at 1600 by 1200 pixels—good for posting online. The EX-Z600 offers 33 scene modes, ▶

FEATURES COMPARISON

TEST Center

Not So Simple: Basic Cameras Get Smarter Features

THE CASIO EX-Z600 is priced very low, yet offers antishake, perspective correction, and very long battery life.

	POINT-AND-SHOOT	PCW Rating	Performance	Features and specifications	Bottom line
1	Casio Exilim EX-Z600 $299 find.pcworld.com/54048	79 Good	• Image quality: Fair • Battery life: Superior • Overall design: Good	• 6.0 megapixels • 38mm to 114mm zoom • 33 scene modes • 5.0 ounces	This model includes lots of controls and many scene modes. The 2.7-inch LCD is bright, but image quality could be improved.
2	Samsung Digimax L85 $338 find.pcworld.com/54146	77 Good	• Image quality: Good • Battery life: Very Good • Overall design: Good	• 8.1 megapixels • 38mm to 190mm zoom • 11 scene modes • 6.7 ounces	This camera has a 5X zoom and a sharp 2.5-inch LCD, and controls are extensive, but images shot in wide-screen mode appear stretched on an HDTV.
3	Nikon Coolpix S6 $350 find.pcworld.com/54054	77 Good	• Image quality: Good • Battery life: Good • Overall design: Very Good	• 6.0 megapixels • 35mm to 105mm zoom • 15 scene modes • 4.9 ounces	This thin model offers Wi-Fi, a sharp 3-inch LCD, and an easy-to-use selector dial and thumbpad. Lacks contrast and saturation controls.
4	Sony Cyber-shot DSC-W100 $350 find.pcworld.com/54142	76 Good	• Image quality: Good • Battery life: Superior • Overall design: Fair	• 8.1 megapixels • 38mm to 114mm zoom • 6 scene modes • 7.0 ounces	Sony's camera has a high ISO setting (1250) and long battery life (455 shots), and it shoots in wide-screen mode, but it has no HDTV connector.
5	Fujifilm FinePix F30 $399 find.pcworld.com/54144	76 Good	• Image quality: Good • Battery life: Superior • Overall design: Good	• 6.3 megapixels • 36mm to 128mm zoom • 15 scene modes • 5.5 ounces	Though it's a little pricey, this camera's sharp, bright LCD and very high ISO setting (3200) are pluses. It includes some manual controls.
6	HP Photosmart R927 $399 find.pcworld.com/53582	75 Good	• Image quality: Very Good • Battery life: Poor • Overall design: Very Good	• 8.1 megapixels • 35mm to 105mm zoom • 12 scene modes • 7.0 ounces	The R927 has a big LCD and easy-to-use menus. It performs in-camera panorama stitching, though this feature can be slow. A camera dock is included.
7	Nikon Coolpix P4 $400 find.pcworld.com/54052	73 Good	• Image quality: Good • Battery life: Good • Overall design: Good	• 8.1 megapixels • 36mm to 126mm zoom • 16 scene modes • 5.6 ounces	This sleek camera has effective antishake controls and offers a good selection of image controls. It's slow to start up, however.
8	Canon PowerShot SD700 IS $500 find.pcworld.com/54058	71 Good	• Image quality: Good • Battery life: Very Good • Overall design: Very Good	• 6.0 megapixels • 35mm to 140mm zoom • 11 scene modes • 6.6 ounces	The SD700 offers antishake technology, an orientation sensor, and a wide-screen mode. But it has few manual controls, and the price is high.
9	Olympus Stylus 720 SW $400 find.pcworld.com/54302	70 Good	• Image quality: Good • Battery life: Poor • Overall design: Good	• 7.1 megapixels • 38mm to 114mm zoom • 24 scene modes • 5.8 ounces	This model's rugged metal body is shock- and waterproof. It comes with 24 scene modes and exhibited minimal shutter lag, but the LCD looks dim.
10	Kodak EasyShare V610 $449 find.pcworld.com/53746	68 Fair	• Image quality: Good • Battery life: Poor • Overall design: Good	• 6.1 megapixels • 38mm to 380mm zoom • 21 scene modes • 6.0 ounces	The EasyShare V610 is fun to use and has a long-range zoom and in-camera panorama stitching, but it's sensitive to camera movement, and battery life is short.

CHART NOTES: Prices and ratings are as of 6/15/06. Zoom range (focal length) is identified as 35mm equivalent; weights include batteries.

more than any other camera we tested.

The zoom selector ring that surrounds the shutter-release button is simple to operate. The four-way selector button, on the other hand, is uncomfortably small for largish fingers.

In our image quality tests, the Z600 fared less well than the other cameras, earning an overall score of Fair. But battery life is excellent.

HP'S R927 HAS a big LCD and can stitch panoramas.

Samsung Digimax L85

MOST NOTABLE FEATURES: wide-screen mode, motion-capture mode, very good battery life, optional ($70) HDTV dock

THE $338 SAMSUNG Digimax L85 feels solid and is comfortable to grip. This 8.1-megapixel camera comes with a 5X zoom lens and has an extrasharp 2.5-inch LCD.

Samsung claims that the L85's ability to display HD-quality images on an HDTV is a first. However, we don't think this feature is quite ready for prime time. Not surprisingly, connecting the camera to an HDTV requires an optional $70 docking cradle and HDMI (High Definition Multimedia Interface) cable. When displayed on a plasma HDTV, photos looked razor sharp, with splendid colors; but people looked too thin, and other shapes appeared distorted. Evidently the camera's widescreen mode records images at an aspect ratio of 16:8, which the camera's software then stretches to the regular 16:9 HDTV ratio for display.

In our lab tests, the L85 produced well-exposed flash shots and earned high marks for sharpness. In less formal testing, we had difficulty capturing sharp photos in low light at the camera's maximum ISO setting of 400.

Another novel feature of the L85 is its motion-capture mode, which is intended for photographing fast-moving objects; the camera can record up to 30 continuous images. But you can't take the photos in TIFF format, and the manual warns that image quality may suffer when you operate the L85 in this mode.

The L85 includes options for full man-

ON THE WEB

FREE ONLINE PHOTO SHARING SITES GET BETTER

UPLOADING, ORGANIZING, AND sharing your photos online—for free—is getting easier. Popular photo-sharing sites are beginning to add features that let your browser act more like a desktop app, and Yahoo Photos is at the forefront of this trend.

UPLOADING: The new beta of Yahoo Photos (photos.yahoo.com) lets you drag and drop images into your photo library via a Web browser—similar to using Apple's iPhoto software. To drag and drop photos at Flickr (flickr.com), Kodak EasyShare Gallery (kodakgallery.com), or Shutterfly (shutterfly.com), you must download a software application first.

SEARCHING: Before you can share photos, you have to find them—and tags or keywords can help. Flickr lets you search tags as well as comments made about an image. Better still, some sites let you organize albums based on multiple criteria: In Yahoo Photos you can create a "smart album," selecting images based on their tags, creation date, rating (five stars max), and owner.

COMMUNITY: Give the peanut gallery a voice—consider a site, such as Yahoo Photos, that lets your viewers add comments. Of course, you can share an album with the whole world. However, some albums demand different audiences—maybe Mom shouldn't see proof of that wild night in Cancun—so Flickr lets you create separate groups for friends and family. For special occasions that deserve an elegant look, consider using a site with more elaborate designs. Tabblo.com has attractive color schemes and layouts, and it makes uploading photos easier by integrating with Flickr and Google's Picasa software.

DOWNLOADING: Most sites downsize your images to save storage space, but that's changing now that Yahoo Photos allows users to store and retrieve full-resolution files. And Flickr lets you do the same thing with a free account, as long as you don't exceed 20MB a month. That makes these sites handy for backup storage. But check the service contract carefully: Some sites require that you buy an occasional print.

