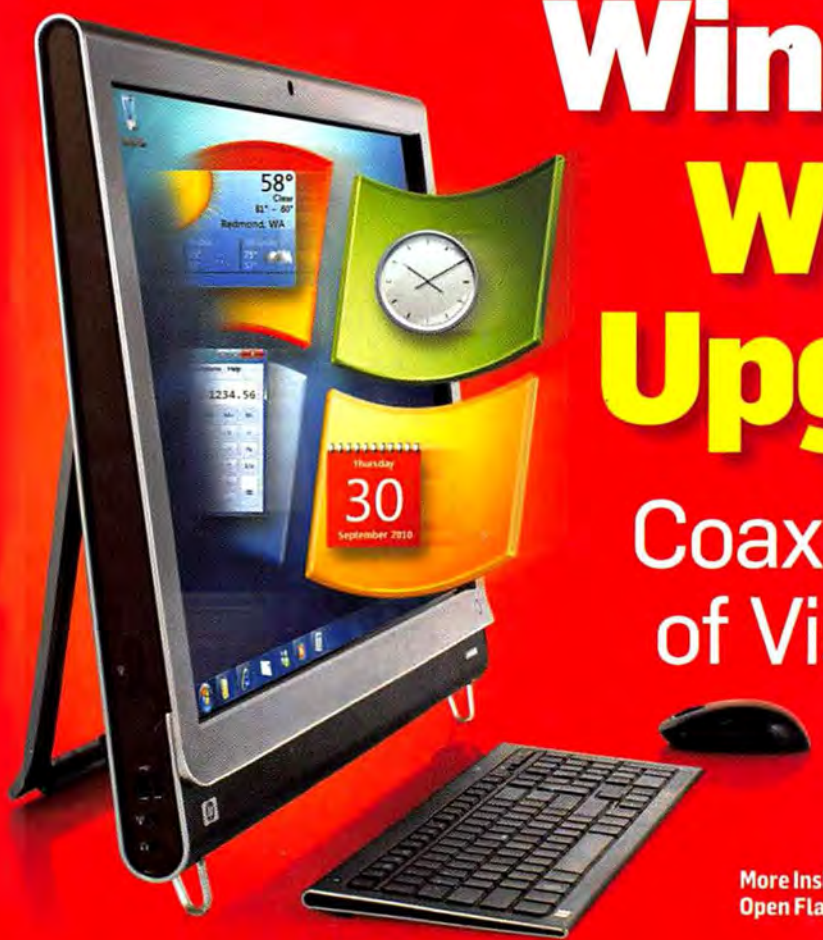
AVOID FACEBOOK & TWITTER DISASTERS p. 97

PCWorld

How to Get the Best of Windows 7 Without Upgrading



Coax New Life Out of Vista and XP p. 76

- » Quicker Bootups
- » Powerful Features
- » Slick New Look

More Inside: Open Flap ▶

Pick the Perfect Laptop
Find a Netbook or Notebook That Fits Your Lifestyle p. 86

AUGUST 2009 • PCWORLD.COM • $6.99

Norton™
from symantec

WE ARE TEAMING
UP TO DEFEAT
ONLINE THREATS

G.I. JOE
THE RISE OF COBRA
ONLY IN THEATERS

AVOID FACEBOOK & TWITTER DISASTERS p. 97

PCWorld

How to Get the Best of Windows 7 Without Upgrading

Coax New Life Out of Vista and XP p. 76

- Quicker Bootups
- Powerful Features
- Slick New Look

iPhone Killer?
Palm's New Pre Smartphone Proves Worth the Wait p. 56

Top Security Suites

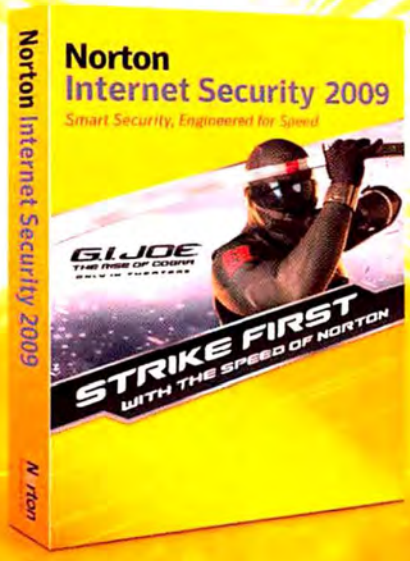
What's the Best PC Defense? We Test 8 Desktop Protectors p. 52

Pick the Perfect Laptop
Find a Netbook or Notebook That Fits Your Lifestyle p. 86

STRIKE FIRST

WITH THE SPEED OF NORTON

NOW YOU CAN GET IN ON THE ACTION



GET $30 BACK
Via Mail-In Rebate*

VISIT NORTON.COM/GIJOE

You could WIN MOVIE TICKETS INSTANTLY**

SMART SECURITY, ENGINEERED FOR SPEED

Norton from symantec

***Receive $30 via mail-in rebate with the purchase of Norton™ Internet Security 2009.** Offer good for purchases made between 6/21/09 and 10/19/09 at participating retailers. Rebate submissions must be postmarked within 30 days of purchase. Limit one rebate per product per customer. Paid via check or Visa® Prepaid Card dependent on retailer. Visit www.norton.com/gijoe for complete Terms and Conditions.

****NO PURCHASE NECESSARY. A PURCHASE WILL NOT IMPROVE YOUR CHANCES OF WINNING.** Subject to Official Rules. Begins 6/21/09 and **ends 8/31/09** at 11:59:59 CT. Must be at least 18 or the age of majority in your state or province of residence, a legal resident of the 50 U.S., D.C., or Canada (excluding Quebec), and have a valid email address. Must enter online at www.norton.com/gijoe. Limit one entry per person per day for a chance to win an instant daily prize such as movie tickets ($10 USA approx. value). See www.norton.com/gijoe for Official Rules and prize details. Canadian potential winners must correctly answer a mathematical skill-testing question in order to be eligible to win a prize. Void in Quebec, Guam, Puerto Rico, and all other U.S. territories and possessions, and wherever prohibited by law. Sponsored by Symantec Corporation.

© 2009 Symantec Corporation. All rights reserved. © 2009 Paramount. © 2009 Hasbro.

86

PCW

AUGUST 2009
Volume 27 • Number 8 • pcworld.com

56

» FEATURES

76 **Get the Best of Windows 7—Without Getting Windows 7**
People have been pining for Windows 7 from the moment Vista arrived. Why wait any longer? We explain how to put top features of 7 on your Vista or XP system.

86 **The Laptop Compatibility Quiz: Find Your Perfect Portable**
From petite netbooks to massive desktop replacements, laptops are made for different needs. Use our buying guide, and you can meet the notebook of your dreams.

97 **How to Avoid Facebook and Twitter Disasters**
Using popular social-networking services carelessly can make your life an embarrassingly open book. Take these steps to control what you expose to the outside world.

24

» DEPARTMENTS

7 Techlog
9 PCW Forum
116 MashUp

» FORWARD

12 **Don't Lose Data Stored Online**
Alert: Some online storage services have folded. Protect your data.

13 Plugged In
21 Beta Watch
22 GeekTech

» CONSUMER WATCH

27 **Secrets of Online Quizzes**
Question: "How gullible are you?"

28 Skeptical Shopper
30 On Your Side

» BUSINESS CENTER

33 **Cash In on Internet Memes**
Your Web sensation can mean $$.

34 Net Work

» SECURITY ALERT

45 **Malware Gets Harder to Clean**
Multifile intruders evade deletion.

46 Bugs and Fixes
49 Privacy Watch

» REVIEWS AND RANKINGS

52 **Internet Security Suites**
We pitted eight packages against viruses, rootkits, and adware.

56 Palm Pre
58 Top 10 Digital SLR Cameras
65 Top 10 NAS Drives
66 Cell Phone Buying Guide
70 Top 10 Laser Printers
74 Download This

58

» HERE'S HOW

104 **Digitize Your Analog Media**
Preserve papers, tapes, records, films, and data in digital archives.

110 Answer Line
111 Linux Line
112 Rick Broida's Hassle-Free PC

COVER PHOTOGRAPH BY ROBERT CARDIN

KVCH STING.com
THE BEST HOSTING SOLUTIONS

UNLIMITED BANDWIDTH AND SPACE
$3.99/Month

coupon 20% off with "PCWORLD"

- CPANEL 11 & Fantastico
- FREE DEDICATED IP
- FREE DOMAIN NAME
- RVSITEBUILDERS (500 TEMPLATES)
- UNLIMITED (POP3, SMTP, IMAP)
- 35 ADD ON DOMAINS
- 24/7 support (level3)
- 99.99% uptime guaranteed
- PHP5, Mysql, Curl, Fsockopen, suPHP, Zend Optimizer, Frontpage Extention, More...

DOMAIN REGISTRATION
FOR $8.95/yr with Free PRIVACY
Instant Setup & Fast Server
we offers: FREE HOST, RESELLER, VPS and DEDICATED
No Contract or Setup Fee
Green Hosting & No Oversell

PayPal VISA DISCOVER Google

www.kvchosting.com

VP, EDITORIAL DIRECTOR Steve Fox
EDITOR Edward N. Albro
MANAGING EDITOR Kimberly Brinson

PCW

CONTACT INFORMATION

PHONE:
415/243-0500

FAX:
415/442-1891

E-MAIL:
letters@pcworld.com

MAIL:
PC World Editorial
501 Second St. #600
San Francisco, CA
94107

STAFF E-MAIL ADDRESSES:
To contact any *PC World* staff member, simply format the address as follows: *firstname_lastname*@pcworld.com

OTHER WAYS TO READ PC WORLD

RSS:
pcworld.com/resource/rss.html

COMMUNITY:
forums.pcworld.com

NEWSLETTERS:
pcworld.com/newsletters

TWITTER:
@pcworld

FACEBOOK:
find.pcworld.com/60983

WIDGET:
pcworld.com/resource/widget.html

Please Recycle This Magazine

PRINTED WITH SOY INK

EDITORIAL

SENIOR EDITORS
Kalpana Ettenson, Anne B. McDonald, Tim Moynihan, Melissa J. Perenson, Melissa Riofrio, Robert Strohmeyer

SENIOR ASSOCIATE EDITORS
Liane Cassavoy, Mark Sullivan

SENIOR WRITERS
Darren Gladstone, Tom Spring

ASSISTANT EDITOR Nick Mediati

STAFF EDITOR Ginny Mies

SENIOR COPY EDITORS
Stephen Compton, Steven Gray, Tracy Yee-Vaught

EDITORIAL INTERN Lauren Barnard

ART AND DESIGN

DEPUTY ART DIRECTORS Jeff Berlin, Beth Kamoroff

DIGITAL IMAGING SPECIALIST/ PHOTOGRAPHER Robert Cardin

CONTRIBUTING IMAGING SPECIALIST/ PREPRESS COLOR Marianna Whang

CONTRIBUTING EDITORS

Danny Allen, Yardena Arar, Steve Bass, Laura Blackwell, Rick Broida, Scott Dunn, Stuart J. Johnston, Erik Larkin, Stephen Manes, James A. Martin, Harry McCracken, Aoife M. McEvoy, JR Raphael, Scott Spanbauer, Lincoln Spector, Kirk Steers, Carla Thornton, Dan Tynan, Robert Vamosi, Peggy Watt

PC WORLD TEST CENTER

TEST CENTER DIRECTOR Jeffrey Kuta

MANAGER OF BENCHMARK DEVELOPMENT James Motch

SENIOR PERFORMANCE ANALYST Elliott S. Kirschling

SENIOR DATA ANALYST Tony K. Leung

DEVELOPMENT ANALYST Thomas Luong

PERFORMANCE ANALYST William Wang

FOUNDERS

FOUNDER David Bunnell

FOUNDING EDITOR Andrew Fluegelman

MAILING LISTS

Occasionally we make our subscribers' names available to other firms whose products may interest you. To have your name excluded from these mailings, send a request and your mailing label to PC World Subscriber Services, P.O. Box 37571, Boone, IA 50037-0571, or e-mail us at maghelp@pcworld.com.

REPRINTS AND PERMISSIONS

You must have permission before reproducing any material from *PC World*. Write to *PC World*, Reprints and Permissions, 501 Second St. #600, San Francisco, CA 94107, or send e-mail to permissions@pcworld.com; include a phone number.

To order reprints of your company's editorial coverage in *PC World*, call 717/399-1900 ext. 135.

PCW COMMUNICATIONS

PRESIDENT, CEO Michael Kisseberth

SENIOR VP, COO/CFO Vicki Peilen

EXECUTIVE VP, GENERAL MANAGER, ONLINE Stephan Scherzer

WESTERN VP, HUMAN RESOURCES Kate Coldwell

INTERNATIONAL DATA GROUP, INC.

CHAIRMAN OF THE BOARD
Patrick J. McGovern

CEO, IDG COMMUNICATIONS
Bob Carrigan

SUBSCRIPTION SERVICES

Access your subscription account online—24 hours a day, 7 days a week—at pcworld.com/customer. You can use online subscription services to view your account status, change your address, pay your bill, renew your subscription, report a missing or damaged issue, get the answers to frequently asked questions, and much more.

MAIL: PC World Subscriber Services, P.O. Box 37571, Boone, IA 50037-0571 (Include a mailing label with correspondence.)

WEB: pcworld.com/customer

E-MAIL: maghelp@pcworld.com (Send your full name and the address at which you subscribe; do not send attachments.)

PHONE: In the U.S. 800/234-3498
New orders 800/825-7595

FAX: 515/432-6994

QUESTIONS AND SUBMISSIONS

Send material electronically to the appropriate online address listed below, or mail it to *PC World*. We reserve the right to edit letters.

ANSWER LINE: Visit forums.pcworld.com to ask your question in the Answer Line forum.

BUGS AND FIXES: bugs@pcworld.com

RICK BROIDA'S HASSLE-FREE PC:
hasslefree@pcworld.com

PCW FORUM: forums@pcworld.com

ON YOUR SIDE:
onyourside@pcworld.com

PRIVACY WATCH:
privacywatch@pcworld.com

BACK ISSUES

Starting with the March 2003 issue of *PC World*, back issues are available at pcworld.com/backissues. Back issues cost $8 per issue for U.S. delivery, and $12 for international delivery; prepayment in U.S. currency to *PC World* is required. Or send a check or money order to PC World Products, P.O. Box 37781, Boone, IA 50037-0781; phone 800/967-2083 (U.S. and Canada) or 515/243-3273 (all other locations); or e-mail mw1prod@cdsfulfillment.com.

To use any find.pcworld.com/xxxxx URL in the magazine, enter it as shown in your browser's address field.

GoToMyPC:
It's this easy.

GoToMyPC lets you instantly access your home or office computer from any Internet connection. It sets up automatically, is as secure as online banking and comes with free U.S.-based customer service available 24/7. There's no hardware needed, so just click and take your office with you wherever you go.

FREE 30-Day Trial

gotomypc.com | promo code: pc

GoToMyPC®

by CITRIX®

Gamer Paladin D670

- ASUS® 750i SLI™ Chipset Motherboard
- GENUINE Windows® Vista™ Home Premium
- Quiet & Overclock Proof CPU Cooling System
- iBUYPOWER® Vantage Gaming Case w/Halo 2 Custom Painted Side Panel + 550W Power Supply
- Corsair® 4GB DDR2-800 Memory
- 320GB SATA II 7200RPM Hard Drive
- NVIDIA® GeForce™ 9500GT 512MB Video Card
- LG® 22x Double Layer DVD±RW Drive and LG® 16x DVD-ROM Drive
- High Definition Surround 3D Premium Sound
- Deluxe Keyboard, Optical Mouse, Speakers
- Free Wireless 802.11n 108MBps Network Adapter

• Intel® Core 2 Duo Processor E7400	$649
• Intel® Core 2 Duo Processor E8400	$699
• Intel® Core 2 Duo Processor E8500	$719
• Intel® Core 2 Duo Processor E8600	$809
• Intel® Core 2 Quad Processor Q8200	$704
• Intel® Core 2 Quad Processor Q8400	$724
• Intel® Core 2 Quad Processor Q9400	$759
• Intel® Core 2 Quad Processor Q9550	$809
• Intel® Core 2 Quad Processor Q9650	$864
• Intel® Core 2 Extreme Processor QX9775	$2149

Gamer Paladin Q740

- ASUS® 750i SLI™ Chipset Motherboard
- GENUINE Windows® Vista™ Home Premium
- INTEL Certified Liquid CPU Cooling System Kit
- PSI ArmorX Gaming Case + 650W Power Supply
- Corsair® 4GB DDR2-800 Memory
- 500GB SATA II 7200RPM Hard Drive
- NVIDIA® GeForce™ GTS-250 512MB Video Card
- LG® 22x Double Layer DVD±RW Drive and LG® 16x DVD-ROM Drive
- High Definition Surround 3D Premium Sound
- Deluxe Keyboard, Optical Mouse, Speakers
- Free Wireless 802.11n 108MBps Network Adapter

• Intel® Core 2 Duo Processor E7400	$829
• Intel® Core 2 Duo Processor E8400	$879
• Intel® Core 2 Duo Processor E8500	$894
• Intel® Core 2 Duo Processor E8600	$984
• Intel® Core 2 Quad Processor Q8200	$879
• Intel® Core 2 Quad Processor Q8400	$899
• Intel® Core 2 Quad Processor Q9400	$934
• Intel® Core 2 Quad Processor Q9550	$984
• Intel® Core 2 Quad Processor Q9650	$1039
• Intel® Core 2 Extreme Processor QX9775	$2339

Gamer Paladin F725

- Intel® X58 Chipset Motherboard
- GENUINE Windows® Vista™ Home Premium
- Quiet & Overclock Proof CPU Cooling System
- NZXT® Guardian 921 Gaming Case w/NVIDIA Custom Painted Side Panel + 700W Power Supply
- Corsair® 3GB DDR3-1333 Memory
- 500GB SATA II 7200RPM Hard Drive
- NVIDIA® GeForce™ 9800GT 512MB Video Card
- LG® 22x Double Layer DVD±RW Drive
- High Definition Surround 3D Premium Sound
- Deluxe Keyboard, Optical Mouse, Speakers
- Free Wireless 802.11n 108MBps Network Adapter

• Intel® Core™ i7-920 Processor	$959
• Intel® Core™ i7-950 Processor	$1254
• Intel® Core™ i7-975 Processor Extreme Edition	$1699

Gamer Paladin D745

- ASUS® 750i SLI™ Chipset Motherboard
- GENUINE Windows® Vista™ Home Premium
- Certified CPU Liquid Cooling System - Overclock Proof
- NZXT® Tempest Gaming Case + 800W SLI™ - Certified Power Supply
- Corsair® 4GB DDR2-800 Memory
- 1000GB(1TB) SATA II 7200RPM Hard Drive
- NVIDIA® GeForce™ GTX-285 1GB Video Card
- LG® 22x Double Layer DVD±RW Drive and LG® 16x DVD-ROM Drive
- High Definition Surround 3D Premium Sound
- Deluxe Keyboard, Optical Mouse, Speakers
- Free Wireless 802.11n 108MBps Network Adapter

• Intel® Core 2 Duo Processor E7400	$1059
• Intel® Core 2 Duo Processor E8400	$1114
• Intel® Core 2 Duo Processor E8500	$1129
• Intel® Core 2 Duo Processor E8600	$1214
• Intel® Core 2 Quad Processor Q8200	$1114
• Intel® Core 2 Quad Processor Q8400	$1134
• Intel® Core 2 Quad Processor Q9400	$1169
• Intel® Core 2 Quad Processor Q9550	$1219
• Intel® Core 2 Quad Processor Q9650	$1264
• Intel® Core 2 Extreme Processor QX9775	$2539

Gamer Paladin Q840

- Intel® P45 Chipset DDR3 Motherboard
- GENUINE Windows® Vista™ Home Premium
- Certified CPU Liquid Cooling System - Overclock Proof
- Thermaltake V9 Gaming Case + 650W - Certified Power Supply
- Corsair® 4GB DDR3-1333 Memory
- 1000GB(1TB) SATA II 7200RPM Hard Drive
- NVIDIA® GeForce™ 9800GT 512MB Video Card
- LG® 22x Double Layer DVD±RW Drive
- High Definition Surround 3D Premium Sound
- Deluxe Keyboard, Optical Mouse, Speakers
- Free Wireless 802.11n 108MBps Network Adapter

• Intel® Core 2 Duo Processor E7400	$799
• Intel® Core 2 Duo Processor E8400	$854
• Intel® Core 2 Duo Processor E8500	$869
• Intel® Core 2 Duo Processor E8600	$954
• Intel® Core 2 Quad Processor Q8200	$854
• Intel® Core 2 Quad Processor Q8400	$874
• Intel® Core 2 Quad Processor Q9400	$904
• Intel® Core 2 Quad Processor Q9550	$954
• Intel® Core 2 Quad Processor Q9650	$1004
• Intel® Core 2 Extreme Processor QX9775	$2199

Gamer Paladin F875

- Intel® X58 Chipset Motherboard
- GENUINE Windows® Vista™ Home Premium
- Quiet & Overclock Proof CPU Cooling System
- NZXT® Lexa Blackline Gaming Case + 800W SLI™ - Certified Power Supply
- Corsair® 6GB DDR3-1333 Memory
- 1000GB (1TB) SATA II 7200RPM Hard Drive
- NVIDIA® GeForce™ GTX-295 1792MB Video Card
- LG® 22x Double Layer DVD±RW Drive
- High Definition Surround 3D Premium Sound
- Deluxe Keyboard, Optical Mouse, Speakers
- Free Wireless 802.11n 108MBps Network Adapter

• Intel® Core™ i7-920 Processor	$1499
• Intel® Core™ i7-950 Processor	$1809
• Intel® Core™ i7-975 Processor Extreme Edition	$2279

Toll Free: 888•462•3899

Intel, the Intel logo, Intel Core and Core Inside are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries

CAN YOUR COMPUTER HANDLE THE ENTIRE BATTLEFIELD?

Look for Intel Inside®

iBUYPOWER Recommends Windows Vista™ Home Premium

LX-795 $1255

- 17" Wide Screen 16:10 WSXGA TFT LCD 1680x1050 Display
- **GENUINE Windows® Vista™ Home Premium**
- Intel® Centrino™ 2 Mobile Processor Technology
  - Intel® Core™ 2 Duo Processor
  - Intel® PM45 Chipset
  - Intel® WiFi Link 5300 Wireless Network
- **NVIDIA® Mobile GeForce™ 9600GT 512MB Video**
- 4GB DDR2-800 Memory
- 320GB 5400RPM S-ATA Hard Drive
- Removable 8x DVD±R/±RW Drive
- Built-in 2.0 Mega Pixels CMOS Camera
- GB Ethernet LAN & 56K Modem
- 3x USB 2.0 Ports; 1x HDMI Port
- 1x FireWire IEEE-1394 Port
- 4-in-1 Built-in Media Card Reader
- Free Deluxe Carrying Case

Intel® Core™ 2 Duo Processor (1066Mhz FSB)

• P8600 (3MB L2 Cache, 2.40GHz)	$1255
• P8700 (3MB L2 Cache, 2.53GHz)	$1299
• P9600 (6MB L2 Cache, 2.66GHz)	$1415
• T9550 (6MB L2 Cache, 2.66GHz)	$1379
• T9800 (6MB L2 Cache, 2.93GHz)	$1619

CZ10 - ULTRA $919

- 15.6" Wide Screen WXGA TFT LCD 1366x768 Display
- **GENUINE Windows® Vista™ Home Premium**
- Intel® Centrino™ 2 Mobile Processor Technology
  - Intel® Core™ 2 Duo Processor
  - Intel® PM45 Chipset
  - Intel® WiFi Link 5300 Wireless 802.11 a/b/g/n
- **ATI® M96 Mobility Radeon HD 4650 with 512MB Video**
- 4GB DDR3-1066 Memory
- 320GB SATA Hard Drive
- Removable 8x DVD±R/±RW Drive
- Built-in 2.0 Mega Pixels Digital Camera
- GB Ethernet LAN & 56K Modem
- 3x USB 2.0 Ports; 1x HDMI Port
- 3-in-1 Built-in Media Card Reader
- Free Deluxe Carrying Case

Intel® Core™ 2 Duo Processor (1066Mhz FSB)

• P8600 (3MB L2 Cache, 2.40GHz)	$919
• P8700 (3MB L2 Cache, 2.53GHz)	$969
• P9600 (6MB L2 Cache, 2.66GHz)	$1079
• T9550 (6MB L2 Cache, 2.66GHz)	$1049
• T9800 (6MB L2 Cache, 2.93GHz)	$1269

www.ibuypower.com

iBUYPOWER

Amazingly **fast and easy to use**, **RoboForm automatically**:

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

We've been saving you time and making your life easier since 1999. More than 26 million downloads, and **over 100 five star ratings** later we are by far the World's #1 Rated Password Manager.

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

PC World Readers Download RoboForm for FREE!

RoboForm®

www.RoboForm.com/PCW

Techlog

STEVE FOX

What Your Boss Knows Could Hurt You

People often assume that their online activities are visible only to a small circle of friends. Turns out, that circle's not so small after all.

OVER THE PAST 30 or so years, I've done loads of hiring: writers, editors, producers, temps, interns, even the occasional artist. Most of those hires have turned out to be terrific employees; others...well, nobody's perfect. Despite following best practices for interviewing, asking all the right questions, and checking references, I've sometimes found that the fit between the job and the employee isn't right. The result is a mismatch that no one could have anticipated.

That's what I used to think.

Social media, from Facebook to Flickr, has expanded everyone's digital footprint, stripping us of our anonymity and turning many of us into public—or semipublic, anyway—figures. That can work in your favor, if you're seeking a job, a date, or admission to a school. It can also sabotage your chances. Let me tell you a story.

At a previous position, not that long ago, I was looking to hire a Web producer. It was an entry-level position that would rely less on specific skills than on ambition, maturity, fluency with social networks, and (most important) brains. I posted the job on Craigslist and received the obligatory flood of résumés, from which I ultimately identified five qualified candidates to follow up with.

A preliminary round of phone calls to the candidates—more of a check-in than a real interview—narrowed the field to four (one candidate had just accepted another job). The remaining applicants all looked like winners, and one fellow, let's call him "Bill," was particularly impressive. He had solid journalistic experience in college; possessed a personable phone manner; had interned at a well-known Web site; and had written humorous pieces for another. I had a feeling that Bill would soon be working for me.

First, though, I began digging around on the Web to see if there was any publicly available information about Bill that might inform my hiring decision. Right off, I found his personal blog, which was cleverly designed, regularly maintained, and well written. Check.

Other searches brought up articles that he had written for his college newspaper. Check. He had tweaked his privacy settings on Facebook to reveal little information, suggesting that he understood the dynamics of social networks. Check. A Twitter search of his name turned up his Twitter user name and profile, which were public. So far, so good.

Trouble on the Road

When I scanned his tweets, though, I found a link to a gritty YouTube video he had posted, showing him and his buddies driving through a neighborhood while drinking, laughing uproariously, and yelling out the window. Yellow flag. The number one quality I was seeking was intelligence, and Bill had posted a video on the open Internet essentially advertising his poor judgment. When my subsequent online investigations of the other candidates turned up no similar lapses of common sense, I relocated Bill's résumé to the No pile.

Now, this kind of investigation might seem creepy—stalkerish even. But a prospective employer would be negligent not to take advantage of these readily available tools. If used prudently, they can provide unique insight into a candidate's skills, mind-set, and work style—qualities that bear directly on potential job performance. As a hiring manager, you're looking for an employee, not a drinking buddy. So focus on details relevant to the prospective job: not what music they like, who they voted for, or what they do—and with whom—on Saturday night.

Similarly, as an applicant, recognize that your online actions are a matter of public record that can be used for, or against, you. Tread carefully online and don't assume that you are anonymous. Often, you're not.

Fortunately, you can participate in the online social free-for-all without exposing yourself unduly. Social media maven Christopher Null has compiled a collection of privacy tips in "How to Avoid Facebook and Twitter Disasters" (see page 97). If you want to stay reasonably private and insulate yourself from snoopy bosses, both current and prospective, follow Null's advice.

And while you're at it, please don't drink and drive.●

Steve Fox is editorial director of PC World.

ILLUSTRATION ROBERT KOPECKY

1&1 Summer Specials:

.us Domain Names

$2.99 first year ~~$8.99 per year~~

No Setup Fee!

WEB HOSTING

Everything you need for a professional website.

1&1® BUSINESS PACKAGE

~~$9.99~~ per month

3 months FREE!*

SERVERS

Powerful hardware designed for high performance needs.

1&1® DEDICATED SERVER DUAL-CORE XL

~~$199.99~~ per month

3 months FREE!*

E-COMMERCE

Set up your online store and start selling!

1&1® ADVANCED ESHOP

~~$49.99~~ per month

3 months FREE!*

More special offers are available online.

For details, visit www.1and1.com

Now accepting PayPal

*Offers valid as of July 1, 2009. 12 month minimum contract term required. Setup fee and other terms and conditions may apply. Visit www.1and1.com for full promotional offer details. Private domain registration not available with .us domains. Server prices based on Linux servers. Program and pricing specifications and availability subject to change without notice. 1&1 and the 1&1 logo are trademarks of 1&1 Internet AG, all other trademarks are the property of their respective owners. © 2009 1&1 Internet, Inc. All rights reserved.

MEMBER OF united internet

Call **1-877-GO-1AND1**

Visit us now **www.1and1.com**

1&1®

PCW Forum

Some product comparisons can generate lots of heat—as did June's report on the results of our browser speed tests (Google's Chrome 2 won). We explain why we tested beta versions, and a reader promotes an oft-overlooked contender. Post your thoughts on browser performance at find.pcworld.com/63077.

Browser Speed Champ?

Nick Mediati's browser speed comparison in the June issue ["Browser Speed Showdown: Chrome Is Golden," *Forward*] was one browser short. Opera (find.pcworld.com/63079) has always been one of the fastest browsers available. (I remember a DSL installer's being deeply impressed by it in comparison with Internet Explorer.) Admittedly, Opera's market share in the United States is very small (though it is significantly larger in Europe and on mobile devices). But then, how large a share does Google Chrome have? And how much is market share created by the computer press?

Opera pioneered features such as tabbed browsing and customizability years before other browsers offered them, as evidenced by the fact that it won *PC World*'s World Class awards in 2004 and 2005. Arguably, it has contributed enormously to making Web browsers what they are today.

David Rensberger, Decatur, Georgia

Why Test Betas?

I was disappointed to see that *PC World* didn't hold to its usual high standards when reviewing browser speeds. You used beta versions of Chrome and Safari, and a "near-final build" of Internet Explorer 8; only Firefox was in a production version. This is not "real world." You should run all versions in production only. After all, that's what the vast majority of readers will be using. Betas and "near-final builds" are subject to change before final release. Please keep the testing field level.

James Trent Corbett, Midlothian, Virginia

Author's response: We tested the prerelease version of IE 8 because it had yet to go final at the time of testing. Typically, near-final builds are feature-complete. We tested beta versions of Chrome 2 and Safari 4 because both Google and Apple marketed their betas as being significantly faster than competing browsers, and the betas were publicly available when we did testing (Chrome 2 has since been released).

—Nick Mediati

Hardware Tricks

Speaking of cool tricks that you can do with hardware ["39 Astounding Things Your Hardware Can Do," June], you can use the flash memory in your digital camera to transfer any kind of file from one computer to another. Just use the USB cable that came with your camera for loading pictures onto a computer. Set the camera to the upload mode, close the picture program that comes up when you connect and turn your camera on, and go to My Computer (on a Windows machine). The camera will appear as a drive. Then do the same thing as described in the article for transporting files via a smartphone.

Pete Sypher, Damascus, Maryland

In the article, you tell us how to make free phone calls from an iPod Touch, by adding a microphone to the iPhone headset. I have a BlackBerry 8320 with a headset and mic. When I tried it on my iTouch (Gen 2), it worked. I called Skype's Echo/Sound test line, and it played back my "test, test, test."

If you own a BlackBerry phone, your headset will work on the iTouch.

garycarroll, PCWorld.com comments

No one is entitled to supremacy, and plenty of money can be made from people who don't want the tired same-old just because it's the most popular thing around [re: "Five Reasons the Palm Pre Won't Prevail," find.pcworld.com/63080].

DirkBelig
PCWorld.com comments

On page 65 of your "39 Astounding Things" article, you show a netbook turned sideways with the screen rotated to simulate an e-book reader. I repair laptops and netbooks, and the most common ailments (after malware) are:

- Broken power ports/cords
- Plugged vents
- Broken hinges
- Hard-drive failure from a drop.

Your illustration, while cool, will contribute to all of the above. Be nice to your netbook, and it will be nice to you.

Lincoln Ekle, Hinckley, Illinois

DRM-Free Music Downloads

Your survey of places where DRM limits are not used ["Buy Music Unfettered by Digital Rights Management," »

ILLUSTRATION: HARRY CAMPBELL

Here's How, June] missed one significant online source of music: The Classical Shop (www.theclassicalshop.net), which is owned by Chandos Music, one of the half-dozen major classical music labels worldwide. They have recordings from several dozen labels in MP3 format and in three formats of high-definition lossless audio. Among the labels they offer are Naxos and Collegium.

Roland Hirsch, Germantown, Maryland

Regarding the offerings at Amazon, your article says, "Its 7 million songs are aimed at a mainstream, pop audience." That is patently false. I have a large collection of classical music and jazz, most of it in MP3 and purchased at Amazon. I have George Antheil, Harry Partch, Edgar Varese, Conlon Nancarrow, Henry Brant, Glen Branca, and Nadia Sirota—people you've never heard of in the classical world—along with Bach, Dvorak, and so on. In jazz, I have Miles Davis, Coltrane, Eric Dolphy, all purchased at Amazon, in MP3.

Richard S. Mitnick
Highland Park, New Jersey

Which Windows Is Faster?

July's "Speed Tests: Windows 7 Versus Vista" [*Forward*] reminded me of my own test. A month ago, I built three computers, identical except for the following differences:

- **System 1:** Windows XP, SP3, and 1GB of memory
- **System 2:** Windows Vista Home Premium, SP1, and 2GB of memory
- **System 3:** Windows 7 RC and 4GB of memory

After using these computers for about a month, I concluded that system 1 (with XP) not only works faster and better, but also costs less.

Gary Modi, Montgomery, Alabama

Malware-Infected Netbooks

Regarding "Malware Found on Brand New Netbooks" (find.pcworld.com/63223): [Thanks for this article] about a security problem found on new netbooks and how to make sure the computer is clean before using it. One thing that runs well on netbooks is security software, especially the free stuff. Install it and use it, early and often. That is the real point of this article. For removing rootkits in that cute netbook you just bought, many IT pros recommend F-Secure Blacklight, which is free and does a very good job.

rcprimak, PCWorld.com comments

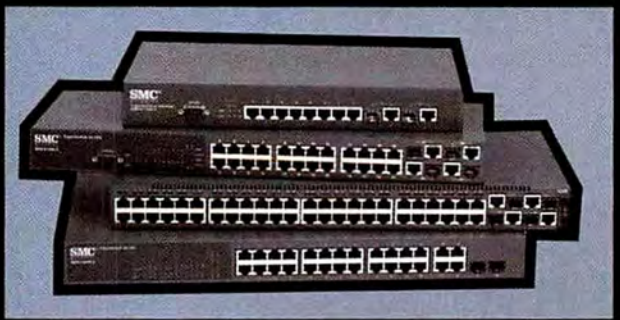
PC World welcomes your feedback. We reserve the right to edit for length and clarity. Share your thoughts in the comments area under each story on our Web site, or visit our forums (find.pcworld.com/55165). Send e-mail to letters@pcworld.com.

SMC®
Networks

CONNECTING YOUR NETWORK AT ANY SPEED

GET UP TO SPEED WITH VOICE, VIDEO, DATA, AND WEB APPLICATIONS THAT KEEP YOUR BUSINESS EFFICIENT AND PROFITABLE WHEN USING SMC GIGABIT SWITCH SOLUTIONS (SMC81-SERIES)

WWW.SMC.COM / 800-SMC-4YOU



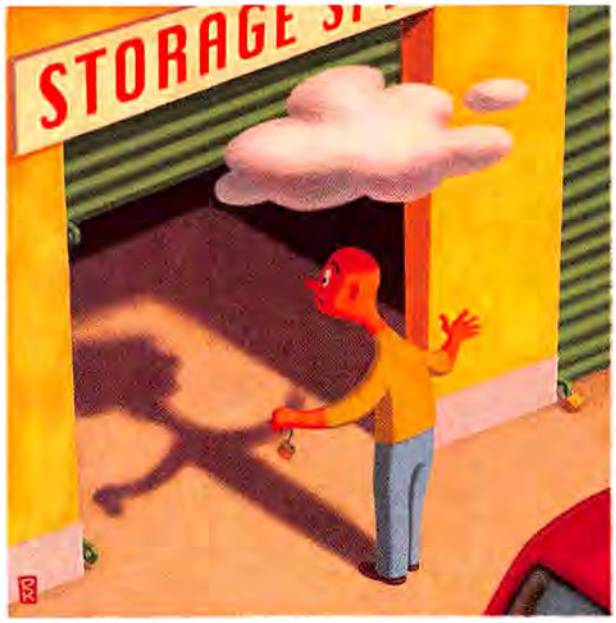
STABLE, SECURE, AND EFFICIENT SMALL BUSINESS SWITCH SOLUTIONS TO GROW YOUR BUSINESS IN ANY ECONOMIC ENVIRONMENT (SMC61-SERIES)

Forward

Have Data Stored Online? Protect It!

Dying storage dotcoms can make precious images or business data vanish overnight. Here's how to prevent disaster.

BY TOM SPRING



ONLINE STORAGE SITES, the toast of the Internet circa 2006, are shutting down in droves, putting users' data and images in jeopardy.

Services announcing closings in the past ten months include big tech names: AOL (Xdrive and AOL Pictures), Hewlett-Packard (Upline), Sony (Image Station), and Yahoo (Briefcase). Many smaller storage firms, such as Digital Railroad, have also kicked the bucket.

A Crisis for Users

Employing these sites was originally a no-brainer—you just uploaded your summer-vacation pictures or business files, and then shared or used them as you wished. Now you have to wonder: Will my information still be around tomorrow?

Canadian freelance photographer Ryan Pyle lost thousands of digital photos when Digital Railroad abruptly shut down last October. The online storage service posted a note to its Web site stating that it had run out of money and would have to close. Digital Railroad gave customers just 24 hours to remove their images before the files would be destroyed.

Pyle, who is based in Shanghai, China, lost over 7000 images he had painstakingly edited, created captions for, keyword-tagged, and uploaded as part of his professional online archive. Pyle says the original digital images were safely stored locally, but the online portfolio was gone. A crush of customers scrambling to save images hosted on the company's servers limited access, Pyle says, and he retrieved only a few images.

The Cloud Loses Steam

Such failures are giving cloud computing a black eye. For years Internet firms invited people to store photos and data online, promoting the services as smart alternatives to storing data on a local PC or backup drive. AOL once stated in its Xdrive service's marketing literature, "You'll never have to worry that a computer crash or virus will destroy all your files because they will always be safe 'n' sound up on Xdrive." Xdrive officially closed in mid-January.

According to Kurt Scherf, vice president and principal analyst of market research firm Parks Associates, the online storage market is in the bust stage. "It comes down to economics," he says, adding that too many online storage firms are chasing too few dollars. "There isn't a lot of money to be made by parking someone else's data on your servers," he notes. "Companies without a business model are going to fail."

The End of Free?

AOL spokesperson Allie Burns says the AOL Pictures service couldn't financially justify its existence. "We took a look at what products didn't make sense to maintain. And ultimately we needed to reduce cost."

Still, some free online photo services claim that they can make storing your digital images profitable.

Representatives of PhotoWorks, American Greetings' free online photo site, say

PCWORLD.COM

For more on the risks of online storage and for pointers to developing a smart, secure backup strategy (including both online and offline options), browse to our online story at find.pcworld.com/63219.

ILLUSTRATIONS: ROBERT KOPECKY

that business is good and the site plans to stick around indefinitely.

Sally Babcock, American Greetings' general manager of digital photography, says that the difference between PhotoWorks and its struggling competitors is that people use PhotoWorks to share images, buy prints, and purchase photo merchandise; services such as AOL's, she points out, focused too much on straight storage.

"It's expensive to maintain millions of images, but we're making it work," Babcock says. She declines to say how much PhotoWorks earns and what the associated costs are for storing millions of images. Experts estimate it costs companies like PhotoWorks around $100 a month to manage 1TB of data.

As for data storage firms, Alan Williamson, cofounder of the cloud-computing firm AW2.0, says that successful consumer services, such as EMC's Mozy online backup site or the Box.net collaboration site, are successful because of a narrow focus on business users willing to pay monthly fees to share data and to use a site's tools to conduct regular backups. Williamson says consumers should think twice about relying on free or low-cost sites that only store data.

Fair Warning—Maybe

The one thing AOL and other big tech firms have done right is give customers fair warning to move their data before pulling the plug. AOL, HP, and Yahoo gave customers months to do so before shuttering. AOL also brokered a deal with PhotoWorks and the Pixum photo-gift site for image transfers.

KODAK GALLERY NOW warns customers that their pictures may be kicked off the site if they don't pay about $5 a year for the storage service.

Smaller firms such as Digital Railroad apparently didn't have that luxury. A company with no doomsday plan is setting up its customers for a data disaster, says Lauren Whitehouse of Enterprise Strategy Group.

These small firms engaged in a classic virtual land grab, Whitehouse says. "They rushed out and acquired as many customers as they could, fast, without thinking about the long term." Many of these companies, when they tanked, took their customers' data with them.

Other online services have taken a different tack. Kodak Gallery (originally called Ofoto) recently went from free to not so free. That is, if you don't buy something from the site, you'll get the boot. But pay $5 a year, and you can keep your photos up as long as you have less than 2GB worth of data stored. More than 2GB, and you must pay $20 annually. Kodak also urges users to keep copies of images in a separate and secure place.

Victor Cho, Kodak Gallery's general manager, notes in an open letter to customers that "The quality storage service the Gallery provides is significant in terms of our business costs."

Translation: Kodak wants to keep the 5 million customers who are willing to pay over the 70 million who pay zip, Parks Associates' Scherf explains. Doing so would reduce overhead costs.

"You can't just assume data will be safe on the Internet until the day we die," AW2.0's Williamson says. "Users cannot absolve themselves from being 100 percent responsible for their own data," he adds.

PLUGGED IN STEVE FOX

BEDTOP COMPUTING: More than one in four Brits are said to bring their laptop or other mobile device to bed. To get instructions? That would explain the surging UK birth rate.

FLICK FALLOFF: In the last six months, more people played video games than went to the movies. And that was *before* the *Terminator Salvation* reviews came out.

IPHONE UPGRADE: Fans complain about the upgrade price exacted by AT&T. Not fair, a company spokesperson responds, pointing out you don't need *both* arms to use an iPhone.