Desktop apps are still the fastest way to access photos, but new features are making photo-sharing sites a close second.

MAYBE MOM SHOULDN'T SEE PROOF OF THAT WILD NIGHT IN CANCUN.

ual mode and for autoexposure bracketing, and it can record images as JPEGs or lossless TIFF files. In our tests, its lithium ion battery lasted a creditable 390 shots.

Nikon Coolpix S6

MOST NOTABLE FEATURES: Wi-Fi connectivity; big, sharp LCD; pocketable design

THE NIKON COOLPIX S6's $350 price is seductive for a pocket-size, 6-megapixel camera with Wi-Fi. Plus, the attractive 3-inch LCD provides sharp resolution that makes sharing photos a joy. The display could be brighter, however: In bright sunlight, images can appear faint. The slick selector dial lets you skim quickly though menus or photos.

In an informal test, the Coolpix S6 took an average of 32 seconds to transfer five 6-megapixel photos to a laptop via the camera's built-in 802.11b/g Wi-Fi. Not bad.

Beyond that, the S6 comes with a modest collection of exposure controls and scene modes. Unfortunately, because the tiny zoom switch sits right next to the shutter-release button, you can inadvertently hit it when you trip the shutter.

The S6 lasted for 245 shots in our battery life test—a little short of average.

Sony Cyber-shot DSC-W100

MOST NOTABLE FEATURES: high ISO setting, wide-screen mode, strong battery

THE $350 SONY Cyber-shot DSC-W100 is solidly built and has an optical viewfinder in addition to a 2.5-inch color LCD. It's not loaded with exotic features, but its high ISO setting of 1250 supports shooting in low light without a flash. This 8.1-megapixel camera has a simple 3X zoom and few scene modes.

The camera lacks aperture- and shutter-priority modes, but it does have a full manual mode. The display button gives access to a histogram display.

Shooting at the maximum ISO 1250 setting in a dimly lit room, we saw a lot of noise in the pictures; however, less demanding indoor photos looked better. In our lab tests, the W100's shots produced generally good image quality.

The W100 lets you take photos at a 16:9 aspect ratio, but it won't hook up directly to an HDTV set via cable or dock—you'll need to purchase an HDTV with a Memory Stick slot, most likely one from Sony.

NIKON'S P4 OFFERS antishake and noise reduction.

Fujifilm FinePix F30

MOST NOTABLE FEATURES: very high ISO settings, sharp LCD, accurate exposures

THE FUJIFILM FINEPIX F30 excels at low-light photography. The sensitivity of most cameras this size tops out at ISO 400 or 800, but you can crank the F30's sensor all the way up to ISO 3200.

In our formal tests conducted at the PC World Test Center, the F30 scored well, producing accurate exposures in a variety of lighting situations. Jury members particularly praised the high color fidelity and low distortion in the F30's images.

At $399, the F30 seems expensive for a 6.3-megapixel camera with 3X zoom and no viewfinder. The 230,000-pixel resolution of the 2.5-inch LCD, however, is extremely high, and the screen is especially easy to view in bright light.

The F30 offers aperture- and shutter-priority modes, which you can combine with an exposure-compensation setting. A natural-light mode suppresses the F30's flash, as does a museum mode that also turns off button beeps. In antiblur mode the camera selects a fast shutter speed.

The F30's lithium ion battery reached the maximum of 500 shots in our battery test, as did the Casio Exilim EX-Z600's.

Regrettably, the included software is quite primitive. In addition, the F30 uses an xD-Picture Card instead of the more widely used SD media card, which works with devices such as mobile phones. ▶

CAUTION SIGN

SHOOTING IN LOW LIGHT INCREASES DIGITAL NOISE

THE DRAWBACK OF using a high ISO setting to compensate for low light is digital noise, visible in both of these photos. The left side of each frame shows a section of the picture at 100 percent—notice how colored dots and pixelation obscure the texture of the wall. The photos were shot with the Sony DSC-W100 (left) and the Olympus Stylus 720 SW, at each camera's top ISO setting.

CANON'S SD700 IS has antishake and focuses quickly.

HP Photosmart R927

MOST NOTABLE FEATURES: big LCD, high image quality, panorama stitching

LIKE THE NIKON Coolpix S6, HP's 8.1-megapixel Photosmart R927 has a 3-inch LCD and a sturdy metal body.

The $399 R927 offers a lot of controls and earned the test group's highest overall score for image quality—Very Good. Among its many effects is a simulation of an aged photo print, though the initial thrill of such a novelty effect is likely to fade—the camera took 8 to 11 seconds to apply that effect to a 5-megapixel image. Subtler tweaks, such as adding a color tint, will no doubt get more use (and take less time to process—about 4 seconds).

The R927's most impressive feature is in-camera panorama stitching. You can combine up to five shots (compared to three shots with the Kodak EasyShare V610). However, the camera takes about 45 seconds to join five shots versus the roughly 7 seconds it takes using HP's Photosmart software on a PC. Considering that the R927's battery lasted for just 114 shots, you might prefer to conserve the camera's juice for shooting.

Nikon Coolpix P4

MOST NOTABLE FEATURES: optical antishake technology, sleek design, good image controls

THE 8.1-MEGAPIXEL COOLPIX P4 is small and lightweight. The basic controls are well laid out, though changing the scene mode requires a lot of button pressing. The $400 P4 offers an aperture-priority mode—rare on a point-and-shoot camera—and controls for contrast, sharpening, and saturation. The VR (vibration reduction) mode is unusual and effective: An element of the lens moves to compensate for hand shakiness.

There was about half a second of shutter lag, which could translate into missed shots unless you prefocus by pressing the shutter button halfway down.

The P4's image quality was a little disappointing: Colors looked muted in our test shots. The amount of noise in the images was acceptable, however, even when shot in low light at the ISO 400 setting. The noise reduction mode worked well.

Canon PowerShot SD700 IS

MOST NOTABLE FEATURES: antishake technology, impressive imaging

THE POWERSHOT SD700 IS offers image stabilization and other sophisticated features. At $500, though, it's pricey.

The playback mode is cleverly designed: A brief transitional fade appears between images; and when you view multiple images, the highlighted photo is slightly larger than the others. In addition, the SD700 IS automatically rotates images, depending on how you hold the camera.

THE OLYMPUS 720 SW keeps out water with rubber gaskets.

FEATURE FOCUS

SHOOTING SHARPER PHOTOS: ANTISHAKE AT WORK

THE NIKON COOLPIX P4 moves an optical element in its lens to compensate for camera movement. While shaking the camera gently in a room lit only by a 100-watt light bulb, I took a photo with vibration reduction turned off and then on—and the VR feature appeared to be effective. With the camera turned vertically, however, VR did not make my photo discernibly sharper. Similarly, the manual for the Canon PowerShot SD700 IS warns that the camera's antishake feature works only when the camera is held horizontally.

This 6-megapixel model took impressive photos, and the red-eye reduction feature worked well. The image stabilization was effective, too—in low-light conditions, the camera tended to produce a sharp picture even while being shaken.

The SD700 IS starts up quickly, focuses swiftly, and takes pictures as fast as you can press the shutter release—no need to compensate for shutter lag. The camera's 4X zoom lens is more powerful than the zooms on most other models here.

The SD700's 2.5-inch LCD is sharp, bright, and fast; it easily keeps up with movies shot at 60 frames per second.

The metal case is well constructed, though it's a little bit heavy at 6.6 ounces.

Olympus Stylus 720 SW

MOST NOTABLE FEATURES: antishake technology, shockproof and waterproof body, unusually high ISO settings

A CAMERA FOR klutzes? If you tend to be hard on your cameras, Olympus may have your number. The $400 Stylus 720 SW is the first pocket-size digital camera we've seen that claims to be both shockproof and waterproof. According to Olympus, this camera can survive drops of up to 5 feet, and remain underwater to depths of 10 feet for up to an hour.

Outwardly, this camera doesn't look unusual. The only clue that it can survive a dunking is the tiny gasket behind the battery cover and USB port door.

The Stylus 720 SW offers a maximum ISO of 2500. However, noise was very apparent in the shadow areas of images shot in low light at the highest settings.

The buttons are a bit too small for large fingers. The useful function button pops up settings such as white balance, ISO, and metering modes. Missing, however, is white balance calibration, a feature that most models here offer.

The antishake feature worked well: When we shot in shade at full telephoto, turning on the feature produced a noticeably sharper photograph.

Unfortunately, the Stylus 720 SW's LCD looked somewhat dark and was difficult to see in bright sunlight.

Kodak EasyShare V610

MOST NOTABLE FEATURES: high zoom ratio, panorama stitching, Bluetooth wireless connectivity

KODAK'S SLEEK EasyShare V610 offers a very powerful 10X optical zoom. The $449 camera also includes Bluetooth for transferring photos wirelessly. Unfortunately, this 6.1-megapixel model demonstrated a tendency to produce blurry photos at its highest zoom levels, and it took just 148 shots on a single charge before the battery conked out.

THE KODAK V610 has a powerful 10X zoom.

The V610 has two lenses: the 38mm-to-114mm standard zoom lens (35mm equivalent) and a 126mm-to-380mm telephoto lens, though you'll experience a slight pause when the camera switches over.

Outdoor shots looked attractive, as did photos taken in a dimly lit theater. But in low light the V610 sometimes had trouble focusing. The camera lacks image stabilization, and in our tests slight movements by the shooter often yielded blurry shots.

The V610 performs in-camera panorama stitching, though it limits you to three photos. Also, in panorama mode you're limited to 3-megapixel resolution. ■

PC World Senior Writer Alan Stafford, PC World contributing editors Grace Aquino and Richard Baguley, and freelance writers Tracey Capen and Paul Jasper contributed digital camera reviews to this story.

BASIC SHOOTERS

BARGAIN PERFORMERS

THE LOW-PRICED CANON A540 ($280) and HP R717 ($270) lack fancy features—but deliver on performance.

YOU DON'T HAVE to buy an expensive camera to get high image quality. If you can live without flashy features, consider a more basic model such as the Canon PowerShot A540 or the HP Photosmart R717.

Both cameras offer a fair number of features for a low price, and they match the image quality of pricier models. Both cameras have an optical viewfinder—which comes in handy when the LCD is difficult to see.

If you're unlikely to use manual controls, but want manual focus, the Photosmart R717 is a good choice. Also, it offers exposure bracketing. The PowerShot A540, on the other hand, lacks manual focus and exposure bracketing, but has other controls, such as shutter-priority mode and full manual control.

The number of manual controls you want will likely tip the balance toward the right model for you. The good news is that you don't have to sacrifice image quality.

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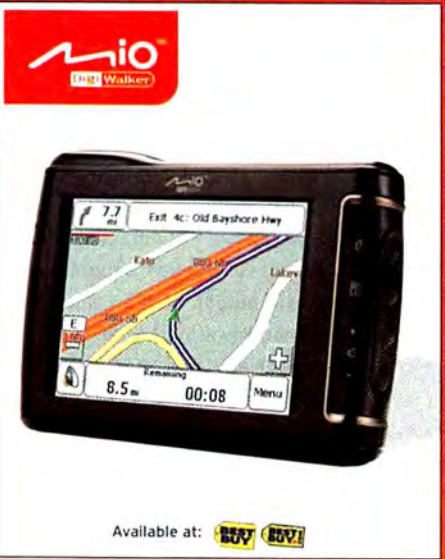

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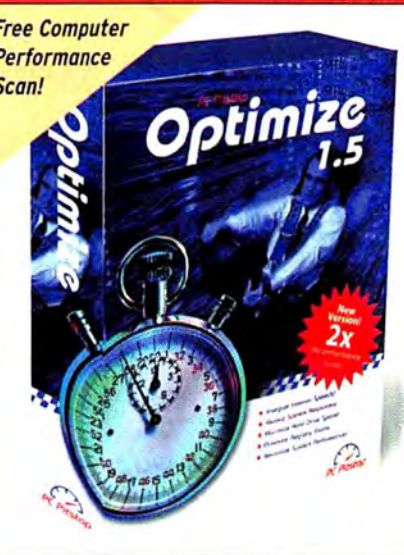

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HERE'S HOW

EDITED BY ERIC DAHL AND DENNIS O'REILLY

STEP BY STEP

ANDREW BRANDT

Get Any PC, New or Old, Ready for Everyday Use

IF YOU BREAK your brand-new PC in right, you can keep trouble at arm's length. During break-in, you'll set the system to standby or hibernate, schedule your backups, and customize Windows' appearance to your specific taste. Of course, you can improve any PC's performance and security by disabling many of Windows XP's automatic settings, and by activating certain features that Microsoft leaves off by default. You'll also want to rid a new PC of various preloaded applications and trial versions that you don't really need, and install and configure a couple of other programs designed to keep you safe and productive. Finally, you can take a few minutes to turn off many of Windows' more annoying and useless frills.

It may take a while to fine-tune everything, but in the end, you can point to your computer and say "There are many PCs like it, but this one is *mine*." These steps will improve the performance of any system, whether you've been using it for hours or years, and they'll reduce your irritation factor substantially. (Note that the steps described here are for XP Pro, but they should work with other versions of XP as well, though the options may be slightly different.)

Step 1: Show the My Computer icon. This desktop shortcut provides fast access to the Device Manager, your Services list, and other settings you're likely to need when you set up your PC and when you make changes later. Unfortunately, Windows XP doesn't display the My Computer icon on the desktop by default. To add it, right-click an empty area of the desktop, choose *Properties*, and click *Desktop•Customize Desktop*. Check *My Computer* and any other icons—such as *My Network Places*—that you want on your desktop (see **FIGURE 1**). You may wish to uncheck *Internet Explorer* if you don't open the browser via that desktop shortcut (it also appears on XP's Start•All Programs menu). And since I prefer to clean my own desktop, I uncheck *Run Desktop Cleanup Wizard every 60 days*.

Step 2: Disable unnecessary settings. For security reasons, I disable XP's Remote Assistance and Remote Desktop features. (Your PC vendor may use these features for online support, but they create potential access points for malware.) To close the door, right-click *My Computer*, choose *Properties* to open the System Properties dialog box, select the *Remote* tab, uncheck all the options, and click *Apply*.

To improve my system's performance, I turn off most of Windows' fancy visuals, such as those that slide, fade, and otherwise animate menus and list boxes. (I prefer a menu that snaps into position as soon as I click something.) To disable

ILLUSTRATION: RICHARD DOWNS

INSIDE

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138 INTERNET TIPS
Tips and tools for getting more out of Google's free Gmail service; a pop-up window shows Gmail threads.

140 HARDWARE TIPS
Windows' System Monitor utility helps you find hardware bottlenecks; find downloadable product manuals.