NETBOOK NAME: Microsoft says the things should be called "low-cost small notebook PCs." Better than the first try: "small PCs crippled by our bloated OS and rigid hardware limits."

SWEDISH PIRATE PARTY: The anticopyright, antipatent, and proprivacy Piratpartiet won a seat in EU elections. Suddenly, a third option for voting: *Aye*, *Nay*, or *Aargh*.

SECRET WEAPON? The U.S. Army will be upgrading to Windows Vista by year-end (find.pcworld.com/63245), confirming our suspicions that the OS was developed by the Taliban.

Google's Wave: Many Online Apps in One Tool

GOOGLE'S WAVE, still under development, aims to be a unified, all-in-one Web application for communication and content creation.

GOOGLE HAS released to developers an early version of a complex collaboration and communications tool that consolidates features of e-mail, instant messaging, blogging, wikis, and multimedia management, as well as document sharing.

Called Wave, the Web application is the equivalent of a Swiss army knife for consumer online services and is possibly one of the riskiest and most ambitious endeavors Google has embarked on.

At its core, Wave lets people create a document to which multiple users can add rich text, multimedia, gadget applications, and feeds, and do so concurrently, much as people interact on, say, instant messaging. Users can roll back these "waves" to view the evolution of the document.

In the works for about two years, Wave could draw people away from the company's other products (Blogger, Gmail, Google Docs, Google Talk, Picasa, and Sites), and from similar products by competitors such as AOL, Microsoft, and Yahoo.

Wave could also fall flat if people don't understand its use, or if they can't be convinced to give up e-mail, blogging, IM, and other individual online services.

Still, it is a bold attempt by Google to provide a unified Web application for communication and content creation needs, instead of integrating the company's discrete online services.

"We're banking on Wave having a very large impact, but a lot of it depends on our ability to explain this to users. That's part of the reason why we're putting this out early to developers," Lars Rasmussen, Wave project cofounder, says.

Even after working on the product for about two years, Rasmussen and the other members of the Wave development team are still discovering new uses for the tool, so he is very aware that grasping the possibilities of Wave will not be an automatic thing for end users.

Explaining further, he adds, "Now is a good time for developers to start picking up the APIs, building cool applications and extensions, so when we do launch later this year, our users and their users can enjoy all these things together."

Rasmussen and his brother Jens, the other Wave project cofounder, arrived at Google in 2004 when the company bought their mapping startup Where 2 Tech; they created what would become Google Maps, a service credited with igniting the mashup frenzy.

—Juan Carlos Perez

NOT JUST FOR BUSINESS

Can Wave Solve Social Network Oversharing?

GOOGLE CALLS WAVE a marriage of e-mail and instant messaging. But to me it looks more like the kind of social network that I'd really enjoy, one where I can specify the people with whom I want to share a comment, a photo, or a video.

One problem with Facebook is that most things you share go to everybody you've friended, from relatives to your boss. But few people want to share everything—like embarrassing pictures—with everyone they know. (See "How to Avoid Facebook and Twitter Disasters" on page 97.)

Judging from the description and early screenshots of the service, Wave could be perfect for sharing content with only the people you choose.

The service's basic element is called a "wave," which can be a simple text message, a collection of photos, a video, or other content. Just as with e-mail, you can choose exactly who you want to share a wave with. Those contacts can then make comments or ask questions that the whole group sees. You can view the new comments in real time; or, if you haven't been paying attention for a while, you can hit rewind and see chronologically how the wave developed. Each wave is like a new Facebook page created on the fly to share specific content with specific people.

GOOGLE'S WAVE LETS people share just what they want with whom they want—and chat in real time.

—Edward N. Albro

SAMSUNG
JACK

$99.99
AFTER MAIL-IN REBATE
Pay $199.99 for device, and after mail-in rebate receive $100 AT&T Promotion Card.* 2-year wireless service agreement required.

Introducing the new Samsung Jack,™ exclusively from AT&T.

More speed. More power. And only on the nation's fastest 3G network.

· 3G/Wi-Fi · GPS · Windows Mobile® 6.1 with access to over 18,000 applications · World Phone

*AT&T Promotion Card: Card valid for 120 days wherever major credit cards accepted. May be used to pay wireless bill. Not redeemable for cash and cannot be used at ATMs or gas pumps. Some restrictions and other charges apply. See terms at store or at att.com/wirelessrebate.

Go to att.com/samsungjack or visit your nearest AT&T store.

at&t

G not available in all areas. Coverage is not available in all areas. See coverage map at stores for details. **Limited-time offer.** Other conditions & restrictions apply. See contract & rate plan brochure for details. Subscriber ıust live & have a mailing addr. within AT&T's owned wireless network coverage area. Up to $36 activ. fee applies. Equipment price & avail may vary by mrk & may not be available from independent retailers. **Early ermination Fee:** None if cancelled in the first 30 days, but up to $20 restocking fee may apply to equipment returns; thereafter up to $175. Some agents impose add'l fees. **AT&T Promotion Card:** Card request must e postmarked by 10/31/09 & you must be a customer for 30 consecutive days to receive card. **Sales tax** calculated based on price of unactivated equipment. Speed and Power claim based on device's processor and ıternal RAM. ©2009 AT&T Intellectual Property. Service provided by AT&T Mobility. All rights reserved. AT&T, the AT&T logo, and all other marks contained herein are trademarks of AT&T Intellectual Property and/or AT&T ffiliated companies. All other marks contained herein are the property of their respective owners.

Windows 7 Release: The Timeline to October 22

MICROSOFT WILL release Windows 7 on October 22, the company has confirmed. The date will put Windows 7 on store shelves a full three months earlier than originally planned, and it follows Microsoft's recent announcement that the OS would ship "in time for the holidays."

Plenty of things will still take place between now and October. Here's a breakdown of some key events to watch for in the months before the Windows 7 release.

Windows 7 Upgrade Option

Microsoft is expected to unveil an upgrade program for Windows 7 that will likely let you get the operating system for free or with a discount if you've recently purchased a Vista-based PC that meets certain conditions.

So what are those conditions? That's not yet clear. Microsoft has confirmed the program will be called "Windows Upgrade Option."

Early speculation suggests that it may mirror the Vista Express Upgrade program, which provided free or discounted upgrades for users who had bought XP-based systems in the months leading up to Vista's release.

That program didn't exactly run smoothly, however: At the time, *PC World* expressed concern about hidden costs that were associated with the Vista upgrade, and many consumers complained of delays and other issues in getting their upgrade requests processed.

Windows 7 Release-to-Manufacturing

Another step in the Windows 7 release process will be the transition into the release-to-manufacturing (RTM) phase of development. That's the final phase before the software becomes available to consumers, and —as its name suggests—is when Microsoft sends the Windows 7 code to PC manufacturers so that they can start preparing new systems for the October 22 release.

Windows 7's RTM phase is expected to begin in late July or early August.

Windows 7 Compatibility Center

Microsoft's official Windows 7 Compatibility Center will launch in conjunction with the software itself, according to a Windows 7 FAQ posted on the Microsoft Web site. The Compatibility Center will help you make sure that your devices and applications will work with the new OS before you upgrade.

Vista's Compatibility Center launched with a very different timeline: That service went online in July 2008, a full year and a half after Vista's release. And ironically, the Vista Compatibility Center also seemed to have some compatibility issues of its own—the site was completely inaccessible to users during its first days online.

Microsoft is no doubt hoping Windows 7's release and reception will be far less bumpy. If early coverage is any indication, that wish just may come true.

Don't take our word for it, though—try Windows 7 out for yourself. The Windows 7 Release Candidate is still available for download at this writing (browse to find.pcworld.com/63261). Microsoft has said that functionality and features will remain relatively unchanged from that version to the final release.

—JR Raphael

UPGRADE OPTION PLANS

Leaked Memo: Windows 7 Upgrades at $50?

A LEAKED MEMO from Best Buy claims that the retail chain will presell Windows 7 upgrades for as little as $50 starting June 26, a technology enthusiast site reported in early June. The site, Engadget.com, posted an image of what it said was an internal Best Buy memo outlining the company's plans for Windows 7.

The memo said that from June 26 through July 11, Best Buy would offer Windows 7 Home Premium and Windows 7 Professional for $50 and $100, respectively.

Those prices are considerably lower than prices for similar Vista upgrades. An upgrade edition of Vista Home Premium sells for about $95 at online outlets such as Amazon.com. Vista Business, the edition closest to Windows 7 Professional, sells on Amazon.com for $188.

Microsoft has been touting Windows 7 Home Premium as the default version for consumers, and Professional as the choice for businesses that don't pay Microsoft for a licensing plan.

The Best Buy memo also appeared to confirm that Microsoft, computer makers, and retailers would launch the Windows 7 Upgrade Option program near the end of June.

"Best Buy will begin a Technology Guarantee June 26, which guarantees customers a free Windows 7 operating system with PC purchase between June 26 and the Windows 7 launch day," the memo said.

Microsoft itself is so far keeping mum on the Windows 7 Upgrade Option program.

According to Best Buy, customers can place orders for Windows 7 on its Web site starting June 26, but copies won't ship until October.

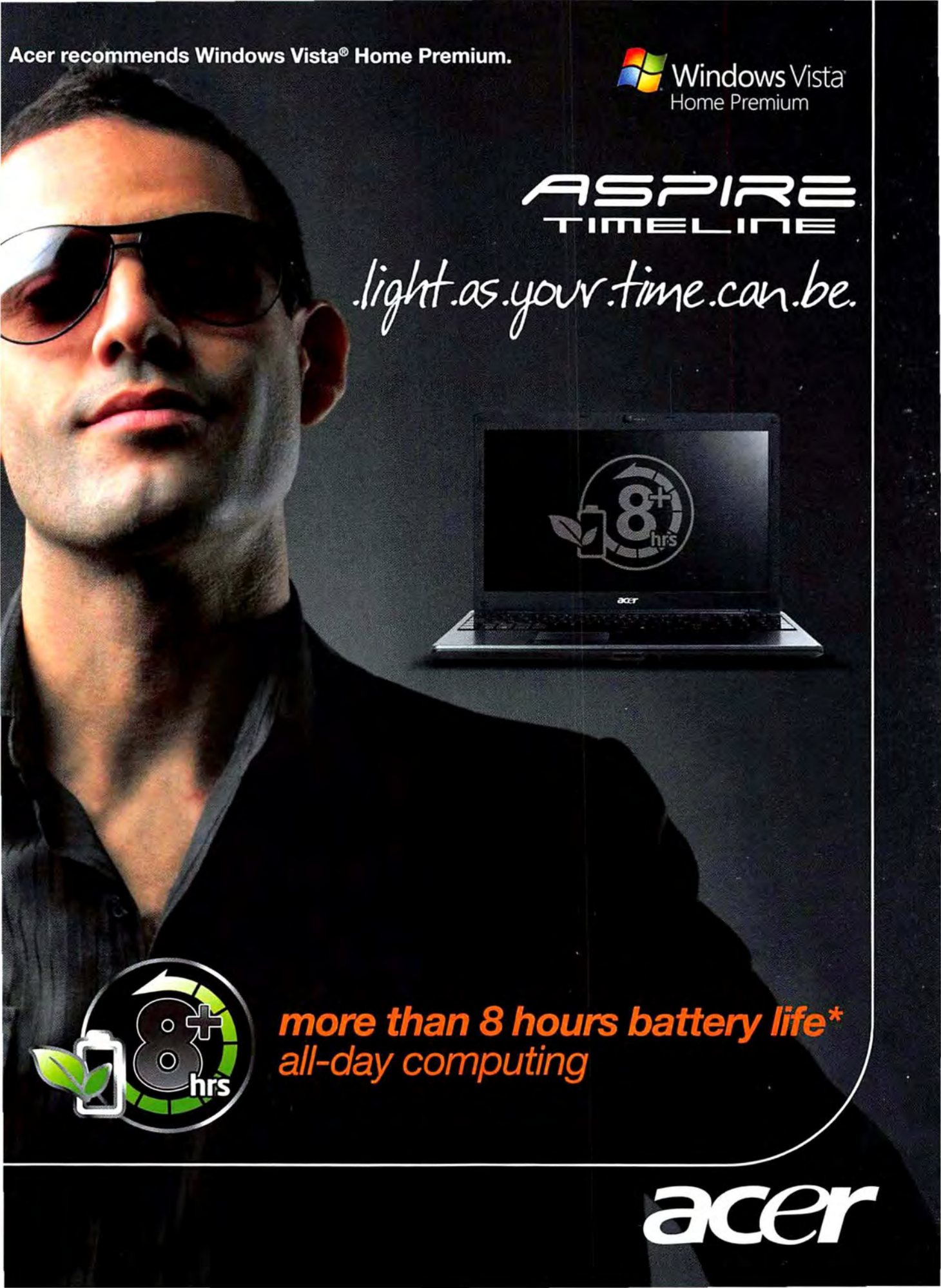
—Gregg Keizer

Acer recommends Windows Vista® Home Premium.

Windows Vista
Home Premium

ASPIRE TIMELINE

.light.as.your.time.can.be.



more than 8 hours battery life*
all-day computing

acer

ASPIRE TIMELINE

.light.as.your.time.can.be.

Acer® Aspire® 5810

starting from **$699**

- Genuine Windows Vista® Home Premium
- 4GB RAM, 320GB hard drive
- Intel® Centrino® processor technology
- Multi-gesture touchpad
- 8X DVD-Super Multi double-layer drive
- High-brightness 16:9 HD display
- Dolby Sound Room®
- More than 8 hours battery life*

With a new Acer computer running Windows Vista® Home Premium you can find, manage and share information easier while enjoying centralized access to your photos, music, videos, games and DVDs, and helps protecting your family from online frauds and scams.

Windows Vista® Home Premium

Microsoft® Office Home and Student 2007 60-Day Trial is pre-installed and ready to activate on Acer Aspire laptops. Try it or Buy it.

Acer recommends Windows Vista® Home Premium.

ASPIRE one

Your **second** connection

Aspire One puts complete wireless freedom in the palm of your hands. Freedom to explore new ways to connect, communicate and interact with the world you care about. Freedom to be yourself anywhere you want to. The Aspire One comes with Windows® XP Home Edition pre-installed, delivering a familiar and reliable experience and making it easier to locate and connect to the wireless networks around you.

Acer® Aspire® One

starting from **$299**

- Genuine Windows® XP Home Edition to browse the web and communicate more easily
- Bright 10.1" LED backlit LCD with 1024x600 resolution
- Weight as little as 2.6 lb.
- 802.11b/g Wi-Fi CERTIFIED® & 10/100 Mb LAN network connections

acer

Acer recommends Windows Vista® Home Premium.

.light.as.your.time.can.be.

more than 8 hours battery life*
all-day computing

ASPIRE TIMELINE

3.5 lb.

Ultra <1inch Thin

Acer® Aspire® 3810
starting from $799

- Genuine Windows Vista® Home Premium
- 4GB RAM, 500GB hard drive
- Intel® Centrino® processor technology
- Multi-gesture touchpad
- High-brightness 16:9 HD display
- Dolby Sound Room®
- More than 8 hours battery life*

4.2 lb.

Acer® Aspire® 4810
starting from $699

- Genuine Windows Vista® Home Premium
- 4GB RAM, 320GB hard drive
- Intel® Centrino® processor technology
- Multi-gesture touchpad
- 8X DVD-Super Multi double-layer drive
- High-brightness 16:9 HD display
- Dolby Sound Room®
- More than 8 hours battery life*

Discover the new Acer Aspire Timeline at your nearest computer superstore.
Visit acer.com/all-day-computing

8+ hrs

How did we achieve 8 hours battery life?

We designed the Aspire Timeline to be the most efficient laptop on the market. From the choice of ultra low voltage processors to the thin, LED backlit LCD panels, every component that consumes power was chosen to make the Aspire Timeline series over 40% more efficient than traditional laptops. That means you can stay connected, stay productive, and stay away from the office - with Windows Vista® Home Premium.

* MobileMark 2007 with default setting of Energy Star® and depending on configuration and usage.

© 2009 Acer America Corporation. All rights reserved. Pricing is effective from June 25, 2009 through August 31, 2009. Information are subject to change without notice. Prices shown are estimated street prices and do not include tax or shipping. Retailer or reseller prices may vary. Product images are representations of some of the models available and may vary from the model you purchase. Acer, Aspire, are registered trademarks of Acer Inc. Microsoft, Windows, the Windows logo, and Windows Vista are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. Other names and brands may be claimed as the property of others.

acer

Microsoft's Zune HD Will Have OLED, HD Radio

MICROSOFT announced in late May that its Zune HD will debut sometime this fall, setting up a battle with Apple's iPod Touch. The touchscreen portable media player, Microsoft says, will be the first one to combine an OLED (organic light-emitting diode) display, an HD Radio receiver, Wi-Fi, and high-def video. Microsoft didn't announce pricing.

The OLED screen will have 480-by-272-pixel resolution and a 16:9 aspect ratio. The Zune HD will also play high-def video on a TV. (You'll need a docking station and a TV with HDMI input.)

The HD Radio function will allow users to tune in to stations broadcasting in that format, which offers higher fidelity than regular FM and sometimes subchannels with additional programming.

The Zune HD will come equipped with a Web browser and Wi-Fi for connecting to the Internet and Microsoft's Zune store. Users will be able to access TV and video content offered on the Xbox Live Video Marketplace, streaming that content to a Zune HD.

OLED displays, still new to the mobile handset market, have significant benefits over the more traditional LCD screens. OLEDs are thinner and don't need a backlight, resulting in longer battery life and superior picture quality.

A number of other mobile devices should feature OLED screens soon, including the iPhone 3G S and the Samsung I7500 with Google Android. A new iPod Touch will likely feature an OLED screen, too, putting it head-to-head with the Zune HD.

The iPod Touch already has Wi-Fi capabilities and a fully functional Web browser, Safari. (What browser the new Zune will use is not yet clear.) The Zune HD will be able to stream music over Wi-Fi, which the iPod Touch can so far do only via third-party applications.

But the real competition between the Zune HD and the iPod Touch will come down to software. The new Zune will be based on a custom version of Windows CE; the iPod Touch, of course, runs on the already popular iPhone platform—which has thousands of apps available.

—Martyn Williams and Daniel Ionescu

BETA WATCH

EDWARD N. ALBRO

OneRiot: Reading the Web's Mind

Though a number of sites—Google News, for example—aggregate news from around the Web, they mostly reflect what's being written at big sites like CNN, Engadget, or ESPN. Increasingly, news also propagates through social networking venues like Twitter or Facebook (remember where reports on June's protests in Iran were coming from?), but typical news aggregators don't do a great job of following those streams. OneRiot is a free site that looks at activity in Twitter or Digg, using their own toolbars to figure out what people are talking about at that moment. It seems to be a great way to find, say, emerging Internet memes; when I tried it in early June, I found lots of buzz about "pedamundo," a new drunken holiday that singer John Mayer had invented in his Twitter feed. Google News barely knew pedamundo existed. oneriot.com

Wordnik: Word Buffs, Rejoice

If you care about the words you use, sometimes a definition isn't enough. You want to know more about the history of a word, how it's used, and how often. Wordnik looks to be a great single stop for all of that kind of data. Recently, a writer used the word *nous* in an article on set-top boxes to mean...well, I didn't know what it was supposed to mean (not the French word for "us"), so I fed it into Wordnik's free service. I could compare its definition from four different dictionaries, hear a spoken pronunciation, see three dozen examples of its use, and even get this great stat: "You can expect to see this word about once a year." wordnik.com

NEED TO SETTLE a musical bet? Send a snippet of the lyrics to Lyric Rat over Twitter, and the service will respond with the song's title and the artist's name.

Lyric Rat: Never Find Yourself Stumped Again

Surely you've had this experience, possibly in a bar, maybe after a few beers: Your friend starts singing a snippet of a song, and the argument begins. "Metallica!" your friend asserts. "Barbra Streisand!" you say. That's where Lyric Rat comes to the rescue. You send the bit of the song that you know over Twitter to @lyricrat, and this free service responds with the name of the song and the artist and a link to a page with more information. lyricrat.com

AMD Plans DirectX 11 GPUs Soon

ADVANCED Micro Devices plans to deliver its first graphics processor with support for Microsoft's new DirectX 11 graphics API (application programming interface) later this year, the company announced in June.

This GPU promises to deliver more-detailed and more-realistic images on systems that support the technology. AMD says it expects to beat competing graphics chip makers to market with the feature. "It's the biggest inflection point in graphics in ten years," says Rick Bergman, senior vice president of AMD's products group.

The new technology brings three major improvements to DirectX, AMD says.

The first concerns a graphics technique called tessellation that lets game designers create 3D models with much higher definition than before. The result is a much more natural look to the graphics.

DirectX 11 also brings a new way to program the graphics chip. "It's the ability to unlock the massively parallel capabilities of the graphics processor in different ways," says Bergman. Combined with Windows 7, it could be used to help programs run faster.

The third major change improves multithreading in multiple-core CPUs to better graphics performance.

AMD didn't announce a launch date or price.

—Martyn Williams

GEEKTECH

Latest Laptop Trends From Asia's Big Tech Show

A brief look at the competing mobile processors and platforms showcased at Computex 2009.

COMPUTEX TAIPEI is regarded as the second-largest tech show in the world, behind CeBIT Germany. Among this year's highlights were new netbooks, ultrathin laptops made with new Intel chips, and several surprises surrounding Google's Android mobile operating system.

Netbooks vs. Smartbooks

Intel's Atom processor currently powers the vast majority of new netbooks and many handheld PCs—something that challengers hope to change. Compal and Inventec (Taiwanese companies that make laptops for several of the world's best-known PC brands) were among a handful of outfits showing "mobile Internet devices" based on nVidia's rival Tegra platform. With carrier subsidies, Tegra-based netbooks may start as low as $99 when they debut later this year. Both Intel and nVidia will face further competition from so-called smartbooks that incorporate Qualcomm's new Snapdragon platform—based, like Tegra, on ARM processors. Snapdragon ran on a number of portables at Computex, including models from Asus, Compal, Foxconn, HTC, Inventec, and Toshiba. Tegra and Snapdragon portables tout better battery life, potentially smaller size, and improved integration with 3G networks. But their ARM-processor cores mean they can't run a standard Windows OS. Instead, they run Windows Mobile, or Android or other Linux-based alternatives.

—Danny Allen

Android Netbooks Coming Soon

Announcements at Computex suggest that Acer could be first to launch an Android netbook. The company has worked with a Taiwanese Linux firm to port Google's open-source OS over to Intel's Atom CPU. Other Android netbook prototypes use Snapdragon, Tegra, or chips from Texas Instruments or Freescale Semiconductor (all use ARM processing cores). Other companies, such as Asus and Elite Computer Systems, also had Android-based netbooks on display. In addition, Acer, BenQ, and a Garmin-Asus joint venture announced plans to release Android smartphones this year or next.

—Dan Nystedt and Owen Fletcher

Intel and AMD Go Low-Voltage

Intel displayed a range of laptops powered by its consumer ultra-low-voltage (CULV) mobile processors, and announced a new addition to its chip line, the Pentium SU2700. These CPUs are intended for a new class of ultrathin laptops that are as light as a netbook but pack bigger screens and greater computing power.

THIN-AND-LIGHT laptops with new low-voltage CPUs at Computex.

Companies showing CULV-based laptops included Acer, Asus, Gigabyte, Lenovo, and MSI.

Meanwhile, AMD has started shipping its answer to Intel's CULV: dual-core Athlon Neo CPUs. The dual-core Neo chip is part of AMD's upcoming Congo platform for ultrathin laptops, which will include integrated graphics based on the Radeon 3200. HP already ships its Pavilion dv2 laptop with a single-core Neo, and the company plans to refresh that model with the new chip in place. The updated dv2z should be available by the time you read this; rival Neo-based laptops should follow in September.

—Owen Fletcher and Agam Shah

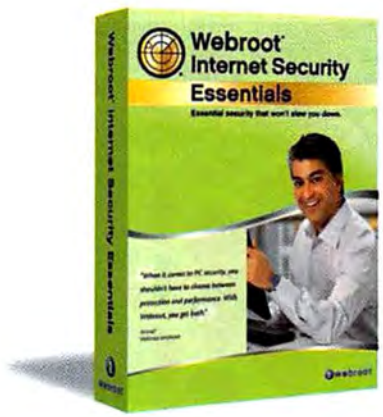
PHOTOGRAPH: DANNY ALLEN

Now you don't have to choose between **protection** and **speed.**

Most Internet security suites are designed to protect your computer and your files, but you have to sacrifice too much speed for that protection. That's why we created **Webroot® Internet Security Essentials**. It's everything you want, and nothing you don't.

With Webroot Internet Security Essentials you get antivirus, antispyware, and protection from hackers — plus it guards your privacy and automatically backs up your digital photos and other irreplaceable files. There are none of the confusing features that slow you down and do little to protect you against today's most common threats — which means you can move at the speed of the Internet and still stay safe.

Get the protection you need and the speed you demand. Start running **Webroot Internet Security Essentials** today. Visit **www.webroot.com/wise** or call **1.866.612.4268** today.



webroot

The Best Security in an Unsecured World™

© 2008 Webroot Software, Inc. All rights reserved. Webroot is a registered trademark or trademark of Webroot Software, Inc. in the United States and other countries.

E3 2009: Best, Worst, and Weirdest Game Tech

ANOTHER YEAR, another Electronic Entertainment Expo (E3), but this one was definitely splashier than last year's snoozer, with Microsoft touting Natal, its 3D no-controller device for games (it wowed the crowd); Sony countering with an ultra-precise motion-sensing 3D wand; and Nintendo trumpeting its new Wii Vitality Sensor (but no one knows quite what to make of it yet). Sony also showed a smaller, and pricier, PlayStation Portable, called the PSP Go.

If any single word embodied this year's big gaming-products extravaganza, it was this one: choice.

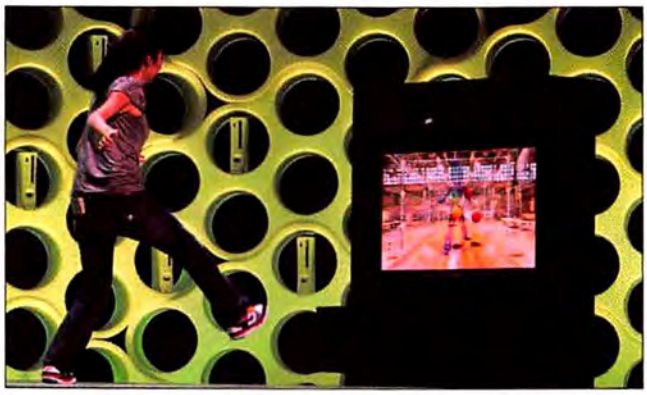
—Matt Peckham and Darren Gladstone

FACEBOOK COMES TO Microsoft's Xbox 360 and Nintendo's DSi. You can use the social network pretty much as in a regular browser.

AND TWITTER—the glorified mood meter for any number of bad writers—is coming to the Xbox 360. On your marks, get set, annoy!

NINTENDO CALLS ITS Wii Vitality Sensor a multiphysiological feedback tool. Insert your finger, and it will recognize your pulse. Hmmm.

SONY INTRODUCED the smaller, lighter PSP Go as its next handheld gaming device. It lacks the disc-based UMD drive—and will cost $250.



MICROSOFT'S PROJECT NATAL, an innovative controllerless motion-tracking system, was the big hardware news of this year's E3.

SONY'S OWN MOTION-CONTROL system for the PlayStation 3 uses a kind of wand (inset), but it isn't due for release until about next June.

Networks People Trust™

www.trendnet.com

Performance for Players

Wireless N Gaming Adapter
TEW-647GA

Win a Wireless N Gaming Adapter
at www.trendnet.com/giveaway
Use promotional code MPD9W008 to double your prizes

- Connect your game console to a high-performance wireless n network
- Compact stylish design compliments any gaming station
- Play online or connect multiple consoles to play head-to-head
- Works with Nintendo® Wii , Microsoft Xbox ®, Xbox® 360 and PlayStation® 2 and 3
- Connect to your wireless network with One-Touch Wi-Fi Protected Setup (WPS)

ENERGY STAR

Visit trendnet.com or call 1-888-326-6061

No purchase necessary to win. Void where prohibited by law. Sweepstakes is open to legal residents of the United States who are at least 16 years of age. Entries must be received from March 15, 2009 to September 30, 2009. One entry per person. For a complete set of rules, visit www.trendnet.com/giveaway.

amazon.com Buy.com J&R MICRO CENTER newegg.com TigerDirect.com

TRENDnet®

©2009 TRENDnet All rights reserved

COMPUTER SHOPPER SHOPPERS' CHOICE 2008

BEST PLACE TO BUY
- LAPTOPS
- ONLINE
- SOFTWARE
- DESKTOPS
- PERIPHERALS
- CORE COMPONENTS

ACCESSORIZE
FOR BACK TO SCHOOL

Get the most out of your Apple gadgets. Just go to Newegg.com, where you'll find the perfect BackTo School accesories.

SCOSCHE

reviveLITE Java Home Charger

Conveniently charge your iPod or iPhone without the hassle and mess of cords, with Nightlight
Search Newegg: 55-996-189

INCIPIO

ILAB-110 Case for iPhone 3G

High density silicone, Cutouts give easy access to controls, Shock absorbing
Search Newegg: 55-255-008

GRIFFIN

AirCurve for iPhone

Acoustically amplifies your iPhone by about 10 decibels
Search Newegg: 75-998-314

SCOSCHE

passPORT Charging Adapter

Charging adapter for the iPod nano (Gen 4), iPod touch (Gen 2) and iPhone 3G
Search Newegg: 55-998-959

DIGITAL CAMERAS | LAPTOP CASES | PRINTERS | LAPTOPS | SOFTWARE | MEMORY

NO PAYMENTS FOR 12 MONTHS with your *Newegg.com* Preferred Account® See website for more information. Promotion ends 09/30/09

newegg.com®

©2000-2009 Newegg Inc. All rights reserved. Pricing and Availability: Prices good from 07/14/09 to 08/15/09 or while supplies last. Prices, availability and terms of offers may change without notice. Taxes and shipping charges, if applicable, are not shown. Newegg is not responsible for pricing or other errors and reserves the right to cancel orders arising from such errors. All items sold as resale unless otherwise noted. OEM products may be sold without packaging, documentation or other articles. *See Newegg.com website for more information on promotion and dates for the Newegg.com Preferred Account.

The Hidden Secrets of Online Quizzes

BY JR RAPHAEL

I AM A genius. I'm charismatic, kind, and understanding. I'm also Sleeping Beauty, and Marilyn Monroe reincarnated.

But I'm not crazy. I've just been taking some online quizzes lately—the ones all over the Web that promise to reveal your IQ, personality traits, or celebrity resemblances. Aside from discovering my inner Disney princess, I've learned that these quizzes are about far more than giving users enlightening or entertaining information.

You can have a blast taking online quizzes on Facebook and at other sites, but here are some things you should keep in mind before you do.

The Real Deal

Web quizzes may be fun to take, but they're also a powerful tool for companies to collect your data and even your money—and often in ways you might not notice. We'll get to the spooky stuff in a moment, but let's start with the simplest method of quiz-based marketing: advertising. The very nature of a typical online quiz requires you to divulge all sorts of details about yourself. Those tidbits of info are like nuggets of gold for advertisers seeking to connect with you.

"The big trend is about engagement," says Debra Aho Williamson, a senior analyst with eMarketer. "These quizzes are getting people to pay attention to ads."

Besides carefully targeting your interests, the ads are often in-your-face and inescapable. Consider TheFreeIQTest.com, a quiz I found via a text ad on Google. After clicking through the 105th—no exaggeration—"offer" it threw at me at the end of the test, I gave up without seeing the results of the quiz.

"There's a clear annoyance factor—leading people to one thing, and then at the last minute bait-and-switching them," Williamson says. "The challenge is walking that line between people wanting it and people wanting it to go away."

The ads can follow you long after you click away, too. Look at RealAge, a detailed quiz that assigns you a "biological age" based on your family history and health habits. The site, a recent investigation revealed, takes sensitive answers—those about sexual difficulties, say, or signs of depression—and, if you opt in, can send you e-mail messages about those conditions. The messages are, in some cases, sponsored by drug companies looking to market medications for those conditions.

Bigger Issues

Aside from unwanted advertising, some online quizzes will surprise you with required payments or purchases before you can access your results. The requirement may be in the fine print somewhere, but it's probably not in a place you'd easily notice before starting the process.

At Test-IQ.com, a quiz advertised on Facebook, the site's home page doesn't mention any fee—you have to click to the privacy policy and read to the bottom to find mention of the $7 charge. Other sites, like IQ-Test-Results.com, hit registered users with recurring monthly fees.

Then there are quizzes like CheckMyPersonality.com. Its Web site says, "Happy! (Shy) Sad? Outgoing, Fun? Which are you? Find Out for Free with CheckMyPersonality.com." This site periodically accesses your credit card after you sign up. I discovered a line in the company's privacy terms that entitles it to "verify that your credit card account is valid and has credit available" by charging fees and later crediting them off.

That line isn't in the terms linked on the home page—it's »

ILLUSTRATION: ALEX NABAUM

PCWORLD.COM

With its privacy policy under fire, Facebook allowed its users to vote on a reevaluation of the terms. But privacy advocates say Facebook still has a long way to go. See find.pcworld.com/63244 for more.

in another set buried deeper in the site, under a link labeled 'Privacy Policy' on the fourth screen you reach as you fill out the quiz. Though hosted on a different domain and separated from the site's privacy policy page, it is still branded as CheckMyPersonality.com.

CheckMyPersonality.com authorizes its owners to dig up all kinds of data on you. The company says that it may use "third-party service providers" to track down everything from your household income to your buying habits—and then resell that data to marketing agencies.

Such sites "are data-mining havens where users willingly opt in from the very beginning," says Ryan Jacobson, cochair of the Entertainment Media and Privacy Law Group at the law firm SmithAmundsen in Chicago. Jacobson doubts that the average user is aware of the consequences of signing up.

CheckMyPersonality.com did not respond to our requests for comment.

The Trust Factor

Deciding to take an online quiz comes down to a question of trust: Are you comfortable putting personal or financial information into the owner's hands? Even if you don't directly input data, it can be passed along. At Facebook, opening an application automatically grants its developer access to your profile.

"The very intimate and detailed nature of the information featured on Facebook profiles makes such a database very valuable to marketers," says Guillaume Lovet, a senior manager with security company Fortinet.

Finally, bear in mind that the quizzes' results may not mean much. Many online IQ tests, for instance, are about as valid as my excuse for missing mahjongg night at the clubhouse.

"These things are simply not sophisticated," says Dr. Martin Eaton, a licensed clinical psychologist and adjunct professor at the University of Southern California. "Calling them intelligence tests would be a misnomer."

The test that declared me a genius, I can only assume, was a rare exception.

SKEPTICAL SHOPPER GINNY MIES

Apple Cracks Down on Gift Card Fraud

Thinking about buying a discounted iTunes gift card online? Think again.

IT ALL SEEMS innocent enough: Someone received an iTunes gift card for their birthday, but they don't have an iPod, so they're selling it on eBay. And to encourage you to snap it up, they're offering the gift card at a price that's $10 or $20 less than its face value. Sounds like too good a deal to pass up, right? Unfortunately, there's a strong possibility that the gift card was bought with a stolen credit card or was hacked (find.pcworld.com/63222). For a while, people appeared to be using such gift cards without repercussion. But more recently, Apple seems to be quietly mounting a campaign against fraudulent iTunes gift card offenders.

A few rumors began popping up on forums and blogs across the Web about people whose iTunes accounts were permanently disabled after they purchased content with gift cards bought on eBay. When your account is disabled, you permanently lose access to all of the iTunes Store purchases on your computer (unless you back up your library or keep everything on your iPod/iPhone). One guy reported that he had lost his entire library of iTunes Store content, worth over $5000, after he used multiple $50 iTunes gift cards he bought on eBay.

My quick search for iTunes gift cards yielded 155 results on eBay. "iTUNES GIFTCARD $25!!!! GREAT DEAL" read one listing, which put a $20 price tag on a card with a face value of $25. Another listing advertised a $50 gift card for $40. The deals aren't unbelievably great, but I suppose that the savings would add up if you bought gift cards frequently enough.

So what's the official word on this situation from Apple? I couldn't find any answers in the iTunes Gift Card FAQ or from Apple's customer support, so I consulted Jason Roth, Apple's media contact for iTunes. Roth told me that Apple works hard to combat fraud and that the company's policy is clearly outlined in the iTunes terms of service. After some digging, I found this statement: "Apple reserves the right to close customer accounts and request alternative forms of payment if a Gift Certificate, iTunes Card, Content Code or Allowance is fraudulently obtained or used on the iTunes Store."

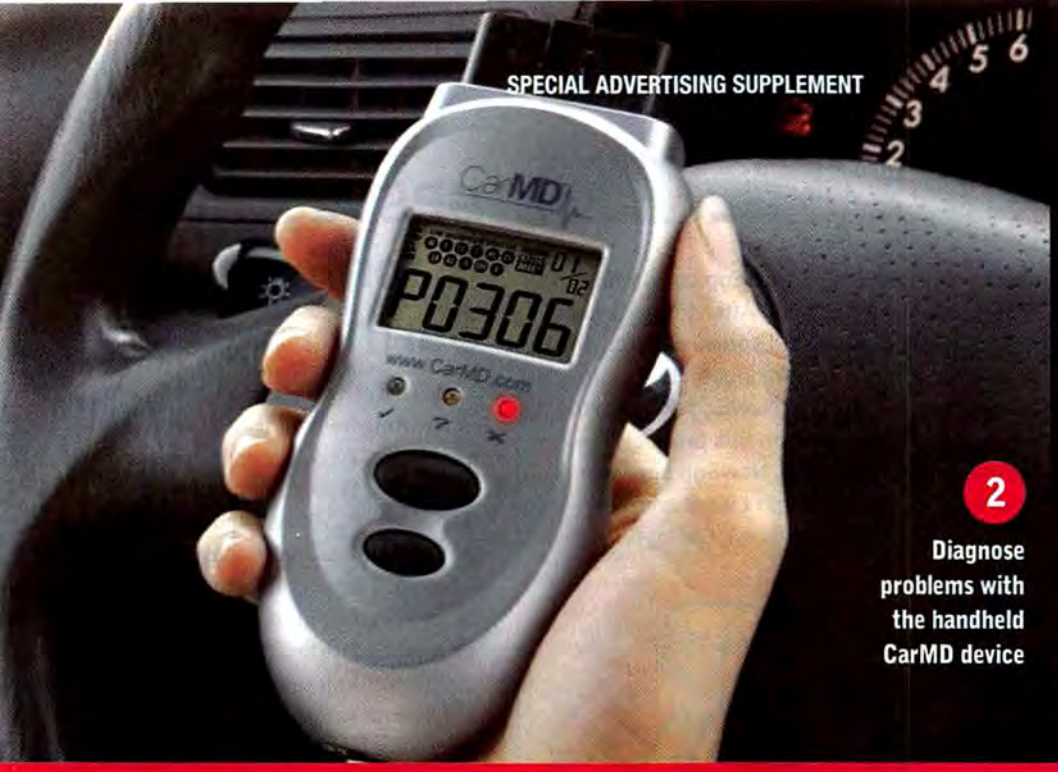
Roth also said that Apple support gives customers who use fraudulent cards plenty of warning that their accounts may be deactivated so that they'll have a chance to back up their content. If your account is closed, you can appeal to Apple to have it reopened, but the chances of that tactic working are pretty slim.

Undoubtedly some sellers are innocently offering legitimate gift cards on eBay, but buying any sort of gift card—iTunes or not—on eBay is still risky. If the temptation is too strong to resist, check the seller's account history, read their reviews, and contact them directly about the card. Ask them where they are located, where they got the card, and whether they can send you the physical card directly. If they're located outside of the United States but selling a U.S. gift card, the likelihood that the card is hacked or stolen goes up. And if they will only e-mail you the card's code—not the card itself—you risk buying a code that multiple people have already received.

The most important thing to look out for, though, is whether the seller lists multiple cards with discounts over $10. The more such cards a seller has, the likelier they are to be fraudulent.

ILLUSTRATION HARRY CAMPBELL

SPECIAL ADVERTISING SUPPLEMENT



Identifying Hidden Car Problems as Easy as 1-2-3!

1 Your "Check Engine" light comes on

2 Diagnose problems with the handheld CarMD device

3 Print a complete PC-based report

Save Time and Money on Your Vehicle's Diagnostics

With CarMD, catching hidden engine problems is as easy as plugging in a USB cable

PCW 88 VERY GOOD

This fast, simple diagnostic tool gives you complete, downloadable information about your car's onboard systems.

Dennis O'Reilly
PC World, July 2006

In today's tough economy, you can't afford to waste money on car repairs and maintenance—especially costly and often unnecessary diagnostics by professional mechanics when your "Check Engine" light is on.

An estimated 10% of drivers ride around with this light on—never a good idea, as it could indicate a serious engine problem. But professional automotive technicians charge up to several hundred dollars just to connect to your auto's on-board diagnostics computer (OBD2). Often they find minor problems such as a loose gas cap, but that doesn't make you feel better about wasting money for the information.

Now you can bypass the mechanic and obtain accurate diagnostics yourself with the easy-to-use, handheld CarMD®.

The CarMD device plugs into your car's standardized data port (usually found right under the steering column), giving you an instant display that all systems are go; there's a possible problem; or something's definitely wrong. If CarMD's light is yellow or red, you can connect it to your PC via a USB cable and log onto CarMD.com to discover the problem. If the problem requires service, CarMD's extensive database of diagnostic codes and likely repairs will arm you with accurate information about what the repair should cost, including fair parts and labor, in your region.

"Mechanics hate this tool!" says Dave A., a CarMD customer in Merrimack, N.H. "Every time I had a 'Check Engine' light, CarMD diagnosed the problem ... they think they know better what is wrong with a vehicle because they are mechanics and I am not, but I walk in with my printed page of results and have the correct diagnosis. I love it!"

CarMD can make your car "greener" as well. The "Check Engine" light often indicates problems with the emissions system, such as a faulty catalytic converter. CarMD can diagnose problems that lower your mileage and pollute the environment.

CarMD is made and distributed by a leading manufacturer of sophisticated and more expensive scanning equipment used by nearly a million do-it-yourselfers and professional technicians across North America. CarMD uses similar diagnostic technology, but costs just $98.99, and displays information that can be read and understood by anyone—no training necessary. It's also reusable and can be updated, which means that it will work on that car, truck, minivan or SUV you buy tomorrow.

Special Offer*
$83.99
(a $15 savings)

when you buy online at www.CarMD.com.

Enter promo code PCWAug at checkout.

*Offer good through September 30, 2009 (limited quantities available)

Why you need CarMD:

- Want to find out why your "Check Engine" light is on?
- Want to know in advance what repairs will cost?
- Ever bought a used car wishing you knew more about its condition?
- Need peace of mind before a long road trip?
- Want to make your car "greener" and improve your mileage?
- Need to know if your car will pass an emissions test?
- Looking for a great off-to-college gift?