142 ANSWER LINE
Telltale signs that your PC has caught a virus; the lowdown on USB cables; swap files on flash memory?

FIGURE 1: MAKE SURE your My Computer icon appears on the desktop by checking this option in the Desktop Items dialog box.

these effects, click the *Advanced* tab in the System Properties dialog box, and choose the *Settings* button in the Performance section. Then uncheck the boxes on the Visual Effects tab to turn off the features you don't want or need. I leave 'Show shadows under mouse pointer' checked to make the pointer easier to find on the screen; and because I like seeing a window's contents while I drag it, I keep that box checked as well. But I turn off the other shadows and fading, sliding, and smoothing features by clearing their boxes. When you're done, click *Apply*.

Step 3: See the Blue Screen of Death. Another troublesome feature is easy to dispatch via the System Properties dialog: On the Advanced tab, choose *Settings* in the Startup and Recovery area, uncheck *Automatically restart*, and click *OK*. Now if XP crashes and shows you the dreaded blue screen, you'll be able to record the error message so you can perform some in-depth troubleshooting. Otherwise, Windows will restart immediately, often leaving you no way to figure out what happened. In a worst-case scenario—which some people encountered when they installed the Service Pack 2 update to XP—Windows blue-screens during the installation process, reboots, blue-screens again, reboots again, and continues ad infinitum. If you ever need to force a restart when this feature is unchecked, just hit your PC case's reset button.

Step 4: Check your drivers. In the System Properties dialog box, click the *Hardware* tab and then the *Device Manager* button. A yellow question-mark icon next to an entry indicates that a necessary driver isn't loaded for that device. You may need to load it manually from the CD accompanying your PC or motherboard. Double-click the entry, choose the *Driver* tab, select the *Update Driver* button, and follow the prompts, pointing to the folder containing the driver on the installation CD when instructed to do so. (Note that even with a brand-new PC, a more recent version of the driver may be available on the device manufacturer's Web site.)

Step 5: Patch, patch, patch. Now that you have established control over the PC, it's time to hit up Microsoft for the latest Windows fixes. But be warned: Until you download and install all the latest drivers and patches for Windows, the only sites you should open in Internet Explorer are your hardware vendors' page (to download driver updates) and update.microsoft.com (where you can load Microsoft Update, which does the same thing as Windows Update but can also find and load fixes for Office and other Microsoft programs). The two PCs I used as test beds for this story, both preloaded with Windows XP SP2, required 45 critical security patches the first time they connected to Microsoft Update. On my DSL line, the process took about 30 minutes from first connection to last reboot. At least Microsoft has the patching trick down; I guess lots of practice makes perfect.

Step 6: Tweak your way to speed and safety. Microsoft's Tweak UI (find.pcworld.com/53572) is so useful that it's one of the first tools I install on a new PC, and one of the first shortcuts I put on my desktop. Few Windows tools are more helpful for making the operating system look and work just the way you want it to.

To reduce the delay before a submenu appears when you hover over it, double-click *Mouse* in the left pane, click *Hover*, and change the time, in milliseconds, in

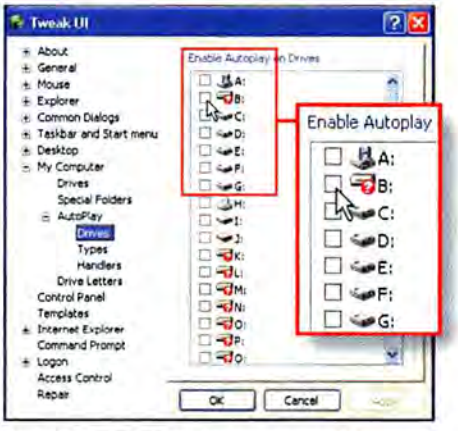

FIGURE 2: TO PLAY IT supersafe, use this Tweak UI setting to block all of your drives from running applications automatically.

the 'Hover time' box. And if you would like My Computer to appear as the first icon on screen when you clean up your desktop, double-click *Desktop*, choose *First Icon*, and click *My Computer*.

AutoPlay is the Windows feature that let Sony install its rootkit-like digital rights management software on so many PCs without detection. If you don't mind having to start your CDs manually by double-clicking their icon on the drive's menu or folder under My Computer, you can improve security by turning off AutoPlay for CDs and removable drives: Double-click *My Computer*, double-click *AutoPlay*, choose *Types*, and uncheck both items.

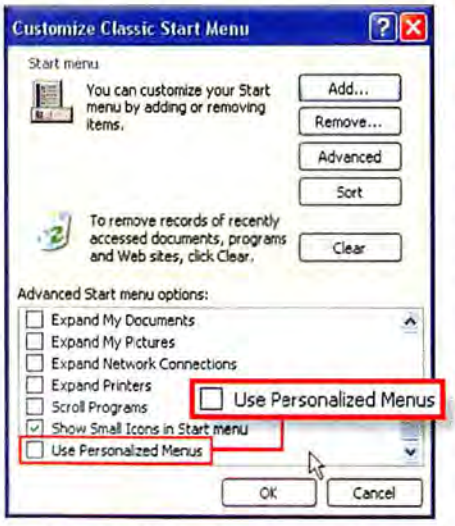

FIGURE 3: MAKE YOUR Start menu shortcuts appear right away by unchecking this Taskbar and Start Menu Properties option.

If you want to disable AutoPlay on all of your drives, choose *Drives* in the left pane, uncheck all 26 drive letters, and finish by clicking *OK* (see **FIGURE 2**).

Step 7: Disable unneeded System Tray apps. Most system-tray applets squander RAM and CPU cycles to little or no purpose. Browse to find.pcworld.com/53680 to check out Scott Spanbauer's "15 Icons You Can Dump" from his October 2004 feature, "Keep It Simple." That article is a terrific primer for reducing application and system clutter.

Step 8: Lose the XP-style Start Menu. To me, XP's Start Menu feels like a step backward. To revert to the older version, right-click the *Start* button, choose *Properties*, and click *Classic Start menu*. Next, click the *Customize* button; and check three options in the 'Advanced Start menu options' box: *Display Administrative Tools*, *Expand Control Panel* (which lets you get to the applet that you need without having to open the whole Control Panel window), and *Show small icons in Start menu* (which keeps everything tidy). Most important, scroll to the bottom of that list of options and uncheck *Use personalized menus*, which gets rid of the annoying feature that makes the OS pause before showing you all of your options (in the Start menu, at least); see **FIGURE 3**.

Step 9: Set Windows Explorer's folder views. To change the view for all of your folder windows, open a window (one way is by double-clicking *My Computer*), click *View•Details*, and choose *Tools•Folder Options*. Select the *General* tab and click *Use Windows classic folders*. Click the *View* tab, and check *Display file size information in folder tips*, *Display the contents of system folders*, *Display the full path in the address bar*, and *Show hidden files and folders*. Uncheck *Hide extensions for known file types* and *Use simple file sharing*. Disabling that last option actually turns on the Security tab in the Properties dialog box of your files and folders. Finally, click *Apply to All Folders•OK*.

Step 10: Dump the 'Are You Sure?' warning. Yes, I'm sure I want to place those files in the Recycle Bin, right now. To keep this nagging dialog box at bay, right-click the *Recycle Bin*, select *Properties*, and uncheck *Display delete confirmation dialog*. Another unnecessary annoyance bites the dust.

Step 11: Turn off the Windows logo screen saver. The only saving my LCD screen needs is from Microsoft's obnoxious floating Windows XP logo. To get rid of it, right-click the desktop, choose *Properties*, click the *Screen Saver* tab, select *(None)* on the drop-down menu, and click *OK*.