With the easy-to-use CarMD device, included CarMD software and your own Internet access, you can obtain an instant diagnosis right from home, saving you time and money—and putting you in control of your vehicle's diagnostics.*

*Any 1996 or newer car, truck, minivan or SUV
U.S. Patents #6,687,584, #6,941,203 and #6,947,816. Other patents pending.

Sponsored by

CarMD
FOR THE FIT OF YOUR CAR

WWW.CARMD.COM

PCWorld Advantage Marketing

ON YOUR SIDE GINNY MIES

MY LAPTOP NEEDED a roomier hard drive; and on NewEgg.com, I found a great deal on a 256GB solid-state drive from Patriot. After three days or so, I noticed that my laptop intermittently froze. I did some research and found that some SSDs have serious problems that are significantly more prominent when they're installed in certain laptops. NewEgg appears to have a policy of not offering a refund or store credit on this product. This is a $600 product and I cannot use it with my laptop. NewEgg approved a replacement, but if it doesn't work on my laptop, I don't want another!

Nelson Harris, Oakley, California

OYS responds: A customer support rep from NewEgg got in touch with Harris immediately after we alerted the company about his problem. The rep explained that in certain circumstances, NewEgg's customer service department will make exceptions to the no-refund rule. Harris provided documentation that the drive doesn't work with certain laptops (including his), which helped his case, the rep said. NewEgg agreed to issue Harris a refund and waived the restocking fee.

The customer support rep said that NewEgg products that can't be exchanged or returned for a refund are generally high-priced items, like hard drives. He also asked Harris to send all of the research he had compiled on SSD drive issues in return for a $50 store credit.

Though pleased with NewEgg's response to his situation, Harris was baffled as to why the drive wouldn't work with his machine, an HP Custom (built-to-order) Pavilion laptop. We contacted Patriot Memory about the problem. Steve Gaeta, global relations manager at Patriot, said that the stuttering and freezing were the result of a compatibility issue with certain small applications, not with the actual PCs themselves. He said that Patriot has addressed the problem in its latest series of SSD drives, the Torqx, by adding 64MB of on-board cache to compensate for some of the limitations of the NAND flash technology. The drive Harris purchased wasn't part of the Torqx line.

If you're considering purchasing an SSD drive, be aware of the freezing or stuttering risks involved. We recommend reading reviews across multiple Web sites—not just reviews from the online

retailer. And before you purchase a drive, find out whether the retailer will refund your money if you run into problems.

Samsung Jitterbug Recall

Samsung, in conjunction with the U.S. Consumer Product Safety Commission, announced a voluntary recall of SPH-a110 and SPH-a120 Jitterbug cell phones with standard keypads and version BB14 software. Jitterbug sold the phones directly to consumers through advertisements, publications, electronics and drug stores, and on the Web (at www.jitterbug.com) from March 2008 to May 2009. No other Samsung wireless phones or software are included in the recall.

According to the CPSC, the recalled phones may have connectivity bugs in remote areas and could fail to connect to 911 for an emergency call. Jitterbug CEO David Inns argues that the geographic issue affects very few customers. Nevertheless, Samsung and Jitterbug are contacting customers directly to schedule a free software upgrade. Consumers who haven't already been contacted should call Samsung toll-free at 866/304-4980.

GPS Algorithm Error Prompts Garmin Recall

TRUSTING IN GPS map indications can be dangerous, at least in some instances: GPS device maker Garmin has recalled European marine maps that supplied incorrect and potentially harmful information to some users.

The 2009 version of Garmin's BlueChart g2 and g2 Vision data cards provides inaccurate indications of some water depths off the coast of Sweden and Denmark, according to reports.

Because the same issues may affect maps of other regions, the company has decided to issue a worldwide recall of the products, it says.

The problem arose as a result of a change in the algorithm that the company uses to determine how to display depth information, according to Anthony Chmarny, spokesperson for Garmin in Europe. The company felt that it had to respond quickly because the boating season has started, he says. The faulty algorithm creates a risk of boats running aground in shallow water, which could result in damage to the boat or injury to people on board, according to Garmin.

The data cards in question were sold between April 8 and June 3, 2009. When the company has finished correcting the maps, customers will receive a free upgrade. Garmin isn't ready to commit to a definite date when the changes will be complete, Chmarny says.

In the meantime, boaters will have to make do with an earlier version of BlueChart that doesn't contain the faulty algorithm used in the 2009 version. Updates to the 2008.5 version will be available until December 31, according to a notice on the company's Web site.

—Mikael Ricknäs

ILLUSTRATION: HARRY CAMPBELL

POWER TO THE PEOPLE

Ad-Aware · August 25

LAVASOFT

CDW can help you upgrade your technology. Your wardrobe is entirely up to you.

Monitor sold separately

Lenovo ThinkCentre® A62

- AMD Athlon™ X2 Processor 5000B (2.60GHz)
- Memory: 2GB
- 160GB hard drive
- DVD±RW (±R DL) / DVD-RAM
- Windows Vista® Business Edition
- Windows® XP Professional Downgrade installed[1]

lenovo

$498.99
CDW 1628655

Monitor sold separately

Lenovo ThinkCentre M58e

- Intel® Pentium® Dual Core Processor E5200 (2.50GHz)
- Memory: 2GB
- 160GB hard drive
- DVD±RW
- Windows Vista Business Edition
- Windows XP Professional Downgrade installed[1]

lenovo

$548.99
CDW 1729920

Monitor sold separately

Lenovo ThinkCentre M58

- Intel® Core™2 Duo Processor E7400 (2.80GHz)
- Memory: 2GB
- 160GB hard drive
- DVD±RW
- Windows Vista Business Edition[2]

lenovo

$758.99
CDW 1733410

We're there with the technology solutions you need.

Music and vintage clothing still have a place in the world today. Old technology? Not so much. From upgrades to the latest operating system, or even switching to a new one altogether, CDW has the desktops to suit your needs. Of course, we also offer a personal account manager who knows the needs of your business, as well as technology specialists to answer questions and a host of configuration services. Bottom line – we'll make sure you get what you want, when you want it. So call CDW today and upgrade to where you need to be. Technologically speaking, of course.

CDW.com | 800.399.4CDW

CDW

The Right Technology. Right Away.®

[1]Windows XP installed with Windows Vista Certificate of Authenticity and logo; Windows Vista media included; customer has rights to both Windows Vista and Windows XP Professional. [2]Windows XP Professional included in box. Offer subject to CDW's standard terms and conditions of sale, available at CDW.com. ©2009 CDW Corporation

Cash In on the Internet Memes Phenomenon

BY BONNIE RUBERG

FROM ITS MURKY origins in anonymously authored minor distractions, the Internet phenomenon of the meme has become a mighty engine of commerce. LOLcats have invaded bookstores. Cute Overload bunnies adorn day-by-day calendars that sell for $13 a pop. The blogger who mocks trends at StuffWhitePeopleLike.com reportedly was offered a $350,000 book deal.

Is it too late for you to strike gold with a money-making meme? Not at all. But you'll need some tips. Here's a guide to cashing in on Web fads.

LOLcats and awkward family photos can be more than simple online fun—they can spell big profits for enterprising Web jokesters.

Start on the Right Foot

Your first step, of course, is to make something. Mat Honan, an associate editor for *Wired,* created his site BarackObamaIsYourNewBicycle.com as a funny present to his girlfriend. But it quickly became an Internet sensation. Within days, two New York publishers called Honan to offer him a book contract. "I went out that very afternoon and got an agent," he says, and ended up with "a nice five-figure advance."

Still, Honan's success pales in comparison to that of the ICanHasCheezburger.com empire. Ben Huh, the site's CEO, is doing so well that he hesitates to talk about it. "I don't want to flaunt my money while other people are having trouble," he says sheepishly. Begun in 2007 as a Web site for cat photos, the operation has expanded into a conglomerate of nine popular sites and ten full-time employees. That's not even counting a "whole bunch of pet projects" the company has going on the side, according to Huh. Instead of trying to create new memes, he pays attention to what's popular and then either adapts it or buys it up.

ICanHasCheezburger was born to be a business, says Huh, who purchased the site in December 2007. "At the time, I had no idea what memes were, but on paper LOLcats made a lot of sense. It's a low-cost business with very high loyalty. You can run it from anywhere, and you don't need a lot of infrastructure," he says.

This past April in Cambridge, Massachusetts, a crowd of meme makers gathered at the first annual ROFLcon—a convention celebrating the older generation of accidental celebrities made famous by embarrassing videos and photos. Some 900 fans showed up to see Tron Guy, Gem Sweater Lady, and other Internet icons.

Recruiting at such events would be smart from a business perspective, Honan says. "A lot of editors are looking to the Web to find new writers, especially when it comes to humor books, because you can find this huge talent pool of people on the Web who might not otherwise try to put together a book," he explains.

Don't Force It

Internet analyst and Quinnipiac University professor Alex Halavais warns, "There's no clear recipe for getting something to go viral." But he offers some general guidelines: "It needs to be easily remembered and passed on... It needs to retain coherence. It can't mutate too quickly. [And] it can't be entirely stable."

Take the "Where's the beef?" craze. »

ILLUSTRATION STEPHANIE DALTON COWAN

PCWORLD.COM

Meet some of the hottest celebrities ever to hit the Web—and see how they made out—by browsing to our site's "A Decade of Internet Superstars: Where Are They Now?" at find.pcworld.com/63225.

"If it only applied to hamburgers," Halavais says, "you'd be in bad shape."

Honan subscribes to the "you can't force a meme" mantra. "When your end goal is to have a book deal, that's pretty tough," he says. "If your end goal is to do something you like and have fun with it, then you're a lot more likely to do something that'll be successful." Since domain names are so cheap, he recommends giving your idea a shot. If you don't try, he notes, you'll never know.

Tim Hwang, organizer of ROFLcon, believes that aiming for sustainable Web growth and regular content is a more reliable model for profit. "Web comics are great for that," he says.

"My advice," Halavais says, "is to try and find the things that are catching [on] and ride on their coattails, rather than design from the outset."

Promote, but Don't Overdo It

If you succeed in authoring a popular meme, Honan says, don't be shy about self-promotion. Then again, you may not have to do anything, reasons Halavais: "I don't think you have to try at [the point where you're already Web famous]. People are looking for you."

For better or for worse, members of the new generation of meme makers are doing their best to make a buck or two online—and largely succeeding. How long will the current boom of book deals and profits go on?

Hwang sees a connection between the economic crash and the popularity of Internet culture. "Suddenly you have lots and lots of unemployed people sitting at their computers with nothing to do all day, creating lots and lots and lots of content," he says.

Nevertheless, Halavais expects that memes will continue to be a potential source of riches as long as they attract traffic and buzz. "There have always been people who draw attention, and they've always gotten book deals," he says. "The way people draw attention to themselves is now Internet-based, but that Internet modifier seems almost unnecessary. What else is there?" Indeed.

NET WORK DAVID STROM

How to Choose the Right Network Printer

Not all network printers are created equal. Here's how to select the best model for your small business.

ONE OF THE earliest uses for a network was printer sharing, back when printers cost as much as a small car. Since those days, printer prices have plummeted and most businesses have multiple printers—but networking is still compelling.

As your business grows—assuming that the economy turns around at some point—you'll need to reassess your printer fleet. You can probably justify replacing a few desktop printers with more-expensive network printers, based on the savings in operating cost. Various tools—such as HP's Web Jetadmin, Konica's PageScope NetCare, Toshiba's Encompass, and Xerox's Office Document Assessment—can help you calculate those things, and manage your entire printer fleet, too. But they're largely designed to handle printers from one vendor. An alternative is Printsolv, from the large distributor Synnex; it's sold through resellers and partners. (For links, browse to find.pcworld.com/63216.)

Once you've reviewed your printer fleet, you might want to start shopping around for a new printer. The market these days consists of three basic price levels: under $150, around $300 to $500, and over $1000. The lowest-priced printers are typically inkjet models—and you'll pay a lot for their consumables.

The middle tier has some interesting buys right now because vendors are making monochrome lasers that are quite capable, have reasonably priced consumables, and can operate for years without problems. (For suggestions, see our *Top 10 Monochrome Laser Printers* chart at find.pcworld.com/51682.) Laser printers such as the Lexmark E-series are quiet, compact, and reliable. They also come with a built-in wired network adapter, and the software setup is relatively simple.

But they are just monochrome. If you need color prints, you'll have to spend more (the per-page cost for color is about three to five times that of monochrome prints)—and buying one color printer for a network (instead of stand-alones) is much more cost-effective. My favorite series of color printers are the Xerox Phasers; they use solid ink sticks that look a bit like crayons. If you shop at the right time of year, Xerox offers free black sticks so you can use the printers for all of your needs. The latest model, the 8560N, goes for $700.

Attaching your printers to a wireless network typically means spending $150 or so for the correct adapter. I recommend using a wired connection instead, if your office setup permits it: You want to prevent your wireless network from being bogged down with print jobs, and you also want your printers to stay in one place.

HP, of course, is another major printer vendor. I used to be a big fan of its LaserJet line, back when they were made mostly of metal and built to last. (A friend's 15-year-old LaserJet 4 still runs well.) But I think today's models are cheaply made and have all sorts of software you probably don't need.

What about multifunction printers that can also scan and fax, and do the dishes when you aren't looking? They're fine for consumers with light demands, but for office purposes you are better off using individual machines for each task, unless you can afford top-of-the-line models.

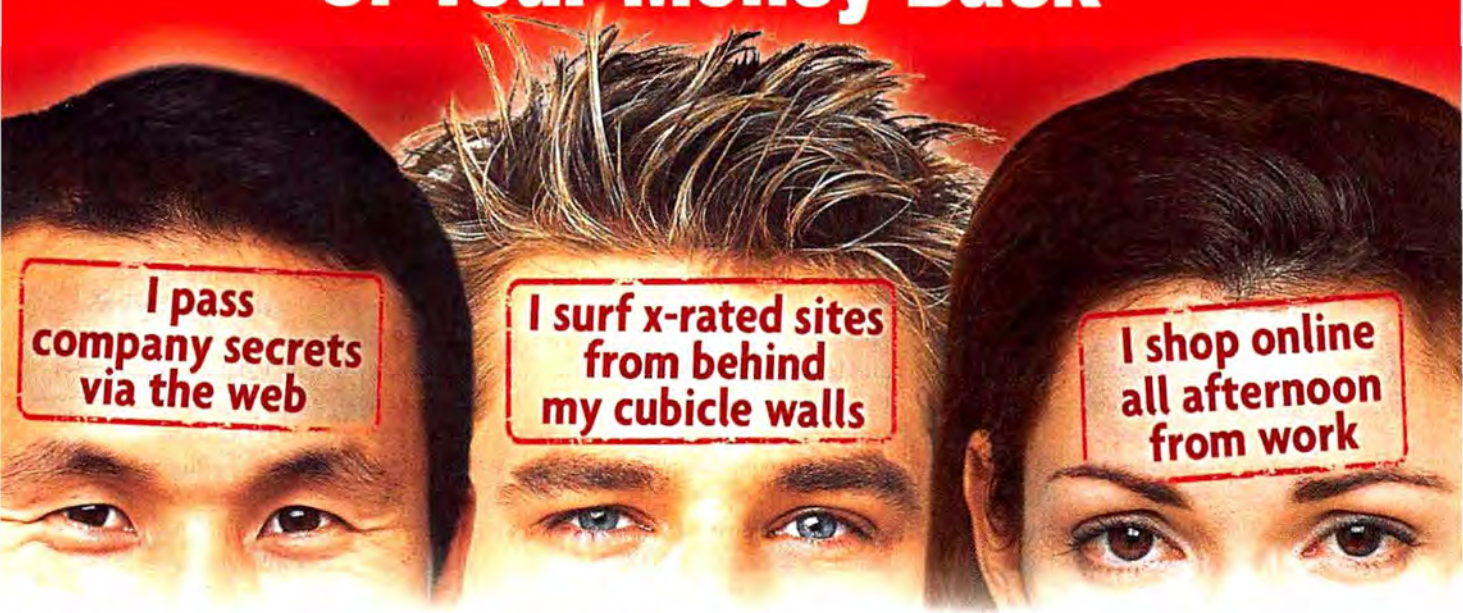
Note: You can search for all printers at pcworld.com/products/printers.

ILLUSTRATION: HARRY CAMPBELL

Cut Internet Abuse to the Bone

AND Receive a Full Return on Investment in 90 Days

Or Your Money Back



You Suspect It's Happening. Now Get the Proof You Need and Put a Stop to Huge Productivity Losses Once and for All

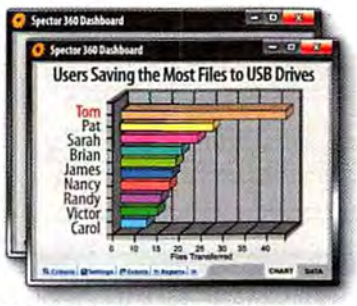
Spector 360 is the world's first monitoring solution that makes it easy to detect inappropriate employee behavior. At the touch of a button, you will see ALL PC & Internet activity for your entire company and find out which employees are working, playing, doing their job efficiently or putting your business at risk by engaging in illicit or illegal behavior.

Spector 360 Records ALL Your Employees'

- Web Sites Visited
- Chats & Instant Messages
- Keystrokes Typed
- Network Traffic
- Google Searches
- Files Saved to Removable Media

... and much more!

PLUS:
Our Powerful Screen Snapshot Recorder (a video surveillance-like recording tool with easy-to-use VCR-style playback) shows you in exact visual detail what an employee does every step of the way.



More than 50 charts and reports allow you to quickly and easily identify your top achievers, productivity wasters, and anyone engaging in inappropriate or potentially damaging conduct.

TOP 5 THINGS YOU WILL DISCOVER

1. Which employees spend the most time working and which spend the most time goofing off.
2. Which employees spend the most time surfing web sites and see EXACTLY what they do on them.
3. What employees search for on Google, MSN, Yahoo and more.
4. Which employees are posting resumes on Monster.
5. Who is leaking company confidential information via chat, web mail or removable media.

PC MAGAZINE EDITORS' CHOICE
September, 2008
Spector 360

PC Magazine Editors' Choice
"Spector 360 is the most mature surveillance offering for business use."

© 1999-2009 SpectorSoft™ Corporation. All rights reserved. PC Magazine Editors' Choice Award Logo is a trademark of Ziff Davis Publishing Holdings Inc. Used under license.
*Guidelines apply for this limited time offer. Contact your SpectorSoft Sales Professional for complete details.

Stamp Out Internet Abuse Today!
Visit **Spector360.com** or call **(888) 598-2788**

SPECTOR 360
Company-Wide Employee Monitoring Software

Portable Hotspot Is a Hot Product for Business

THE NOVATEL MIFI personal hotspot device from Verizon Wireless (find.pcworld.com/63217) is an idea so good that I'm shocked it's just now coming to market. And for once, the price is right. Carry-around connectivity has taken a great leap forward.

The MiFi is a tiny (3.5 by 2.3 by 0.4 inches) Linux-based Wi-Fi router that weighs about 2 ounces. Unlike the wireless data cards that cellular providers offer, the MiFi lets up to five computers or other wireless devices share a single broadband connection on the Verizon EvDO network.

Theoretical download speed is 3.1 megabits per second, and is shared among all devices connected to the MiFi. (Your download speed is more likely to be in the 1-mbps range.)

THE TINY NOVATEL Wireless MiFi from Verizon lets you create your own Wi-Fi hotspot.

Verizon charges $270 for the device and $15 per day for unlimited use. That's a good deal for multidevice, broadband connectivity where a normal Wi-Fi hotspot is not available. Because the MiFi is something I would use only occasionally, for moving a fair amount of data over multiple PCs, that pricing works best for me.

Other pricing plans cost $100 for the hardware (after a $50 mail-in rebate) and about $60 per month for 5GB of data or $40 per month for 250MB.

The MiFi can run for 4 hours on a charge. Though that's longer than many laptops manage, it doubtless represents a size/weight compromise on the part of the MiFi's designers.

Businesses will flock to this device, which should be on sale now. It will no longer matter if no public Wi-Fi is available when you want to connect more than one computer to the Internet.

One potential drawback might be Wi-Fi interference at gatherings where people show up with a number of MiFi units. Also, bandwidth must be shared among all users of a cellular tower.

—David Corsey

Adobe Online Tools for Documents and Presentations

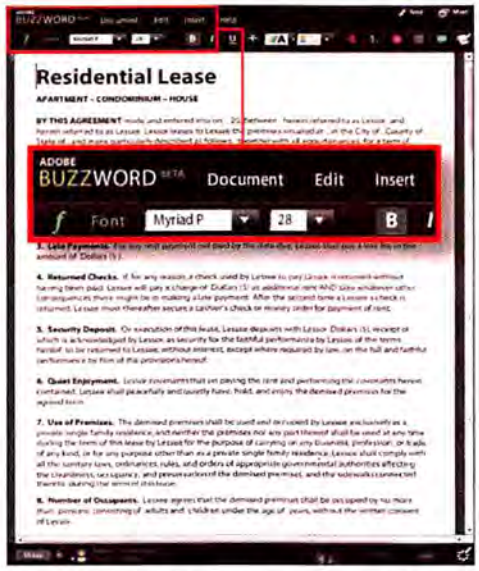
ADOBE'S ACROBAT.COM has free content-creation tools that can help in a pinch or even be a regular part of your workday. Most of the Web-based applications are collaborative, and Adobe will even host your files, so both the app and the documents can be accessed on any PC. It's great if you bounce between machines and don't carry a USB drive.

Adobe Buzzword is a word processor, and Adobe ConnectNow handles online meetings. Just released is a presentation tool, called simply Presentations.

Most of the tools require Flash 9; Presentations needs Flash 10. Set up a free account, log in, and work away.

With Buzzword, you can adjust fonts, formatting, and other text basics, as well as insert images. It's also great for collaboration. As with Google Docs, you invite contacts to view or edit a file, and you can make changes at the same time. A commenting tool lets you add notations.

Buzzword imports and exports Word, Open Doc, text, and RTF files; it also exports as PDF, HTML, or .epub (Adobe's e-reader format).



ACROBAT.COM'S BUZZWORD—one of the site's hosted content-creation and collaboration apps—lets you or a workgroup develop and format documents.

In ConnectNow online meetings, up to three people can share desktops and documents using the live screencasting tool. Its VoIP option handles spoken conversations—a chat window works for typing—and a collaborative whiteboard allows everyone to focus on the same thing.

Presentations is hosted at labs.acrobat.com because it has additional critical features coming. For example, it can't yet export PowerPoint files—a deal-breaker for many small businesses. But Adobe is working on adding that option, which may come by the end of this year.

Overall, Presentations follows the familiar slide-creation paradigm of PowerPoint. Unlike in that Office app, you can invite an unlimited number of people to view or edit the files, making Presentations a hub for both collaboration and showing slides. It exports only PDFs at the moment; if you need to use Presentations documents outside of the tool, you may want to wait until it can save as PowerPoint and other file types.

—Zack Stern

NEW: 1&1 MyBusiness Site

Get your business online today!

Limited Time Offer:

Try it for FREE!

No strings attached.

Visit www.1and1.com for details.

1&1 MyBusiness Site:
Customizable, professional ready-made websites for over 100 different types of businesses.

1&1

Professional websites for

1&1 Internet is the world's largest web host, offering a complete range of website products and services, with state-of-the-art data centers and over 8 million customer contracts worldwide. At 1&1, we believe that everyone has the right to create a website, not just IT-professionals.

With **1&1 MyBusiness Site**, we've developed an easy-to-use, affordable product that gives small businesses the chance to create their own websites and compete in today's marketplace. **You don't have to be a web professional to create a website!**

Choose the category that best fits your business:

Accountant / Tax Services
Advertising Agency
Amusement / Recreation
Antiques Store
Architectural Firm
Artist / Designer
Auto / Car Body Repair Shop
Auto / Car Dealership
Bakery / Pastry Shop
Barber / Hair Stylist
Beauty & Nail Salons
Bed & Breakfast
Bookstore
Bicycle Shop
Building / Contractor
Cafe / Bar
Carpentry
Casual Dining
Catering Services
Childcare / Nursery
Chiropractor
Civil Engineering
Cleaning Services
Clubs / Associations
Computer Store
Consulting Services
Contractor / Home Repairs
Cosmetics / Beauty Supplies
Courier Services
Dentist
Developer / Construction Company
Doctor
Driving School
Educational Services
Electrical Services
Electronics / Electrical Appliances
Engineering Consultants
Event Planning
Faith-based Organizations
Fashion / Clothing
Florist / Flower Shop
Funeral Services
Furniture Store
Gardening / Landscaping
General Manufacturing
Glass and Glazing
Goods Transporting & Hauling
Grocer / Grocery
Gym / Fitness / Recreational Sports Centers
Hardware Store
Heating, Ventilation & Air Conditioning (HVAC) Services
Home Decor / Accessories

1-877-MY-1AND1

ALL business types:

With templates designed specifically for your business and pre-filled text that you can customize and change at any time, **1&1 MyBusiness Site** makes it easy to get your professional business website online.

Home Improvement
Hotel
Insurance Services
Interior Design
Investment Adviser
IT-Consulting / Services
Jeweler / Jewelry
Laundry / Dry Cleaning Services
Law office / Notary
Locksmith
Motorcycle Shop
Moving Services
Nightclub
Non-profit Organizations
Optician
Painter / Paperhanger
Personal services
Pet Care
Pharmacy
Photography Studio
Physiotherapy / Massage
Plumber / Plumbing Contractors
Printing / Duplication Services
PR/ Marketing Services
Real Estate
Restaurant
Retail / Shops
Retirement Homes
Roofing
School
Shoe Store
Spa / Beauty Salon
Sports Clubs / Associations
Sports / Outdoor Equipment
Stationery / Office Supply
Tailoring/ Alteration Services
Taxi Services
Tiling Services
Toy Store
Transportation
Travel Agency
Vacation Rentals
Veterinarians

... and more!

Visit our website for a full list of categories.

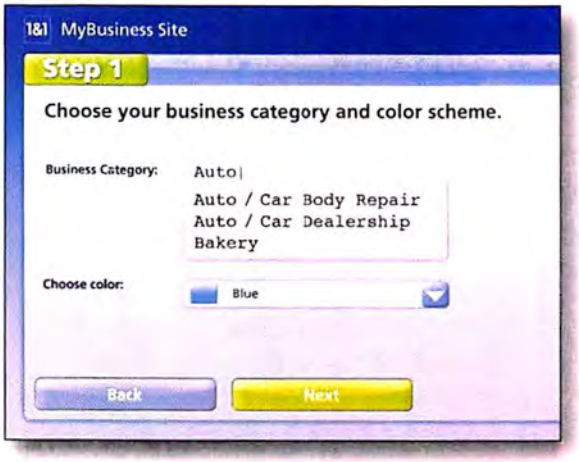
1&1

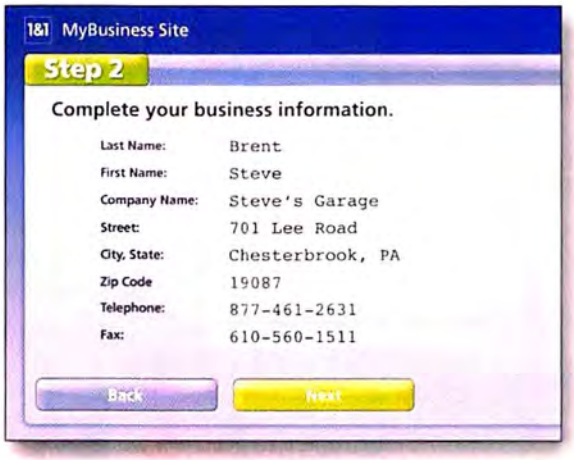
www.1and1.com

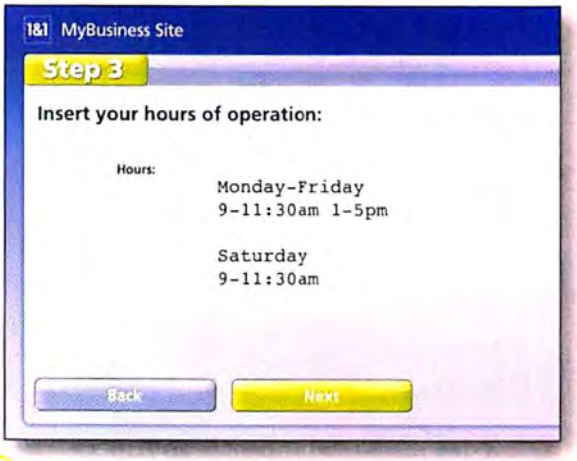
A few clicks, and your b website will be online!

Take a few minutes to invest in the future of your business.

It's as easy as 1-2-3. Choose your business category and color scheme, complete your business contact information, and insert your hours of operation. Your website is ready!







1-877-MY-1AND1

usiness

Anyone can do it!

No programming skills required …

1&1 MyBusiness Site automatically inserts your business information on your website pages. Pre-filled content is included, and you can add, change or delete it at any time. If you have any questions, our FREE 24/7 customer support team is there to help.

Do I look like a website designer?

Believe it or not, I created a website for my auto repair business completely on my own. I never realized how easy it is to do. Many of my customers had been asking me about a website, and I decided it was time to get my business up-to-speed, but I didn't have a lot of budget for a website. Designed specifically for non-technical users, **1&1 MyBusiness Site** made it easy to create a professional looking website. **At just $9.99/month,** it was definitely an investment that I could afford. **Try it for yourself and see! What do you have to lose?**

1&1

www.1and1.com

Easily customize your we

Changes are made directly online.

Completely customizable

Your website, your way! Choose your template, add or delete sections, add your own content, images, and more! No special tools or software needed – your website is online instantly.

Upload your own pictures

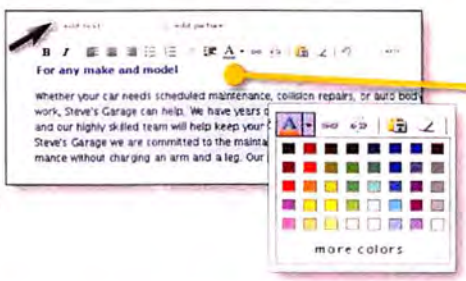
Uploading your own images is easy. Click on the picture that you'd like to change. Choose the name of the image you'd like to upload, then save. Your new image will upload instantly.

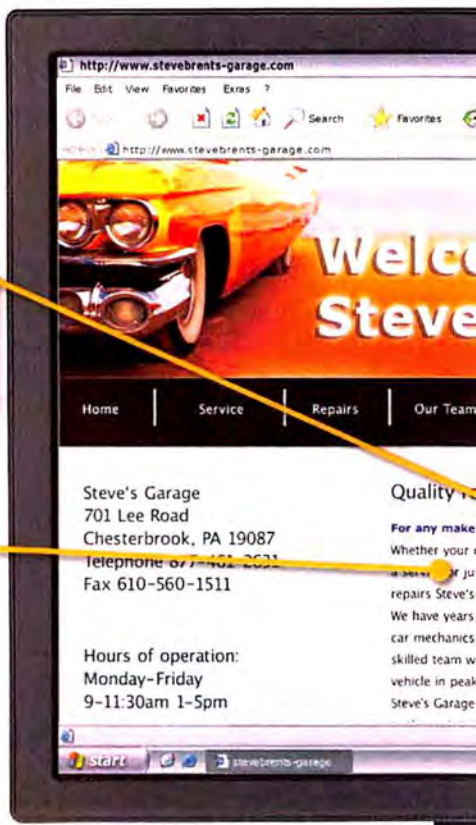
Change your images as often as you'd like – for seasonal marketing promotions, new products, special offers and more!

Edit content

Your website template comes pre-filled with text that you can add to, or change at anytime, directly on your website.

You can even work in HTML mode if you want!





Choose your layout

1&1 MyBusiness Site gives you a whole library of templates to choose from – there is something to suit every business and every taste. Try different templates and see which one you like. You can change your template at any time.

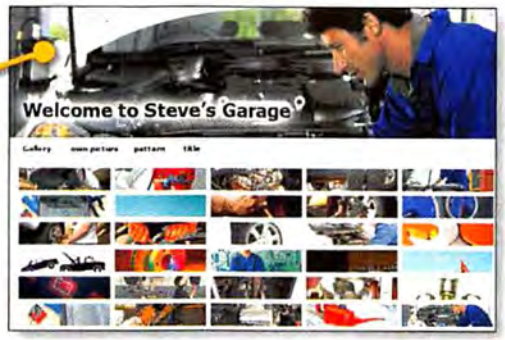
1-877-MY-1AND1

bsite!

Try it today!

Make changes whenever you want

1&1 MyBusiness Site grows with your business! You can make changes to your website at any time. Your changes appear live with the click of a mouse. As your business grows and you want to make your website more robust, you can insert your own HTML, add Flash movies, include links to YouTube®, update meta data and more!

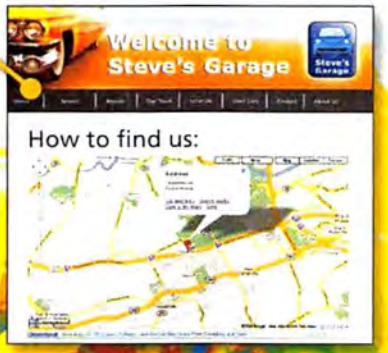


Add or delete graphics

Each template comes with a gallery of graphic options, especially for your industry. You can also upload your own images to your website. Change the titles and headers to fit your business.

Display special offers

Promoting offers on your website is easy. Create a "Special Offers" section on your website and include pictures, product information and prices.



Maps and driving directions

Integrate maps and driving directions on your website with just a few clicks.

Help your customers find you

Your business website will only be successful if people can find it. **1&1 MyBusiness Site** automatically submits your website to Google® and other search engines so that potential customers can easily find your website.

1&1

www.1and1.com

Get your business website online today!

1&1 MyBusiness Site

- ✔ Choose from website templates for over 100 business types, with pre-filled content which can be changed at any time
- ✔ Completely customizable
- ✔ No software downloads or programming knowledge required, if you can turn on a computer, you can use **1&1 MyBusiness Site**
- ✔ Unlimited number of website pages, web space, and traffic
- ✔ Website address included (Choose from .com, .net, .biz, or .info)
- ✔ E-mail addresses included
- ✔ 24/7 Customer support

Limited Time Offer:

Try it for FREE!

No strings attached.

Visit www.1and1.com for details.

Everything for just **$9.99** per month

www.1and1.com

Questions? **Call 1-877-MY-1AND1.**

© 2009 1&1 Internet, Inc. All rights reserved. Program specifications, pricing, and availability subject to change without notice. 1&1 and the 1&1 logo are trademarks of 1&1 Internet AG, all other trademarks are the property of their respective owners.

1&1

MEMBER OF united internet

US04022009

Coordinated Malware Resists Eradication

BY ERIK LARKIN

HOW DO YOU make a terrible thing even worse? If you're a crook who operates a botnet—an often-expansive network of malware-infected PCs—you link botnets together to form a gargantuan "botnetweb." And you do it in a way that's hard for an antivirus suite to fight.

Botnetwebs don't just enable crooks to send spam or malware to millions of PCs at once. They also represent a highly resilient infection that uses multiple files. An attempt at disinfection might eliminate some files, but those left behind will often redownload the scrubbed ones.

The culprits "are not a bunch of nerds sitting in some dark room developing these botnets for fun," writes Atif Mushtaq of FireEye, the Milpitas, California, security company that coined the term *botnetweb*. "These are organized people running this in the form of a sophisticated business."

Criminals are linking networks of infected PCs—and different pieces of destructive malware—to thwart security applications.

You Scratch My Back...

In the past, competition among malware writers sometimes meant that one infection might hunt for a rival's infection on a machine and then remove it. More recently, the attention-grabbing Conficker worm patched the Windows vulnerability that it exploited to infect machines, effectively shutting the door behind itself to prevent infections by other malware.

FireEye found evidence not of competition, but of cooperation and coordination among major spam botnets, representing a sea change in the way malware works. The company investigated the command and control (C&C) servers used to send marching orders to the bots, which might include relaying spam or downloading additional malicious files. In the case of the Pushdo, Rustock, and Srizbi botnets, it discovered that the C&C servers at the head of each botnet were in the same hosting facility; the IP addresses used for the servers also fell within the same ranges. If the disparate botnets had been competing, they likely wouldn't have digitally rubbed elbows.

A Botnetweb That's Millions of PCs Strong

More evidence of botnetwebs came from Finjan, a network security equipment company in California. Finjan reported finding a C&C server capable of sending spam, malware, or remote-control commands to a whopping 1.9 million bots.

The C&C server had six administrator accounts, plus a cache of dirty programs. Ophir Shalitin, Finjan marketing director, says Finjan doesn't know which of the programs might have infected which of the PCs—or more important, which malware made the initial infection. The firm traced the (now defunct) C&C server's IP address to Ukraine, and found evidence that the botnet resources were rented out for $100 per 1000 bots per day.

According to Alex Lanstein, a FireEye senior security researcher, a distributed collection of botnets gives bad guys many advantages. If law enforcement or a security firm were to shut down the C&C server for any single botnet, the crook could still make a profit from the surviving botnets.

Creating such botnets typically starts with "dropper" malware, Lanstein says, that uses "plain-Jane, vanilla techniques" »

ILLUSTRATION EDEL RODRIGUEZ

PCWORLD.COM

Some conventional security wisdom may be leaving you and your PC vulnerable. Read 'The Five Most Dangerous Security Myths' at find.pcworld.com/63054 to learn how to better keep yourself safe online.

and no strange coding or actions that may raise a red flag for antivirus apps. Once a dropper enters a PC (often via a drive-by download or an e-mail attachment), it may pull in a Trojan horse, such as the Hexzone malware being sent by the server Finjan found. That Hexzone variant was initially detected by only 4 out of 39 antivirus engines at VirusTotal (www.virustotal.com).

Whack-a-Mole Disinfection

And these days, multiple malware files are often involved, which makes an intruder much more resilient in the face of attempts to eradicate it.

In an observed attempt to clean the Zeus Trojan horse by Malwarebyte's RogueRemover, which Lanstein says is a generally capable disinfector, RogueRemover found some but not all of the files. After a few minutes, Lanstein says, one of the leftover files communicated with its C&C server and promptly redownloaded the deleted files.

"The odds of cleaning it all up just by running a given antivirus tool are moderate," says Randy Abrams, director of technical education with antivirus maker Eset. Abrams, Lanstein, and other security gurus emphasize that if your antivirus "removes" an infection, you should not assume the malware is gone. You can try downloading and running extra tools, like RogueRemover (find.pcworld.com/63051). Others, such as HijackThis (find.pcworld.com/63052) or Eset's SysInspector (find.pcworld.com/63053), will analyze your PC and create a log for you to post at sites like Bleeping Computer (www.bleepingcomputer.com), where experienced volunteers offer tailored advice.

A better tactic is to make sure your PC isn't infected in the first place. Install updates to close the holes that drive-by-download sites might exploit—not just in Windows, but also in apps such as Adobe Reader. And to guard against poisoned e-mail attachments or other files, don't open any unexpected attachments or downloads; run anything you're not sure about through VirusTotal, the same free scanning site that many experts use.

BUGS & FIXES ERIK LARKIN

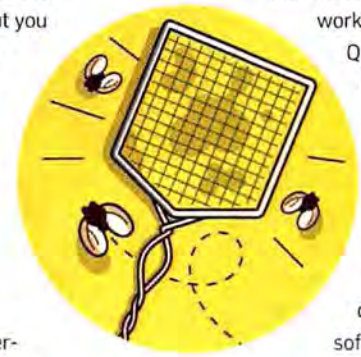
A Bonanza of Browser Bug Fixes

Plus: Microsoft issues a PowerPoint patch and a fix related to QuickTime.

THIS MONTH BRINGS us significant browser security updates—or new versions—from Microsoft, Google, and Apple.

Internet Explorer 8, released in March, will appear as a high-priority update if you run Windows Update, but Microsoft says you'll be able to skip it even if you have Automatic Updates set to install applications without asking permission.

Some sites, including those within a company intranet, might not look right in IE 8, even when you use the compatibility mode. But you can always use Add or Remove Programs to uninstall IE 8 and roll back to IE 7, and the new version has several security enhancements (find.pcworld.com/63057).



Chrome users may have received a new version automatically without even realizing it. Google quietly distributed Chrome 2.0, which offers a full-screen mode and an improved new-tab page. The basic look and feel haven't changed. An auto-update released just prior to Chrome 2.0 fixed one critical security flaw that attackers could target with specially crafted images, and another that involves how the browser handles tabs.

If you use automatic updates, you likely have 2.0. To check, click the wrench icon in the upper-right and pick *About Chrome*. For more, see find.pcworld.com/63059.

Not to be left out, Apple issued a Safari update. Version 3 and version 4 beta (offered as the current download) require updates to close three holes in both the Mac and Windows versions. The flaws could allow "arbitrary code execution" if you visit a malicious Web page designed to target them. Run Apple Software Update to make sure you're current, and see find.pcworld.com/63060 for more.

Microsoft QuickTime Problem

An as-yet-unpatched hole relates to how the Microsoft DirectShow framework for multimedia handles QuickTime content. You could trigger the flaw in Windows XP, 2000, and Server 2003 by opening a poisoned QuickTime file or by visiting a tainted Web site; the problem doesn't involve Apple software. Crooks can exploit the hole in quartz.dll and take control of a vulnerable PC regardless of whether you've installed QuickTime, Microsoft says. Vista, Server 2008, and Windows 7 are not affected.