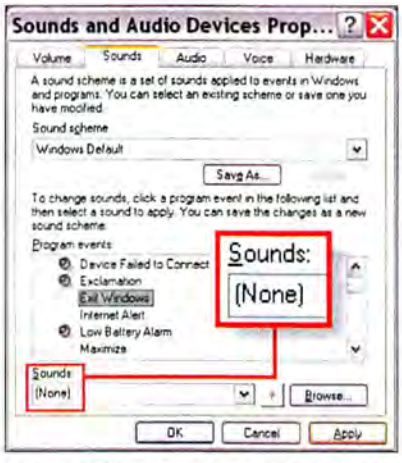

FIGURE 4: CHOOSE '(NONE)' under 'Sounds' for Exit Windows and for Start Windows to give Windows' tired fanfares the hook.

Step 12: Start and stop silently. To mute Windows' startup and shutdown sounds, click *Start•Settings•Control Panel* (or just *Start•Control Panel* if you ignored my advice in Step 8). Next, choose *Sounds and Audio Devices*, and click the *Sounds* tab. Scroll through the list under Program events, select *Exit Windows*, and choose *(None)* in the Sounds drop-down menu (see **FIGURE 4**). Do the same for *Start Windows*, and click *Apply*. If you'd like your system to be completely soundless, choose *No Sounds* under Sound scheme. When you're done, click *OK*. ■

PC World Contributing Editor Andrew Brandt thinks that he spends far more time than he should with Windows.

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Process Explorer: Part security tool and part performance enhancer, I use this utility to kill programs to gain performance more than to enhance security. Be sure to click *Options•Replace Task Manager*. find.pcworld.com/53686

Adblock: The plug-in for the Firefox and Mozilla browsers selectively disables specific graphics or scripts from loading on a page, making it a perfect companion to the NoScript plug-in (find.pcworld.com/53698). find.pcworld.com/53688

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WINDOWS TIPS

SCOTT DUNN

Move Quickly Between Your Open Windows

CHANCES ARE GOOD that you have several application and folder windows open on your computer right now. You probably switch between them by pressing <Alt>-<Tab> if your hands are on the keyboard, or by clicking a taskbar button if you're mousing around. That's great for managing a few windows, but when you have several copies of a single application open (say, three pages in Internet Explorer, three instant messenger windows, and a couple of different folders), things get more complicated. Windows gloms their taskbar buttons together: You have to click, read a pop-up menu of options, and then click again in order to view the window that you want (see **FIGURE 1**). Or if you have multiple documents open in your application, you have to switch to the app first (via mouse or keyboard) and then use another mouse or keyboard method to switch to the right document within the program. If window management is slowing you down, try these tips for customizing taskbar behavior and window access to find a style that suits you.

FIGURE 1: WHICH BUTTON HAS your document? Grouping slows down switching between open files.

Get away from grouping: To stop Windows XP from placing your taskbar buttons in groups, right-click an empty spot on the taskbar and choose *Properties*. Uncheck *Group similar taskbar buttons* under the Taskbar tab, and click *OK* (see **FIGURE 2**).

Group selectively: You may find grouping

FIGURE 2: KEEP YOUR TASKBAR buttons independent by unchecking this box in Windows XP's Taskbar Properties dialog box.

useful only when your XP taskbar is really crowded. Keep the 'Group similar taskbar buttons' setting checked (see previous tip), but use Microsoft's Tweak UI for Windows XP to set a threshold for when the setting kicks in. If you don't have that application already, browse to find.pcworld.com/53572 to download a copy. After installing it, start the program and click the plus sign ('+') next to 'Taskbar and Start menu' in the left pane. Then select *Grouping* underneath that. At the top of the right pane, choose a behavior or set a threshold that matches your work style, and click *OK* (see **FIGURE 3**).

Divide and conquer: Some applications don't show your open documents as separate windows on the taskbar, which prevents you from switching to a specific document directly by clicking its taskbar button, or by using <Alt>-<Tab>. To get quick navigation in Microsoft Word, Excel, and PowerPoint, choose *Tools•Options*, click the *View* tab, make sure that *Windows in Taskbar* is checked, and click *OK*. In Adobe Acrobat or Reader, choose *Edit•Preferences*, and select *General* on the left. Check *Show documents in taskbar*, and click *OK*. The change will take effect when you restart the program. Note that in Office apps, this changes the <Alt>-<F4> keyboard shortcut so that it closes only the current document, not the whole application (unless only one document is open). But in Acrobat, <Alt>-<F4> still closes the program and all open documents in one fell swoop.

FIGURE 3: MASTER ORGANIZATIONAL behavior via Tweak UI to control when and whether your taskbar buttons get grouped.

Boss those buttons around: Make it easier to zero in on the taskbar button you're looking for by using Elias Fotinis's TaskArrange (find.pcworld.com/53574). This free product lets you arrange the taskbar buttons in any order you wish. ■

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

Picture Windows' Taskbar With Visual Task Tips

THE TASKBAR BUTTONS in Windows XP have text and icons that reflect their application, but that may not help you find one of several open browser windows, or figure out which of the half-dozen Excel worksheets you're running is the one you need. After you install Visual Task Tips, simply hold your pointer over a taskbar button to see a thumbnail representation of the window and its contents. This app is no help if you group your taskbar buttons, but the free program might be reason enough to consider ungrouping your icons. Browse to find.pcworld.com/53576 for the download.

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CISCO SYSTEMS

INTERNET TIPS

SCOTT SPANBAUER

Gmail to the Max: Helpful Tips, Tricks, and Hacks

GOOGLE'S FREE, FEATURE-LADEN, and still-evolving Gmail service does more than just e-mail. These tips and tweaks let you customize Gmail to manage and organize your files from any browser.

Get notified in your browser: Google's nifty Gmail Notifier utility (find.pcworld.com/53584) sits in your system tray and checks for new mail at regular intervals. But if your system tray runneth over, and you are using Firefox, you can receive notifications right in the browser's status bar, through Doron Rosenberg's identically named Gmail Notifier add-on software (find.pcworld.com/53586; see **FIGURE 1**).

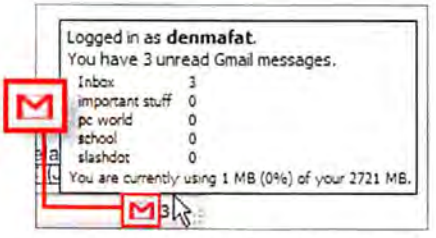

FIGURE 1: GET NEW Gmail notifications right in your Firefox status bar instead of using Google's own system-tray-based notifier.

Filter messages with custom addresses and aliases: Like any decent e-mail system, Gmail lets you set up filters that act on incoming mail based on criteria you set up. For example, you can create a filter that stars all messages from rjsquirrel@frostbitefalls.com and forwards them to every other e-mail account you use. Click *Settings*•*Filters*•*Create a new filter*, and follow the instructions. For more information on filters, click *Help*, and choose *Filters* under 'Common Mail Tasks and Features' to get a quick, complete tutorial.

Another convenient Gmail feature is its ability to use aliases. You can filter your incoming mail by adding a plus sign (+) and any extra characters (no spaces) to your address. For example, when you register with the *Frostbite Falls Tribune* site, submit an address similar to 'scott+tribune@gmail.com'. Or provide your boss with an address like 'scott+deadline@gmail.com'. Now, you can create filters that will label, star, archive (skipping the inbox), or forward only those incoming messages. And should the cash-starved folks at the *Tribune* sell your e-mail address to marketers, you can change your filter to redirect messages addressed to 'scott+tribune@gmail.com' to your Spam folder. (Note that 'scott@gmail.com' isn't a legitimate address because Gmail requires that user names have at least six characters.)

Start using those gigabytes: Gmail continuously informs you that you have lots of storage space available—I had 2.66GB at my disposal as I wrote this—but most of us will probably never use even half that space for messages. Several tools let you use a Gmail account for Web-based file storage or backup. Contrary to a rumor posted on Wikipedia, neither service described below violates Gmail's terms of use or program policies.