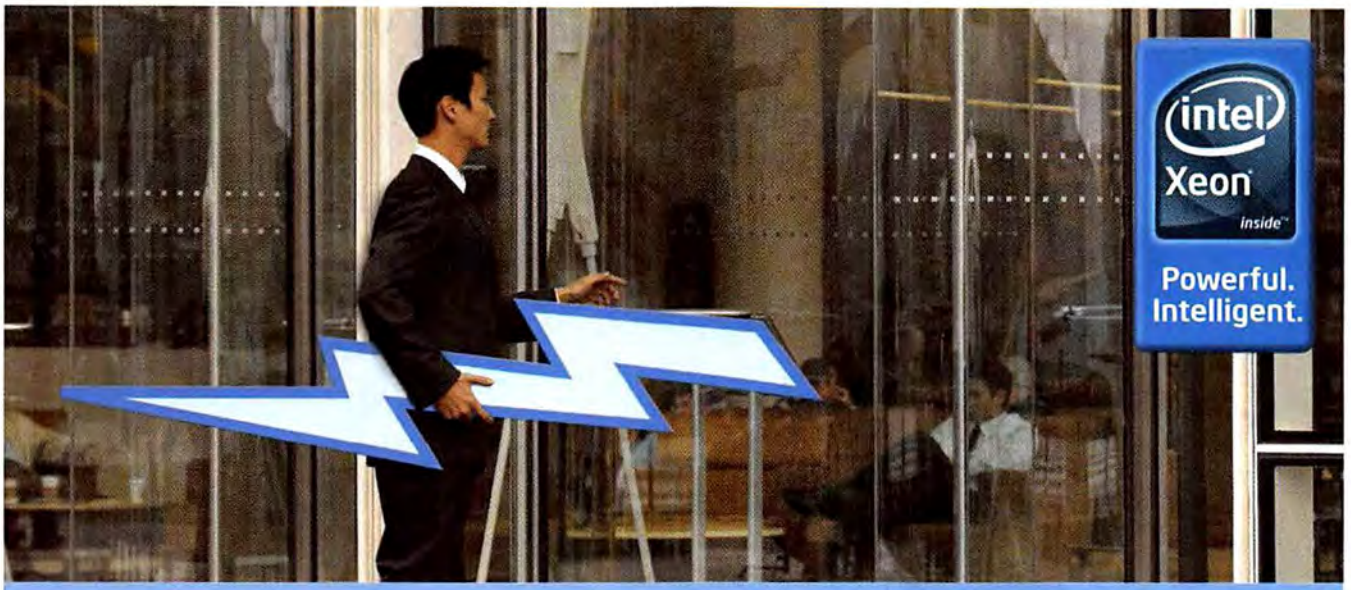
A patch may be out by the time you read this; but if not, head to find.pcworld.com/63061 for a temporary fix. Click the *Fix it* button under 'Enable workaround' to download a small file that modifies the Registry to prevent quartz.dll from handling QuickTime files. The 'Disable workaround' *Fix it* button will undo the change. See find.pcworld.com/63062 for details.

Microsoft's only regularly scheduled patch this month addresses holes in PowerPoint. It's a fix you'll want to have. The patch shores up a previously targeted zero-day hole in Office 2000, XP, 2003, and 2007, as well as in PowerPoint Viewer, Office Compatibility Pack, and Works software. Updates for Office for Mac 2004 and 2008 are still to come. Get the fix via Automatic Updates, and find more information from find.pcworld.com/63063.

BUGGED?

FOUND A HARDWARE or software bug? Send us an e-mail on it to bugs@pcworld.com.

ILLUSTRATION HARRY CAMPBELL



HIGHER PERFORMANCE SHOULDN'T WASTE YOUR ENERGY.

IBM express advantage™

Get the high-performance servers your company needs without having to worry about rising energy costs. Introducing the IBM® System x3650™ M2 Express, with the blazing fast, ultra-energy-efficient Intel® Xeon® processor 5500 series and the IBM Systems Director Active Energy Manager,™ designed to monitor energy consumption, so you can better plan your energy usage and manage operating costs.

BUNDLE AND SAVE

Act now. Available through IBM Business Partners.

ibm.com/systems/knowyourenergy

1 866-872-3902 (mention 6N8AH16A)

IBM SYSTEM x3650™ M2 EXPRESS

$2,029.00

OR $54/MONTH FOR 36 MONTHS[1]

PN: 7947E1U

- Featuring up to 2 Intel Xeon processor 5500 series with speeds up to 2.93 GHz/6.4 GT
- Energy-efficient design incorporating low 675 W and 92% efficient PS, 6 cooling fans, altimeter
- Up to 128 GB via 16 DIMM slots (availability 2Q 2009) of DDR3 memory with clock frequency up to 1333 MHz

IBM SYSTEM STORAGE™ DS3200™ EXPRESS

$4,495.00

OR $119/MONTH FOR 36 MONTHS[1]

PN: 172621X

- External disk storage with 3 Gbps serial attached SCSI (SAS) interface
- Easy to deploy and manage with the DS3000 Storage Manager

[1] IBM Global Financing offerings are provided through IBM Credit LLC in the United States and other IBM subsidiaries and divisions worldwide to qualified commercial and government customers. Monthly payments provided are for planning purposes only and may vary based on your credit and other factors. Lease offer provided is based on an FMV lease of 36 monthly payments. Other restrictions may apply. Rates and offerings are subject to change, extension or withdrawal without notice. IBM hardware products are manufactured from new parts or new and serviceable used parts. Regardless, our warranty terms apply. For a copy of applicable product warranties, visit www.ibm.com/servers/support/machine_warranties. IBM makes no representation or warranty regarding third-party products or services. IBM, the IBM logo, IBM Express Advantage, System Storage and System x are registered trademarks or trademarks of International Business Machines Corporation in the United States and/or other countries. For a complete list of IBM trademarks, see www.ibm.com/legal/copytrade.shtml. Intel, the Intel logo, Xeon and Xeon Inside are trademarks of Intel Corporation in the U.S. and other countries. All other products may be trademarks or registered trademarks of their respective companies. All prices and savings estimates are subject to change without notice, may vary according to configuration, are based upon IBM's estimated retail selling prices as of 3/4/09 and may not include storage, hard drive, operating system or other features. Reseller prices and savings to end users may vary. Products are subject to availability. This document was developed for offerings in the United States. ©2009 IBM Corporation. All rights reserved.

What we really protect is your privacy

ESET Smart Security 4

The faster, lighter PC protection

Have you ever imagined what would happen if all the personal data stored on your computer was compromised?

Built on our award-winning ESET NOD32® Antivirus, the latest generation of ESET Smart Security® provides your computer with advanced protection utilizing our unique ThreatSense® technology. ThreatSense disarms Internet attacks as they are released, not after the fact. And version 4 is our fastest solution ever, keeping your data and identity safe, without slowing you down while you work, or play.

Protects against malware
Gives no chance to hackers
Filters spam email

we protect your digital worlds™

ESET

© 2009 ESET, LLC. All rights reserved. Trademarks used herein are trademarks or registered trademarks of ESET, LLC. All other names and brands are registered trademarks of their respective companies.

PRIVACY WATCH ERIK LARKIN

Identity Thieves Target Medical Records

Whether stolen data is held for ransom or traded on online black markets, medical identity theft is a growing threat.

HEALTH-RECORD extortionists have struck again. This time around, a thief made off with prescription data from a Virginia Department of Health Professions (DHP) computer system, and the culprit didn't even make an attempt to cover his tracks.

"I have your sh--! In *my* possession, right now, are 8,257,378 patient records and a total of 35,548,087 prescriptions," read the ransom note, which the thief left in place of the actual Virginia DHP Prescription Monitoring Program Web page at the end of April. (To see the full note, go to find.pcworld.com/63055.)

The theft and subsequent extortion attempt bear striking similarities to an incident involving Express Scripts last November. Thieves broke into a system that contained both patient information and prescription records, and then sent letters threatening to reveal customer data unless ransom demands were met.

Though these thefts could very well be desperado-style moves to reap extortion profits, a digital black market for the fraudulent use of stolen health data is thriving, too. Ransom or not, there's big money in medical identity theft.

Medical identity theft, like its more mundane, purely financial cousin, is all about cashing in. According to the World Privacy Forum nonprofit advocacy group, criminals can exploit stolen medical info to make hundreds of thousands of dollars' worth of false claims against an insurer or government program. Victims may get a bill for medical services they never obtained or end up with false information in their medical records. While existing provisions of financial fraud legislation can help shield someone from having to pay the sometimes outrageous sums associated with this type of identity theft, correcting a falsified record can be difficult.

According to a 2006 Federal Trade Commission report, 3 percent of identity-theft victims surveyed said "the thief had obtained medical treatment, services, or supplies using their personal information." If that number holds true for the 8.3 million victims estimated for that year, there could be as many as 250,000 medical identity theft victims a year, the World Privacy Forum says. But the extortion demands made to the Virginia DHP site and to Express Scripts might be just what they seem, with the thieves pursuing an unlikely payout—it would take only one big ransom payment to make numerous thefts worthwhile.

If you receive a notice stating that your health records have been stolen, be on the lookout for any indications of medical identity theft. Keep in mind, too, that false information in a medical record might lead to incorrect treatment and genuine harm. According to the World Privacy Forum, one big tip-off can be if you receive a notice of a benefits payout from your insurance company for treatment or goods you never received. The fraud might also show up in your credit report, in the form of a collection notice from a hospital for fake charges.

To read extensive information on medical identity theft, including additional advice on how to tell whether you've been affected and how to recover, see the World Privacy Forum's comprehensive guide at find.pcworld.com/63056. ●

ILLUSTRATION: HARRY CAMPBELL

SAVE ENERGY WITHOUT WASTING YOUR OWN.

With IBM® System x3550™ M2 Express and the IBM Systems Director Active Energy Manager™

IBM express advantage™

IBM SYSTEM x3550™ M2 EXPRESS
$1,815.00

PN: 7946E1U

Featuring Intel® Xeon® processor 5500 series with speeds up to 2.93 GHz/6.4 GT

Energy-efficient design incorporating low 675 W and 92% efficient PS, 6 cooling fans, altimeter

Up to 128 GB via 16 DIMM slots (availability 2Q 2009) of DDR3 memory with clock frequency of up to 1333 MHz

ibm.com/systems/energysaver
1 866-872-3902 (mention 6N8AH17A)

IBM hardware products are manufactured from new parts or new, serviceable used parts. Regardless, our warranty terms apply. For a copy of applicable product warranties, visit www.ibm.com/servers/support/machine_warranties. IBM makes no representation or warranty regarding third-party products or services. IBM, the IBM logo, IBM Express Advantage, System Storage and System x are registered trademarks or trademarks of International Business Machines Corporation in the United States and/or other countries. For a complete list of IBM trademarks, see www.ibm.com/legal/copytrade.shtml. Intel, the Intel logo, Xeon and Xeon Inside are trademarks of Intel Corporation in the U.S. and other countries. All other products may be registered trademarks or trademarks of their respective companies. All prices and savings estimates are subject to change without notice, may vary according to configuration, are based upon IBM's estimated retail selling prices as of 3/4/09 and may not include storage, hard drive, operating system or other features. Reseller prices and savings to end users may vary. Products are subject to availability. This document was developed for offerings in the United States. ©2009 IBM Corporation. All rights reserved.

intel Xeon inside
Powerful. Intelligent.

SRS PREMIUM SOUND

SPECIAL ADVERTISING SUPPLEMENT

SRS Premium Sound for PCs

The ultimate audio and entertainment experience for movies, music and games

Love the mobility, hate the audio quality.

If you're a notebook or netbook user, that is probably your reaction when listening to music, watching movies or playing games on your system. It's because the tiny speakers on mobile PCs are notoriously bad, leading to weak, flat and muddy sound. Even if you use headphones or desktop speakers, compressed multimedia file formats bury the clarity, bass, depth and spatial clues encoded into the source.

Now there's a simple path to better audio, thanks to SRS Premium Sound™. Using advanced patented technologies from the world leader in audio processing, SRS Premium Sound brings your movies, music, streamed video and games back to life, restoring the dynamic and immersive audio experience that the original artists and recording engineers wanted you to have.

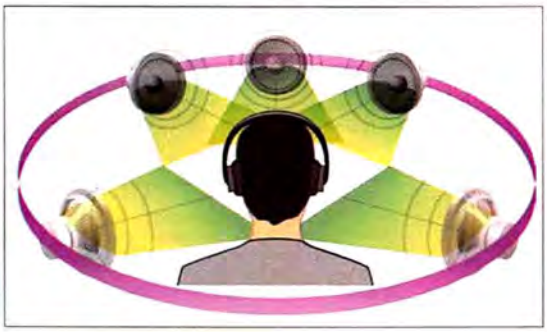
Available factory installed by PC manufacturers, SRS Premium Sound transforms the audio whether you're listening on a mobile computer or monitor, on desktop speakers or through headphones. Consumers who are not in the market for a new PC can also download SRS iWOW™ Premium from **www.srslabs.com** and receive the same incredible experience for music and video using iTunes.

Better music listening: By restoring audio cues buried deep in compressed music files, SRS boosts the perceived bass by as much as an octave lower, enhances the clarity of highs and vocals, and widens and deepens the sound stage, creating a wall of sound that seemingly fills the room.

Surrounded with movie sound: Movies are mastered to give you a surround-sound experience—such as a helicopter flying overhead, noises to your right and left, footsteps behind, then encoded (compressed). SRS restores these effects, enveloping you in sound for the immersive experience the filmmaker intended.

More gaming fun: Today's video games are produced much like movies: You never know who or what's coming up beside you! By restoring these audio cues, SRS greatly enriches the gaming experience.

If you enjoy multimedia content on your PC, you owe it to yourself to try SRS Premium Sound. Look for the SRS logo when considering your next system purchase. To download a trial version of SRS iWOW Premium to your current system to hear the difference, visit **www.srslabs.com** today. If you do, you're likely to join the hundreds of thousands of users whose first reaction was "Wow!"



SRS iWOW Audio Adaptor: The Perfect iPod Companion

Want to have that thrilling SRS audio experience when listening to music on your iPod? That's what SRS iWOW Adaptor for iPod® delivers. This premium audio adapter attaches seamlessly to your iPod for truly immersive music and video enjoyment.

Using advanced audio processing technology from SRS Labs, iWOW Adaptor for iPod restores the audio cues buried in the original source material, so music and video files sound more natural and detailed—the way they were meant to be heard on your iPod. With a single push of a button, you will hear the difference in your music, videos and podcasts. The immersive 3D audio, ultra-clear definition, and deep rich bass will wow you after just one listen.

Use the SRS iWOW software plug-in for your PC or Mac when listening at home or work, and iWOW for iPod for an amazing audio experience on the go. For more information and to order, visit **www.srslabs.com**.

Sponsored by SRS www.srslabs.com

PCWorld Advantage Marketing

At SRS Labs, everyday we work hard to create technologies that enable audio devices to reproduce sound naturally and restore it to what it is supposed to be; organic, immersive and uncompromised. Today, you will find our technologies everywhere and in over a billion products around the world, from flat panel TVs to personal computers to automotive sound systems. So, next time you come across a product that sounds great, take a closer look and you'll probably find an SRS technology behind it.

srs

TO LEARN MORE ABOUT THE SRS DIFFERENCE VISIT WWW.SRSLABS.COM/NATURAL

We reproduce sound naturally.
It is what you were meant to hear.

Reviews & Rankings

G DATA'S INTERFACE, while advanced, is friendly to novice users too.

THE AVG SUITE offers components for e-mail, Web sites, and so on.

Protecting the PC: Security Suites Compared

GIVEN RAPIDLY evolving dangers such as Conficker and silent threats that lurk on otherwise innocent Web sites, you need a suite of tools—antivirus, firewall, antiphishing, antispam—to combat potential attacks.

We tried five new security suites, from Australia, Germany, Israel, Romania, and the United States. We also retested the top three suites from our March issue's review (find.pcworld.com/63049).

Once again we worked with AV-Test.org, which pitted a Windows XP SP3 PC against a "zoo" of 725,047 backdoor apps, bots, Trojan horses, worms, password stealers, and adware. Though in the final rankings we also considered price, support, usability, and features, we gave more weight to each suite's detection and cleaning ability, plus its scan speed.

> The world of online threats and defenses is continuously evolving. We evaluated eight current security suites from around the globe.

G Data Internet Security 2010

This German suite, now sold in the United States too ($30 for one year, one user; $40 for one year, three users), had the best detection rate here: Using both the Avast and BitDefender antivirus engines, it identified on average 99.9 percent of AV-Test's zoo.

Though it identified all of the files and Registry changes that malware had added, and it removed 100 percent of the files, it failed to scrub the Registry of remaining traces of the infections. It detected 100 percent of inactive rootkits, but successfully cleaned just 78 percent of active ones, the second-lowest result in our test group. In heuristics, however, it racked up the fewest false positives—only 1 out of 5000 test files.

Using behavioral detection, G Data issued a warning 80 percent of the time, detected and blocked 47 percent of malware samples, and removed 13 percent.

With two-week-old signature files, the suite identified 56 percent of samples; on four-week-old signatures, it spotted 49 percent, among the best results of the batch.

AV-Test measured short on-demand scan times of just 17 seconds for a 741MB file and 73 seconds for on-access scans (versus 41 seconds to copy the file on a PC without antivirus installed).

G Data scans incoming e-mail and IMs, and it has an

INSIDE

56 PALM PRE

58 TOP 10 Digital SLR Cameras

68 PURE DIGITAL Flip UltraHD

73 PIONEER BD-203

antispam tool. Information from Netcraft helps it identify and block phishing sites.

AVG Internet Security 8.5

Using its own detection engine, AVG's suite ($55 for one year, one PC; $75 for one year, three PCs) did superbly in the on-demand and on-access detection of malware files, macro viruses, and scripts, scoring 100 percent on each. It also performed well on AV-Test's zoo, identifying 96 percent on average.

The AVG suite removed 80 percent of the files that malware had put in place, but it scrubbed a mere 50 percent of the test infections' Registry changes. It detected 100 percent of inactive rootkits, detected 90 percent of the active ones, and removed eight out of nine active rootkits, among the best results we've seen.

In behavior-based detection, however, it had slightly below-average scores: The suite issued a warning 53 percent of the time, and it detected and blocked 33 percent of the malware, but it removed only 20 percent.

Using two-week-old signature files, the suite identified a below-average 37 percent of samples; on four-week-old signatures, it got 30 percent.

On-demand scan times were somewhat lengthy—up to 88 seconds on a 741MB file; on-access scans came in at a decent 65 seconds.

The suite scans e-mail for viruses, and protects IM. It also handles antispam and antiphishing. And the LinkScanner tool finds and scrubs malicious Web content before it hits your browser.

The behavior-based firewall requested permission for every Internet-facing app, but overall the interface is clean and straightforward.

Check Point ZoneAlarm Extreme Security 8.0

The Check Point ZoneAlarm suite ($70 for one year, three users) licenses its antivirus protection from Kaspersky.

THE ZONEALARM SUITE provides more than just basic security functions.

It did a decent job in the on-demand and on-access detection of malware files and scripts, scoring 100 percent on each, though it caught just 81 percent of the macro viruses. It performed well on the AV-Test zoo, identifying 94 percent of the samples on average, and it successfully detected and removed all nine active rootkits as well.

In tests with two-week-old signatures, it identified an above-average 41 percent of samples; with four-week-old signatures, it saw 38 percent.

On-demand scan times were long, up to 179 seconds on a 741MB file; on-access scans took 103 seconds.

Many features rely on apps from other vendors, such as SonicWall antispam, MailFrontier filtering of e-mail phishing attacks, and Netcraft Web antiphishing. ZoneAlarm ForceField stops drive-by downloads in Internet Explorer and Firefox.

Configuration options are straightforward and easy to use. Through partner companies you also get parental controls, 2GB of online backup, identity-fraud protection, and an optional diagnostics tool. The last item is new this year, and on our PC it detected and fixed mangled Registry listings.

PC Tools Internet Security

PC Tools' first suite ($60 for one year, up to three systems) uses its own antivirus engine, and at first glance it scored very well in both on-demand and on-access detection of malware files, macro »

MORE ONLINE

To read complete, in-depth reviews of all eight security suites we tested for this story, visit find.pcworld.com/63215.

viruses, and scripts, catching nearly 100 percent in each. But it was the only suite here to miss at least two variants of Conficker in both types of testing. Against AV-Test's zoo, it caught an unimpressive 56 percent of the collected samples on average.

In contrast, on behavior-based detection, it scored the highest of any suite we tested. It issued a warning 93 percent of the time, detected and blocked 87 percent of the malware, and removed 80 percent of the malware. It also dealt firmly with rootkits, eliminating all nine active rootkits we threw at it.

In tests with two-week-old signature files, it identified a below-average 30 percent of malware samples, and on four-week-old signatures it identified only 23 percent.

AV-Test recorded long file-scan times of up to 173 seconds for on-demand scans of a 741MB file. On-access scans required 66 seconds. In informal testing, this suite appeared to slow our Windows XP PC more noticeably than others did.

The interface, geared to average consumers, offers few options. You get little documentation beyond a quick-start guide, so creating a firewall rule, for example, is not instantly intuitive.

The optional PC Tools Browser Defender toolbar (for IE only) provides anti-phishing protection via heuristic analysis. When we tried the feature, it missed a few

PC WORLD TOP INTERNET SECURITY SUITES

	SECURITY SUITE	PCW Rating	Performance score	Antivirus and antispyware detection				Adware detection	Malware cleanup
				Detection of backdoors, bots, Trojan horses, and spyware	Heuristic detection with two-week-old signatures	Rootkit detection (active and inactive rootkits)[1]	Rootkit removal[1]	Detection of adware samples	Successful elimination of malware[2]
1	BEST BUY G Data Internet Security 2010 **$30 ($30 renewal price)** find.pcworld.com/63065	91 SUPERIOR	Superior	99.9%	56.3%	85.0%	77.8%	98%	50%
2	Symantec Norton Internet Security 2009 **$60 ($50 renewal price)** find.pcworld.com/62138	90 SUPERIOR	Superior	98.3%	44.6%	95.0%	100.0%	86%	85%
3	BitDefender Internet Security 2009 **$50 ($50 renewal price)** find.pcworld.com/62139	87 VERY GOOD	Very Good	98.9%	52.0%	100.0%	100.0%	96%	65%
4	Panda Internet Security 2009 **$80 ($60 renewal price)** find.pcworld.com/62141	84 VERY GOOD	Very Good	98.1%	56.3%	95.0%	88.9%	89%	50%
5	AVG Internet Security 8.5 **$55 ($55 renewal price)** find.pcworld.com/63066	81 VERY GOOD	Very Good	95.9%	36.5%	95.0%	88.9%	95%	65%
6	Check Point ZoneAlarm Extreme Security 8.0 **$70 ($60 renewal price)** find.pcworld.com/63067	77 GOOD	Good	94.1%	41.2%	95.0%	100.0%	89%	40%
7	PC Tools Internet Security **$60 ($50 renewal price)** find.pcworld.com/63069	68 FAIR	Fair	55.5%	29.8%	90.0%	100.0%	60%	75%
8	Comodo Internet Security Pro 3.8 **$40 ($40 renewal price)** find.pcworld.com/63070	57 POOR	Fair	51.5%	17.3%	90.0%	66.7%	36%	40%

CHART NOTE: Prices and ratings are as of 5/24/09. FOOTNOTES: [1] Test conducted at default settings. [2] Cleanup of malware files and Registry files. [3] Time to scan a 741MB file; lower is better.

new phishing sites that were less than 2 hours old, but it warned against older sites.

Comodo Internet Security Pro 3.8

Comodo's suite ($40 for one year, one user) is clearly in its infancy. (Note: As we were preparing this review, Comodo released version 3.9, addressing some of the performance issues we encountered in version 3.8.)

Using its own antivirus engine, it stumbled in the on-demand and on-access detection of malware files, macro viruses, and scripts, scoring 48 percent overall and spotting macro viruses 16 percent of the time. It did marginally better on AV-Test's malware zoo, identifying on average 52 percent of the samples.

In behavior-based detection, it issued a warning 93 percent of the time, detected and blocked 80 percent of the malware, and cleaned 53 percent—a high removal rate. But it also had the most false positives, mislabeling 56 out of 5000 clean files.

The suite detected 100 percent of the inactive rootkits and 80 percent of the active ones, but it removed only 67 percent of the active rootkits (the lowest percentage of the suites tested).

In tests with two-week-old signature files, it identified just 17 percent of samples, and on four-week-old signature files it spotted 14 percent, well below average.

The interface offers some interesting options. But the suite lacks a couple of key features, namely antispam and antiphishing protection.

—Robert Vamosi

Firewall[1]		Scan speed[1]			
All ports closed	All ports stealth	On-demand (in seconds)[2]	On-access (in seconds)[3]	Design score	Bottom line
Yes	Yes	17	73	Superior	This relatively little-known suite takes top honors with its strong malware detection and great value. Though the interface is advanced, it won't alienate casual users.
Yes	Yes	25	66	Superior	Symantec's strong suite costs a little more than most alternatives, but it's easy to use and good at blocking malware. Proactive detection still needs improvement.
Yes	Yes	83	73	Good	The BitDefender suite gives you good protection at an affordable price, if you're willing to put up with a couple of interface annoyances and middle-of-the-pack scan speed.
Yes	Yes	44	67	Very Good	Panda's suite has many features and it scans quickly, but it trailed some rivals in malware detection. Its performance on password-stealing spyware has improved significantly.
Yes	Yes	88	65	Very Good	AVG stays within its core strengths to deliver a solid suite that presents filtering shields and components dedicated to e-mail, Web sites, and other aspects of security.
No	No	179	103	Very Good	ZoneAlarm Extreme Security gives you a lot of useful security features and protection for the money, including online backup space and identity-theft recovery services.
Yes	Yes	173	66	Fair	Despite good heuristics performance, PC Tools Internet Security didn't fare as well on traditional malware detection, and it missed two Conficker variants.
Yes	Yes	16	54	Fair	Comodo's new suite shows promise but lacks a few protections and features common to other packages, such as antispam and antiphishing functions.

Retested Suites

When we retested the Symantec, BitDefender, and Panda suites, the top packages last time, they finished in the same order, pushed down one place each by G Data.

Symantec's $60 Norton suite stayed strong in detecting and cleaning malware, as well as in handling rootkits. For adware, however, it was on the low end, and proactive detection using old signatures remained mediocre.

BitDefender's $50 product performed a bit better this time on AV-Test's zoo. It beat most rivals in tests with two-week-old signatures, it rocked on rootkits, and it also did well at cleaning up existing infections; but its scan speed was middling.

The $80 Panda suite also improved slightly in detecting the AV-Test samples. Plus, it identified over 95 percent of spyware made to steal passwords and financial data, a marked improvement over last time, when it caught just 69 percent of those particularly harmful varieties.

—Erik Larkin

The Palm Pre Phone—Does It Live Up to the Hype?

PCW Test Center

THE PALM PRE smartphone ($200 with a two-year contract from Sprint) isn't perfect, but its WebOS operating system is clean, engaging, and intuitive. The phone's main shortcomings relate to hardware.

Hardware

The glossy-black Pre has a curved slider body that's dominated by a 3.1-inch, 320-by-480-pixel capacitive touch display. At 3.9 by 2.3 by 0.7 inches, the Pre is incredibly pocketable; it even fits unobtrusively into a woman's jeans pocket.

But the keyboard feels a bit flimsy, and some of my colleagues found the keys quite cramped. One positive note: I encountered no lag between my typing and the text's appearance on screen.

Call quality over Sprint's 3G network was very good overall, though I heard an echo on one call to a landline phone. Parties on the other end said my voice had ample volume and sounded very clear—even when I was on a busy street corner. None of my calls dropped.

THE PALM PRE comes with a wealth of useful applications.

In our battery life tests, the Pre earned a word score of Fair, with only 5 hours, 17 minutes of average battery talk time (the iPhone lasted for 5 hours, 38 minutes).

The Pre lacks removable memory: The unit comes fixed at 8GB of storage. You can tether the unit to a PC with a USB cable, and then transfer files directly from the PC to the phone.

To control the Pre, you use a small number of primary gestures on its touchscreen and in its gesture area, located below the display. On the back are the camera lens and the removable battery.

WebOS

With the Pre, Palm debuts its long-delayed cell phone operating system, WebOS. I found it to be one of the silkiest and best-designed smartphone platforms to come along in a while.

Nevertheless, it does have a few quirks. Apps occasionally loaded slowly, and the organization and placement of certain features sometimes seemed counterintuitive.

The home-screen interface has customizable application widgets running at the bottom. Touch a widget, and the app instantly pops up. But you can display only four shortcuts at a time.

WebOS can handle full multitasking. You can view each of your open apps at once, shuffle them, and then discard the ones you want to close—all with gestures that mimic the way you'd handle a physical deck of cards.

THE PALM PRE has a touch display and a QWERTY keyboard.

WebOS also has a great notification feature—a small alert that pops up at the bottom of the screen when you receive an incoming phone call, text message, or e-mail.

Social Networking Features

One of the most important components of WebOS is its ability to synchronize and synthesize information from various sources into a single seamless, integrated view. For example, you can sync the Pre to your Google, Facebook, and Microsoft Exchange accounts; it will pull your contacts from those accounts into the Pre's Contacts app. However, I found this feature a bit overwhelming (you must sync either all or none of your contacts).

The Synergy e-mail app makes checking and searching through multiple e-mail accounts easy. And the Pre's Messaging app combines SMS and instant messaging under a single umbrella.

The Pre's full-HTML Web browser renders pages beautifully. You can have as many browser windows open as available memory allows.

Other apps on the Pre include the Amazon MP3 store, Google Maps, YouTube, a calculator, a PDF viewer, a document viewer, a task list, and a memo board; Sprint apps are on board, too.

Multimedia

Syncing your media with the Pre is a snap. You can load your music via iTunes or do it manually with an easy drag-and-drop. Pre users will have access to Amazon's Mobile Music Store. The store simplifies the task of downloading DRM-free tracks directly to the phone.

Video quality on the Pre's gorgeous display was quite good. Its video player supports MPEG-4, H.263, and H.264 formats. The camera is adequate, offering 3 megapixels and an LED flash, but no zoom; it took satisfactory pictures, but doesn't have a video recording capability.

—Ginny Mies

82
VERY GOOD

Palm Pre | Palm

A responsive touchscreen, an engaging interface, and a few flaws. Street: $200 with two-year contract from Sprint

find.pcworld.com/63258

CYBERPOWER RECOMMENDS WINDOWS VISTA™ HOME PREMIUM

CyberPOWER Inc.

UNLEASH the power

Your Unlimited Gaming Solutions

intel CORE i7 inside™

Look for Intel Inside®

Order Toll Free 800-707-0393

All Desktop systems come with 3 year Limited Warranty + lifetime toll free techsupport

www.cyberpowerpc.com

PC GAMER EDITORS CHOICE

$1575

Gamer Infinity 8800 Pro SE

Asus® P6T SE Intel X58 Chipset MB Supporting SLI™ and CrossFireX™
Genuine Windows Vista™ Home Premium
w/ Free Upgrade Coupon to Windows 7 Home Premium
Corsair® 6GB DDR3-1333 Tri Channel Memory
1TB 7200RPM SATA-II 3.0Gb/s 16MB Cache Ultra Fast HD
NVIDIA® GeForce® GTX 295 1.79GB supports SLI™ mode
Azza Solano Full Tower Case 800 Watt Power
Asetek Liquid Cooling System

Free Window Upgrade COUPON

Intel® Core™ i7 Processor
(8MB L3 Cache, 1066Mhz)

Extreme i7-975 3.33Ghz	$ 2325
i7-950 3.06Ghz	$ 1865
i7-920 2.66Ghz	$ 1575

System included the following

4X Blu-ray Player · LG DVD 22X±RW · HD 7.1 600 W · Logitech® · Logitech® · FREE 802.11G

$845

Gamer Xtreme 1000

Gigabyte Intel® X58 Chipset MB Supporting CrossFireX™/SLI™
Genuine Windows Vista™ Home Premium
w/ Free Upgrade Coupon to Windows 7 Home Premium
Corsair® 3GB DDR3 1333 Triple Channel Memory
500GB 7200RPM SATA-II 3.0Gb/s 16MB Cache Ultra Fast HD
NVIDIA® GeForce® 9500 GT 1GB DDR2
Xion Vulcan Mid-Tower Case w/420 Watt Power Supply

Free Window Upgrade COUPON

Intel® Core™ i7 Processor
(8MB L3 Cache, 1066Mhz)

Extreme i7-975 3.33Ghz	$ 1599
i7-950 3.06Ghz	$ 1175
i7-920 2.66Ghz	$ 845

System included the following

LG DVD 22X±RW · HD 7.1 600 W · Logitech® · Logitech® · FREE 802.11G

$995

Gamer Infinity HD 4850

Gigabyte Intel® X58 Chipset MB Supporting CrossFireX™/SLI™
Genuine Windows Vista™ Home Premium
w/ Free Upgrade Coupon to Windows 7 Home Premium
Corsair® 6GB DDR3-1333 Tri Channel Memory
500GB 7200RPM SATA-II 3.0Gb/s 16MB Cache Ultra Fast HD
ATI Radeon™ HD4850 512MB
Nzxt Zero 2 Full Tower Gaming Case / 580 Watt Crossfire™ Power

Free Window Upgrade COUPON

Intel® Core™ i7 Processor
(8MB L3 Cache, 1066Mhz)

Extreme i7-975 3.33Ghz	$ 1759
i7-950 3.06Ghz	$ 1329
i7-920 2.66Ghz	$ 995

System included the following

LG DVD 22X±RW · HD 7.1 600 W · Logitech® · Logitech® · FREE 802.11G

Intel® Centrino® 2 Technology
- Intel® Core™ 2 Duo Processor
- Intel® PM45 Chipset
- Intel® WiFi Link 5300 802.11 A/G/N

Gamer Xplorer X7-7700

Genuine Windows Vista™ Home Premium
4GB DDR-II PC6400 800 Memory, 320GB SATA150 Hard Drive
17" WXGA TFT Display 1600x1050 pixels, 8x DVD+/-RW Drive
1000/100/10 Network & 56K V.92 Fax/Modem
NVIDIA® GeForce® Go 9600 GT 512MB w/HDMI Output
3-in-1 Built-in Media Reader, 1 IEEE-1394 Firewire Port
3x USB 2.0 Ports, 1 PCMCIA Type II Slot
3 Hours Battery Life, Weight only 7.6 Lbs
Free Carrying Case, 6 Custom Colors to Choose From

$965

Intel® Core™ 2 Duo Processor (800Mhz FSB)

T9800 6MB L2 Cache, 2.93Ghz	$ 1329
P9600 6MB L2 Cache, 2.80Ghz	$ 1129
T9550 6MB L2 Cache, 2.66Ghz	$ 1085
P8700 3MB L2 Cache, 2.53Ghz	$ 1009
P8600 3MB L2 Cache, 2.40Ghz	$ 965

NVIDIA®, nForce®, GeForce®, SLI™ are trademarks or registered trademarks of NVIDIA Corporation or its subsidiaries in the United States and other countries. CyberPower PCs use genuine Microsoft® Windows® • www.microsoft.com/piracy/howtotell
Celeron, Celeron Inside, Centrino, Centrino inside, Centrino Logo,Core Inside, Intel, Intel Logo, Intel Core, Intel Inside, Intel Inside Logo, Intel Viiv, Intel vPro, Itanium, Itanium Inside, Pentium, Pentium Inside, Viiv Inside, vPro Inside, Xeon, and Xeon Inside are trademarks of Intel Corporation in the U.S. and other countries. All prices are subject to change without notice or obligation. CyberPower is not responsible for any typographical and photographic errors. Copyright ©2008 CyberPower. All rights reserved.

Nikon, Olympus SLRs: A Dead Heat in Quality

PCW Test Center

TWO NEW MODELS, from Nikon and Olympus, join our SLR chart this month—a testament to the ever-evolving state of digital SLRs.

Both provide adjustable screens, a huge bonus if you are trying to shoot overhead or underhand. And overall, the Nikon D5000 and the Olympus Evolt E-30 are well matched—but the Nikon costs significantly less. It also records high-def video clips.

That the new Nikon and Olympus seem rather even reflects a trend we're seeing. Increasingly, digital SLRs are performing within a tight sphere: The sixth through tenth places on our chart are a dead heat. Some units may have more megapixels, others may have better design; or you may want to stay with a certain lens system when choosing a DSLR. Regardless, consumers have more strong choices than ever—and that's a good thing.

—Melissa J. Perenson

NIKON'S D5000 HAS a good price and can record HD video.

MORE ONLINE

For more on the digital SLR cameras ranked in this chart, including testing details, visit find.pcworld.com/63238.

PC WORLD TOP 10 DIGITAL SINGLE-LENS REFLEX CAMERAS

	MODEL	PCW Rating	Performance	Features and specifications
1	BEST BUY Nikon D90 $1200 find.pcworld.com/62058	87 VERY GOOD	• Image quality: Superior • Overall design: Superior • Records video: Yes	• 12.3 megapixels • 5.8X optical zoom (18-105mm) • 6 scene modes • 5.2 by 3.0 by 4.1 inches
	BOTTOM LINE: Nikon's D90 offers great image quality, terrific design, and rudimentary video recording (the first DSLR to do so).			
2	Canon EOS 50D $1600 find.pcworld.com/62060	86 VERY GOOD	• Image quality: Superior • Overall design: Very Good • Records video: No	• 15.1 megapixels • 11.1X optical zoom (18-200mm) • 6 scene modes • 5.7 by 2.9 by 4.2 inches
	BOTTOM LINE: Though not a must-buy upgrade over the 40D, the 50D has some new, friendly features and shooting modes.			
3	Canon EOS Digital Rebel Xsi $715 find.pcworld.com/61257	86 VERY GOOD	• Image quality: Superior • Overall design: Very Good • Records video: No	• 12.2 megapixels • 3.1X optical zoom (18-55mm) • 6 scene modes • 5.1 by 3.8 by 2.4 inches
	BOTTOM LINE: The Rebel Xsi has a strong range of capabilities, but it may cost more than entry-level buyers want to spend.			
4	Canon EOS 40D $1050 find.pcworld.com/59215	85 VERY GOOD	• Image quality: Superior • Overall design: Very Good • Records video: No	• 10.1 megapixels • 4.8X optical zoom (28-135mm) • 6 scene modes • 5.7 by 2.9 by 4.2 inches
	BOTTOM LINE: Feature-packed camera produces great images, and should appeal to enthusiasts and pros alike.			
5	Sony DSLR-A300K $600 find.pcworld.com/61259	84 VERY GOOD	• Image quality: Very Good • Overall design: Very Good • Records video: No	• 10.2 megapixels • 3.9X optical zoom (18-70mm) • 5 scene modes • 5.3 by 4.0 by 3.0 inches
	BOTTOM LINE: Very well designed in both ease of use and ergonomics; its tiltable LCD offers fast, "live view" previews.			
6	Nikon D5000 $850 NEW find.pcworld.com/63229	82 VERY GOOD	• Image quality: Very Good • Overall design: Very Good • Records video: Yes	• 12.3 megapixels • 3.1X optical zoom (18-55mm) • 19 scene modes • 5.0 by 4.1 by 3.1 inches
	BOTTOM LINE: Well rounded, with tons of features and a handy tilt-and-swivel screen, but auto-mode images were middling.			
7	Olympus Evolt E-30 $1400 NEW find.pcworld.com/63234	82 VERY GOOD	• Image quality: Very Good • Overall design: Very Good • Records video: No	• 12.3 megapixels • 3.9X optical zoom (14-54mm) • 14 scene modes • 5.6 by 4.2 by 3.0 inches
	BOTTOM LINE: The E-30 packs a lot of features, but for a few more bucks you can get better high-ISO performance.			
8	Canon EOS Rebel XS $600 find.pcworld.com/62061	82 VERY GOOD	• Image quality: Very Good • Overall design: Very Good • Records video: No	• 10.1 megapixels • 3.1X optical zoom (18-55mm) • 6 scene modes • 4.9 by 3.8 by 2.4 inches
	BOTTOM LINE: An excellent entry-level SLR; the more full-featured Rebel Xsi outperformed this sibling in our tests, however.			
9	Nikon D60 $550 find.pcworld.com/61260	82 VERY GOOD	• Image quality: Very Good • Overall design: Very Good • Records video: No	• 10.2 megapixels • 3.1X optical zoom (18-55mm) • 8 scene modes • 5.0 by 2.5 by 3.7 inches
	BOTTOM LINE: The D60 makes pleasing pictures, but it offers fairly minimal improvements over the older D40x.			
10	Pentax K20D $800 find.pcworld.com/62063	82 VERY GOOD	• Image quality: Good • Overall design: Very Good • Records video: No	• 14.6 megapixels • 3.1X optical zoom (18-55mm) • 11 scene modes • 5.6 by 2.8 by 4.0 inches
	BOTTOM LINE: Although the K20 does some things well, its slow autofocus can sometimes be frustrating.			

CHART NOTE: Prices are as of 5/19/09.

Listen Up. Sync Up. Charge Up.

These sleek Reson8® speakers are the first all-in-one computer speakers to sync your iPhone with iTunes™.

Available at
Apple Store
Brookstone

iHome®
Live Life Loud™

Made for iPod

Works with iPhone

Looking for portability?

Our iHM77 rechargeable pop-up speakers offer **Sound Beyond Size.** They're the perfect accessory for your iPod, gaming system and computer.

www.ihomeaudio.com

iHome and Reson8 are registered trademarks of SDI Technologies, Inc. iPod and iPhone are trademarks of Apple Inc., registered in the U.S. and other countries.

Netgear's Entertainer Elite Improves Video Streaming

NETGEAR'S $400 Digital Entertainer Elite makes it painless to connect your TV to your PC or Mac, and to the Internet at large.

You connect the box to your TV via a cable (HDMI, component, or composite), and then use the included remote control to run a quick on-screen setup procedure.

The Entertainer asks for your TV's maximum resolution (it supports up to full 1080p) and your zip code (for program guide information, among other things); then, wired or wireless, it hooks up to the Internet. If you are using Wi-Fi, 802.11n is recommended.

NETGEAR'S $400 media-streaming box lets you easily access video from your PC or from the Internet.

Next step: Go to your PC or Mac and install the software from the CD. This takes a few minutes; the software will ask you which folders you want to share with (that is, access via) the Entertainer. I could play my PC-based videos less than 15 minutes after opening the box.

Videos played promptly and smoothly with little lag, using either ethernet or a strong (same-room) 802.11n connection (note: 802.11g isn't good enough for glitch-free HD streaming).

Watching Web content doesn't depend on a PC—the Entertainer can connect directly to the Internet. Out of the box, the device supports playback of YouTube, Internet radio, RSS feeds, podcasts, and Flickr photos.

Netgear also provided a beta firmware update for MediaMall's PlayOn media server. With PlayOn ($40) installed on your computer, you can stream anything that the software supports to the Entertainer—from Netflix and Hulu to CBS and ESPN.

Still, the Entertainer's real strength is that it can handle virtually any video format.

The Entertainer is by far the most versatile and user-friendly media player for HDTVs that I have tried.

—Becky Waring

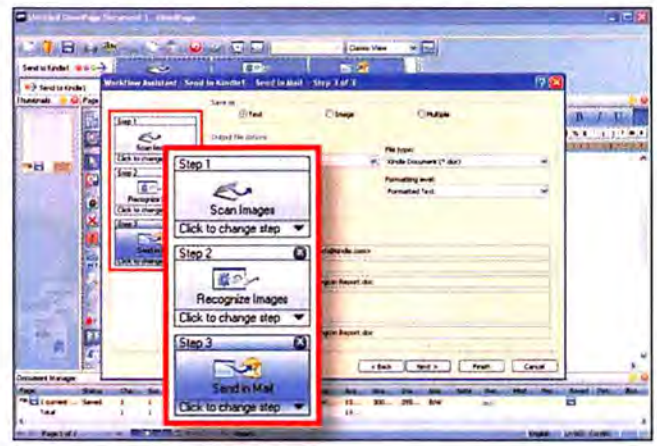
87
VERY GOOD

Digital Entertainer Elite EVA9150
Netgear
Pricey, but provides the best and easiest way yet to stream video.
List: $400
find.pcworld.com/63240

OmniPage Professional 17: A Powerful OCR Update

NUANCE'S OmniPage Professional 17 offers subtle but impressive enhancements over the previous edition of this powerful optical character recognition application. I tested a shipping version, and successfully converted documents—ranging from one-column formats to complex, magazine-style pages—into editable text and PDF files. Using OmniPage Pro's built-in proofreading and text editing tools, I fixed the process's few errors easily.