Bjarke Viksoe's Gmail Drive (find.pcworld.com/53588) adds Gmail to Windows Explorer as a storage device, permitting you to drag and drop files to and from Google's servers, where they are stored as e-mail attachments. Rahul Jonna's Gmail Space (find.pcworld.com/53590) is similar, but it works as a Firefox extension that converts the browser into a file-transfer utility to shuttle documents between your hard disk and Gmail (see **FIGURE 2**). When you create a filter that sends Gmail Space files to a specific Gmail folder (every file that Gmail Space uploads is attached to a message whose subject is prefixed with 'GSPACE'), you keep your inbox clear of your stored files automatically. Note that the current version of Gmail Space conflicts with the NoScript Firefox extension. ■

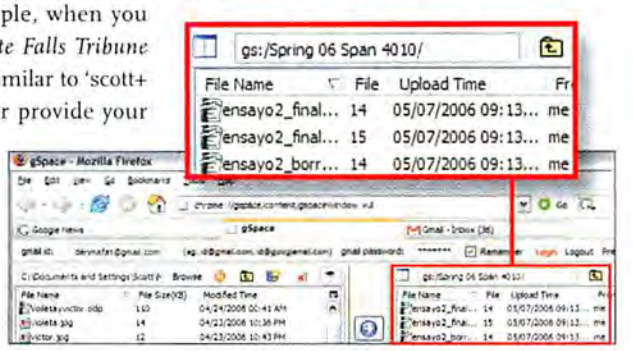

FIGURE 2: USE THOSE Gmail gigabytes for storing copies of your files online, with the free Gmail Space add-on program for Firefox.

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.

PREVIEW YOUR GMAIL CONVERSATIONS IN A BUBBLE

INSPIRED BY GOOGLE Maps' bubbles, current Google employee and occasional shareware author Mihai Parparita wrote a Greasemonkey script that pops up a preview of a Gmail conversation thread when you right-click it. First, install the Greasemonkey user scripting extension for Firefox (greasemonkey.mozdev.org). Next, visit Parparita's blog (find.pcworld.com/53592), click one of the links there that display the Conversation Preview Bubbles script, and select *Install* in the upper right corner. You can now read the threads in the Google window.

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HARDWARE TIPS

KIRK STEERS

Find and Eliminate Your Hardware Bottlenecks

SPYWARE, CORRUPTED WINDOWS files, and plain-old poorly written software are all causes of sluggish PC performance. But as you tweak settings, remove software, or reinstall Windows (see "Windows Rejuvenated" at find.pcworld.com/53978 for software performance tips), don't neglect the slowdowns that are due to your PC's hardware. Windows XP and 2000 include tools that help you track down hardware-induced bottlenecks, and a recent update for both those Windows versions makes hardware rehabilitation easier than ever.

Windows' System Monitor program continuously tracks hundreds of performance statistics and records them in log files for more-convenient viewing.

To launch System Monitor in XP and 2000, click *Start•Run*, type **perfmon**, and press **<Enter>**. Choose *System Monitor* in the left pane, and then click the plus sign ('+') in the toolbar on the right to add more counters that display your PC's performance in real time. Choose a category from the *Performance object* drop-down menu, select a counter from the list below it, and click *Add* (see **FIGURE 1**). Click the *Explain* button to read a description of the selected counter.

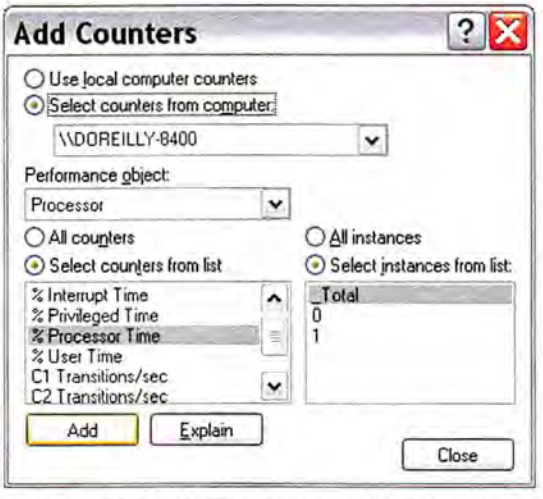

FIGURE 1: WINDOWS' SYSTEM Monitor utility lets you track hundreds of your computer's vital performance statistics.

System Monitor's graphs can help you spot trouble areas, but it's best to evaluate your PC's performance numbers over a period of hours or days. Recording this data in a log file is a lot easier now that Microsoft has released the free Performance Monitor Wizard. Browse to find.pcworld.com/53646 for the download (the wizard requires Windows validation, which itself requires a download).

Many System Monitor counters measure arcane technical data of little significance to the average PC user, but a few measures—including those that help users determine whether or not they need more RAM, a faster CPU, or a speedier hard drive—are useful to everyone. For more on System Monitor's counters and explanations of them, download Guy Thomas's $5.25 e-book, *The Art and Science of Performance Monitoring* (find.pcworld.com/53648). Here are the relevant ones.

RAM: Two useful counters under the Memory object are Available Bytes and Pages/sec. The first displays the amount of physical RAM available to Windows, while the second measures "hard" page faults, which are the times when data had to be swapped between the hard drive's virtual memory and physical memory on the motherboard. If the Available Bytes counter drops below 10 percent of your RAM, while the Pages/sec counter increases significantly, you may not have enough RAM to support the software programs that are currently running on your PC.

CPU: The % Processor Time counter beneath the Processor object measures CPU usage. Software launches and other events may produce a spike to between 90 and 100 percent of CPU capacity, but if this counter consistently measures over 80 percent, your processor may lack the horsepower necessary to handle your system's workload. If your PC has a dual-core CPU, you can select separate counters for each core, or a single counter to measure both.

Hard disk: The % Disk Time counter under the PhysicalDisk object displays the time the hard drive spends reading or writing data. If you have more than one drive, select the drive to monitor. (PCs equipped with multiple striped RAID drives acting as a single volume need to monitor the % Disk Time counters under the LogicalDisk Performance object.) A drive that runs 40 to 50 percent of the time may have to be replaced. ■

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 is the author of* PC Upgrading and Troubleshooting QuickSteps *from McGraw Hill/Osborne Press.*

FIND THE RIGHT DIRECTIONS

PRODUCT MANUALS VANISH faster than beer at the annual Steers family barbecue. You can search for a replacement manual for your PC—or for a peripheral or component—on the maker's Web site, but that can take time. Instead, start at UsersManualGuide.com. The site features an impressive collection of downloadable user manuals for all kinds of PC gear and other gadgets, often in multiple languages.

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ANSWER LINE

LINCOLN SPECTOR

How Can I Tell If My PC Has Caught a Virus?

MY SISTER TELLS me that I'm sending her virus-laden e-mail. What's more, something is slowing down my computer. Do I have a virus?

Name withheld by request

NEITHER OF THE symptoms you describe is conclusive proof that your system has a virus, although the slow PC could indicate the presence of one or more malicious programs.

Don't worry about your sister's complaints. Viruses seldom reveal whose computer is actually sending them. They commonly fake the 'From' address of the e-mail, often using an address found on the infected PC's hard drive. The virus probably came from an infected machine belonging to someone who knows both of you; it sent itself to every address on the hard drive, randomly picking yours as the "sender."

FIGURE 1: CHECK YOUR system for viruses online in case your PC's own antivirus program has been compromised.