Though it looks much like version 16, this latest OmniPage Pro offers several noteworthy improvements, such as a new Windows Explorer–style window (called Easy Loader) that expedites loading multiple files into OmniPage; improved support for Microsoft Office 2007 via new toolbars; and enhanced support for digital camera images of 2 megapixels and above. OmniPage also has a new Kindle Assistant option to help you set up a macro that automatically sends a converted document to an Amazon Kindle book reader.



OMNIPAGE PRO 17 can automate sending documents to a Kindle reader.

At $500, OmniPage Pro 17 is pricier than other full-featured OCR packages, but it also has useful utilities for document management and PDF conversion. It is clearly intended for workgroups and other office environments; however, Nuance sells a less advanced version for $150, which may be a better fit for individuals and small-business users.

—Richard Jantz

92
SUPERIOR

OmniPage Professional 17
Nuance
Industrial-strength OCR for office environments—but it's expensive.
List: $500
find.pcworld.com/63239

Acer recommends Windows Vista® Home Premium.

ASPIRE

ACER® ASPIRE® 5536

- AMD Turion™ X2 Dual-Core Mobile Processor
- Genuine Windows Vista® Home Premium
- 3GB DDR2 667 SDRAM
- 320GB[1] hard drive
- Integrated Super-Multi drive
- 5-in-1 card reader
- Acer CineCrystal 15.6" WXGA (1366 x 768) TFT display
- ATI Radeon™ HD 3200 graphics
- 802.11b/g WLAN, gigabit LAN, V.92 modem, webcam
- One-year limited warranty[2]

AMD Turion X2 64

ATI RADEON GRAPHICS

ACER ASPIRE 5536-5165

$519

AMD Turion™ X2 Dual-Core Mobile Processor RM-72
Genuine Windows Vista® Home Premium
(LX.PAW0X.142)

Visit acer.com/us

acer

circle-line.eu - ADV

acer

Acer recommends Windows Vista® Business.

emachines®

eMACHINES® E625

- AMD Athlon™ 64 Processor
- Genuine Windows Vista® Home Basic
- 2GB DDR2 667 SDRAM
- 160GB[1] hard drive
- Integrated Super-Multi drive
- 5-in-1 card reader
- 15.6" WXGA (1366 x 768) TFT display
- ATI Radeon™ Xpress 1200 graphics
- 802.11b/g WLAN, 10/100 LAN, webcam
- One-year limited warranty[2]

eMACHINES E625-5776

$399

AMD Athlon™ 64 Processor TF-20
Genuine Windows Vista® Home Basic
(LX.N290Y.092)

VERITON SERVICE UPGRADES

$173

Next-business-day limited on-site service[5] for years 2 and 3 of Veriton L410G or M421G ownership
(146.AB769.003)

Acer V193 b

$159

- 19" TFT LCD
- 1280 x 1024 maximum resolution
- 2000:1 dynamic contrast ratio
- 160°/160° horizontal/vertical viewing angles
- VGA signal connector
- 300 cd/m² brightness
- 5ms response time
- Tilt adjustment
- Three-year limited warranty[2]

(ET.CV3RP.001)

Acer B193W bdmh

$169

- 19" wide-screen TFT LCD
- 1440 x 900 maximum resolution
- 2000:1 dynamic contrast ratio
- 160°/160° horizontal/vertical viewing angles
- Two 1.0W integrated speakers
- VGA, DVI (HDCP) signal connectors
- 300 cd/m² brightness
- 5ms response time
- Tilt, swivel and height adjustments
- Three-year limited warranty[2]

(ET.CB3WP.002)

acer.com/us

ACER® VERITON® M421G

- AMD Athlon™ X2 Dual-Core Processor
- Genuine Windows Vista® Business
- CD with Windows® XP Professional[3]
- Microsoft® Office Professional 2007 (60-day trial)[4]
- 2GB DDR2 667 SDRAM
- 160GB[1] SATA hard drive
- Super-Multi drive with Labelflash™
- ATI Radeon™ HD 3200 graphics
- Gigabit LAN
- PS/2®-style keyboard and optical mouse
- One-year limited warranty[2] with limited on-site service[5]

ACER VERITON M421G-ED5000C

$419

AMD Athlon™ X2 Dual-Core Processor 5000B
Genuine Windows Vista® Business
(PS.V890Z.003)

ACER® VERITON® L410G

- AMD Athlon™ X2 Dual-Core Processor
- Genuine Windows Vista® Business
- CD with Windows® XP Professional[3]
- Microsoft® Office Professional 2007 (60-day trial)[4]
- 2GB DDR2 667 SODIMM
- 160GB[1] SATA hard drive
- Super-Multi drive with Labelflash™
- ATI Radeon™ X1250 graphics
- 802.11b/g WLAN, gigabit LAN
- USB keyboard and optical mouse
- One-year limited warranty[2] with limited on-site service[5]

ACER VERITON L410G-ED5400C

$499

AMD Athlon™ X2 Dual-Core Processor 5400B
Genuine Windows Vista® Business
(PS.V940Z.001)

$68

Mail-in/carry-in depot repair coverage for years 2 and 3 of Veriton L410G or M421G ownership
(146.AB769.004)

Acer V203W bd

$165

- 20" wide-screen TFT LCD
- 1680 x 1050 maximum resolution
- 2500:1 dynamic contrast ratio
- 160°/160° horizontal/vertical viewing angles
- VGA, DVI (HDCP) signal connectors
- 300 cd/m² brightness
- 5ms response time
- Tilt adjustment
- Three-year limited warranty[2]

(ET.DV3WP.001)

acer

Acer recommends Windows Vista® Business.

Acer TravelMate series Designed for productivity to achieve your business goals

ACER® TRAVELMATE® 5530

- AMD Athlon™ X2 Dual-Core Processor
- Genuine Windows Vista® Business
- CD with Windows® XP Professional[3]
- Microsoft® Office Professional 2007 (60-day trial)[4]
- 2GB DDR2 667 SDRAM
- 160GB[1] hard drive
- Integrated Super-Multi drive
- 5-in-1 card reader
- 15.4" WXGA (1280 x 800) TFT display
- ATI Radeon™ HD 3200 graphics
- 802.11b/g/Draft-N WLAN, gigabit LAN, V.92 modem, webcam
- Fingerprint reader
- One-year limited warranty[2]

ACER TRAVELMATE 5530-5634

$599

AMD Athlon™ X2 Dual-Core Processor QL-64
Genuine Windows Vista® Business
(LX.TQ90Z.482)

Protect Your Investment with an Acer Notebook Service Upgrade

Quality is built into every notebook PC Acer makes. The standard limited warranty[2] includes hardware technical support via toll-free phone plus a concurrent International Traveler's Warranty for travel outside the U.S. and Canada. For extra protection – and peace of mind – consider a warranty extension or, even better, the **Total Protection Upgrade**. This plan covers the cost of a replacement unit if, as determined by Acer, your covered notebook cannot be repaired.

2-Year Extension of Limited Warranty (146.AB820.EX2) for Notebooks with 1-Year Limited Warranty - $99

2-Year Extension of Limited Warranty + 3-Year Total Protection Upgrade (146.AD077.002) for Notebooks with 1-Year Limited Warranty
(Total Protection Upgrade runs concurrently with limited warranty and limited warranty extension) - **$199**

Each of these upgrades prepays freight from the Acer repair depot and excludes extension of the International Traveler's Warranty.

---

[1] 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.
[2] 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.
[3] Genuine Windows® XP Professional can be installed in place of, not in addition to, Genuine Windows Vista® Business.
[4] The 60-day trial of Microsoft® Office Ready is available with Genuine Windows Vista® Business only, not with Genuine Windows® XP Professional.
[5] For next-business-day response customer call must be received by 4:00 p.m. Central Time. Next-business-day response does not apply to service calls missed for reasons outside the control of Acer, such as airport closures or parts shortages. Next-business-day response and on-site service applies to the continental U.S. and Canada only and may not be available in all locations. In those areas where on-site service is provided, a technician will be dispatched, if necessary, following efforts to resolve the problem by telephone support.

© 2009 Acer America Corporation. Information and prices are subject to change without notice. Pricing is effective from July 1, 2009 through August 31, 2009. Product images are representations of some of the models available and may vary from the model you purchase. Acer, the Acer logo, Aspire, TravelMate and Veriton are registered trademarks of Acer Inc. eMachines is a registered trademark of Gateway U.S. Retail, Inc. Microsoft, Windows, the Windows logo, and Windows Vista are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. AMD, the AMD arrow logo, AMD Athlon, AMD Turion, AMD Phenom, AMD Opteron, AMD Sempron and combinations thereof, ATI, the ATI logo, ATI Radeon and combinations thereof are trademarks of Advanced Micro Devices Inc. Other names and brands may be claimed as the property of others. All rights reserved.

acer **acer.com/us** For the name of a reseller near you or further information, please visit our Web site or call **800-571-2237**

Seagate NAS Box Offers New Options in Storage

PC WORLD TOP 10 NETWORK-ATTACHED STORAGE DRIVES

	MODEL	PCW Rating	Performance	Features and specifications
1	BEST BUY Seagate BlackArmor NAS 440 $1090 NEW find.pcworld.com/63227	83 VERY GOOD	• Overall performance: Very Good • Copy files: 319 seconds • File search: 342 seconds	• 4000GB • 7200 rpm • USB 2.0, gigabit ethernet • Cost per gigabyte: $0.27
	BOTTOM LINE: A top-notch NAS box with pro features, the BlackArmor offers a wealth of flexible data redundancy options.			
2	Synology Disk Station DS209+ $420 find.pcworld.com/62702	82 VERY GOOD	• Overall performance: Superior • Copy files: 216 seconds • File search: 305 seconds	• 1000GB • 7200 rpm • Gigabit ethernet • Cost per gigabyte: $0.42
	BOTTOM LINE: Superfast NAS unit has tons of robust server-level features and streams media with the best of them.			
3	Netgear ReadyNAS NV+ $740 find.pcworld.com/57859	78 GOOD	• Overall performance: Good • Copy files: 373 seconds • File search: 563 seconds	• 1000GB • 7200 rpm • Gigabit ethernet • Cost per gigabyte: $0.74
	BOTTOM LINE: This fast but expensive device comes with deep settings that are well suited for business use.			
4	Netgear ReadyNAS Duo $380 find.pcworld.com/60441	78 GOOD	• Overall performance: Very Good • Copy files: 284 seconds • File search: 312 seconds	• 500GB • 7200 rpm • Gigabit ethernet • Cost per gigabyte: $0.76
	BOTTOM LINE: Compact, two-bay, hot-swappable NAS device packs a strong punch, in both features and performance.			
5	HP MediaSmart Server ex487 $750 find.pcworld.com/62692	76 GOOD	• Overall performance: Superior • Copy files: 231 seconds • File search: 194 seconds	• 1500GB • 7200 rpm • Gigabit ethernet • Cost per gigabyte: $0.50
	BOTTOM LINE: Highly capable unit's Windows Home Server software gives it features, but also unnecessary complexity.			
6	Buffalo Technology LinkStation Pro Duo $250 find.pcworld.com/60434	75 GOOD	• Overall performance: Poor • Copy files: 365 seconds • File search: 318 seconds	• 1000GB • 7200 rpm • USB 2.0, gigabit ethernet • Cost per gigabyte: $0.25
	BOTTOM LINE: Business-centric NAS device offers reasonable performance and backup software, but no frills.			
7	Linksys by Cisco Media Hub NMH410 1TB $430 find.pcworld.com/62707	74 GOOD	• Overall performance: Fair • Copy files: 404 seconds • File search: 404 seconds	• 1000GB • 7200 rpm • Gigabit ethernet • Cost per gigabyte: $0.43
	BOTTOM LINE: An excellent, easy-to-use choice for streaming media; but it's a poky performer at data transfers.			
8	Iomega StorCenter ix2 $460 NEW find.pcworld.com/63230	74 GOOD	• Overall performance: Fair • Copy files: 453 seconds • File search: 299 seconds	• 2000GB • 7200 rpm • USB 2.0, gigabit ethernet • Cost per gigabyte: $0.23
	BOTTOM LINE: Iomega's StorCenter ix2 is an affordable, well-designed, and feature-packed two-bay network-attached drive.			
9	Western Digital My Book World Edition 1TB $200 find.pcworld.com/62700	73 GOOD	• Overall performance: Good • Copy files: 332 seconds • File search: 333 seconds	• 1000GB • 7200 rpm • Gigabit ethernet • Cost per gigabyte: $0.20
	BOTTOM LINE: Provides excellent streaming and ultrastylish design; but parts of the interface still need refinement.			
10	Iomega Home Media Network Hard Drive $170 find.pcworld.com/62699	72 GOOD	• Overall performance: Fair • Copy files: 408 seconds • File search: 321 seconds	• 1000GB • 7200 rpm • Gigabit ethernet • Cost per gigabyte: $0.17
	BOTTOM LINE: NAS box has a simple yet elegant interface and streams media smoothly, but it's slow at file copying.			

CHART NOTE: Prices and ratings are as of 6/10/09.

LEADING THIS month's **PCW Test Center** charge is Seagate's first proper multibay network-attached storage box—the BlackArmor NAS 440—thanks to its overall performance and breadth of features, including user-accessible drives, gigabit ethernet, software encryption, remote access, an iTunes server, and four USB ports. The unit also supports multiple RAID options. You can custom-configure it into subset "volumes" using Seagate's Linux-based software, and assign these volumes their own levels of redundancy via the RAID options.

SEAGATE'S BLACKARMOR NAS 440 provides four drive bays.

This lets you use one drive for all your data over the network, instead of separate devices. The catch: To change the capacity of your volumes, you must start from scratch—with your data first backed up elsewhere.

—Melissa J. Perenson

MORE ONLINE

For more specifications and testing information on the devices in our chart, browse to find.pcworld.com/63242.

Buying Guide: Select a Cell Phone for the Long Haul

SOME PEOPLE are looking for the latest, greatest smartphone available. Others just want an easy-to-use phone for making calls and maybe sending text messages. But no two cell phones—or service plans—are the same. Here's what you need to know to get the right phone and service plan for you.

Picking a Carrier

The key issues to consider when shopping for a carrier are its coverage in your area and its monthly service plan. To test a carrier's service, try one of its phones. Most nationwide carriers offer a trial period of up to 30 days during which you pay for only the minutes you use.

Does the carrier offer national calling plans only, or can you opt for a regional calling plan? What type of contract must you sign, and is there a charge for activating your phone or service? What type of minutes does the voice plan include, and how many minutes do you need? (When in doubt, it's best to overestimate.)

Does the carrier offer 3G (third-generation) mobile service? Such service is important when you want to surf the Web or send e-mail. AT&T Wireless, Sprint Nextel, T-Mobile, and Verizon Wireless offer 3G service in most areas of the United States, though service might be spotty in rural locales.

Choosing a Handset

Whether you pick a phone from your carrier's selection or start from scratch, keep several things in mind when deciding on your cell phone.

Design: The basic forms that cell phones are available in these days include flip style, candy-bar style, and slider or swivel style. Compare them in person, and ask yourself practical questions. Is the phone comfortable against your ear? Is it light enough to hold during long calls? Can you hear callers easily?

Battery life: Most phones allow at least 5 hours of talk time and two to six days on standby. Factors affecting battery life include the type of network; high-speed 3G tends to be power-hungry.

Screen: If you want to surf the Web, watch video, or edit documents, make sure the phone's screen is big enough for you to take full advantage of its features. Check its brightness, contrast, and resolution, too.

Not all touchscreen phones use the same technology. Multitouch screens—like the iPhone and Palm Pre's—can register more than one touch point at a time, so you can pinch and grab the screen to zoom in and out on a Web page, for example. Other phones register only one tap at a time. Some touchscreens offer feedback (in the form of a slight vibration or a sound) when they detect a touch; the response helps you avoid tapping needlessly. Overall, consider ease of use: How simple is the touchscreen menu to scroll through? Can you adjust the sensitivity?

THE THIRD-GENERATION Apple iPhone, the iPhone 3G S, gives users access to thousands of applications directly from their phone.

Keypad/keyboard: If you type a lot of long messages or e-mail, you might prefer a full QWERTY keyboard. Some touchscreen-based phones, such as the iPhone, have touch keyboards. Be forewarned, however, that keyboards of this type take some getting used to.

Wi-Fi support: A phone that can connect to Wi-Fi hotspots lets you surf the Web or transfer data at high speeds. Even if your phone supports 3G networks, you may want Wi-Fi support, too; it tends to be faster, more reliable, and cheaper than cellular networks.

Smarter Software

If you're in the market for a smartphone—a phone that runs a true mobile operating system—look for the platform that works best for you.

Windows Mobile smartphones, for example, usually come with mobile versions of Microsoft Office, so you can view and edit documents on the go. Windows Mobile, Google Android, Nokia's Symbian, Palm's WebOS, and RIM BlackBerry platforms can all handle multitasking (running multiple applications simultaneously). Apple's iPhone can handle multitasking, too, but only within certain native apps. Lots of third-party software is available for the major smartphone platforms—but not from a source comparable to Apple's App Store, which invites you to choose from among thousands of titles and download apps directly to your iPhone.

Shopping Tips

No matter what type of cell phone or carrier you select, here are a few tips.

Get a plan with enough minutes: The basic plans of most carriers offer 300 to 450 minutes. Unless you intend to use your phone only for emergencies, you'll need at least that many.

Go national: Even if you don't plan to travel extensively around the country, a national calling plan often provides the best mix of minutes, features, and cost.

—PC World Staff

MORE ONLINE

For the latest cell phone news, reviews, and how-to articles, see our Phones Product Center at find.pcworld.com/63260.

PHOTOGRAPH COURTESY OF APPLE

Your Mission: should you choose to accept it...

1. Secure your systems against vicious malware attacks
2. Don't blow the budget

Security Suite for Business 2009 secures your endpoints, mail servers and file servers, plus give you the power to manage them all centrally. Its light footprint and proactive technologies keep systems running lightning fast and a step ahead of the onslaught of criminally based attacks. Maximum security... maximum value... with BitDefender, its MISSION POSSIBLE!

bitdefender®

Security Suite for **Business** 2009

www.bitdefender.com | 800.388.8062 Ext. 244

Latest Flip Camcorder Better Than Ever

THE FLIP ULTRAHD uses its extra bulk to positive effect.

PURE DIGITAL'S $200 Flip UltraHD runs on AA batteries, records smooth 720p video to MP4 format with the H.264 codec, and includes FlipShare software for managing and editing clips, and for uploading them to YouTube.

The UltraHD has a wider-angle lens than did its predecessor (the Flip MinoHD), and it captures more-vibrant colors in well-lit settings. In our test shots, the UltraHD showed a bit sharper images and better color accuracy than the MinoHD, too.

The UltraHD's 2X digital zoom function is easily the smoothest we've seen on a pocket camcorder, yielding a sharp, noise-free image even at maximum magnification.

The UltraHD is the first Flip model to offer a direct-to-HDTV-friendly HDMI-out port (you must supply your own HDMI cable). The unit comes bundled with two rechargeable AA nickel-metal hydride batteries, a soft carrying pouch, and a wrist strap.

The UltraHD packs an 8GB internal drive that's good for 2 hours of high-def footage. The device has no expandable storage-card slot, however.

The UltraHD has the same controls as older Flip Ultra models, with real buttons instead of the MinoHD's touch-sensitive divots. Under its 2-inch LCD, a four-way directional pad surrounds a big, red record button. You press left or right on the d-pad to navigate through your recorded clips, and up or down to zoom in or out. Completing the controls are play and delete buttons.

Priced at $30 less than the MinoHD, the Flip UltraHD is a stronger performer with twice the storage capacity, nicer color footage, a better zoom, a user-replaceable battery, and an HDMI-out port.

—Tim Moynihan

89
VERY GOOD

Flip UltraHD | Pure Digital
Wider-angle lens and increased storage space enhance this Flip.
Street: $200
find.pcworld.com/63224

4X® LIFE ECOink™
ECO Friendly Cartridge Technology for all major inkjet printers

Save Up To 90% On Ink!

Achieves Up To 4 Times* Regular Page Yield!

- For HP, Canon, Dell, Epson & others
- Dramatically reduce cartridge waste
- Ideal for Corporate, Business and Home Users!

Save Money On Everything You Print!

One (1) ECO HP 15
1 x $11.99 = **$11.99**

Four (4) HP 15
4 x $29.99 = **$119.96**

G7 Productivity Systems
877.872.1189

Visit **eco4x.com/pcw** for details

PhotoStudio 6 Delivers Capable, Low-Cost Editing

THE INTERFACE IN PhotoStudio 6 uses a standard editing layout.

ARCSOFT'S LATEST PhotoStudio upholds the brand's reputation as a solid, low-cost photo-editing program while adding high-powered features. And at $80 ($60 less than Adobe's Photoshop Elements 7), it's a bargain.

PhotoStudio 6's interface follows familiar standards, so you can jump right into it if you've had any past experience with photo editing.

The program provides a full set of enhancement tools for correcting exposure, color, and so on. The new Image Levels Adjustment permits precise control over highlights, midtones, and shadows, and the Auto Exposure command lets you leave precision to the programmers.

PhotoStudio 6 adds several new filters to its library of special effects. Beautify automatically recognizes a face in a portrait photo and smooths out skin imperfections, though it works only when the person faces the camera directly. Magic Cut removes backgrounds from pictures, so you can paste a subject into another picture.

PhotoStudio 6 also adds support for most RAW file formats; 48-bit images; and very large image files (up to 30,000 by 30,000 pixels).

Though it's no Photoshop CS, PhotoStudio 6 is a cost-effective gem of an editor for amateur photographers.

—Sally Wiener Grotta & Daniel Grotta

81
VERY GOOD

PhotoStudio 6 | **Arcsoft**
Affordable photo editor adds features and increases its versatility.
Street: $80
find.pcworld.com/63241

SIZE
DOES MATTER!

(Notebook not included)

It's okay to be small!

Introducing the smallest, lightest and most soundly designed ergonomic keyboard available for the mobile worker.

Compatible with both PC and MAC platforms, the **Goldtouch Go! Travel Keyboard** is tailored for a jet-setting lifestyle, no matter where the job calls you. At a mere **1 lb**. the keyboard allows road warriors and mobile professionals to comfortably and safely work wherever their job takes them. The Go's compact size is terrific for limited spaces such as an airplane, hotel or pseudo work environment.

Visit **Goldtouch.com** to see the most mobile notebook stand that weighs under 1 lb. that supports a 17" notebook.

For more information visit
www.goldtouch.com/pcworld
Can also be purchased through Dell

Goldtouch
Productivity through Prevention

Monochrome Lasers Stick to Business

PCW Test Center

MONOCHROME printers survive because they can be fast, cheap, and simple—though few manage all three. The Brother HL-5370DWT is slow but holds paper galore and has Wi-Fi. HP's LaserJet P2055x and Lexmark's E460dn deliver high volume at high speed—with high-priced toner. Xerox's Phaser 3250/DN and Ricoh's Aficio SP 3300DN (a near twin) offer automatic duplexing at low prices. The Xerox Phaser 3600/N and Ricoh Aficio SP 4210N boast higher-class features, as well as cheap consumables. Oki Printing Solutions' B420dn provides a lot for a little, but it's poky.

THE BROTHER HL-5370DWT's connection options include Wi-Fi.

HP's LaserJet P4014n, Lexmark's T652n, Oki Printing Solutions' B6500n, and Xerox's Phaser 4510/N missed the chart. All are strong but expensive machines built for busy offices. The entry-level Kyocera Mita FS-1350DN's high list price makes it look costlier than it probably is.

—Melissa Riofrio

MORE ONLINE

For more information about the laser printers reviewed here, including testing details, see find.pcworld.com/63212.

PC WORLD TOP 10 MONOCHROME LASER PRINTERS

	MODEL	PCW Rating	Performance	Features and specifications
1	BEST BUY Brother HL-5370DWT $300 NEW find.pcworld.com/62505	83 VERY GOOD	• Text quality: Superior • Graphics quality: Very Good • Tested speed: 26.0 ppm text/ 5.8 ppm graphics	• 32 ppm text • 550 sheets input (standard) • 1200-by-1200-dpi maximum true monochrome resolution
	BOTTOM LINE: Inexpensive and versatile but slow, the HL-5370DWT is best suited for home use or for a small workgroup.			
2	HP LaserJet P2055x $499 NEW find.pcworld.com/62456	83 VERY GOOD	• Text quality: Superior • Graphics quality: Fair • Tested speed: 33.4 ppm text/ 8.0 ppm graphics	• 35 ppm text • 800 sheets input (standard) • 1200-by-1200-dpi maximum true monochrome resolution
	BOTTOM LINE: The pairing of high-volume printing capabilities with high toner costs is the one drawback of this nice unit.			
3	Xerox Phaser 3250/DN $349 NEW find.pcworld.com/62507	82 VERY GOOD	• Text quality: Superior • Graphics quality: Good • Tested speed: 27.7 ppm text/ 7.0 ppm graphics	• 30 ppm text • 250 sheets input (standard) • 600-by-600-dpi maximum true monochrome resolution
	BOTTOM LINE: This adequate, low-cost printer's automatic duplexer helps you forget the machine's clunky paper tray.			
4	Lexmark E460dn $599 NEW find.pcworld.com/62482	81 VERY GOOD	• Text quality: Superior • Graphics quality: Very Good • Tested speed: 37.0 ppm text/ 7.7 ppm graphics	• 40 ppm text • 300 sheets input (standard) • 1200-by-1200-dpi maximum true monochrome resolution
	BOTTOM LINE: You get great speed and print quality, offset by pricey toner and skimpy standard paper capacity.			
5	Ricoh Aficio SP 3300DN $269 NEW find.pcworld.com/62717	80 VERY GOOD	• Text quality: Superior • Graphics quality: Fair • Tested speed: 28.5 ppm text/ 5.6 ppm graphics	• 30 ppm text • 250 sheets input (standard) • 1200-by-1200-dpi maximum true monochrome resolution
	BOTTOM LINE: An automatic duplexer enhances this entry-level printer, but the unit's paper tray design is problematic.			
6	Xerox Phaser 3600/N $649 NEW find.pcworld.com/62508	80 VERY GOOD	• Text quality: Superior • Graphics quality: Good • Tested speed: 35.5 ppm text/ 6.4 ppm graphics	• 40 ppm text • 700 sheets input (standard) • 1200-by-1200-dpi maximum true monochrome resolution
	BOTTOM LINE: The Phaser 3600/N delivers a lot of good stuff for the price; shell out $100 more for a duplexer-equipped model.			
7	Oki Printing Solutions B420dn $429 NEW find.pcworld.com/62483	79 GOOD	• Text quality: Superior • Graphics quality: Good • Tested speed: 26.9 ppm text/ 6.5 ppm graphics	• 30 ppm text • 580 sheets input (standard) • 2400-by-600-dpi maximum true monochrome resolution
	BOTTOM LINE: The trade-offs with this low-cost unit include slow print speeds and some design drawbacks.			
8	Samsung ML-1630 $199 find.pcworld.com/59246	78 GOOD	• Text quality: Superior • Graphics quality: Good • Tested speed: 17.2 ppm text/ 6.2 ppm graphics	• 17 ppm text • 100 sheets input (standard) • 1200-by-600-dpi maximum true monochrome resolution
	BOTTOM LINE: Sleek and shiny-black, the ML-1630 has miles of style and adequate performance for personal use.			
9	HP LaserJet P1505 $199 find.pcworld.com/59247	78 GOOD	• Text quality: Very Good • Graphics quality: Poor • Tested speed: 26.1 ppm text/ 9.9 ppm graphics	• 24 ppm text • 250 sheets input (standard) • 600-by-600-dpi maximum true monochrome resolution
	BOTTOM LINE: Relatively inexpensive but also cheaply designed, this printer has one saving grace: its speed.			
10	Ricoh Aficio SP 4210N $649 NEW find.pcworld.com/62718	77 GOOD	• Text quality: Superior • Graphics quality: Good • Tested speed: 32.3 ppm text/ 9.2 ppm graphics	• 27 ppm text • 600 sheets input (standard) • 1200-by-600-dpi maximum true monochrome resolution
	BOTTOM LINE: A classic workhorse, the Aficio SP 4210N favors speed over print quality; the cheap toner is a big plus.			

CHART NOTES: All prices are as of 5/26/09. ppm = pages per minute; dpi = dots per inch.

MONEUAL

Microsoft

intel Atom inside

Small, but Powerful

MiNEW A10

NETTOP

Starting from $299

MONEUAL moneual.com 1.877.450.0105

newegg.com

amazon.com

Pricing and Availability: Prices, availability, and terms of any offer may change without notice or obligation. Taxes if applicable are not shown.
Moneual is not responsible for price, typographical, photographic or other errors and reserves the right to cancel any order resulting from such errors.
Microsoft and Windows are registered trademarks with Microsoft Corporation in the United States and/or other countries. © 2009 Moneual. All rights reserved.

Feature-Rich Nero Backup Is a Jack-of-All-Trades

NERO EXPRESS IS one of several apps included with BackItUp & Burn.

BACKITUP & BURN is the first Nero product I've seen that's easy to use. It's concisely and logically laid out, with many desirable features: plain file backup, whole-drive and partition imaging, syncing, scheduling, and automatic backup mirroring of one volume to another.

Priced at $40, BackItUp & Burn isn't best of breed at any particular backup task, but it is good at all of them and it performed nearly perfectly in my tests.

My only complaint about BackItUp & Burn involves its hefty 304MB footprint, which is due in part to the included CD recovery image (along with Nero Express, Nero BurnRights, and Nero RescueAgent), but also in part to its requiring—and installing—various Microsoft programs (if you don't have them installed already). Caveat: Don't blindly click through unless you really want the Ask toolbar and a new home page (Ask.com).

BackItUp & Burn is an excellent, feature-rich application that competes well with middle-tier backup products such as NTI's Backup Now, Paragon Drive Backup Personal, and Titan Backup. Let's hope that it's a harbinger of a new Nero focus on the end-user experience. You can obtain a free trial version of BackItUp & Burn at find.pcworld.com/63259.

—Jon L. Jacobi

89
VERY GOOD

BackItUp & Burn | Nero
Affordable and comprehensive backup program is easy to use.
Street: $40
find.pcworld.com/63228

PHOTOGRAPHS: ROBERT CARDIN

RECOVERY ROOM

R-TOOLS TAKES THE WORRY AND THE WORK OUT OF MISSION-CRITICAL DATA RECOVERY

SPECIAL ADVERTISING SUPPLEMENT

Despite the best efforts, valuable data can and does get corrupted, misplaced and "lost." Given the business-critical nature of digital data today, it is comforting to know that R-Tools, the leader in data recovery solutions, has once again fortified its **R-Studio** data recovery utility. This time, R-Tools has added support for recovery from RAID 6 as well as Windows x64 systems.

In addition, R-Studio now allows the creation of disk-to-disk copy, a capability usually provided only by disk imaging and backup utilities. What didn't change despite the addition of these features is R-Studio's price.

R-Tools also continues to buff and bolster the performance and features of other high-performance utilities in its line-up of recovery solutions. **R-Crypto** is now available free of charge for home users. This data encryption utility protects a user's confidential information and personal data against unauthorized access, whether on a desktop, notebook or removable data storage device. R-Crypto encrypts and decrypts data in real time and is fully transparent to the user. R-Tools also offers its **R-Linux** data recovery tool for Linux users absolutely free. R-Linux is designed for the Ext2FS/Ext3FS file system used in the Linux OS and several varieties of Unix.

R-Tools further has announced the latest version of its **R-Wipe&Clean** utility, with new features included to automatically keep the clutter out of applications and thereby help optimize application performance and worker productivity.

For those who need the mission-critical capability to completely restore their systems after a major crash, **R-Drive Image** allows users to quickly create a compressed disk image of a hard drive and easily back up images in various removable media such as CD-R(W), Iomega Zip or Jazz disks.

To learn more about R-Tools business continuity solutions, visit www.r-tt.com

Sponsored by r-tools technology | PCWorld Advantage Marketing

Speedy 8X Blu-ray Writer Carries a Bargain Price

THE ERA OF the expensive Blu-ray burner may be over: Pioneer's 8X BD-203 sells for a mere $209 despite offering at least five times the storage capacity of DVD per disc.

On the performance side, the BD-203 wrote 22GB of data to Verbatim BD-R media in 16 minutes, 31 seconds—about 4 minutes faster than the times turned in by some 6X drives we've seen.

The Pioneer drive is rated 16X DVD+/-R, 8X DVD+RW, 6X DVD-RW, 5X DVD-RAM, 40X CD-ROM, 32X CD-R, and 24X-CD-RW—all figures competitive with those for stand-alone DVD burners. Alas, BD-RE rewritable performance is mired at 2X: It took about 1 hour, 55 minutes to write 22GB in our tests. I didn't run into any write errors, even during rather heavy multitasking.

The included CyberLink BD Solution suite consists of PowerDVD for Blu-ray and plain DVD movie playback, PowerDirector for creating and editing video discs, and Power2Go for everyday data and copying tasks.

THE BD-203 CAN handle most types of consumer optical media.

The BD-203 is a bargain for archiving and other chores. Media may remain pricey ($10 for a 4X, 25GB disc), but the convenience of reducing the discs you have to swap and store by a factor of five will be worth it to many businesses and individuals. In addition, you can play Blu-ray movies on your computer, which makes this write-and-play combo more versatile than combination DVD burner/Blu-ray players, such as the Pioneer BDC-202BK (which sells for about half the BD-203's price).

—Jon L. Jacobi

91
SUPERIOR

BD-203 | Pioneer
Lowest-cost 8X Blu-ray burner can hold its own in performance, too.
Street: $209
find.pcworld.com/63235

Free Video Download Shepherds Online Clips

ASHAMPOO ClipFinder HD is the best online video viewing tool I've seen. It lets you search for videos hosted at Spike, Vimeo, Yahoo Video, YouTube, and many other video sites; view any video; save its location in the app to view later; or save it to your hard disk. And it's free.

To find a video, type in a search term, and you'll see

CLIPFINDER HD lets you search for videos at multiple sites.

thumbnails of each site's relevant videos. Click a video to view it inside the program. You can download a video, save its URL, maintain a list of favorite videos, and create video playlists. To keep the program for more than 10 days, you must give Ashampoo your e-mail address.

—Preston Gralla

90
SUPERIOR

ClipFinder HD | Ashampoo
The best video viewing utility we've seen, at an unbeatable price.
Free
find.pcworld.com/63256

DOWNLOAD THIS

Files to Help You Tread Lightly on PC Resources

IF YOU LIVE lightly on the land, shouldn't your software do the same on your PC? These three discoveries help your programs tread gently on your system's available resources. One download transforms a common USB thumb drive, enabling you to use your files and apps at any PC without overtaxing it. An intuitive utility represents disk-space hogs visually. And finally, a skinny iTunes player delivers appealing features from within a slender, barlike physical profile. All are free, so they're light on the wallet as well.

CodySafe

Why use a USB flash drive just to shuttle files? The free CodySafe provides a clever way to turn a USB flash drive into what the developer calls a "computer on a stick." Install CodySafe on a USB stick, and it lets you take applications along with you, managing them along with your documents and the drive itself. The beauty of this approach is that you can plug your USB drive into any computer, and never actually have to store data on the computer or use the computer's resources. With CodySafe, you can work with files that remain on the USB drive itself. Once you have your USB drive set up the way you want, carry it with you, plug it into any computer, and you'll have your apps and data within easy reach at all times. find.pcworld.com/63246

—Preston Gralla

THE CODYSAFE DOWNLOAD transforms a USB drive into a 'computer on a stick' that you can work on directly.

SpaceSniffer

"Where did all my space go?" Every computer user since the days of the 5.25-inch floppy disk has asked this question, and now SpaceSniffer gives you a fast, easy way to answer it. Though SpaceSniffer in itself does nothing to reclaim lost space, it does provide you with a very good overview of what's occupying the nether reaches of your hard disk. SpaceSniffer performs a quick scan of files and shows you an outline of your data in a series of nested boxes, each one representing a folder or file. The utility displays size relationships graphically, so it's easy to see that your Games folder dwarfs your Work folder the way Godzilla dwarfs a Tokyo noodle shop. Zoom in on any folder to see its deeper composition. In addition, I have discovered that this tool does an excellent job of quickly finding large chunks of data I don't need, often in folders buried deeply enough that I wouldn't stumble upon them casually. find.pcworld.com/63247

—Ian Harac

SkiniTunes

SkiniTunes is a free miniplayer that operates alongside iTunes. It consists of the Mini Player, a small rectangular app that has standard media player controls on it; and the Skini Player, a very slim horizontal bar that sits at the top of the screen. SkiniTunes can switch back and forth between the two players in the middle of a track. iTunes already has a built-in miniplayer, but this program is a nice alternative: It shows the album artwork, produces an optional short-lived pop-up box when a new song starts, and has optional skins that change its appearance to any of several variations. SkiniTunes 1.0.5 works flawlessly with the most recent 8.1.1.10 version of iTunes, and it uses between 4MB and 6MB of RAM—about 10 percent of what iTunes typically consumes at any given moment. find.pcworld.com/63248

—Steve Horton

NEW
Enterprise Version
Available!

Synchronize Your Life!

GoodSync — Award Winning Backup and Synchronization Solution

Automatic backup and synchronization made easy...

Now you can automatically compare, synchronize, and back up your precious family photos, music, email, contacts, and other important files - between desktops, laptops, servers, and external drives, as well as through FTP, SFTP, DAV, and S3 servers.

GoodSync will:

- ✓ Automatically backup all your important files.
- ✓ Synchronize your data between multiple devices.
- ✓ Organize/transfer information between computers.
- ✓ Sync multiple file copies to prevent data loss.
- ✓ Help you achieve complete **peace of mind**!

GoodSync's powerful technology is years ahead of the pack. Excellent reviews by industry experts and customers alike solidify **GoodSync** as a leader in file backup and synchronization.

PC World Readers
Download GoodSync Today
It's FREE!

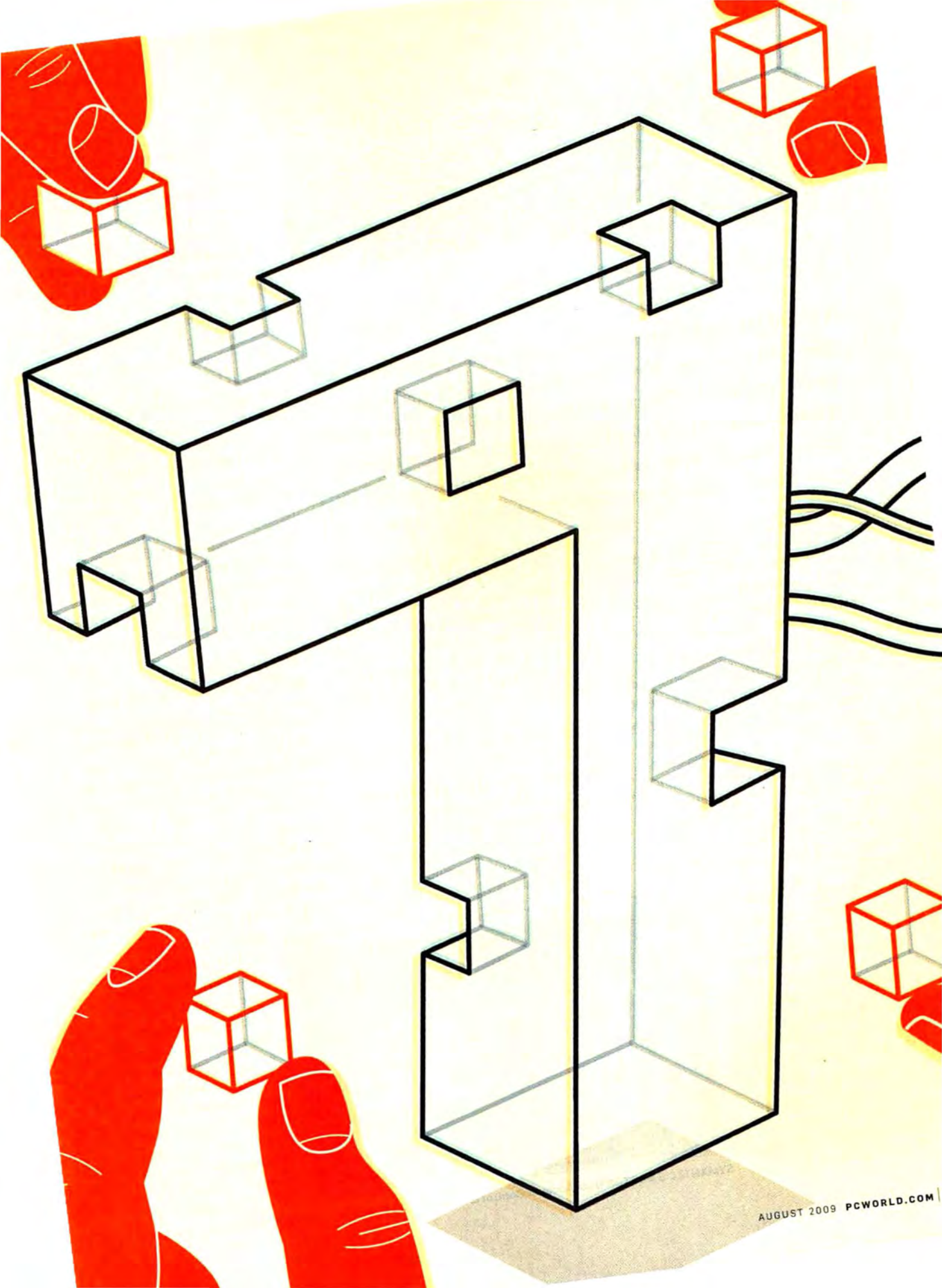
GoodSync
Get in Sync with GoodSync

www.GoodSync.com/PCW

Get the Best of Windows 7 Without Getting Windows 7

You've heard good things about the next version of Windows—quicker boot-ups, slick new tools, and better looks—but you don't want to take a chance with beta software, or wait for the final version to arrive. Here's how to get Windows 7's top features on your current Vista or XP PC. »

BY RICK BROIDA
ILLUSTRATIONS BY HARRY CAMPBELL



Performance

INFORMAL SPEED TESTS show that Windows 7 boots faster than Vista, and many users have reported that it "feels" faster during everyday operation. (Maybe that's because the User Account Control is more restrained in Windows 7 than in Vista and doesn't pester them so often.) But you can take some practical steps to goose Vista so that it will acquire some of Windows 7's pep. Here's how.

Faster Booting

What it is: My two-year-old Acer Aspire laptop takes nearly 2 minutes to boot Vista. Windows 7 is up and running in a sprightly 43 seconds on the same PC. Hey, Microsoft, you owe me 70-odd seconds of my life, multiplied by five days per week, carry the one—oh, heck, a check for ten grand ought to cover it.

How to get it: You have countless ways to make your Vista or XP system start faster. First of all, if you're still chugging along with just 1GB of RAM, it's high time that you upgraded to at least 2GB. That will accelerate both booting and general performance. Next up: *PC World* recent favorite Startup Delayer (find.pcworld.com/63013), a free utility that postpones (in accordance with your specifications) initiation of various programs that normally run during your PC's startup. If you set unimportant apps to begin running 10 or 15 minutes after startup, Vista (or XP) will finish booting much faster.

If your system is a couple of years old, the best way by far to make it boot faster is to wipe the hard drive and reinstall your copy of Windows. Doing so is a radical and time-consuming procedure, but it will clear out every last bit of gunk and restore your system to speedy, factory-new condition. To learn how to do that, see "Reinstall and Restore Your Windows PC in Eight Easy Steps" (find.pcworld.com/63015).

Less-Bothersome User Account Control

What it is: Despite all its arguably good intentions, UAC became the poster child for what's wrong with Vista. Either it bugs you continually or you turn it off and nullify its value as a safety net. In Windows 7, UAC tries to stay out of your way while still offering its Vista predecessor's security benefits. You can choose from four security levels, thereby dictating how often you'll receive notifications from Microsoft.

How to get it: Vista users are stuck with all or none of UAC 1.0, but you can always turn it off and opt for a third-party replacement. For example, Norton User Account Control (find.pcworld.com/62541) replaces the stock UAC with one that learns from your responses and consequently bugs you less often with information you don't care about. This download also gives you a 'Don't ask me again' option, and useful details about the nature of the security alert. Another alternative is UAC Snooze (find.pcworld.com/62540), a system tray utility that puts the UAC to sleep for a designated period of time—a helpful arrangement if you plan to do some system tweaking and don't want to be bothered every step of the way.

SYMANTEC'S NORTON User Account Control is smarter than Vista's.

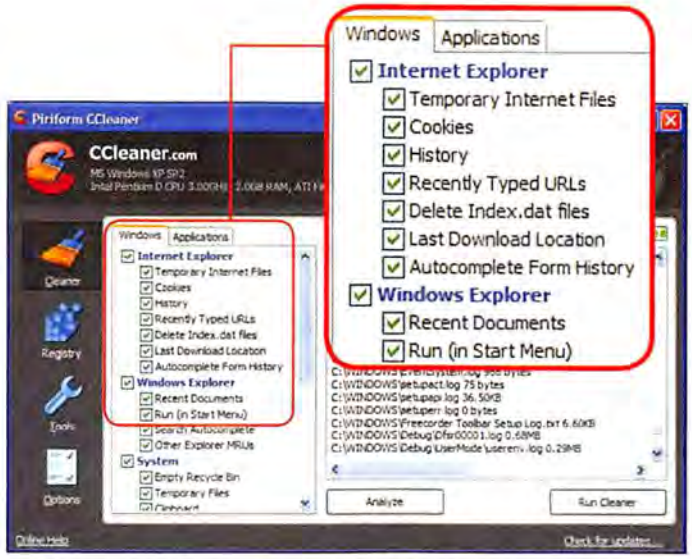
Faster Performance

What it is: We know Windows 7 boots faster than Vista, but does it run faster? Not really, say our early benchmark results: When the PC World Test Center ran some preliminary benchmarks, Windows 7 narrowly outperformed Vista on them (find.pcworld.com/63014). Still, we agree with other hands-on testers who claim Windows 7 feels faster. And as the spinmeisters say, perception is reality.

How to get it: Of course, reality is also reality. With a little fine-tuning, you can make Vista feel faster because it really will be faster. Start by reading "12 Unnecessary Vista Features You Can Disable Right Now" (find.pcworld.com/63016), which details how turning off performance-sapping visual elements (like Aero) and eliminating certain superfluous features (like tablet PC support, if you don't use it) can reduce the OS's bloat and make Vista per-

form significantly better.

Next, run a system-scrubbing utility such as the free CCleaner (find.pcworld.com/63017). A longtime *PC World* favorite, CCleaner removes unneeded temporary files—from Windows and third-party applications alike—attempts to clean up your system's Registry, and clears all sorts of software-plaque buildup from your system's arteries. When CCleaner has done its work, revisit the "Faster Booting" tips on the previous page: They can improve the OS's overall performance as well. After you've completed these steps, Vista will seem less like a slug and more like a speed demon, guaranteed.



CCLEANER CAN HELP pep up your Vista or XP system by clearing out clutter.

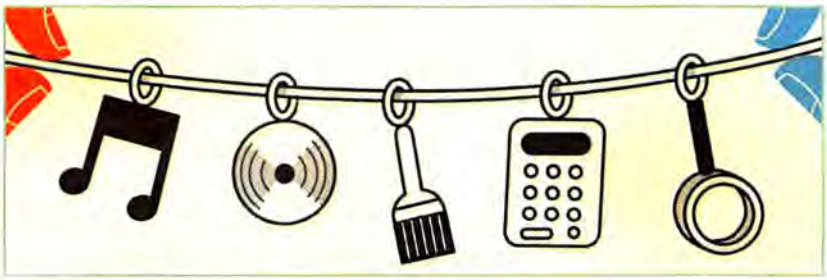
Fewer System Notifications

What it is: Besides helping you tame the User Account Control, Windows 7 lets you decide which apps that want to pop up annoying system-tray notification balloons have your permission to do so. Corralling them leads to fewer interruptions during your workday and, just maybe, fewer panicked calls from tech-challenged relatives.

How to get it: If you don't mind taking a brief detour inside the Registry, you can turn off Vista's balloon notification system once and for all. Remember, though, that working in your PC's Registry is dangerous. Before you begin, we urge you to follow our "Top 10 Registry Dos (and Don'ts)" at find.pcworld.com/63214—including how to make a backup copy of your Registry—before you open the vault and do something rash. When you're ready to proceed, here's how to take the air out of the balloons:

1. Click *Start*, type **regedit**, and press **<Enter>**.
2. Find and click the value located at HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\Advanced.
3. In the right pane, right-click and choose *New•DWORD (32-bit) Value*. Name it **EnableBalloonTips**.
4. Right-click the new value, choose *Modify* from the list of options, and make sure that 'Value data' is set to **0**.
5. Exit the Registry and reboot the PC.

If you are a Windows XP user, you can pop the balloons by using Microsoft's TweakUI utility (find.pcworld.com/63018). TweakUI includes an 'Enable balloon tips' setting in the 'Taskbar and Start menu' section; simply uncheck that setting to disable balloon notification.



Features

VISTA RECEIVED WELL-DESERVED criticism for bringing few noteworthy new features in its train when it arrived to take over from Windows XP. In contrast, Windows 7 offers plenty of new stuff to like. Fortunately, you can add many of these features to your Vista or XP machine by using downloads and Web services.

Media Streaming

What it is: Windows Vista can already stream music, videos, and other content between networked PCs in your house, but Windows 7 goes a step farther: It makes your media available over the Internet. By taking advantage of that option, you can watch a recorded TV show at a friend's house, say, or stream your mammoth music library to your storage-strapped netbook.

How to get it: The new OS's media-sharing system has at least one major drawback: It requires Windows 7 to be running at both ends. Third-party alternatives, on the other hand, usually have no problem with different versions of Windows—or even with different platforms (Mac and Linux). Simplify Media (find.pcworld.com/63019), for example, »

ISO RECORDER, a freeware utility, stands in quite capably for Windows 7's ISO-burning tool.

can stream music files saved in various formats from your desktop music library (or from any friends whom you care to invite) to any other PC. An associated iPhone app (Simplify Music 2.0) handles streaming on the run. Both the software and the service are free.

Another possibility is Orb (find.pcworld.com/63021), which streams music, videos, photos, and—if your PC has a TV tuner—live or recorded TV shows. Using Orb can even help you share documents.

ISO Burning

What it is: An ISO image is a single file that contains the archived contents of a CD or DVD. Windows 7 enables you to burn ISO images to optical media, so you can crank out your own bootable discs. (Microsoft distributed the Windows 7 Release Candidate as an ISO file, which users had to burn to a DVD for installation on their PCs. Ironically, anyone working on a Windows XP or Vista system needed to use third-party software to handle the job.)

How to get it: Several free utilities can burn ISO images from Windows XP or Vista PCs (and with more options than you'll get in Windows 7). I'm partial to ISO Recorder (find.pcworld.com/60794), but you may also want to try Active ISO Burner (find.pcworld.com/63022) or to use IsoBuster (find.pcworld.com/63023).

Improved Windows Paint

What it is: Windows' ancient, bare-bones graphics program, Paint, finally gets a thorough remodeling in Windows 7, complete with a jazzy new Ribbon interface (very similar to the one that people either love or hate in Office 2007), additional brush and shape choices, and various small but meaningful tweaks.

How to get it: Though you can't obtain Windows 7 Paint in Vista or XP, several similar Vista- and XP-compatible programs are even better. Regular *PC World* readers have seen us talk frequently of the open-source GIMP (find.pcworld.com/63024) and the freeware Paint.Net (find.pcworld.com/63020), two Photoshop-caliber image editors. Either of these apps can run circles around Win 7's Paint, and neither will cost you a dime.

Too fancy for you? Try a Web-based paint program. Two good free options are Pixlr (find.pcworld.com/63025) and Sumo Paint (find.pcworld.com/63027).

Calculator

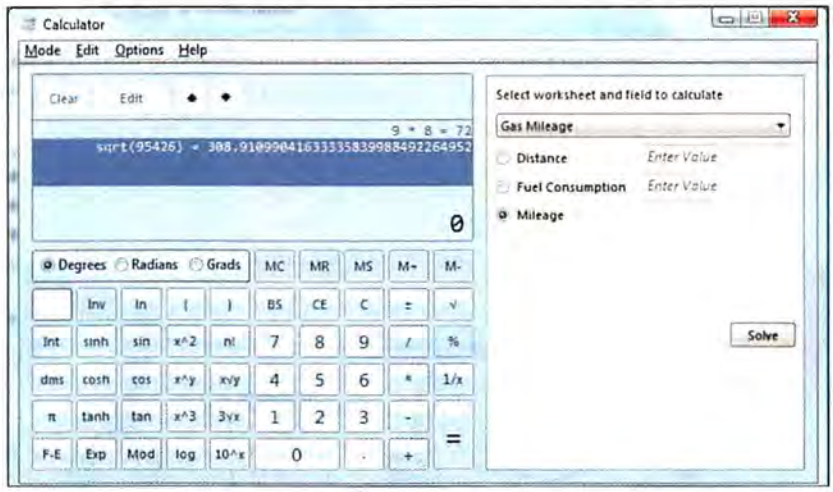
What it is: Though Paint underwent an extreme makeover in Windows 7, the operating system's new Calculator was built from the ground up. This spiffy new number-cruncher includes Programmer, Statistic, and Scientific modes, and comes with handy templates for figuring stuff like mortgage payments and gasoline mileage.

How to get it: Some time ago, interested parties extracted the actual Windows 7 Calculator code (available at find.pcworld.com/63211) from an early build of the operating system, and that code has been making the tech-blog rounds ever since. It runs just fine in XP and Vista. If you're averse to bootlegs, you can get most of the number-wrangling you need, free of charge, from eCalc (find.pcworld.com/63028).

Windows Search

What it is: Vista owners already enjoy the benefits of Windows' integrated search capabilities, which help users easily find specific apps, documents, e-mail messages, and the like. Windows 7 promises to make search results more coherent and to integrate them with Libraries for better organization.

How to get it: Windows Search is one of the main reasons I don't miss Windows XP—it's that good. How can an XP user take a similar step up? Simple: Install Copernic Desktop Search (find.pcworld.com/63030), which indexes all of the e-mail, documents, and media on your hard drive to permit lightning-fast



WINDOWS 7'S SPIFFY new Calculator is available on the Web, much to Microsoft's chagrin.

searches. In fact, even Vista and Win 7 users should check it out, since it supports many more file types (the total exceeds 150) than Windows Search.

Windows XP Mode

What it is: When Vista debuted in 2007, a lengthy procession of unanticipated software incompatibilities drove users crazy. To help assuage fears about Windows 7's dexterity with older applications at its launch, Microsoft recently announced Windows XP Mode—an add-on that runs veteran programs in a "virtual" XP environment, thereby guaranteeing operational compatibility.

How to get it: You probably don't need it. XP Mode was created with business users in mind, since incompatible applications can be an extremely serious problem for them. As a result, it's available only for Windows 7 Professional, Ultimate, and Enterprise. That said, if you use Vista and you're still struggling with software compatibility issues, try Microsoft's Virtual PC (find.pcworld.com/63032). This free download offers more or less the same capabilities as Windows XP Mode (which is essentially a specialized version of Virtual PC). Warning: Microsoft admits that this program may not work when loaded on netbooks or on other recent PCs.

Internet Explorer 8

What it is: Scoff away, Firefox snobs, but Internet Explorer 8 is a browser to be reckoned with. It's faster and more secure than previous versions of IE, and it offers unique features such as Web Slices (reminiscent of RSS feeds, and designed to help you keep tabs on changes at regularly updated sites) and InPrivate Browsing (which leaves no trace of your surfing activities).

How to get it: Internet Explorer 8's amped-up antimalware and antiphishing features make it well worth using. The browser runs just fine in Vista and XP, and it is available for download for either OS (find.pcworld.com/63029). Some Vista users will receive it automatically through Windows Update. »

Five Features of Windows 7 You Can't Get in Vista or XP

OUR MAIN STORY is dedicated to explaining how to replicate Windows 7 features on a Vista or XP machine—and we offer so many suggestions that you may be starting to think that perhaps there's no compelling reason to upgrade to Windows 7 after all. If so, you should think again. Though Vista and XP users can enjoy some of the new operating system's goodies, either directly or by proxy, various highly desirable features are available only in the genuine article. Here are five that will require you to roll a 7.

1 **Device Stage:** Whereas Vista barely seems to recognize the presence of cameras, phones, printers, and other external devices, Windows 7's Device Stage treats them like royalty. The operating system devotes a slick-looking status window to each device, so you can browse files, manage media, and perform other device-specific tasks.

2 **HomeGroup:** At long last, Microsoft promises to take the pain and frustration out of home networking for users of its operating system. Set up a HomeGroup, and then add PCs and other devices—and without further ado you can share files, printers, and the like. Why did it take seven versions of Windows to get this right?

3 **Jump Lists:** Like souped-up Recent Documents menus, Jump Lists provide quick access to application-specific documents and/or tasks. For example, you can right-click the Internet Explorer taskbar icon and choose from a list of frequently visited Web sites or from a list of available tasks (such as New Tab and InPrivate). Once you get started using Jump Lists, you'll wonder how you ever got along without them.

4 **Libraries:** Most of us have documents, music, pictures, and video scattered across multiple folders on our PCs. Libraries are special folders in Windows 7 that catalog these items under a single roof, regardless of where you actually store them on your hard drive. And best of all, Libraries are easy to share within your HomeGroup.

WITH WINDOWS 7, the task of choosing a Wi-Fi network connection becomes an effortless, one-click affair.

5 **One-click Wi-Fi:** Unlike Windows Vista, Windows 7 makes choosing a wireless network to connect to simple and convenient: Click the system-tray icon, and choose from the resulting list of available hotspots. Granted, you can find third-party connection managers for Vista, but nothing this streamlined and unobtrusive.

Look and Feel

MUCH OF THE excitement about Windows 7 relates to an assortment of user-interface improvements: a little eye candy here, a few window-management tweaks there. Below are some of the highlights, along with the tools you'll need to get them for your current OS.

Aero Snap

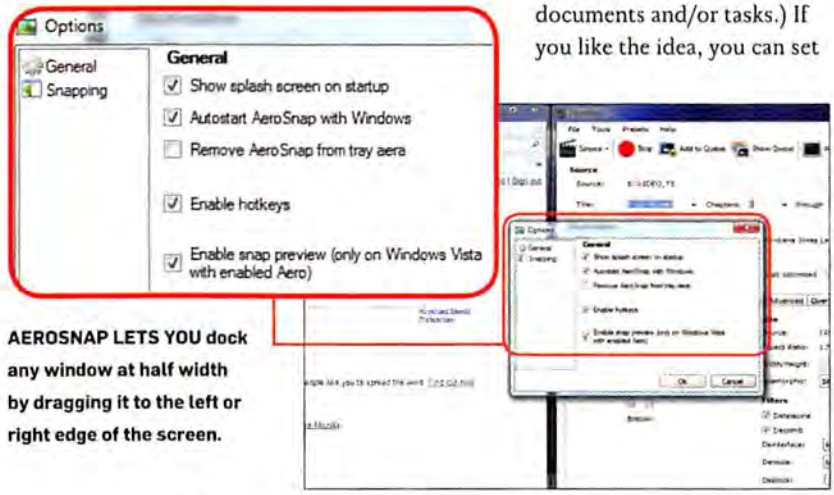
What it is: When you drag a window to the left or right edge of your computer screen, Windows 7's Aero Snap feature automatically resizes the window to fill that half of the screen. To "undock" a window, simply click and drag it away from the edge. This feature is especially convenient for PC users who have widescreen monitors, because it enables them to put a pair of windows side by side in just two quick mouse clicks.

How to get it: The free AeroSnap download (find.pcworld.com/62546) makes automatic window anchoring and resizing available to Vista and XP systems. And it emulates Windows 7 in another way: If you drag a window to the top edge of the screen, the window maximizes.

Invisible Windows

What it is: Need to peek at your desktop? Clicking Vista's Show Desktop button will minimize all of your open windows, but Win 7 can make them temporarily become transparent—great for glancing at, say, one of Windows' new floating Gadgets. All you have to do is mouse over the Show Desktop button in the bottom-right corner of the screen, and presto: Your windows turn invisible, with only the borders remaining. Slide your mouse away, and immediately the windows become opaque once more.

How to get it: The freebie AeroPeek (find.pcworld.com/62547) for XP and Vista works a bit differently—you have to click to activate it and then click again to deactivate it—but the end result is much the same: Your open windows turn see-through, allowing you to view the desktop behind them. Of course, you can always press <Windows>-D to minimize all open windows (and afterward press <Windows>-D again to restore them), but what fun is that?



AEROSNAP LETS YOU dock any window at half width by dragging it to the left or right edge of the screen.

Window Shake

What it is: Want to minimize all but one of a group of windows on your desktop? In Windows 7, you can accomplish that feat by clicking and holding the title bar of any open window, and then shaking your mouse back and forth a few times. All of the other open windows will funnel down to the taskbar. Shake the lone window again, and its counterparts will reappear.

How to get it: The free Aero Shake utility from Lifehacker (find.pcworld.com/62542) brings Windows 7–style shake-and-bake windowing to Vista and XP. Though the feature isn't quite as smooth as the version built in to Windows 7, it's still a useful little amenity—and you certainly can't beat the price.

The Pinnable Taskbar

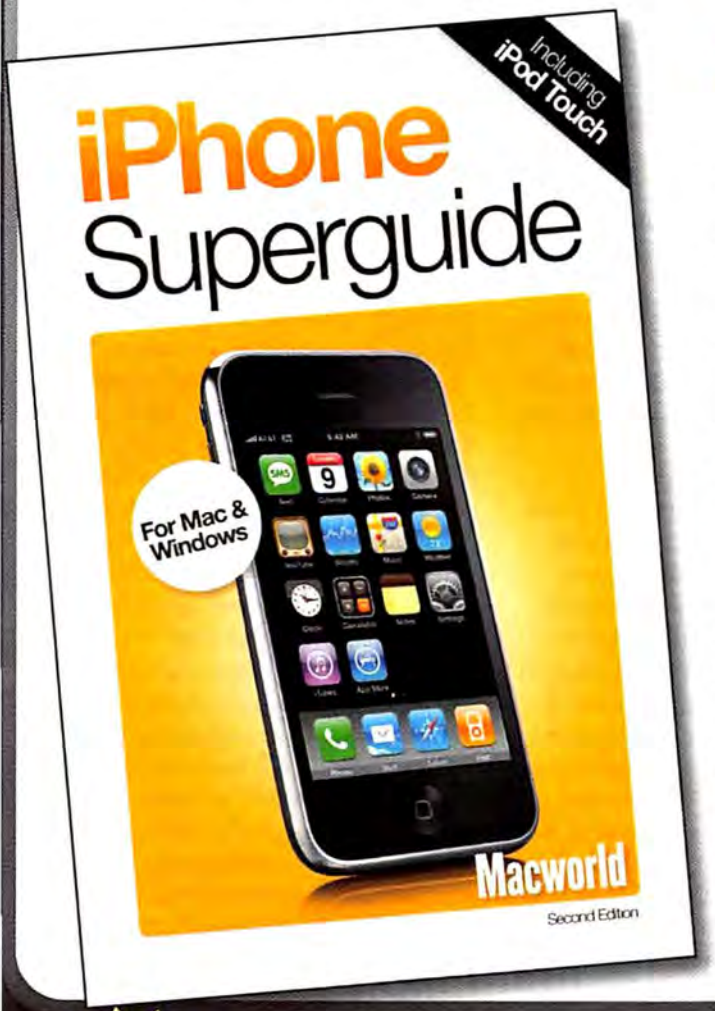
What it is: Arguably the most visually noticeable change in Windows 7 is its overhauled taskbar, which sports oversize program icons and lets you "pin" favorite applications and documents (when you pin a document, it joins the corresponding application's Jump List, a context-sensitive pop-up menu of shortcuts to commonly used documents and/or tasks.) If you like the idea, you can set up an almost identical taskbar in Vista (but not in XP, sorry), simply by introducing a few minor modifications.

How to get it: If your system doesn't already have a batch of program icons located just to the right of Vista's Start button, right-click the taskbar and click *Toolbars•Quick Launch*. Next, unlock the taskbar by right-clicking again and clearing the check mark next to *Lock the Taskbar*. This operation adds a han- »

NEW AND UPDATED
SECOND EDITION

NOW AVAILABLE!

iPhone Superguide



Be an iPhone Pro

- Quickly master the basics of using your iPhone or iPod touch
- Save time with clever shortcuts and a myriad of hidden tricks
- Learn the best ways to sync your data and media—including all types of video files
- Troubleshoot your iPhone without a Genius
- Find the coolest accessories and third-party apps to protect and enhance your iPhone

Get the most out of your devices with this 154 page book.

Staying true to our goal to offer you the most comprehensive coverage of the most innovative and exciting new products, we offer Macworld's iPhone Superguide - Second Edition. This book is produced by the Macworld staff and is packed with practical how-to's, in-depth features, tips and tricks, and more.

ORDER NOW!

DOWNLOAD INSTANTLY FOR ONLY **$12.95**
ORDER HANDY 154-PAGE BOOK FOR ONLY **$19.95**
ORDER CD-ROM AND ALWAYS HAVE A BACK-UP FOR ONLY **$12.95**

www.macworld.com/superguide/iphone

Macworld Superguides are available in 3 convenient formats: 1) Downloadable PDFs: Get immediate access. 2) Printed Book: Order a handy, full-color printed book on high-quality paper. 3) PDF on CD-ROM: Don't want to download the PDF, get it on CD-ROM.

dle (which looks like three columns of tiny dots) to the right side of the Quick Launch toolbar. Drag the handle to the right to make more room for icons. Finally, to make the icons larger and closer in form to the ones in Windows 7, right-click the taskbar a third time and choose *View•Large Icons*. (Make sure that you click in an open area of the taskbar, and not directly on an icon.) Besides adding new icons for programs, you can attach icons for folders and even for documents to your newly improved taskbar. Just drag an icon down and drop it in. If you need extra space, you can always drag the toolbar handle farther to the right.

ON A NETBOOK with the Seven Transformation Pack installed, XP looks a lot like Windows 7.

The Icons-Only Taskbar

What it is: The Windows 7 taskbar consists exclusively of icons, even for programs that are currently running. That's a significant change from old-style text-enhanced program icons, but it frees up lots of extra space on the ol' taskbar.

How to get it: Instructing XP's or Vista's taskbar to show only icons entails taking a trip into the Registry (be sure to follow our advice for Registry backup described in the "Fewer System Notifications" section on page 75). Here are the steps to take once you're ready to boldly go forward:

FOR A MORE Windows 7-like taskbar, remove the text from your running-program icons with a simple Registry tweak.

1. Click *Start*, type **regedit**, and press **<Enter>**.
2. Find and click the value listed at HKEY_CURRENT_USER\Control Panel\Desktop\WindowMetrics.
3. In the right pane, right-click in an open space and select *New•String Value*.
4. Name the new string value **MinWidth**, and set its value to **-255**.
5. Exit the Registry Editor, and restart your system.

Henceforth, only icons will appear in your taskbar. If you decide later that you don't like the new look, you can return to the Registry and delete the entry that you created above. If you don't care to monkey around with your Registry, try the next tip, which accomplishes very nearly the same thing without requiring any Registry intervention.

Thumbnail Previews

What it is: When you mouse over a taskbar icon in Windows 7, a thumbnail preview of the corresponding program will pop up (if the feature is activated). If you happen to be running multiple instances of a program (such as Internet Explorer), you'll see multiple thumbnails.

How to get it: To achieve the same effect in Vista (but once again, not in XP), install EnhanceMyVista Free (find.pcworld.com/62544); true to its name, the download is free. The procedure could hardly be simpler: Start the program, click *Customization•Taskbar*, and enable *Iconize your Taskbar*. You're all set.

The Windows 7 User Interface

What it is: The Windows 7 interface emphasizes efficiency rather than sizzle. The chief improvements consist of a remodeled Windows Taskbar with large icons, one-click access to tasks associated with a specific app, and various other practical enhancements. See "Microsoft Windows 7: A Closer Look at Your Next OS?" (find.pcworld.com/63213) for a discussion of Windows 7 that includes screenshots and videos.

Because Windows Vista more or less forms the core of Windows 7, making Vista look like 7 is fairly easy (as evidenced by the aforementioned taskbar and thumbnail-preview tips). Windows XP users, however, have fewer options at their disposal. In response, third-party developer Windows X Live created the Seven Transformation Pack (find.pcworld.com/63033), a collection of interface tweaks—menus, icons, fonts, buttons, and so on—that are designed to make XP look and feel like Windows 7. And the software works as advertised—in fact, the before-and-after difference is pretty amazing, right down to the interface's search-enhanced Start menu and Windows 7–style floating gadgets.

How to get it: Before downloading this fabulous freebie, make sure that your system already has XP Service Pack 3 installed. I also recommend that you create a restore point in XP's System Restore tool before running the installer, as the Seven Transformation Pack makes some fairly high-level changes to your system. When the installation is complete, reboot, and prepare to witness the minor miracle of Windows XP transformed into Windows 7. ●

APC Back-UPS ES 750G is the energy-conscious choice. Save up to $40 per year* on your electric bill.

SmartShedding® Technology

Allows the master outlet to sense when your computer has either been turned off or gone into sleep mode, so it can shut off power to peripherals plugged into the controlled outlets–saving you power and money.

Enviably Green.

Uses up to 5x less power in normal operation than any other battery backup.

Let's protect what's important.

What's in your computer? Photos, music, personal files, financial data, broadband access, videos, and more. Your computer has never been more important, and yet it has never been at higher risk for damaging power surges and other disturbances.

So like most people, you need to protect your assets. But like most people, you'd also like to protect the environment. With our new energy-conscious products, you can do both. Energy efficient by design, our new smart products protect the power going into your computer, at a cost that is quickly offset by big energy savings. How? Not only do the new Back-UPS® ES and SurgeArrest® use power wisely, they also boast a master/controlled outlets feature, that automatically powers down idle devices to conserve energy.

APC power protection products are available at:

BEST BUY · CDW · STAPLES that was easy · PC Connection

"The price tag on the new UPS is $99. While I'm not in the habit of endorsing products in this blog, if you're in the market for a workstation-class UPS, why not opt for the greener option?"

- Heather Clancy, ZDNet.com

In fact, while protecting your power supply, we're up to 5 times more energy efficient than any other solution. By saving you $40 a year in energy costs, our Back-UPS ES pays for itself in 2 short years. The high frequency, low copper design has a smaller transformer and environmental footprint. Even the packaging has been carefully selected and manufactured to maximize use of recycled materials and minimize waste.

In this world, every decision you make counts. So protect your power with a battery backup that works to protect the environment. It conserves power, pays for itself, and is backed by APC's 20-plus years of Legendary Reliability®. For more information on this or our other great products, or for information about environmentally responsible disposal of your old battery, visit ***www.apc.com.***

INNOVATIONS 2008

Energy-efficient solutions for every level of protection:

Save $25 per year* on your electric bill!

Surge Protection

Starting at $34

Guaranteed protection from surges, spikes and lightning.

7 outlets, phone/fax/modem protection, master/controlled outlets

SurgeArrest® P7GT

Save $40 per year* on your electric bill!

Battery Back-UPS®

Starting at $99

Our most energy-efficient backup for home computers.

10 outlets, DSL and coax protection, master/controlled outlets, high frequency design, 70 minutes of runtime[1]

Back-UPS® ES 750G

APC can help with your other power-protection needs. Visit apc.com to see our complete line of innovative products.

Enter to Win a Back-UPS® ES 750G! (A $99 value)

Also, enter key code to view other special offers and discounts.

Visit www.apc.com/promo Key Code j760w or Call 888.289.APCC x8209 or Fax 401.788.2797

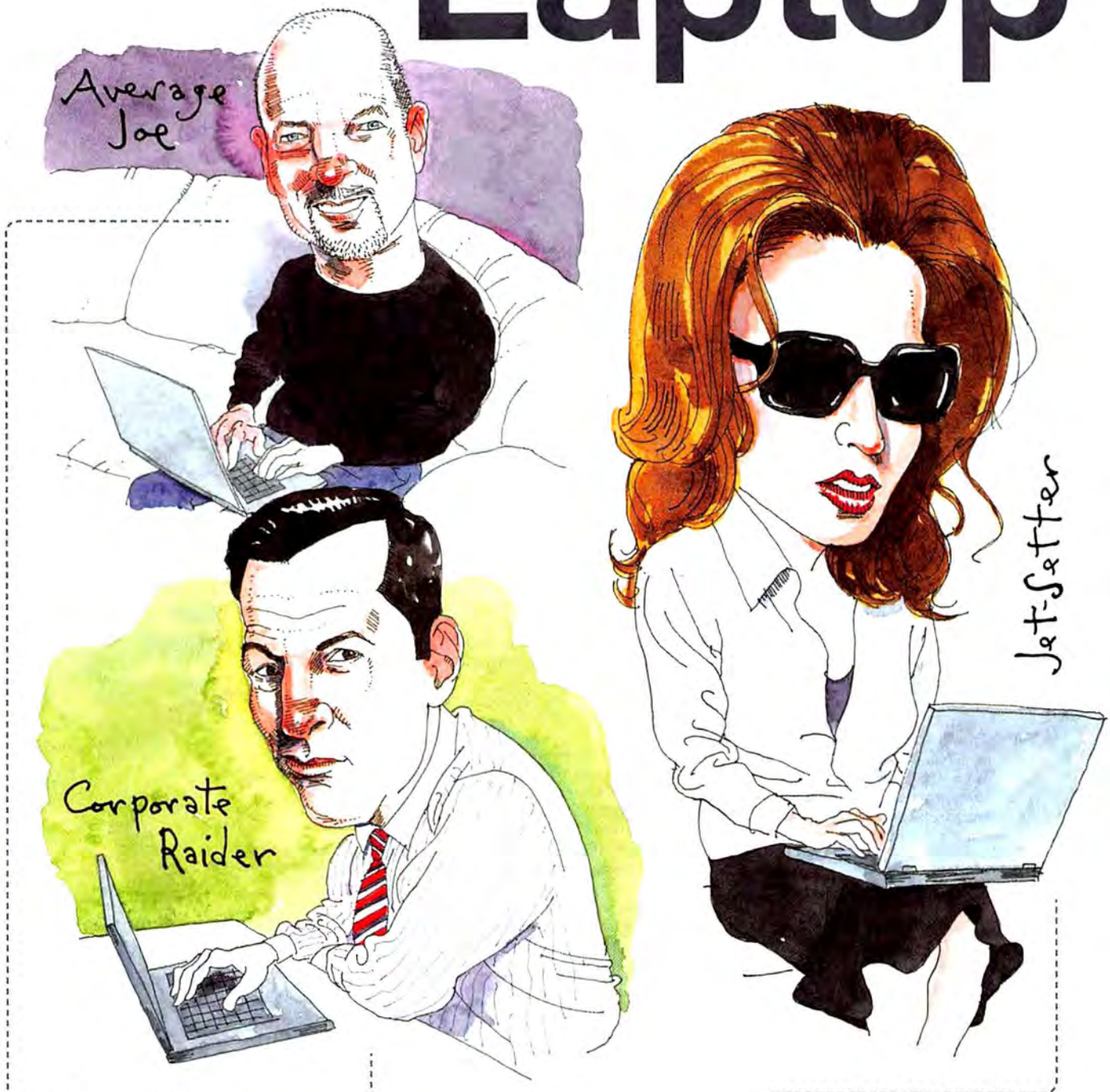
APC® Legendary Reliability®

© 2009 American Power Conversion Corporation. All trademarks are owned by Schneider Electric Industries S.A.S., APCC, or their affiliated companies.

e-mail: esupport@apc.com • 132 Fairgrounds Road, West Kingston, RI 02892 USA • 998-0967 [1]Runtimes may vary depending on load.

*Average savings are based on comparable competitive models, and are comprised of two energy-saving features: an ultra-efficient electrical design, and the master/controlled outlets feature.

The Laptop



Q. Do you want to write a few e-mail messages or surf the Web while listening to some music? Figure out the family budget? Watch a DVD movie or two?

A. You're an average Joe. Turn to page 88 for our advice.

Q. Are you on the lookout for a no-compromise laptop that will power through the day while staying true to the bottom line? Are you ready to get down to business?

A. Mr. or Ms. Corporate Raider, your meeting starts on page 90.

Q. Regardless of whether you're on permanent vacation or traveling for work, do you want power and a light load? Above all, must it be stylish?

A. Jet-setter, your laptop is ready for takeoff on page 91.

Compatibility Quiz:

Find your perfect portable

BY DARREN GLADSTONE
(AKA GAMER)

Q. Are you a high-flying business traveler? A gamer who's on the go? Or just an average Joe?

A. Whatever your personality, we'll help you find a laptop that's right for you. »

Q. Late to class? *Again?* Are you faced with overstuffed bags and an understuffed wallet?

A. Student, it's time to hit the books and turn to page 92.

Q. Forum know-it-all? Multimedia junkie? Action addict? Do you want only the best of the best? Is "Nerd" printed on your business card?

A. Gamer, zoom over to page 94.

ILLUSTRATIONS BY JOE CIARDIELLO

the Average Joe

As an average Joe, you don't demand the fastest machine around, and you certainly don't care about every single bell or whistle that many pricey laptops offer. You need only a couple of key features, and if the laptop you're considering can offer a little extra, so much the better. You require something portable enough to let you take work on the road—and maybe entertain the kids with a movie. Perhaps it can enable you to play a few casual games in your off hours, and, of course, surf the Web, compose e-mail, and juggle Office documents.

CPU: Most all-purpose laptops these days offer decent performance. You won't need to expend much effort to find a notebook that can deliver decent video playback and run your office applications at a reasonable clip. Heck, you might even be able to sneak in a bit of casual gaming on the sly. As for which CPUs to consider—whether AMD or Intel—you don't have to lay out a fortune. An Intel Core 2 Duo T6400 Mobile CPU, for example, is plenty for handling Windows Vista's everyday chores. AMD's 2.3GHz Turion X2 Ultra Dual-Core Mobile ZM-84 CPU, also available in value-priced all-purpose portables, doesn't run quite as quickly, but it delivers just enough gusto for a slightly lower price than Intel products.

The Gateway UC7807u sells for less than $800, has lots of features, and performs well.

System memory: The cheapest and best way to get a quick performance boost in any computer is to load up on the RAM. Most machines offer at least 2GB of RAM these days. (One warning: The 32-bit versions of Windows Vista support only about 3GB of RAM; if you plan on ever going higher in your laptop, make sure that you buy a 64-bit version of Vista.) The safe bet is to upgrade memory from the get-go: If you're having your laptop built to order, add RAM then. Upgrading to 3GB or 4GB may seem like overkill initially, but if you want to hang on to the laptop for a while, that extra memory will keep your system motoring longer.

Graphics board (aka GPU): The GPU can make or break your experience on a laptop, yet this is the first thing the manufacturer will give short shrift to in order to achieve a lower price. At the very least, go for a notebook that offers a discrete graphics board option, even if you're not completely convinced that you'll need it. A GPU can affect performance in ways you may never have considered, so don't dismiss discrete graphics as being a necessity only for gamers. Maybe you want to watch a movie in glorious 720p on the notebook's expansive screen. Or perhaps you'll find yourself charmed by Vista's Aero environment—all of that eye candy gets a big boost from a graphics processor.

Screen size and native resolution: If you're buying a laptop for general-purpose use, the sweet spot for screen size ranges from 13 to 16 inches, depending on your specific needs. But in considering such sizes, many shoppers fail to take into account the display's native resolution, which is typically too low and can make for some hard-to-read text. It's a personal-preference thing, but I'm partial to laptops with 14-inch screens. That size is just roomy enough to accom-

PHOTOGRAPH: ROBERT CARDIN

modate video well, yet it still makes for a machine that's easy to transport. If video is your thing, try to steer toward a laptop that offers resolutions capable of widescreen 720p video. (Hint: If the screen has a resolution above 1280 by 720, it could technically give you a 720p picture, so long as the laptop has the horsepower. For example, the Samsung R610's 1366-by-768-pixel resolution can handle the job.) Most notebook screens should be able to do that now, but you also need to consider whether the laptop's graphics processor is capable of producing the optimum picture (see above).

Battery life: First, ask yourself how much travel time you'll need with your laptop. On average, an all-purpose notebook will last about 3.5 to 4 hours on a single charge. If you don't expect to go mobile often, don't bother with a big battery. If you'll be bringing your machine on the road regularly, start looking at higher-capacity batteries for the next long haul. And don't trust vendors' battery-life specs—many of them quote times for their laptops configured with higher-capacity batteries and with many of the notebook's features turned off (dimming the screen brightness to nothingness and shutting off Wi-Fi, for instance). Want the straight scoop? Check out our WorldBench 6 test results for laptops (start at find.pcworld.com/63073). We use a bunch of real-world programs in real-world situations, and we run the notebooks into the ground.

Optical drive: These days almost every laptop packs a DVD burner—and many of them offer LightScribe technology for inscribing images or labels on top of specially coated discs. For enjoying high-definition flicks, Blu-ray Disc is the format of choice. Most laptops come standard with a DVD-RW drive, but BD-ROM drives are slowly creeping into all-purpose laptops too. Of course, adding a BD-ROM drive often means tacking a few extra bucks onto the price tag.

Connectivity: Most all-purpose machines offer three or four USB ports, an SD/Memory Stick flash card reader, a Webcam, headphone jacks, VGA ports, and ethernet jacks. And without exception, such notebooks also have at least 802.11g wireless (802.11n should be ubiquitous within the next few months).

Extra features: For the near future, you'll want to have HDMI-out (for high-definition video) and eSATA (for high-speed data transfers). Another addition that notebook makers are including more often as time goes by is a hybrid USB/eSATA port. We're also seeing some all-purpose models with a pass-through charging port, which allows you to charge a USB-powered device through the laptop—even when it isn't on.

Our picks: Selecting one laptop that's perfect for everyday use is a bit tricky, but Gateway's UC7807u (find.pcworld.com/63074) hits most of the basic needs for under $800. It might not be the fastest thoroughbred in the stable (it earned a mark of only 80 in WorldBench 6 tests), but it is fast enough to finish the race—while carrying a host of features. Gateway manages to cram in both HDMI and VGA video outputs, three USB 2.0 ports, an ExpressCard slot, a flash-card reader, ethernet, Wi-Fi (802.11 a/b/g/n), and Bluetooth. The machine also provides a slot-fed DVD burner and a 5400-rpm, 320GB hard drive. The UC7807u does have several drawbacks: For one thing, it stumbles in the stamina department, lasting only 3.5 hours in our battery-life tests. This Gateway is also fairly heavy (5.3 pounds) for an all-purpose model with a small screen.

Another all-purpose alternative is the $800 HP Pavilion dv3 (find.pcworld.com/63075), which lasted about 2 hours longer than the Gateway UC7807u did in our battery tests and offers eSATA ports and other great options in a lightweight frame. Unfortunately, the dv3 scored a measly 64 in WorldBench 6. If you're looking for a bigger screen, consider Dell's Studio XPS 16 (find.pcworld.com/62388). Its hardy construction and sweet-looking 16-inch screen will grab your attention. Of course, with that high-end display, it will also grab your wallet—our review unit would set you back about $1800. »

Special Needs, Special Notebooks

Ruggedized PCs

Semi-ruggedized (also called business-ruggedized) notebooks and fully ruggedized laptops can take a licking. Models in the former category are good for klutzy corporate types, but they're otherwise typical business machines, with glossy screens and high-end CPUs. (For more on business-friendly laptops, see "The Corporate Raider" on page 90.) Meanwhile, fully ruggedized laptops are built for outdoor use, in environments ranging from construction sites to battlefields. Such systems offer matte screens for outdoor viewing, and they can withstand blasts of water, sand, and other things that would make most computers cringe. (Dell's XFR is said to stop bullets.) Be warned, though: These laptops don't come cheap.

Tablet PCs

The most common form of this hybrid portable serves two purposes: In one mode, it looks and behaves like a normal laptop. With a twist, however, it becomes a fully functional touchscreen tablet. Bear in mind that any tablet PC you buy should be comfortable to carry in one hand. Make certain it has a well-built hinge, too—when you use your tablet on a plane, train, or automobile, the screen's hinge is subject to shaking, making it tough for you to see the text on the screen.

the Corporate Raider

You're a very busy professional, so we'll bottom-line this for you. All you care about is a laptop that will get the job done as quickly and efficiently as possible, and you don't want some luxury status symbol. Games and movies—who has the time? You want a reasonable, portable, general-purpose business machine that will juggle spreadsheets and look decent while doing it, but you aren't trying to impress clients with the caliber of your computer.

CPU: You're mainly concerned about booting Windows in a hurry between meetings and being able to run rings around office suites. You'll probably be fine with an average-priced CPU. An Intel Core 2 Duo T6400 Mobile CPU, for example, easily handles everyday chores in Vista. AMD's 2.3GHz Turion X2 Ultra Dual-Core Mobile ZM-84 may not be as fast, but it works fine, and it'll save you some bucks.