On the other hand, be very suspicious if your PC uploads files over the Internet without your approval. Much malware today sends info from your PC, either to spy on you or to use your PC to send spam or a virus. Make sure your firewall is set to stop and report on all outgoing activity you haven't explicitly approved. Windows XP's firewall doesn't provide this functionality, so if you don't already own a security suite or stand-alone firewall that can handle the job, I recommend that you get Zone Labs' ZoneAlarm (find.pcworld.com/53656) or Sygate Personal Firewall (find.pcworld.com/53658), either of which is free for personal use.

You might discover hints of an infection in the System Configuration Utility, also known as Msconfig. To open it, click *Start•Run*, type **msconfig**, and then press <Enter>. Click the *Startup* tab. In the list of programs that load automatically when Windows starts, look for one whose name resembles an eye chart; many malicious programs rename their files with random character strings. Others, though, mimic the names of real system components.

If programs like Msconfig, the Windows Registry Editor, and your antivirus program don't load, your PC is almost certainly infected (although these programs sometimes act up for reasons other than a viral infection). For details, see my August 2005 column, "Prevent Viruses From Disabling Your Protection" (find.pcworld.com/53660).

Free online virus scanners can help you find the culprit if your regular antivirus program is compromised. I recommend Bitdefender.com (see **FIGURE 1**), Kaspersky Lab (find.pcworld.com/53664), and Trend Micro (find.pcworld.com/53662).

WHEN IT COMES TO SWAPPING, FLASH AIN'T AS FAST AS SDRAM

I'M OFTEN ASKED if you can speed up a PC by moving the Windows swap file (also known as the paging file or virtual memory) to an external USB 2.0 flash-media drive. This isn't a good idea, despite the addition of a similar feature to Microsoft's upcoming Windows Vista OS. The swap file is located on the hard drive, which provides slower access than system RAM. A USB drive uses nonvolatile flash memory that is also pokier than RAM, and the USB 2.0 connection such drives use is much slower than the PC's interface to its internal hard drive. Instead of revving up your system, you would actually drag it down. If you want to speed up your PC by limiting swap file use, install more system RAM.

USB CABLE MYTHS BUSTED

HOW DO I tell whether a USB cable is the old version 1.1 or the newer, faster 2.0 version?

John Hisato, Vallejo, California

IF A CABLE has a "USB 2.0" label, it's obviously a USB 2.0 cable. The label tells you that the cable has been tested to meet all of the appropriate specifications. Without the label, it's hard to know. (There was never a "USB 1.1" label.)

Most USB cables, even those that predate 2.0, support 2.0 performance—but not all do. Well-made cables, especially those longer than 2 feet, are usually thicker and stiffer than substandard cables. A thin and flexible 2-foot cable will probably handle anything you transmit, but a similar 15-footer may slow you down.

Using a cable that isn't up to the job won't hurt anything except performance. If a file transfer is taking hours instead of minutes, you should switch to a better cable. Otherwise, don't worry. ■

Send your questions to answer@pcworld.com. Answer Line pays $50 for published items. See find.pcworld.com/31577 for more Answer Line columns. You'll find Contributing Editor Lincoln Spector's humorous and other writings at www.thelinkinspector.com.

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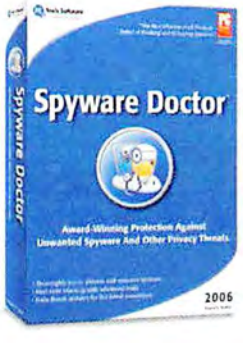

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Toolbar Review

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	✓		✓	
Homepage Protector	✓			
Browser Tracks Eraser/Cleaner	✓			
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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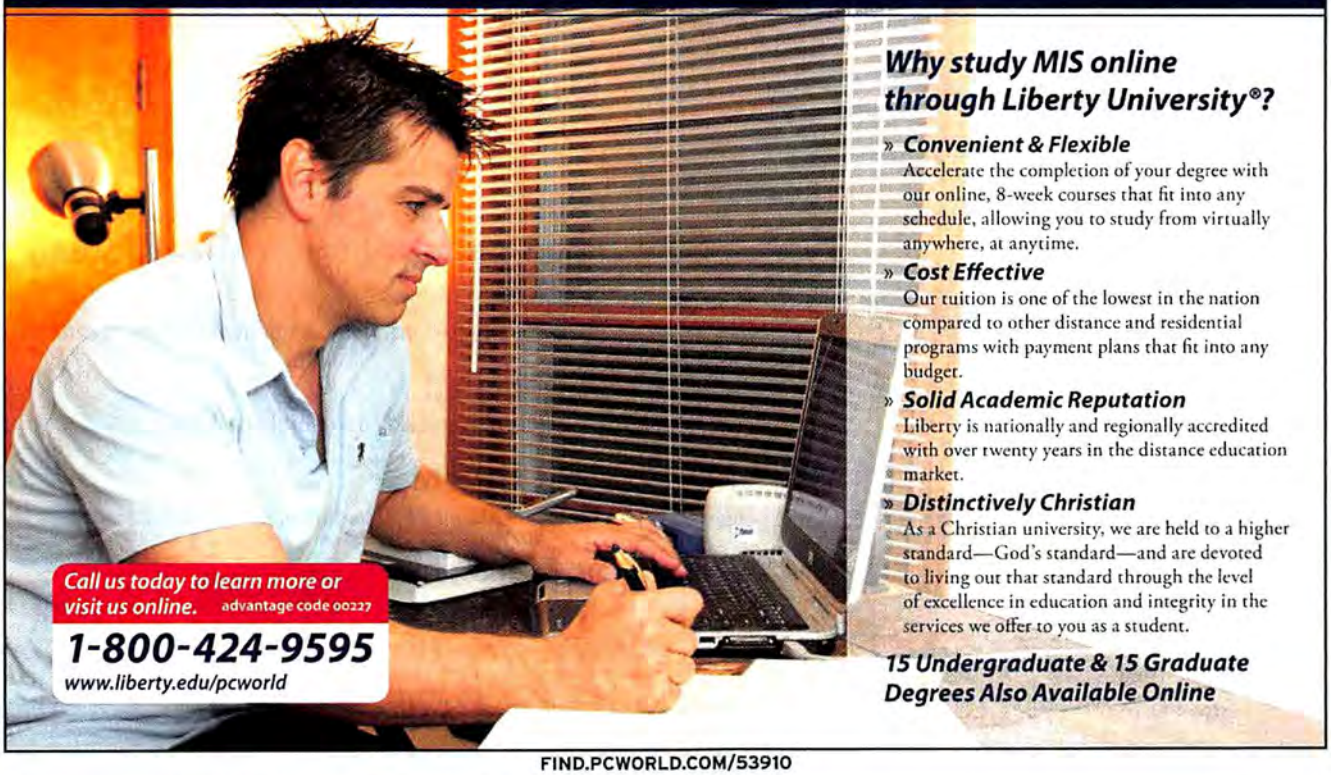