System memory: You're angling for speed, so your machine needs 4GB of RAM. Having lots of memory is the easiest, most cost-effective way to get a power boost. For smooth performance with that much RAM, buy a 64-bit version of Vista.

Graphics board (aka GPU): An integrated GPU should be sufficient. The only reason you'd need discrete graphics firepower would be to help your video presentations run well (or to sneak in a little World of Warcraft in the hotel room after a day of meetings). If you want to output snazzy HD sans stutters, you may be able to get away with integrated graphics, but a laptop with some discrete-graphics oomph would be better.

Screen size and native resolution: You might not need a crazy-high resolution to navigate spreadsheets, but keep all of your activities in mind. Will you have to hook the laptop to projectors? A 1366-by-768-pixel resolution is reasonable. One more thing: Laptops with screens larger than 16 inches may seem brilliant, but few of them fit in a conventional carry-on bag.

Battery life: If you plan to go a long way between recharges, a good business laptop with a high-capacity battery will offer about 7 hours of life on a single charge—enough for you to make it through even the most drawn-out meetings.

Keyboard and pointing device: We're starting to see more laptops of manageable size with a ten-key number pad in addition to the QWERTY layout. The HP ProBook line, for example, crams a good-size ten-key onto a 15.6-inch machine. If you need to crunch tons of figures, that feature will go a long way, though you might lose some room on the QWERTY side.

Dimensions/weight: Since you need to be nimble during the workday, you'll want something in the 4- or 5-pound range.

Connectivity: If your laptop has VGA-out, you should be covered during presentations. Web connectivity is also essential. You're going to need at least 802.11n Wi-Fi, and you should consider a Wireless WAN option so that you can be constantly connected when you're on the road.

Extra features: Besides stocking up on hardware to future-proof your laptop (such as HDMI for HD video output and eSATA for fast data transfers), look for USB ports that let you recharge other devices through them when the PC is off. Also consider an accelerometer to protect your hard drive in case you drop your laptop. You'll need a good suite of applications that will prepare you for the workday, too. Fujitsu's apps can help salespeople who have to plug into someone else's display, but Lenovo captures the prize with its ThinkVantage suite—it's like having IT on-call.

Our pick: Lenovo's ThinkPad T400 (find.pcworld.com/63076) is our choice for a solid-performing business laptop. It lasted 8 hours in battery tests and earned a respectable mark of 92 in WorldBench 6. That kind of muscle can get you through the workday—and at about $1400, it won't push you into the red.

The $1400 Lenovo ThinkPad T400 is speedy and lasts 8 hours on a single charge. We'll be testing its successor, the T400s, in our labs soon.

PHOTOGRAPHS: ROBERT CARDIN

the Jet-Setter

Maybe it's for work, maybe it's for play. Maybe both. But when you take your tech entourage on the road, you want to go light—and in style. You don't want to disconnect from the world or from your entertainment, so you often eyeball magazines and Web sites (*PC World* first among them, of course) to learn about the latest, sleekest ultraportables on the planet. Before you hop on that Lear jet or set sail on that yacht, read on for help in choosing your ideal traveling companion.

CPU: Ultraportables usually have CPUs that are sprightly enough to power through basic documents and score in the 80s in WorldBench 6. That may not seem lightning-quick, but it's more than twice as fast as your garden-variety netbook. (The Lenovo ThinkPad X200, for example, has a 2.4GHz Intel Core 2 Duo P8400 and notched a mark of 88.) Of course, the average ultraportable starts at $1500 versus $400 for an Atom-powered netbook, so be glad you can afford to travel first class.

Priced at $2057, Lenovo's ThinkPad X300 is thin and light but has an optical drive and an array of ports.

System memory: Thin-and-light laptops need all of the help they can get to wrangle Windows Vista. If the notebook you have your eye on comes standard with 3GB of RAM, upgrade to 4GB. And if you hope to actually use all of that RAM, make sure that you have the 64-bit version of Windows installed.

Graphics board (aka GPU): I have to give ultraportable makers credit: Many try to shoehorn GPUs into their machines. The inconceivably thin MacBook Air, for instance, makes room for an nVidia GeForce 9400M, a discrete graphics card perfectly capable of playing games. Most business ultraportables, however, use integrated GPUs and can barely handle Vista. If all you care about is watching a couple of movies on your next flight to Ibiza, you should be able to squeeze out enough performance from an integrated GPU. Want high-quality HD? Consider a discrete graphics card.

Screen size and native resolution: Ultraportable screens max out at 13.3 inches. As for screen resolution, don't expect much more than 1280 by 800 pixels. On any system you consider, make sure the display is large enough and sharp enough for you to read without developing eyestrain.

Battery life: Thanks to ultraportables' light weight, strapping a high-capacity battery onto one is easy to justify. With the extra battery capacity, the Lenovo X200 lasted for nearly 9 hours in our tests, while the HP EliteBook 2530P survived for roughly 7 hours. If nine-cell batteries are available for your potential laptop, look into them.

Keyboard and pointing device: Try to lay your hands on an ultraportable before you buy it. Take special note of the size of the touchpad and the keyboard; manufacturers usually end up making one too small.

Optical drive: Many paper-thin ultraportables, like the MacBook Air and the Samsung X360, ditch the optical drive. Others, like the Lenovo ThinkPad X300, somehow slip one in. I'll always opt for one with an optical drive, but your needs may vary.

Dimensions/weight: A machine in this class will weigh, at most, 4 pounds. The biggest factor is the battery—especially if you get a nice, big battery for long flights.

Connectivity: Thin-and-lights are focused on Internet access, anywhere. Beyond 802.11n Wi-Fi, you'll find that many ultraportables these days offer Wireless WAN capability.

Extra features: A large solid-state drive (SSD) offers plenty of storage room but takes up very little physical space inside the computer. Though their costs are coming down, SSDs still tack a bit onto the price of an already-expensive ultraportable.

Our pick: It isn't the speediest machine, but we like Lenovo's ThinkPad X300 (find.pcworld.com/60319). Thin and a little more straitlaced than the MacBook Air, the X300 is a super-thin-and-light (3.4-pound) laptop with an optical drive and plenty of ports. Naturally, like any good ultraportable, it'll cost you—a lot. Our review configuration was $2057. »

The Student

If you're constantly running off to class, your portable has to be really light. You need something that you can take notes on all day long and use for assignments at home. And it shouldn't cut into your tight budget—living on mac and cheese is bad enough! We're talking netbooks here, for bookworms who don't need a big, beefy machine. All you engineering students and future Photoshoppers, turn to the gamer-centric laptops on page 94; you might require the same kind of desktop-replacement muscle that gamers do.

CPU: The Intel Atom CPU, which powers most netbooks, is strong enough to run Windows XP. (Some foolhardy vendors have tried using Vista on Atom-powered netbooks, but those models run in slow motion.) These days, alternatives are popping up, namely the VIA Nano and the AMD Athlon Neo. AMD's product is capable of running Vista and is faster than conventional netbook chips, but it's still not nearly as speedy as what you find in ultraportables. Our test Athlon Neo machine earned a mark of 45 in WorldBench 6 running Vista (netbooks normally score around 36). But we are waiting to see how Intel's new low-cost, low-voltage Core 2 Solo CPU does in the upcoming HP Mini 133.

System memory: You won't find many netbooks sold with more than 1GB of RAM, but several have opened up a little, allowing you to jack up the memory on your own. Toshiba's new NB205 netbooks, for example, can go up to 2GB.

Graphics board (aka GPU): In a word: none. You get integrated graphics that are just barely passable, and may be adequate for basic games. Keep in mind, though, that nVidia's Ion platform (which marries an Atom CPU with the nVidia GeForce 9400M GPU) will be available as of mid-August in Lenovo's IdeaPad S12; it promises HD video and 3D gaming for under $500.

Screen size and native resolution: We're starting to see screens approaching 12 inches. Usually, netbooks have a native resolution of 1024 by 600 pixels; if you use a program that defaults to 1024 by 768, plug your netbook into a monitor and reset the app's resolution. If you're concerned about the low resolution, look at Lenovo's IdeaPad S12 or HP's Pavilion dv2; both support a native resolution of 1280 by 800 pixels.

Battery life: When netbooks first came out, their battery life was pathetic—2 hours, if you were lucky. Now, though, some can run a marathon. Samsung's N110 lasted a staggering 8 hours, 23 minutes in our tests. On average, expect a netbook to last 3.5 hours.

Keyboard and pointing device: The curse of these Lilliputian laptops is tiny touchpads with awkwardly placed mouse buttons. The tightly packed keys are difficult for adult hands to use, too, so be sure to try a netbook or two in person before you commit to purchasing anything.

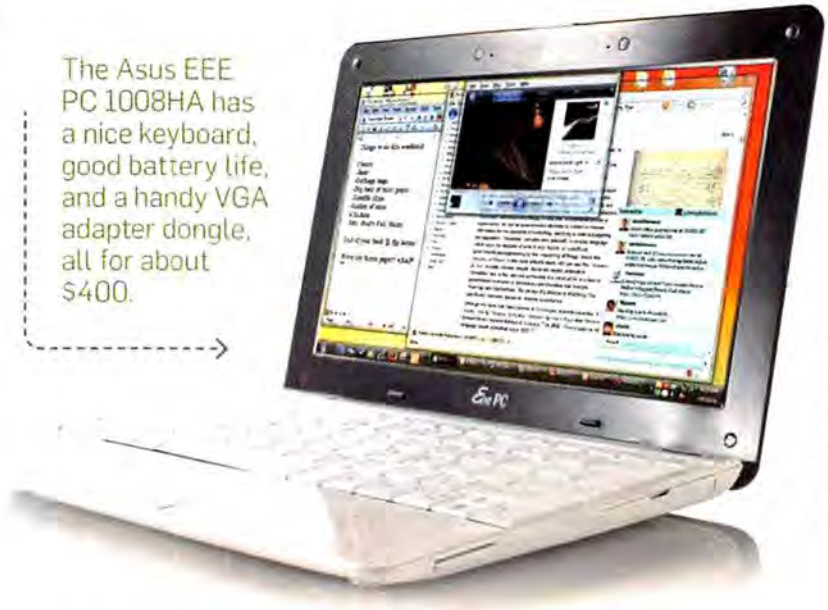
Optical drive: What optical drive? If you need one, you can buy an external USB-connected drive for $20 online.

Dimensions/weight: Netbooks come in at less than 3 pounds and are about as large as a hardcover book, the perfect size for chucking into a bag and running out the door with.

Connectivity: It's strictly the basics here. Usually you'll find three USB ports, a VGA-out jack, ethernet, an SD Card reader, a Webcam, and headphone and mic jacks. We're starting to see cellular carriers offering subsidized netbooks for sale, too (see find.pcworld.com/63201). The promise of a $100 netbook with Wireless WAN access sounds good; but the category is only one generation old, and it's bound to improve again soon. Do you want to be stuck with your netbook until your contract runs out in two years? Didn't think so.

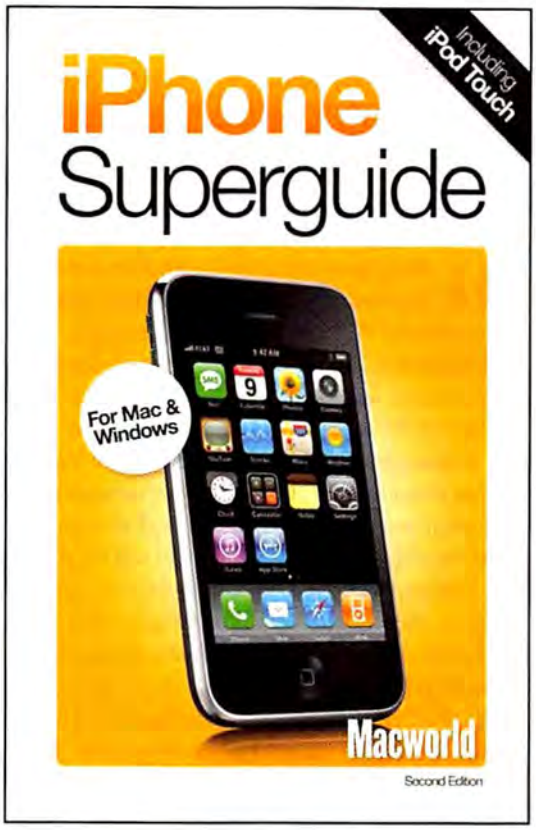
Our picks: If you're on a tight budget, look at the Asus Eee PC 1000HE (find.pcworld.com/62536) or 1008HA (find.pcworld.com/63202). Both are stylish standouts that offer great battery life and good-size keyboards for around $400. I also recommend the $749 HP Pavilion dv2 (find.pcworld.com/62831) often. Neither a true netbook nor a full notebook, it offers you a little more juice while you're on the go, plus an external optical drive and a discrete GPU to play games like Left 4 Dead. »

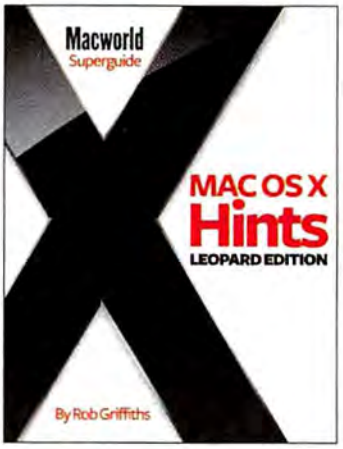
The Asus EEE PC 1008HA has a nice keyboard, good battery life, and a handy VGA adapter dongle, all for about $400.

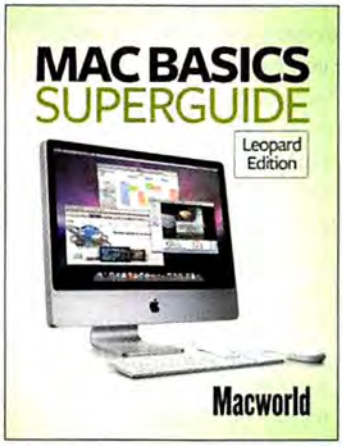


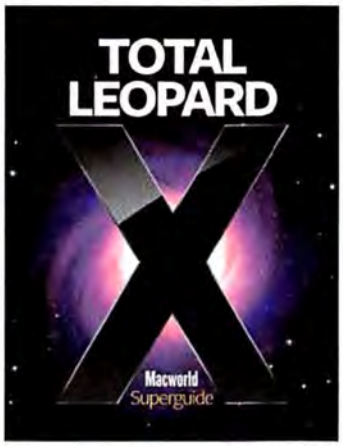
PHOTOGRAPH ROBERT CARDIN

Macworld Superguides









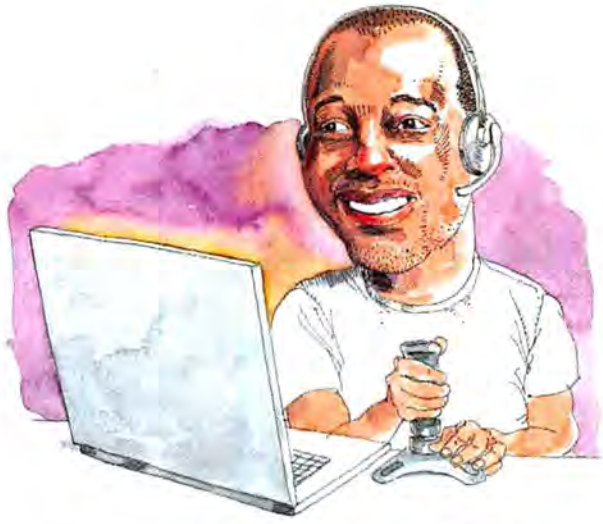
Staying true to our goal to offer you the most comprehensive coverage of the most innovative and exciting new products, we introduce the Macworld Superguide series. These books are produced by the Macworld staff and are packed with practical how-to's, in-depth features, tips and tricks, and more.

Macworld Superguides are available in 3 convenient formats: 1) Downloadable PDFs: Get immediate access. 2) Printed Book: Order a handy, full-color printed book on high-quality paper. 3) PDF on CD-ROM: Don't want to download the PDF, get it on CD-ROM.

ORDER NOW!

www.macworld.com/superguide

The Gamer



You've got game. Lots of games, in fact. Maybe you want a true surround-sound, 1080p home-theater experience in your lap. Or if you're on the creative side, maybe you plan to edit video and enhance images in Photoshop. Whatever the case, you constantly crave high-performance computers and you don't care how much they cost—or how much desktop real estate they commandeer. Laptops that fall into this category are often referred to as desktop replacements because they can be just about as big as a desktop PC.

CPU: Considering the Death Star size of some desktop-replacements, you'll find a wide variety of CPUs inside. Eurocom's D901C Phantom-X, for example, sports a 3GHz Xeon Quad Core X3370 (the kind of chip you'd normally find in a server), while Asus's W90 packs a 2.8GHz Intel Core 2 Duo T9600 CPU, which offers good—if not great—performance.

System memory: Since 64-bit versions of Vista can support larger amounts of RAM than 32-bit versions can, you'll see desktop replacements rising to the challenge. Eurocom's monster machine boasts 8GB, but 4GB will do you just fine.

Graphics board (aka GPU): Top-flight gaming relies on discrete video chipsets from nVidia or AMD holding at least 512MB of dedicated graphics memory. Many laptops make do with a single graphics card. HP's HDX 18, for instance, uses nVidia's 512MB GeForce 9600M GT. The highest of high-end laptops, such as Asus's W90, put two cards together. The W90 relies on dual ATI Radeon HD 4870 GPUs; other machines have two nVidia cards working in tandem. In the end, it's a matter of how much speed you're willing to pay for in a portable. You might also keep an eye out for laptops offering the nVidia GeForce GTX 260 or 280.

The $2200 Asus W90 produced terrific scores in our benchmark suite and our gaming tests.

Screen size and native resolution: Most gaming notebooks have roomy screens with high resolutions to match. While more-modest gaming laptops with 15-inch screens are entering the market, high-end systems still offer 17- or 18.4-inch screens that support resolutions up to 1920 by 1200 (the resolution I prefer). Be wary of any desktop replacement that has a native resolution of 1650 by 1080 or less—that's a surefire sign that the laptop is underpowered.

Keyboard and pointing device: Notebooks in the gaming category typically have a keyboard that is almost full-size, as well as a large touchpad. Sounds good, right? Well, for ergonomics' sake, consider springing for a real mouse to go alongside the keyboard wherever you park your laptop. The frequent, rapid motions required for intensive gaming simply aren't suited for touchpads—they'll leave you with a gnarled hand.

Optical drive: Since high-end laptops offer 1080p resolution, you can expect to see them include a Blu-ray Disc drive too.

Dimensions/weight: These machines can weigh as much as 15 pounds—they're called "desktop replacements" for a reason.

Connectivity: Expect a desktop replacement to have five or six USB ports, HDMI-out, eSATA...you name it, it's in there.

Extra features: Thanks to their girth, some high-end laptops promise awesome audio. In reality, many mail it in and others offer merely decent sound; only a few nail it. Toshiba's Qosmios, for instance, continually deliver audio dynamite through their Harman/Kardon speakers. We've found that some laptops configured with Altec-Lansing audio fare nicely as well.

Our picks: When looking at our reviews, don't go just by the WorldBench 6 score. The frame rates we obtained in games are the truest indicator of how good a power laptop will be for you. If money is no object, by all means spend $4500 on Eurocom's benchmark-busting D901C Phantom-X notebook (find.pcworld.com/62489); but for a good combination of price and performance, look to Asus's well-balanced W90 (find.pcworld.com/63203). The W90 garnered a fairly impressive WorldBench 6 score of 105 and did a great job running Enemy Territory: Quake Wars and Unreal Tournament III (at 80 and 88 frames per second, respectively). And at $2200, the W90 sells for less than half the price of the killer Phantom-X. ●

PHOTOGRAPH: ROBERT CARDIN

Advertisement

PCW | Fall Gear for Back to School

Simple. Beautiful. Powerful.

With its easy "plug and play" set up and sleek contemporary design, the Averatec A2 18.4" all-in-one PC is the perfect computer for any user and home environment. This new system, packed with a dual-core CPU, is designed to handle your most challenging business, home, school or personal computing tasks.

Exclusively available at OfficeMax

visit www.trigemusa.com for additional product information

AVERATEC

Stay Connected With zBoost Signal Boosters

Extend a zBoost® Cell Zone into your home, office, dorm, apartment or car. zBoost® improves signal for voice and data transmission and increases performance of aircards and 3G technology!

Save 20% on zBoost Signal Boosters
With code: PCW809 Discount off MSRP. Ends August 31, 2009.
Applies to YX510, YX230, YX110 & YX300

Award-Winning

zBoost extending cell zones
By Wi-Ex

www. Wi-Ex.com/PCW809 or call 1-800-871-1612

Be eSlick
Take your documents on the go.

Powered by Foxit PDF Reader, used by over 70 million people worldwide!

Get $10 OFF regular price of $259.99 when you enter promotion code PCW02

Take along all your favorite books with Foxit's lightweight eSlick Reader!

- Built-in MP3 Player
- Comes with free software and accessories:
  Foxit Reader Pro Pack
  Foxit PDF Creator
  2GB SD card
  Earphones
- Feels great in your hand – just 0.4" thin
- View your existing PDF files and use Foxit PDF Creator to convert any printable document to PDF to view on this eSlick
- Weighs less than most paperback books and reads like a dream with outstanding clarity and adjustable print sizes

Visit Foxit's eSlick web page at: www.foxitsoftware.com/ad/ebook/pcw.html
or call Foxit Toll Free at: 1-866-MYFOXIT or 1-866-693-6948 (24*7 customer service)

Foxit

ABERDEEN
SERVERS AND STORAGE

HOW MUCH STORAGE DO YOU NEED?

CAPACITY

Performance tuned storage.
Up to 50TB in a single storage server.

EFFICIENCY

Reduce operating costs.
Best TB/$ ratio.

SCALABILITY

Easily expand storage to well beyond 400TB via XDAS and JBOD units.

ABERDEEN STIRLING SCALABLE STORAGE SERVERS

- 2x Quad-Core Intel® Xeon® Processor 5500 Series featuring Intel® Microarchitecture, codenamed Nehalem
- Up to 96GB 1333MHz DDR3 Memory
- Supports both SAS & SATA Storage Drives
- RAID 0, 1, 5, 6, 10, 50, 60 Capable
- Redundant Power Supply
- SAS & iSCSI Expansion Ports
- Windows & Linux NAS Available
- **5-Year Warranty**

3U 8TB Starting at	$4,495
4U 16TB Starting at	$7,595
5U 24TB Starting at	$9,995
6U 32TB Starting at	$13,495
8U 50TB Starting at	$18,595

EXPAND CAPACITY TO OVER 400TB

- Daisy-Chain DAS Units and JBOD Expansion Boxes
- 2U, 3U, 4U Enclosures Available
- RAID 0, 1, 5, 6, 10, 50, 60 Capable
- SATA & SAS Drive Support
- **5-Year Warranty**

16TB JBOD Expansion	$5,995
16TB DAS	$8,995
24TB DAS	$12,495

intel Xeon inside™

Powerful. Intelligent.

Intel, Intel Logo, Intel Inside, Intel Inside Logo, Pentium, Xeon, and Xeon Inside are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. For terms and conditions, please see www.aberdeeninc.com/abpoly/abterms.htm. pcw02

800-500-5623
www.aberdeeninc.com/pcw02

HOW TO AVOID

Facebook & Twitter DISASTERS

BY CHRISTOPHER NULL • ILLUSTRATIONS BY MICK WIGGINS

Who knew your boss could see so much of your Facebook page—including the pics from your wild weekend? Social networking is essential these days, but oversharing can lead to underemployment. So take some practical steps to control what others see about you. »

The power of social networks like Facebook and Twitter comes from their ability to quickly share information about your life with other people. But along with that ability comes the risk of sharing sensitive information with the wrong people, and that risk increases as your network grows well beyond your core circle of friends.

Using Twitter and Facebook effectively takes more than discretion; you should know how to tweak the settings for these services so that you have full control over who sees what on your Facebook page or on Twitter. In this story, we'll cover both sides of the coin: how to use the tools at your disposal to keep your profiles in check, and how to handle the etiquette side of the equation, as well.

The garden-variety freshman may not have much to worry about, but it's a different story if you—as many people are increasingly doing—are using Facebook and Twitter not for updates about your meals, pets, and drinking binges, but for professional purposes. So we've outlined here a handful of common disastrous scenarios in which one (or both) of these social networks was misused, as well as the best way to prevent or remedy the problem.

But in the end you'll find that the fundamental lesson is invariably the same, and that's to remember the golden rule of all social networks: Never forget that the whole world is watching.

Facebook Disasters

Ignoring Facebook's privacy options—some of them fairly new and not well known—can trip up users in a number of ways. Here are some of them.

Oversharing With the Boss

The disaster: Ann played hooky from work, calling in sick, and spent the day sunbathing, updating her Facebook status on her laptop all the while. The next day, her boss confronted her with the evidence that she wasn't really ill, causing severe embarrassment and a reprimand (plus a day of docked pay).

The solution: In this day and age, professional and personal lives often become intertwined, and Facebook can be ground zero for this. You might momentarily forget that you have "friended" your boss, and that he has the same access to your ramblings on Facebook as do your real-life drinking buddies. But you can change that.

Using Facebook's Lists settings might have made the most sense for Ann. Lists, one of the newer features of Facebook, allow you to organize people into groups and then assign each group different levels of access to your information on Facebook.

Lists let you set who can see what on your profile. For example, if you've added someone as a friend but aren't sure about them, you can relegate them to a list that you name "Limited Profile," which will limit how much of your profile that person may view and interact with. You can also create lists for work, school, special projects, or anything else, but by default the lists don't change how your profile displays.

To work with Lists, click the *Friends* button (top bar) and *+Create* in the left column under Lists—or just put people on any list by using the 'Add to list' drop-down menu next to their name.

Next, you need to specify how much of your information on Facebook members of each list can see. To do this, visit the Privacy Settings page (hover

'LIMITED PROFILE' IS a default group for less-wanted contacts, but you'll still need to specify what rights this group should have.

THE ENTRY TO all Facebook privacy settings is on this page. But thoroughly exploring all four of its subpages can take hours. (We'll point you to some of the most important settings.)

over 'Settings' in the top right of the screen, and click *Privacy Settings* inside the box that pops up; or go to www.facebook.com/privacy), then select *Profile*. Here, select *Customize...* from the drop-down menu next to whichever section you'd like, and type the name of the list in the box under 'Except These People'. For Ann, dropping her workmates into a "work" list and dialing down that group's access to the bare minimum would have saved her a lot of trouble. Specifically, she should change the 'Status and Links' setting so as to exclude the Limited Profile list.

He Knows Where You Live

The disaster: Getting far away from ex-boyfriend Bob wasn't the main reason Mary moved to Pittsburgh, but it was one of the main benefits. So when Bob showed up at her new job, she was naturally disturbed. How did he find out where she was, she asked. "It was on your Facebook profile," he replied.

The solution: All users have extremely fine-grained control over what gets on their Facebook page, but few take full advantage of these features.

The controls are found in the Privacy Settings page under 'Profile', reachable as outlined above. Here you'll find a list of ten items on your profile that you can turn on or off, each to a different group of Facebook users.

THE PROFILE SETTINGS under Privacy allow you to control which Facebook users can see your profile and which ones cannot.

'Profile' lets you choose whether to block people from seeing anything beyond the most basic information (name and network) on your profile page, while 'Basic Info' allows viewing of gender, birthday, relationship status, and the like. 'Personal Info' opens the door a little wider—to your "about me" section, interests and favorites, and so on; 'Status and Links' controls who can see your latest status update. Most of the categories are self-explanatory (just click the question-mark icon if you need help) and can get pretty detailed. But this is also an advantage: If, like Mary, you don't want to advertise where you work, you can turn off that detail here.

Also, click *Save Changes* at the bottom of any Facebook settings screen, or your settings will not be updated.

What should you change these settings to, then? Facebook offers numerous choices for each category: Everyone, My Networks and Friends, Friends of Friends, Only Friends, and Customize. Everyone is self-explanatory; My Networks and Friends is less inclusive, limiting profile viewing to anyone you're friends with or with whom you share a network; Friends of Friends essentially gives you two degrees of openness instead of one; and Only Friends is exactly how it sounds.

The Customize option gives you complete command over your network settings: You can limit viewing of your profile to certain networks and, in some cases, subsets of that network. Current students, for example, can prohibit faculty or other undergrads from viewing their profile. How much to lock things down is up to you. In Mary's case, making her Profile visible to 'Only Friends' would have prevented an unpleasant surprise visit. »

The Essential Guide to Facebook Etiquette

WHAT'S OKAY ON Facebook? On sites such as MySpace, anything goes, but Facebook is a little more refined in its etiquette rules. Not a lot more refined, mind you, but a little. Keep these tips in mind whether you're just making your first friend or you're now topping 1000.

• Who should you friend? Some people have an all-inclusive approach to Facebook and will accept anyone; some want only real-world contacts in their friend list. The right approach is a personal choice. Just bear in mind that the bigger your friend net is, the more application, event, chat-session, and cause invitations you'll be inundated with—and that can lead to some uncomfortable moments and the occasional friend purge.

• Easy on the updates As with Twitter, oversharing can be a problem. Every meal, every TV show watched, and every weather condition need not be the subject of a status update. Ask yourself if anyone will care about your comment before you start typing.

• 'Now, choose 12 friends...' It's fine if you want to take a "Which serial killer are you?" quiz. But these quizzes exist to get an ever-increasing number of people to try them. At the end of each quiz you'll almost always be asked to invite additional people to take the quiz, but there's no need for that unless you think they'll really enjoy it. Look for a 'Skip this step' or 'continue to result' button, which should be somewhere on the page in tiny type; click it, and you won't send the quiz to anyone. On the following screen, the 'Skip' button will further keep the quiz from showing up on your Wall or sharing itself on friends' Walls.

• Limit Facebook Chat An open Facebook window doesn't mean someone is automatically available for a chat session. Facebook Chat is like any other instant messaging platform—use it appropriately and recognize that your friends may be too busy to respond immediately, especially during business hours.

• Don't 'poke' people At least not if you're over the age of 16.

The Stalker Problem

The disaster: Jessica is worried about the creepy messages and Wall posts being left by some guy she doesn't know but whose friend request she accepted. She doesn't want to delete her account, but she does wish to get rid of the stranger and set her profile to be discovered only by those people she allows.

The solution: First, Jessica should add the possible stalker to a Limited Profile list, as outlined earlier.

If you have a hostile stalker, you can remove and/or block them: Go to the person's profile page and then click the *Remove from Friends* option at the bottom of the left column.

If the person persists in friend requests, you can block the stalker altogether by going to the Privacy page and typing their name in the search box in the 'Block People' region. Standard Facebook-style search results will pop up; just click *Block Person* next to their name, and they won't find you in a search, or view any part of your profile.

For a stronger level of privacy and security, you can temporarily "go dark" by making your profile virtually invisible. Go to the Privacy settings page and click *Search*. Set the Search Visibility drop-down selection to *Only Friends*. This tells Facebook not to show your profile in public searches on the site.

The Search Result Content section lets you choose whether to show photos or lists of friends and links. If you don't want to be contacted at all, remove the check marks by both options.

Finally, you can use the Public Search Listing option to allow or prevent your profile from appearing in major search engine results such as those of Google.

Too Many Pieces of Flair

The disaster: Donna has accepted one too many gifts of *Star Wars* figurines and cutesy buttons—and now her profile page is stuffed with enough frivolous junk to embarrass a fourth-grader. That page didn't go over well with the hiring manager at the job she was applying for. She heard through the grapevine that she didn't get the gig because he found her page and thought she wasn't serious enough to merit an offer.

WALL POSTS can be endlessly tweaked. If you blow through significant others, consider unchecking 'Change relationship status'.

The solution: Paring down the digital clutter isn't as tough as cleaning out the garage, but it does take some effort. However, if you allowed, say, a trivial quiz to drop a box into the left column of your Info page, it's relatively easy to get rid of. Just click the pencil icon located in the top-right corner of the box and then select *Remove Box*.

Nondefault applications that have been added to the main column on your Info page require a little more work: Click the *Applications* button in the bottom left of the screen, and then click *Edit Applications* at the bottom of that list. On the page that appears, browse to find the application you'd like to remove. Click *Edit Settings*, and then click *remove* next to 'Info Section'. You can also remove unwanted tabs this way, by clicking *remove* next to 'Tab'.

Next, turn an eye toward locking down what applications—whether they appear on your page or not—are permitted to post to your account. On the

The Essential Guide to Twitter Etiquette

BECAUSE IT'S JUST a messaging platform, Twitter is far less complex than Facebook, but misuse and abuse seem just as common. Some of our favorite Twitter etiquette rules follow.

• Reconsider the running commentary Live-tweeting sporting events or conference speeches may seem like a public service, but who's listening? If you commonly use Twitter as a once-a-week status update, but then abruptly let fly with 80 tweets in a day, you'll aggravate followers who aren't expecting their account to be so overtaken. Consider a blog post instead, or offer a single succinct observation each hour.

• Understand @ replies Twitter's main failing is its inability to organize conversations, unlike Facebook, and overuse of @ confuses followers. Use an @ reply only when you're adding to a conversation publicly. "@bob - Yeah I know" is a waste of everyone's time. Instead, use a "D" (direct) message (type a **D** where the @ would normally be)—only the person you're responding to can see it.

• Go easy on acronyms Unless you're really crunched for space, there's no need for abbrevo-speak if your phone has a full QWERTY keyboard. (Fitting tweets into a single message is also good etiquette.) No matter what, spelling still counts on Twitter.

• Think about the venue As one reporter learned, it's not okay to tweet a funeral. Tweeting any sacred ceremony (wedding, bris, court proceedings) is generally a no-no. If you're unsure whether a tweet or two would be all right, ask the event's host. Be prepared to receive a funny look in response, though.

• Learn the lingo Check out our "Twitter Commands Reference Guide" on page 103.

Privacy Settings page, click *News Feed and Wall,* and you can start paring down the amount of junk that Facebook uses to automatically populate your Recent Activity. What you choose here is a matter of personal preference (see also our Facebook etiquette tips on page 99), and how spare you want your page to appear. Unchecking boxes on this page means fewer items on your profile. The selections are largely self-explanatory, so tweak at will.

But just removing an application box on your Profile page does not remove the app from your profile completely. To do that, you have to go behind the scenes a little. Click the *Applications* button at the bottom left of the page, and then click *Edit Applications* in the menu that pops up. Change the 'Show' drop-down to 'Authorized', and you'll see every application that you have given access to your profile. If you're like me, you'll have dozens and you won't remember most of them.

First, delete anything you no longer use (or want to use) by clicking the X, then *Remove* at the pop-up. For the apps you wish to keep, you can make them less chatty by clicking *Edit Settings.* Click *Additional Permissions* and uncheck *Publish recent activity to my wall,* and you'll no longer see updates when you play a Facebook game or send a goofy "gift" to your girlfriend.

Shoulda Been Working

The disaster: Dylan spent almost an hour playing a Flash game on a Web site when he was supposed to be working on a report for the boss. He didn't get caught—but the game posted his high score to his Facebook profile without his knowledge. The boss saw that score on his Wall, which earned Dylan a lecture about wasting company resources.

The solution: Putting aside whether he should have been playing the game, Dylan would have been better served by turning off the ability for third-party Web sites to post to his profile, a feature known as Facebook Beacon.

To disable this, visit *Privacy Settings,* then *Applications.* Click the *Settings* tab. Scroll down and uncheck *Don't allow Beacon websites to post stories to my profile,* under the Facebook Beacon header.

AVOID UNWANTED POSTINGS by clicking 'Edit Settings' to control what third-party apps can autopost to your profile; as a stronger measure, clicking the X deletes them altogether.

The Tell-Tale Heart

The disaster: Nancy broke up with her boyfriend and changed her relationship status to 'single'. Now a giant red heart is announcing her newfound availability to the world. An item in the right-hand 'Highlights' column announces the fact to all her friends. The trouble is, the thing looks like a singles ad.

The solution: It may not be instantly obvious, but you can delete anything from your Wall. Just hover over the item you want to get rid of, and you'll see a 'Remove' button suddenly appear to the right of said item. Click that button, and the item is gone for good.

Smile for the Camera

The disaster: Someone tagged Ben in a photo on Facebook, and he hates the shot, taken at a party—his eyes are closed, and he's clearly inebriated.

The solution: While you can't delete someone else's photograph (try asking nicely), it's easy to remove a tag of »

Setting Facebook's E-Mail Permissions

FACEBOOK TREATS WHAT it slaps up on your Wall and what it e-mails you about separately, so you'll have to visit a different section to change what the network sends you via e-mail. You'll find these settings by clicking *Settings* (top-right corner) then the *Notifications* tab. Get ready to click, again and again: The page has more than 50 different e-mail settings for the main Facebook application alone, plus a setting for each of your add-on applications. Turn as many to 'Off' as you care to.

yourself from any picture, which will remove it from Facebook's 'View Photos of Me' pages. To do so, just find the offending picture and click *remove tag* next to your name in the caption. Once the tag is removed, you won't be able to be retagged on that particular photo.

You're Not an Advertisement

The disaster: Bruno was horrified to discover that his name was attached to an ad that was spammed to his friends without his permission. What gives?

The solution: "Social ads" are Facebook's term for a practice that puts your name on an ad for a product and then forwards it to your friends, without your explicit permission. As you've nothing but a headache to gain by allowing this, turn it off. Go to the Facebook Privacy Page and click *News Feed and Wall,* and then select the *Social Ads* tab. Change the selection to *No one.*

Spam Central

The disaster: Kris woke up one morning to discover that her Facebook friends had been spammed with a message, "Check out mygener.at." She didn't send the message, and is reasonably worried that her account was hacked.

Indeed, Facebook is becoming a popular target for scammers, phishers, and spammers. The method typically used involves a phishing site (often with '.at' in the URL) that looks just like Facebook and thereby tricks you into giving up your password and user name. The site then takes control of your account and begins spamming your contacts with the phishing site's URL in the hopes of obtaining even more log-ins.

The solution: Conventional security software won't help much with attacks like this—though antiphishing add-ons can help to some extent—so using common sense is our best advice. Keep your password private, and make sure the site you're visiting really is Facebook and not a malicious knock-off.

SO-CALLED SOCIAL ADS are one of Facebook's more annoying features. Choosing 'No one' next to 'Appearance in Social Ads' can put a halt to this kind of social-network spamming.

Twitter Disasters

As a social networking tool, Twitter is even more open than Facebook—which is all the more reason to employ what safeguards you can on its network.

Twitter Never Forgets

The disaster: Nelson knows everyone who follows his Twitter feed and didn't think much about trashing a coworker on the service. Months later, long after he'd forgotten about it, the coworker began to follow his tweets—and, with a little digging, found Nelson's insult, creating an awkward office environment.

The solution: Unlike Facebook, Twitter has no mechanism for approving who follows you on the service, and anyone can read your full tweeting history. That is, unless you protect your updates: Click *Settings* and check the *Protect my updates* box. Your tweets now won't be visible to anyone not approved as a follower. However, anything you've already sent out will stick around, especially on third-party Twitter interfaces.

Locking Out the Twitter Twits

The disaster: Vicky regularly tweets (nastily) about a former friend, and naturally doesn't want that person to follow her on Twitter. How does she keep that person out before it becomes an issue?

The solution: First, your account must be marked as 'Protected', as described in the preceding item. Then, assuming you know the person's user name, simply block that user on Twitter. This option is on the profile page, in the 'Actions' section. It removes you from their Following list and prevents your updates from showing up on their page and from adding you to their Following list again. But your current friends can still copy and paste your tweets, or save them through screen captures.

The real lesson: It's probably best not to bash anybody on Twitter if you're afraid they'll find out about it.

Linking Twitter With Facebook Can Be Trouble

The disaster: Dan thought he was being a good Web citizen and killing two birds with one stone by linking his Twitter account to his Facebook profile (visit apps.facebook.com/twitter to set it up for yourself—but finish reading this item first). The idea is sound enough: Update your Twitter status, and your

Get a Vanity Facebook URL

YOU WOULDN'T HOST your personal Web site on a Tripod account with a randomly generated URL. So why should you settle for a Facebook page whose URL is indicated by nothing but a numerical ID? Memorable Web Address (apps.facebook.com/webaddress/) gives you a vanity URL that redirects to your Facebook profile (or any page or group); for example, 'http://profile.to/null' instead of 'http://www.facebook.com/profile.php?id=718386140'. If you would like to put your Facebook link on your business card or e-mail signature, this is a convenient way to de-uglify things considerably. (Of course, you can also use your favorite URL-shortening service to do a similar job, too.)

Facebook status updates along with it, automatically. However, a Facebook connection isn't always a good idea. If you're live-tweeting, say, a sports event or a conference, you might post 20 tweets or more in an hour. That may fly on the rapid-fire Twitter, but on Facebook it's over the line since it clogs up your friends' news feeds.

The solution: In Dan's case, a Twitter/Facebook link may not be appropriate, and he may be better off simply unlinking the two networks.

The best way to unlink is to browse to Facebook, click the *Applications* button on the bottom-left corner, and then select *Applications*. Find Twitter on this page and click the X to delete the app from your Facebook profile. (If you use a third-party application like TweetDeck to access Twitter, you'll have to unlink your profile through that app.)

Be Careful What You Link To

The disaster: In one of his daily tweets, David linked to an article expressing a strong view on a controversial issue. Before he knew it, David was being bombarded with tweets rebutting the article. David found many of these statements to be factually lacking, but still felt compelled to counter them in tweets of his own. Hours passed. Soon the afternoon was lost, and David was left frustrated by the challenge of making cogent arguments in 140 characters or less (Twitter's limit).

The solution: David didn't want to 'Protect' his tweets because he believed that the openness and public nature of the service are central to the Twitter concept. David should have considered that this openness means people he knows nothing about can see his tweets and the things he links to.

Second, when it became clear that David had become involved in a protracted debate with another Twitter user who wasn't making much sense, he should have blocked that user by going to the person's profile and clicking *Block* next to the person's user name. Problem solved. Afternoon saved.

ON TWITTER, CHECK the 'Protect my updates' box to prevent your future tweets from being seen by anyone not approved as a follower. But old tweets will still be accessible.

The Story of 'Cisco Fatty'

The disaster: Unlike the hypothetical examples in this story, this one is true (see ciscofatty.com). Connor was offered a job at Cisco, the big networking company. While weighing her options, she idly tweeted to her followers that she now had to decide whether the "fatty paycheck" she'd draw from Cisco would justify her "hating the work."

Problem is, a Cisco employee saw the tweet and called her out on it, prompting an outpouring of scorn from the Twitter community, as well as a lot of embarrassment for poor Connor.

The solution: Connor obviously should have protected her Twitter account via the 'Protect my updates' check box, as described on page 102.