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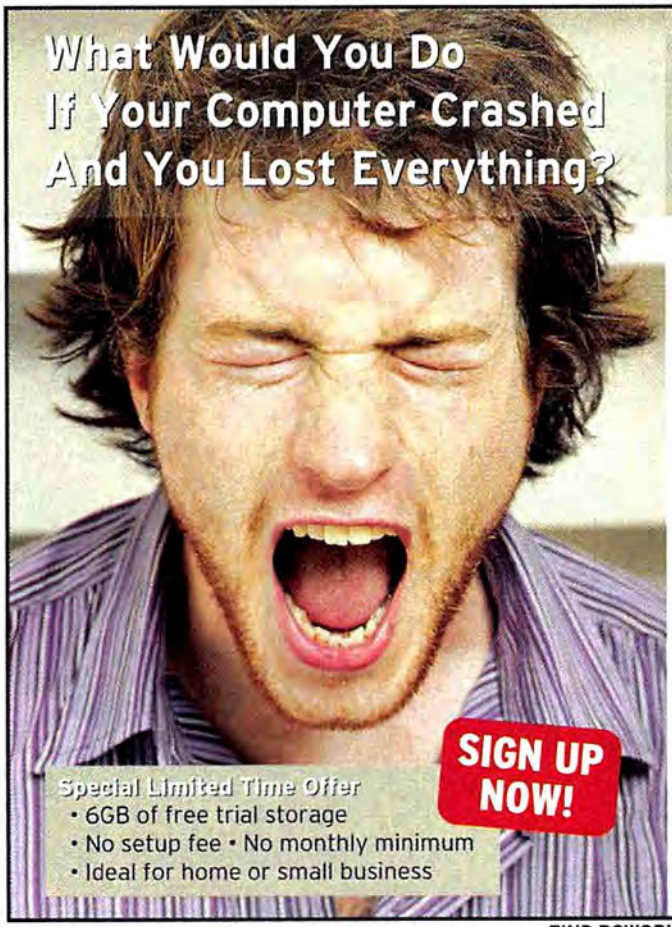

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Abby Chaney	West Entrance	03/20/2004 07:28:03 AM	Key Authorized
Pete Sussman	Records Room	03/20/2004 07:59:15 AM	Out of Schedule
John Michaels	Computer Room	03/20/2004 08:00:03 AM	
Evelyn Leller	West Entrance	03/20/2004 08:12:16 AM	
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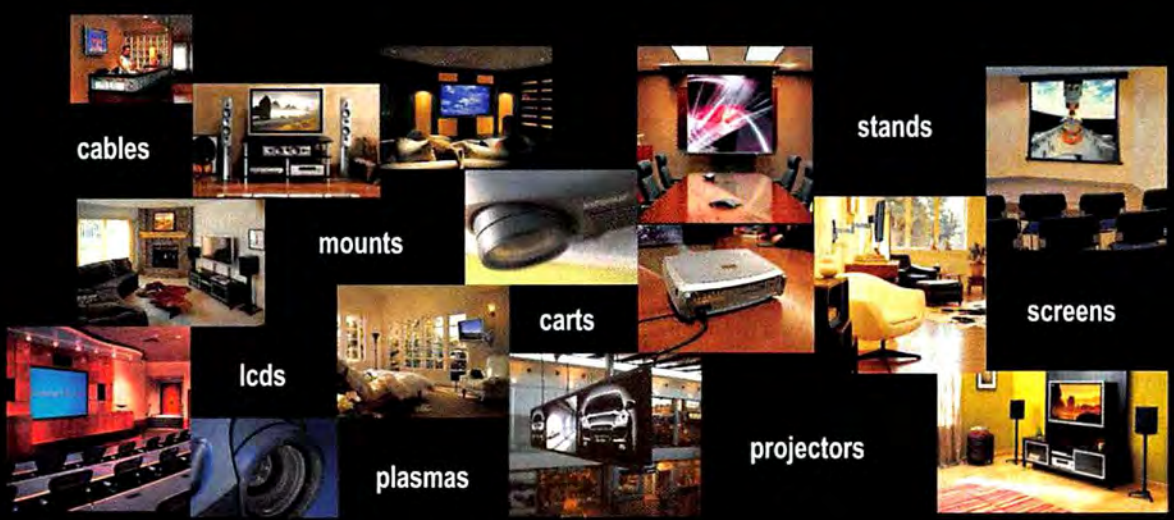

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FULL DISCLOSURE

STEPHEN MANES

Three Steps to a New, Improved Microsoft!

ON JUNE 15, in case you didn't notice, Microsoft announced that Bill Gates will "transition out of a day-to-day role in the company" in 2008, though he'll remain as chairman. Bill, no one can complain about your new focus on philanthropy, but over the next two years, how about showing your customers a little love?

It'll be easy! Just insist that Microsoft adopt this mantra: "Stop Making Crap." Here's a simple three-step process:

1. Quit kidding yourself. Do some soul-searching and publicly disown the long-standing public-relations fantasy that Microsoft has something to do with "innovation." Your business has always been about taking others' ideas and selling them with a Microsoft badge. Period. After CP/M came DOS; after Mac came Windows; after Palm came Pocket PC; after Netscape came IE. And those are just the most obvious examples.

2. Insist on quality and security. Microsoft ads say "Your potential. Our passion," but the real motto should be "Do the Minimum." Whenever I pick up a Microsoft product, I expect stupid or dysfunctional design. You rarely disappoint me.

Quality? In just the last few weeks, I've encountered a show-stopping defect in ActiveSync, Windows Mobile dialog boxes that are unreadable because nobody redesigned them for the aspect ratio of the Motorola Q phone's screen, and an entire platform—Ultra-Mobile PC—that's one of the worst computing experiences ever, right down to a Tablet PC tutorial no one bothered to update for the new devices. Windows Media–based audio players continually fail to challenge Apple's iPod because Microsoft's software sucks.

Security? A continuing bad joke, right down to the Windows Genuine Advantage antipiracy program that Windows Update dubs a "critical security update." It's critical only to the company's profit margins, by ensuring that users are running a legit version of Windows—except, as sometimes happens, when it's wrong.

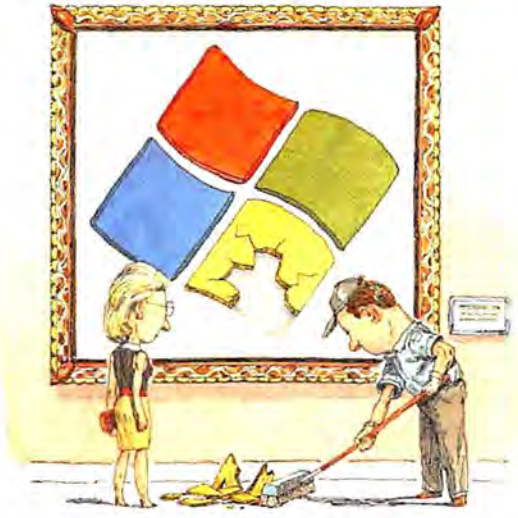
Oh, and quit bragging about how many testers you have. It's tiresome and irrelevant when most of them appear to be taking a permanent lunch break. Embrace the idea that quality and security have to be built in, not tested in.

3. Shake up the talent. Nobody in a position of authority at Microsoft ever seems to get fired. Many should be. How many times can a product jettison features and miss deadlines before its handlers get the boot? How many security flaws can pop up before their creators walk the plank?

And if you want to innovate, find innovators. CEO Steve Ballmer is a longtime apologist for whatever Microsoft is doing at the moment. The résumé of new Chief Research and Strategy Officer Craig Mundie includes the disappointing Windows CE operating system, the voice-recognition-now-and-then-enabled Auto-PC, and Web TV, plus the laughable Trustworthy Computing Initiative. New Chief Software Architect Ray Ozzie is a smart guy and by all accounts a brilliant programmer, but his crowning achievement to date is Lotus Notes, a product whose user interface is despised by the folks I know who have been forced to use it. Is all the hot blood working on Xbox?

Oh, and after the three-step process, here's step 4: Turn "Stop Making Crap" into "Start Making Wonders." But software has to run, not crash, before it can fly. ■

How Bill Gates can patch up his legacy before he retires.



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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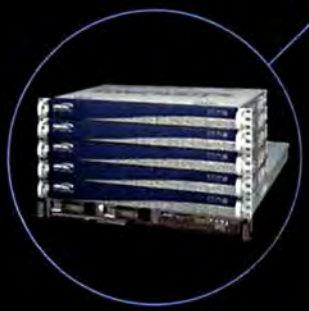

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