But here's the larger lesson: Many people keep tabs on Twitter using filtered keywords, especially company names—and the use of the term "Cisco" in her tweet was what killed Connor's job prospects. A better approach would have been to leave the company anonymous, or—better yet—not to tweet about her job offer at all. ●

Twitter Commands Reference Guide

HERE'S A GUIDE on how to use and understand Twitter's special commands.

- **@username** The basic building block of conversations, for public replies to a tweet by the user noted after the @ sign.
- **D username** For a "Direct message" to only the user in question. "DM" also works.
- **RT @username** For "Re-Tweet," or a tweet you want to rebroadcast. Prefaced with the original twitterer's user name.

The following commands ask Twitter for information or tell it how to behave:

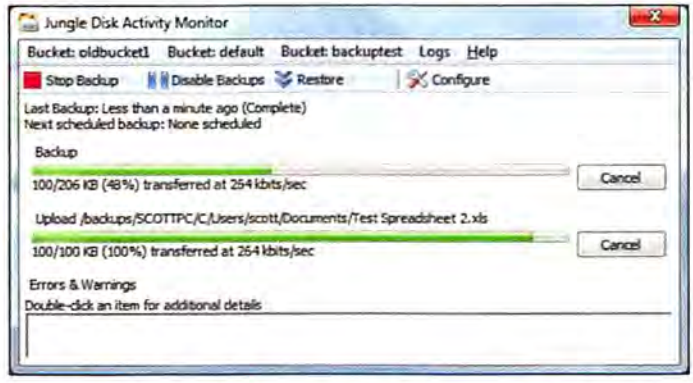
- **ON username** or **OFF username** Turns mobile phone notifications on or off for a single user. STOP and QUIT will cut off all Twitter SMS messages for all users. Only cell phone notifications are affected.
- **FOLLOW username** and **LEAVE username** To see—or stop seeing—the tweets of a user. Twitter displays a drop-down message saying it has carried out your command. However, to truly take them off your list, go to their Twitter profile and click *Remove* next to 'You follow *username*'.
- **WHOIS username** Pops up a brief amount of information about the user.
- **GET username** retrieves a particular user's most recent tweet.
- **STATS** Tells you how many followers you have and how many are following you.

Here's How

Digitize All of Your Old Analog Media, Easily

Back up your most treasured memories to digital format so that they can withstand the test of time.

BY JACKSON WEST



REMOTE BACKUP SERVICES like JungleDisk let you keep an extra copy of all your files in a safe location so that you can use them anywhere, anytime.

TECHNOLOGY HAS progressed so quickly through the years that anyone over the age of 30 has probably amassed a collection of data stored in various analog formats and in multiple generations of digital technology. (I'm looking at you, Commodore cassette tape drive.)

Though you may never need a particular bit of old data, being able to unearth an eight-year-old résumé or to search through a decade of tax returns may prove invaluable at some point. It's a great way to reduce clutter, too: Once you've digitized and backed up your old media, you can then recycle or otherwise dispose of much of it. So let's look at what you need to know to digitize all of your existing media.

Organize Your Collection

First, you need to take inventory of the digital media you may need to convert or recover, including files on old computers, hard drives, and removable media. Make special note of any broken or damaged devices, since getting data from them may require a specialist's help.

For the analog media—including paper documents, tapes, records, and film—that you plan to preserve, establish a simple reference system for finding the source item from the digital copy. I recommend using sticker labels, available at any office-supply store. Once you've converted something, just write the digital file's name on the label and affix the label to the box or file folder.

Where to Store Your Digital Archive

Hard disks: The fastest way to store digital copies is to put all of your files on an external hard drive. A USB-based external drive that can store a terabyte of data costs around $100, so buy two! You can use one drive for active archiving, and keep the other as a backup in a different location; in case of a calamity, you'll still have a copy. A 1TB drive will hold approximately 180 hours of high-definition video, about 250,000 songs, or the equivalent of 200 single-sided DVD-R discs.

Remote backup: Another alternative is to store the data online. You can use software such as JungleDisk (find.pcworld.com/63034), which will store your files at a remote location that you can access through practically any Internet connection. The software and service together cost $2 per month, plus storage charges based on how much space you use—$15 per month for 100GB, or $150 per month for 1TB. You can arrange for JungleDisk to back up material on the fly; that way, as you add content to your digital history, the service will store new documents on multiple servers with near-instant accessibility.

Digital Media

Hard disks and old computers: For hard disks, including those from old PCs, retrieving the data may simply be a matter of sliding the drive into an external enclosure and plugging the device in. Most laptop systems have 2.5-inch drives, while 3.5-inch drives have been the desktop standard for the past decade. Enclosures for

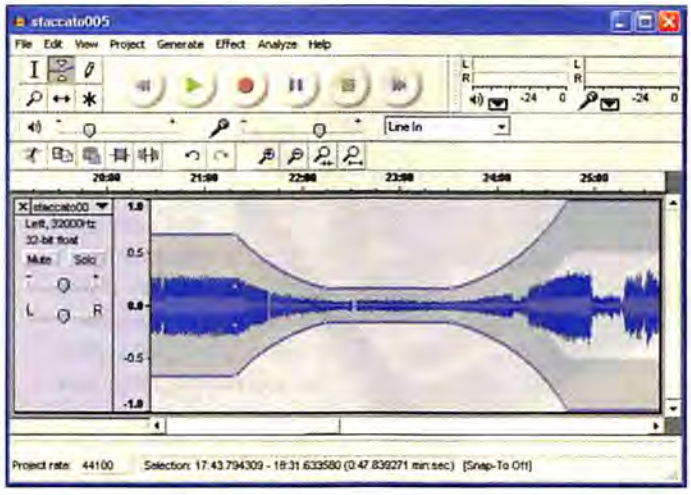
FOR QUICK, PORTABLE access to your old data, slip a 2.5-inch laptop hard drive into an enclosure such as the Ultra USB 2.0 Storage.

either size with USB connectors start at about $30. Make sure that the drive and the enclosure connections are compatible; for instance, check whether the drive is Serial ATA (SATA) or ATA/IDE, which will be marked on the drive.

Removable media: If your collection consists of a lot of one type of old media, your best option may be to purchase an old drive to match. USB readers for multiple memory-card formats and external 3.5-inch floppy drives with USB connectors are readily available online for about $20. Other kinds of drives—tape backup drives; magneto-optical models; and Zip, Jaz, and Ditto drives—are easy to find on eBay. You may have to grab special adapter cables to connect old serial ports to USB, and you may need the original software to recover compressed or protected backups.

Media Conversion

If you have just a few old disks or cartridges to handle, a number of data conversion companies will be happy to take a box of old media from you and either deliver the recovered data to you via e-mail or burn it onto CDs or DVDs. If you live in a city, look for local companies, including PC repair shops, to save on shipping; and call multiple companies to compare prices. Have some obscure types of media lying around? Advanced Computer Innovations (find.pcworld.com/63035) can convert an astonishing array of media, operating systems, and file formats.



AUDACITY, A FREE download, works with almost any sound-capturing device your computer supports; it makes digitizing old tapes inexpensive and easy.

Data Recovery

Due to age or damage, some of your media and hardware might be unreadable. If you have the appropriate drive, you can use data recovery software to try to save the files held within—including lost photos or video from camera memory cards. Virtual Lab Data Recovery (find.pcworld.com/63036) supports most common media, hardware, and file systems. Disk Doctors (find.pcworld.com/63037) offers both software and services, including data recovery from damaged media and devices.

File Formats

After you've backed up all of the data on a device that you can use, it still may not be readable or searchable. Documents from old computers and software might be saved in binary formats that their modern equivalents can't understand. You have two approaches to handling data that your current software can't read and turning it into friendly formats: Look online for conversion applications or software add-ons; or look for emulation software. The Emulator Zone (find.pcworld.com/63038) has all sorts of old computer operating system emulators, including Amiga, Commodore, and Macintosh.

Analog Media

Audiotape: To digitize your analog audiotapes, you will need a tape player to play back the cassette or open reel, an audio input for your computer, and a piece of recording software. If your computer doesn't already have a line-in connector, you can buy a USB device. As for the software, Audacity (find.pcworld.com/63039) is a free, open-source sound-editing application that will get the job done. If the audio consists of interviews or spoken-word content, you may want to transcribe it so that the content becomes searchable. The CastingWords service (find.pcworld.com/63041) charges only $0.75 per minute of audiotape for transcripts.

If you have more-exotic media, such as four-track cassettes or half-inch tape, and you want to preserve the independent tracks, you will need to use a multitrack input device. M-Audio (find.pcworld.com/63040) sells both four-track and eight-track USB devices. If you don't have a device that can play back the original tapes, such as 1-inch analog or digital ADAT eight-track recordings, contact local recording studios. A variety of restoration services, including Graham Newton (find.pcworld.com/63042), advertise online; consult one of them if you need assistance with recovering data from damaged or broken tapes or records.

YOU CAN CONNECT your old videotape player to a simple, affordable USB converter such as the EasyCap to digitize your old video—and audio, too.

Vinyl records: If you own a collection of vinyl albums that you'd like to listen to on your iPod, a USB turntable is a must-have accessory. Numark (numark.com) makes a »

few models to fit a variety of budgets. We like the $95 PT-01USB. Though it's a fairly simple turntable, it has a gain control knob to help reduce hisses and pops in your recordings. It comes with both PC and Mac software, and it can convert records to .mp3 or .wav files. At the high end, the $360 Numark TTXUSB delivers professional-grade audio quality and a host of features any DJ would love, including a small illuminated display that presents the current settings for rpm (revolutions per minute), bpm (beats per minute), and pitch.

THE NUMARK PT-01USB turntable allows you to convert vinyl albums into MP3s.

Videotape: For archiving digital video, a FireWire or FireWire-to-USB cable should suffice to connect a camera to your computer. Otherwise, recording videotape is the same as recording audiotape. In fact, if you expect to record video in addition to audio, you can use any of an assortment of video-conversion devices to record both—possibly saving yourself a bit of money. For instance, the EasyCap USB 2.0 Video Capture Adapter (available for $15 at Amazon.com) can perform both video and audio capture. When possible, use an S-Video cable to improve the quality of the transfer.

If you'd prefer that someone else do the work, you should be able to find a local service that can convert old tapes to DVD. If you have your video stored on old professional-grade tapes (such as U-Matic, Beta SP, or DigiBeta), you may need to consult a specialist. The folks at BetaSPtoDVD.com will convert almost any old tape to DVD, and they maintain a great blog about video transfers and archiving tips (see find.pcworld.com/63043).

Film

Negatives and slides: Depending on the quality of digital output you want, you have various options. For processing 35mm slides and negatives, or other transparent still photos, you can get a decent digital image by putting them through an inexpensive flatbed scanner that's equipped with a transparency adapter. If you want to obtain high-resolution digital copies for later printing, your best bet may be to bring your transparencies to a specialized service. Most professional photographers arrange for a service such as New York's Matrix to scan their film on a wet-mount drum scanner, which can produce stunning results. Check your local listings for professional photo or printing services.

Process	~~BRONZE~~	SILVER	GOLD	~~PLATINUM~~ HD
Example Film Frame				
Price*	~~12¢/foot~~ 10¢/ft Sale	~~24¢/foot~~ 18¢/ft Sale	~~42¢/foot~~ 27¢/ft Sale	~~55¢/foot~~ 38¢/ft Sale
Quality vs. Film	30-50% Worse	Similar To Film	Better Than Film	Best Possible

THE ARIZONA-BASED VIDEO Conversion Experts demonstrates the relative cost and quality of different film-scanning options.

Motion pictures: For digitizing movies, you should go straight to the pros. But don't settle for DVD quality: Film is much more detailed than DVD video, and old footage might require some restoration work to produce the best results. Have the service scan the film and return it to you as 1080p HD video (on Blu-ray discs or on an external hard drive). For transfers from 16mm film to HD video (including film cleaning, return media, and shipping), the fees range from $5 to $8 per minute at companies such as My Movie Transfer (find.pcworld.com/63045) and Video Conversion Experts (find.pcworld.com/63046).

Documents and Photos

For creating digital files from paper documents and photographic prints, a flatbed scanner generally does the trick. If you're working with art or photography, a sub-$100 entry-level scanner should be adequate. If you are planning to scan an entire manuscript, however, you should probably look for a scanner that provides an ADF (automatic document feeder); such models start at around $300. It's also a good idea to have image editing software on hand for retouching photos and art, as well as to have OCR (optical character recognition) software for converting typed or printed text documents so that you can search their contents easily.

Whether you're preserving treasured pieces of family history or valuable business documents, your own creative art works or a collection of old records, bringing your analog archives into the digital age and making them searchable stands to benefit you now and (especially) in the future.

THOUGH SHEET-FEED scanners like the Fujitsu S1500M cost hundreds of dollars, they significantly accelerate the process of scanning filed documents.

RESTAURANT PRO EXPRESS™

Point of Sale System for Restaurants

More Profit! • More Sales! • More Customers!

Save Time, Reduce Theft, Speed Checkout, Increase Accuracy,
Reduce Costs, Make Better Business Decisions by Computerizing your Restaurant

The #1 Rated Restaurant Point of Sale

- Fine Dining, Table Service
- Quick Service, Fast Food
- Delivery, Takeout, Drive-Thru
- Cafeterias, Hotels, Gift Shops & Retail Stores
- Rated # 1 for Ease of Use
- Rated # 1 for Restaurant Features
- Single or multi-user
- One restaurant or multiple restaurants
- Credit card authorization in 2-3 seconds
- Gift Cards & Loyalty Cards
- Track your inventory and customers
- Detailed Sales Reports
- Rated # 1 in Customer Service
- FAST and EASY order-taking

All-In-One Terminals ~~$1899~~
Posiflex, IBM

Cash Drawers ~~$189~~
MMF, Indiana, APG, Logic Controls

Receipt Printers ~~$299~~
Epson, Star, Ithaca, Citizen

Pole Displays ~~$289~~
Logic Controls

Table-Side Ordering- ~~$499~~
Symbol, HP Palm

Touch Screen Monitors ~~$499~~
ELO Flat Panel, CRT

Credit & Debit Card Processing ~~$349~~
PC Charge
Credit Card Readers, Pin Pads, Signature Pads ~~$179~~
Unitech, MagTek, Verifone, Topaz, HHP

DINER'S CHOICE

Gift Cards and Loyalty Cards

Restaurant Pro Express software for Windows $ 795

Replace your Cash Register with Restaurant Pro Express in any type of restaurant. With over 1,000 of the most desired restaurant point of sale features, Restaurant Pro Express will help you compete in a difficult restaurant environment by controlling your costs, reducing errors, increasing efficiency, increasing your profits and increasing your sales. Restaurant Pro Express provides faster checkout, table seating, split checks, tip tracking, unlimited menu items and modifiers, and THE FASTEST, MOST EFFICIENT WAY TO SERVICE YOUR CUSTOMERS.

Specializing in Point of Sale since 1985

DEALERS WANTED!
Join our dealer program. It's FREE. It's the fastest way to make money...AND we make it EASY.

For More Info Call Toll Free!
1-800-722-6374

FREE DEMO!!

1-800-PC-AMERICA
WWW.PCAMERICA.COM

CALL TOLL FREE: 1-800-722-6374 • PH:845-920-0800 • FX: 845-920-0880
PC AMERICA, 1 Blue Hill Plaza, Second Floor, Box 1546, Pearl River, NY 10965

Arrange In-Person Meetings With Online Tools

Everyone hates going to business meetings. These useful Web-based tools and services can help you schedule and run meetings more effectively.

IF YOU'RE LIKE me, you probably hate attending business meetings. But an assortment of useful Internet-based tools can help workgroups schedule and run meetings more effectively. All of the tools described here work within most popular Web browsers, and most of them are available for free or for fairly low monthly fees. The challenge is in understanding which tool suits a particular situation, because not every meeting is held under the same circumstances.

ON YOUR TIMEDRIVER dashboard you can specify your availability for appointments you want clients and colleagues to be able to book with you.

Synchronize Multiple Calendars

The most frequently occurring situations are those where you want to synchronize a common calendar, such as between a staffer's PDA and their Microsoft Outlook desktop, or between a supervisor's calendar and an assistant's. Many services can make sharing calendars between work team members (or even between family members or friends) easier. Google Calendar (find.pcworld.com/63205) and Yahoo Calendar (find.pcworld.com/63206) each offer free calendar sync; and numerous other products—for example, Calgoo's Connect, Apple's MobileMe and iTunes for its computers and its iPhones, NuevaSync, and SugarSync—work with both services. BusySync and Spanning Sync can synchronize Apple's iCal calendars with Google Calendar, as well.

But these sync services don't always work correctly. Part of the problem is that most online calendar and scheduling products send e-mail to notify users about events and invitations, and it is difficult for various calendar programs to recognize or act on such e-mail messages in any consistent fashion. Another issue is that if you receive an e-mail containing an embedded URL from the calendar program, your corporate antispam service might block it. And in still another situation, two people on two different Microsoft Exchange servers might wish to schedule a common meeting: Though it is possible to hook up both Exchange calendars so that they synchronize with the same Google Calendar account, doing so can be tricky. One potential solution for the last problem is to use Cemaphore's MailShadow for Google Apps (cemaphore.com) to sync the Exchange servers with Google Calendar; the software costs $60 per e-mail account per year.

One thing that both Google Calendar and Yahoo Calendar are great at doing by themselves is sending out e-mail reminders about recurring meetings to a collection of addresses. As long as you have entered the appropriate addresses, this function works well.

THE SCHEDULEFLY WORK-SHIFT organizer offers a Facebook application, so you can integrate your calendar there and keep tabs on work schedules.

Let Clients Set Up Appointments

What if you want to allow clients—or any other people not employed by your firm—to book your time directly? In the long-ago past, an appointment secretary would be in charge of the boss's calendar and would set up meeting times with pencil and paper. Now you can direct clients and outside colleagues to self-service appointment scheduler Web sites, such as HourTown (hourtown.com) or TimeDriver (timedriver.com). These sites can display your staffers' free and busy times, as well as what remaining time "inventory" is available for appointments. The sites also send out e-mail notifications, and they don't require any special software beyond a Web browser to confirm the

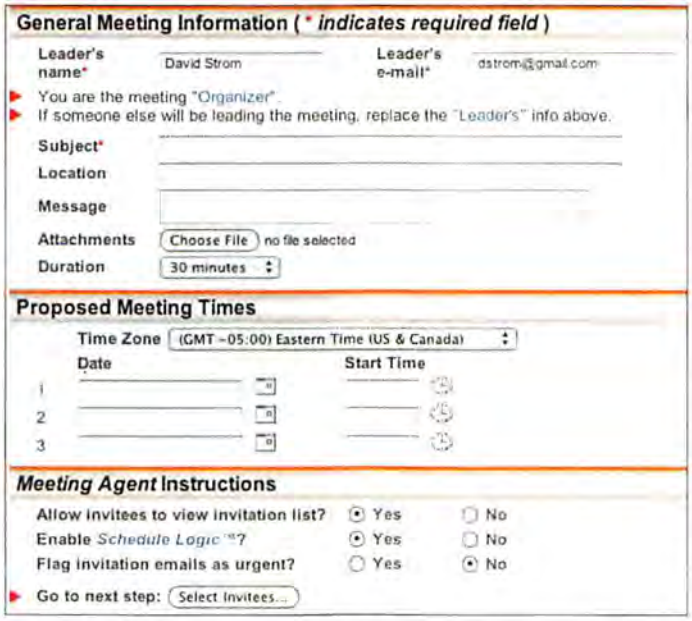
appointment. You can easily adjust the schedule when you are going out of town or are otherwise unavailable, too. Both services are available for a reasonable cost: TimeDriver has a free 90-day trial and is $30 a year thereafter; HourTown offers three different plans, including a free one that allows two monthly bookings.

Set Up a Common Meeting Time or a Shift Schedule

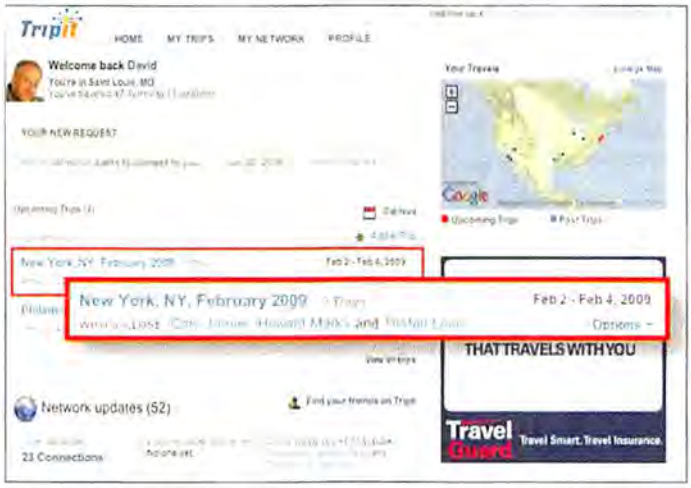
How about a situation in which you want to arrange a common meeting time for people who'll be attending from different companies? As the meeting organizer, you could send out an e-mail notification with a series of possible open times, and ask each participant to check off which of those times work for them. But if you have ever tried to set up this kind of meeting, you know how quickly you can get buried under all the e-mail responses.

The free Web services SetMeeting.com (from Meeting Agent) and Doodle (doodle.com) are useful in this respect. SetMeeting.com's biggest weakness is its inflexibility: Once you initiate the process, you can't change the meeting location without canceling and starting from scratch. Doodle, which is less sophisticated and has fewer features, is really more of a polling device to help you find a common time; but you may find the service attractive if that's all you wish to do.

Another situation might involve, say, a large number of shift workers or volunteers whose available times you want to coordinate. While this is not really a meeting-scheduling issue, it can be a time-consuming chore if you try to tackle it manually or attempt to make arrangements through a lot of back-and-forth e-mail. Two paid services—Schedulefly (schedulefly.com) and Shiftboard (shiftboard.com)—are designed for this purpose. The former was developed for scheduling restaurant staffers, while the latter was first made for the healthcare market. Both have since expanded their focus and can run in any browser. Schedulefly starts at $20 a month for up to 19 users; Shiftboard starts at $50 a month for five unique log-ins. The fees go up for larger groups.



SETMEETING.COM MAKES IT relatively simple to organize a meeting among participants who are coming to the gathering from different companies.



ON TRIPIT'S MAIN PAGE you can review your upcoming trips and see which business contacts or buddies will be in the area you're planning to visit.

Schedulefly offers a Facebook plug-in, too, so you can coordinate and announce shift times there.

Send Out Travel Alerts to Far-Flung Colleagues

Tripit.com provides an unusual service: At the site, you can post your travel arrangements and use the social networking features to tell associates and buddies when your journeys will take you to their neighborhood—or to find out when they will be in your neck of the woods. Setting that up means sending out more invitations to yet another social network, and getting people (the ones you want to see face-to-face, at least) to join your Tripit circle. But notifying signed-up friends of your trip is easy: You just forward the e-mail confirmation for your airline or hotel reservation to the special plans@tripit.com address, and the site automatically parses the information, figures out who is traveling, and posts your itinerary to your network. The free service can integrate with your LinkedIn network so that you don't have to assemble your notification circle from scratch.

With all the Web services here, you can schedule and coordinate in-person business meetings more effectively. Now if only someone would develop a service that could notify everyone that you're running 10 minutes late for your appointments!

—David Strom

Reduce Digital Noise in Your Photographs

A PHOTO SNAPPED AT ISO 1600 exhibits an unappealing, grainy look. 'Reduce Noise' in Photoshop Elements can improve its appearance.

EVEN RUN-OF-THE-MILL digital cameras today take better pictures than the best point-and-shoot film cameras did 30 years ago. Almost everything is better: the optics, the exposure controls, the resolution. Both digital and film photos, however, can come out grainy and unattractive; in digital photography, this is called *noise*.

First and foremost, high ISO levels accentuate digital noise. ISO is a measure of your camera sensor's (or film's) sensitivity to light. Most digital cameras let you increase the ISO for shooting in low light. Photos will always have some noise, but the higher you crank the ISO dial, the more noise results.

Long exposures also produce noise. The longer the exposure, the hotter your camera sensor gets—and heat contributes to noise. That's rarely a problem in daylight photography, but long exposures at night can be filled with noise.

One other factor is underexposure. You will almost always see more noise in darker areas and in images that are underexposed. It gets more noticeable as you enhance an underexposed photo, so having the right exposure when you take the picture is important.

Avoiding Noise

Though low ISO settings give you the least noise, you can't be at ISO 100 all the time. Use the lowest ISO you can get away with under the prevailing conditions. Bump it up for shooting indoors without a flash, for instance, but don't crank it up to ISO 1600 when ISO 800 might do. Increase the ISO until the shutter speed is fast enough to take a sharp photo, usually about the inverse of the focal length. If you have the lens set to, say, 100mm, you can get a fairly steady shot with a shutter speed of 1/100 second.

When you're done shooting in low light, remember to reset the ISO to the lowest setting. Don't leave it on Auto, where the camera can change the ISO willy-nilly.

You can fight the ill effects of long exposures by turning on your camera's noise reduction. In many cameras the feature automatically kicks in when the shutter speed exceeds 1 second.

Though underexposure leads to noisier photos than overexposure, the latter has its own problems. An overexposed shot can have "blown out" highlights of pure white. If your camera has exposure bracketing, take a series of photos so you can keep the best one.

Using a Photo Editor

If you can't avoid noise, you can smooth out photos with software. Many photo editors have a noise-reduction filter. In Adobe Photoshop Elements 6, for example, click *Filter•Noise•Reduce Noise*. You have to weigh the trade-off between reducing noise and erasing desirable details in the photo, however.

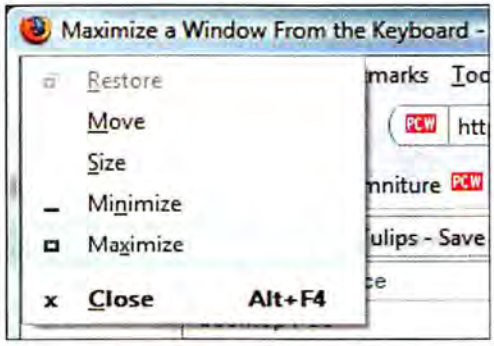
You can also try a standalone, dedicated program like Noiseware (find.pcworld.com/63207) or Noise Ninja (find.pcworld.com/63209).

—Dave Johnson

ANSWER LINE **ASK YOUR QUESTION AT FORUMS.PCWORLD.COM**

How can I create a keyboard shortcut for maximizing a window?

—Robert Hall, via e-mail



INVOKE THE SYSTEM menu with <Alt>-<Space>, and then press the X key to maximize the window.

YOU HAVE NO way to instruct Windows to perform that operation with one keystroke. But you can do it with two.

If you want to maximize an application window, press **<Alt>-<Space>**. (In other words, hold down the **<Alt>** key while you press the spacebar.) That will cause the current application's System menu—the same one you get if you click the little icon in the window's top-left corner—to pop up. To maximize the window once the menu is up, press **X**. To minimize it, press **N**; and to restore it to its pre-maximized state when it's maximized, press **R**.

What about maximizing a document window within an application? If the program supports the Multiple Document Interface (MDI), press **<Alt>-<Hyphen>** (that is, hold down the **<Alt>** key while you press the hyphen [-] key) for the menu. Then follow the instructions described above.

—Lincoln Spector

Online Postage Tools Can Save You Time and Money

I USED TO think that the post office's biggest innovation was the transition from lickable to self-adhesive stamps. But a host of shipping tools at the USPS Web site (find.pcworld.com/63210) can save you money and time—you might never have to wait in line at your local branch again.

You can order shipping boxes and envelopes at no cost, with no delivery fee. You can also place orders for stamps and other paid necessities to be delivered. And an online calculator gives you current rates based on the package destination and weight.

Instead of using stamps, you can buy and print postage for a package online. You can also automate your shipping, especially for packages to repeat destinations. Just weigh your package, select a rate, and print the label.

Third-party site Endicia (endicia.com) offers similar assistance. It sells printers, labels, scales, and services to automate your shipping. Many of its products save you about 3 to 5 percent versus buying directly from the post office. If you ship about 25 or more items daily, you could qualify for additional savings.

Low-volume shippers, however, will likely pay back the basic savings in printer labels and other consumables. Though Endicia services can work when you print to a standard piece of paper or directly on an envelope, the process is simplest with the company's custom printers and labels.

As part of a current promotion, Endicia is offering new customers a free sheet of its postage paper and 50 cents of shipping credit. It's a light offer, but you could dabble with the service before deciding if it's right for your business.

—Zack Stern

THE WEB SITE of the U.S. Postal Service lets you easily buy postage and print out shipping labels for your packages, thus automating the process.

LINUX LINE

Add a Drop-Down Terminal Window to Gnome With Tilda

AS USERS BECOME more experienced with Linux, they almost invariably learn to love (or at least tolerate) the powerful command-line interface of the terminal. For superquick access to the terminal window, I recommend a convenient utility called Tilda, which places the terminal in a drop-down menu at the top of the screen. Press a key, and the terminal slides out from just beneath the panel. Press a key again, and it slides back up, out of sight.

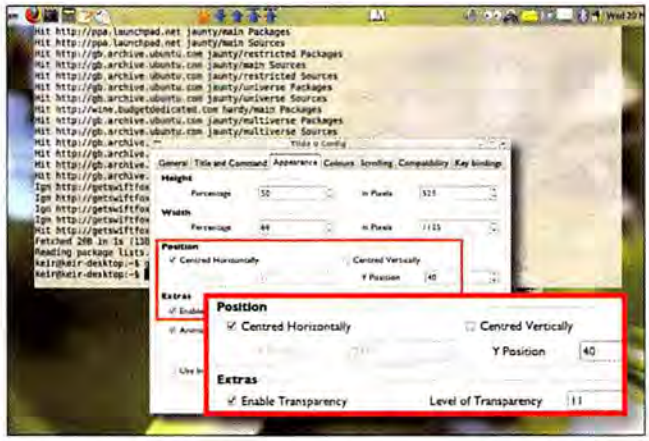
To install Tilda, just search for it in the Synaptic Package Manager. Once you've installed it, you'll need to make it autostart on each boot by adding an entry within *System•Preferences•Startup Programs* (click the *Add* button and type **tilda** into both the Name and Command fields). Tilda's preferences let you set a hotkey combination to hide/unhide the prompt; I use **<Ctrl>-<Space>** (right-click Tilda's window and click *Preferences* to change the settings).

The beauty of Tilda is that it remains in the background. I can start a system update with 'sudo apt-get upgrade', say, and then hide the Tilda console until it's completed. I don't risk accidentally closing a terminal window and thereby killing any processes I began.

It also means that I don't have several unused terminal windows hanging around on the desktop, cluttering my view. Just as in a standard terminal window, pressing **<Ctrl>-<Shift>-T** in Tilda will open new tabs (simply type **exit** within each tab to close it).

I have tweaked Tilda's settings so that the window is semitranslucent and centered, as illustrated in the screenshot above.

—Keir Thomas



THE TILDA UTILITY makes your terminal window accessible in a flash, and lets you adjust how the window looks and where it appears.

RICK BROIDA'S HASSLE-FREE PC

Time-Savers for Social Networks, Web Search, and PDFs

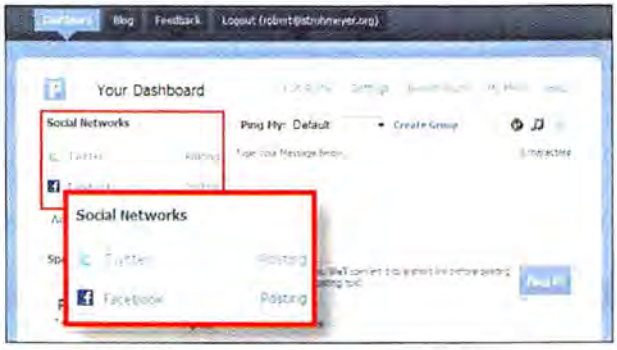
OH, THE INTERNET. With every new convenience, it brings an accompanying annoyance. This month I'll show you how to make your social network pages more manageable by updating all of them in one fell swoop. I'll also suggest a browser plug-in that can streamline your Web searches. Last, I'll tell you how to convert PDF files into Microsoft Word documents that you can easily edit.

Post updates quickly, search faster, and turn PDFs into editable docs with these tools.

Update All of Your Social Networks at Once

Want to tell the world you just scored tickets to Coldplay? If you subscribe to many social networks, posting your update everywhere might take you longer than buying the tickets did. Ping.fm aims to make updates a unified affair: Just send your missive to the service, and it will post the note to all of your networks.

Ping.fm currently supports over 40 networks, from Facebook, LinkedIn, and Twitter to lesser-knowns such as Bebo and Rejaw.



THROUGH PING.FM, YOU can post a message to Facebook, Twitter, and other popular (or obscure) social networks, all at once.

After signing up, you'll be able to post updates through e-mail, SMS, instant messaging, your phone's browser, Skype, and even an iGoogle gadget. On the Dashboard page, click the posting method you want to use to get the instructions you need, such as your unique Ping.fm e-mail address or the iPhone-friendly browser URL.

Ping.fm can automatically take care of URL shortening (handy for the likes of Twitter and Rejaw), and it lets you set up groups in case you want to hit some, but not all, of your social networks.

Speed Up Searches

When it comes to scouring the Web, most folks use the search field that's built into their browser. (I say "most" because I know a few crazy types who insist on going to, say, the Google or Yahoo home page and running their search there. Nuts, right?)

Built-in search is the best thing to happen to browsers since tabs, but you can make it even better: Inquisitor (find.pcworld.com/63204) is a free plug-in that displays fast, polished results as you type. A favorite among Safari users, Inquisitor (which Yahoo acquired last year) recently came to Firefox and Internet Explorer.

You simply install the plug-in, restart your browser, and then start typing in the search field as you normally do. Now, however, each keystroke brings search results, suggestions, and shortcuts to other search engines. All of that information appears in a slick-looking black box enhanced with search-history flags that help you quickly zero in on sites you've visited before.

Inquisitor makes Yahoo your browser's default search engine—not surprising, but rather annoying. Fortunately, if you prefer, you can switch to Google (or whatever search engine you like): Just click *Search Options* at the bottom of an Inquisitor results list.

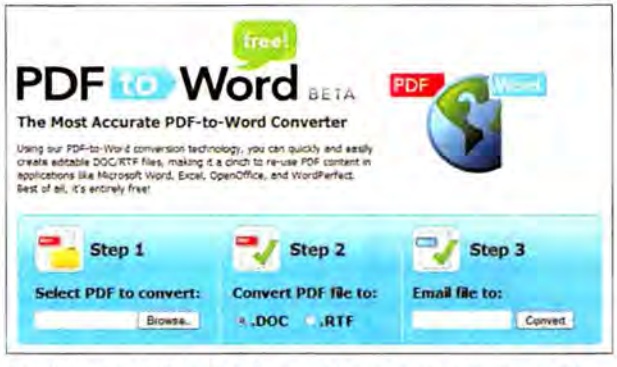
If this plug-in's benefits sound familiar, it's probably because the CyberSearch extension for Firefox offers similar capabilities, as does Google Chrome's address bar. Of course, Google Toolbar users have long enjoyed similar search-as-you-type goodness, though without the same flair. The bottom line: Inquisitor brings faster, simpler searches to your favorite browser.

Convert PDFs Into Editable Word Documents

Ever wish you could edit a PDF file in Microsoft Word? Seems like that should be easy enough, especially when you're dealing with a document that's mostly text. Alas, a PDF is just a collection of images, meaning you can't edit the contents in their native format.

You could opt for a pricey utility that converts a PDF file into Word-friendly text. But the PDF to Word (www.pdftoword.com) Web service accomplishes the same thing, for free. Just upload a PDF and choose an output format: Word or Rich Text Format. Then sit tight while the service works its magic, eventually sending you an e-mail message with a link to download the converted document.

I recommend choosing Word over RTF because Word conversions end up looking remarkably similar to the original PDF files. Ultimately, the quality varies from one document to another, depending on the file's content, layout, and other factors. Nevertheless, this is one seriously handy tool, and you can't beat the price.



THROUGH THE FREE PDF to Word Web service, you can get an editable Word document or RTF file from a PDF, at absolutely no cost.

Back to School Savings

09MGPWAUG

» Students, parents, and teachers save up to **85% off** with **academic discounts.**

Adobe **CS4 Design Premium**
Student Edition for College Students only
MSRP $1,799 | You Save $1,400 | $398.95
Mac #CA962669 | Win #CA961113

Adobe **CS4 Photoshop Extended**
Student Edition for College Students only
MSRP $999.00 | You Save $800 | $198.95
Mac #CA962281 | Win #CA961155

Microsoft **Office Professional**
MSRP 499.95 | You Save $320 | $179.95
Win #CA784349

Autodesk **Maya Unlimited 2009**
MSRP $2,995 | You Save $2,595 | $399.95
Mac and Win #CA931377

ACADEMIC SUPERSTORE

Use **Promo Code 952089** when placing your order and receive a **FREE Backpack** with your order of $100 or more! Hurry, this offer ends 11/1/09. Prices are subject to change.

Visit us online or call now: **www.AcademicSuperstore.com/pwau | 1-800-580-9237**

Back up today or call us tomorrow

The grim reality is that sooner or later all digital media–from hard drive to flash memory–will fail. When this happens there are only two things you can do:

1. Restore your data from your backup system
2. Call DriveSavers **800.440.1904** (24/7)

At DriveSavers, "We can save it!" is not only our slogan, it's our solemn pledge. And we have the track record to prove it.

We've invested over 20 years developing proprietary techniques and millions of dollars creating an advanced facility to save the most valuable data in the world–Yours!

You can find other alternatives, but you won't find a better one. Take our Virtual Tour and see for yourself: **drivesavers.com**

DRIVESAVERS DATA RECOVERY

We can save it!

©DriveSavers, Inc. 2008 DriveSavers Data Recovery, We can save it! and the life ring logo are registered trademarks of DriveSavers, Inc.

Take our Virtual Tour at drivesavers.com

Granite D•I•G•I•T•A•L

SATA USB FIREWIRE SCSI

SATA LCD HOT-SWAP STORAGE SYSTEM
#7408

Toll Free: (888) 819 - 2190

www.granitedigital.com

WEEKLY COUPONS UP TO 25% OFF!

UNLIMITED USE ALL WEEK
ON SELECTED PRODUCTS

1000 BUSINESS CARDS 16pt, 4/4, with Satin AQ $10
1000 BUSINESS CARDS 14pt, 4/4 with UV1, or AQ1 $12
1000 4x6 POSTCARDS 14pt, 4/4 with UV1, or UV2 $30
1000 8.5x11 FLYERS 100# Gloss Book, 4/0 with AQ $72
1000 8.5x11 BROCHURES 100# Gloss Book, 4/4 with AQ $87
VINYL BANNERS Starting At: $1.65 SQ FT As Low As: 95¢ SQ FT

To access your current weekly coupon specials, login to your Zoo Printing account.
Once logged in your coupon details will be displayed on the home page!

STUDENTS!

Get Ready for Back-2-School!

The industry standard image editing software for print and Web.

SRP $999
$199.98

The most inventive digital painting software on the market.

SRP $399
$49.98

- Photoshop CS4 Ext.
- Illustrator CS4
- InDesign CS4
- Acrobat Pro 9
- Dreamweaver CS4
- Flash Pro CS4
- Fireworks CS4

SRP $1799
$399.98

VisTablet 12x10 inch tablet allows you to explore the internet, draw, paint, write, highlight and do professional or home photo editing.

SRP $129
$109.98

Adobe Student Edition* is available to higher ed (college-level) students only. Proof of academic status required. Pricing subject to change. Not responsible for typographical errors.

journeyEd.com Click or call to order.

www.JourneyEd.com/PCW 1.800.874.9001

NEW LOW PRICE!

$6.99 (Wow!) Qty 3+
Qty 2: $7.99
Qty 1: $8.99
Remanufactured HP 51645a (No. 45) ink cartridge.

More great deals at...
1-800-INKFARM
inkfarm.com
the ink & toner supersite.™

NEW AND UPDATED SECOND EDITION

Be an iPhone Pro

Get the most out of your devices with this 154 page book.

ORDER NOW!

macworld.com/superguide

Macworld Superguides are available in 3 convenient formats: 1) Downloadable PDFs: Get immediate access. 2) Printed Book: Order a handy, full-color printed book on high-quality paper. 3) PDF on CD-ROM: Don't want to download the PDF, get it on CD-ROM.

PRESIDENT, CEO Mike Kisseberth
EXECUTIVE ASSISTANT Caroline Ward

PCW

PHONE:
415/243-0500

FAX:
415/442-1891

E-MAIL:
letters@pcworld.com

WEB:
www.pcworld.com

MAIL:
PC World Editorial
501 Second St. #600
San Francisco, CA
94107

ADVERTISING SALES

VP, STRATEGIC SALES/ONLINE
Mark Barreca (732/544-2006)

ASSOCIATE PUBLISHER/PRINT AND MIDWEST ACCOUNT DIRECTOR
Kathy McKay (847/251-9274)

EAST

EASTERN ACCOUNT DIRECTOR
Amy Singer (201/634-2317)

ACCOUNT MANAGER, BUSINESS DEVELOPMENT
Kathy Rebello (508/820-0440)

WEST

SOUTHWEST ACCOUNT DIRECTOR
Cindy Hamilton (949/442-4005)

NORTHWEST ACCOUNT DIRECTOR
Alicia Langer (415/267-4578)

SALES ASSOCIATE
Chrissy Schneider (415/978-3269)

NORTHWEST ACCOUNT DIRECTOR
Melissa Gruber (415/974-7373)

SALES MANAGER, BUSINESS DEVELOPMENT
Duane Hampson (415/978-3133)

SALES ASSOCIATE
Rocio Guerrero (415/978-3266)

SALES MANAGER, BUSINESS DEVELOPMENT
Niki Stranz (415/243-3664)

ACCOUNT MANAGER
Carol Johnstone (415/978-3390)

ACCOUNT COORDINATOR
Paul Moretti (415/243-3575)

PC WORLD REPRINTS
Erik Eberz (717/399-1900 x150)

CUSTOM PUBLISHING

ASSOCIATE PUBLISHER/PRINT AND MIDWEST ACCOUNT DIRECTOR
Kathy McKay (847/251-9274)

PCWORLD.COM AD OPERATIONS

DIRECTOR, AD OPERATIONS
Kevin Barden

AD OPS TRAFFIC MANAGER
Nick Stanley

AD PROJECT MANAGER
Leilani Lopez

AD OPERATIONS COORDINATORS
Keri Campbell, Andrew Galluccio

RESEARCH AND MARKETING

VP, STRATEGIC INTELLIGENCE
Jessica Lilie

RESEARCH ANALYST
Kyle Flick

CONSUMER MARKETING

PROCIRC, SUBSCRIPTION MANAGEMENT
Shawne Burke Pecar

PROCIRC, SUBSCRIPTION MANAGEMENT
Megan Guard, Susi Chapman

PROCIRC, RETAIL SOLUTIONS
Mark Peterson, Scott Hill

PRODUCTION

DIRECTOR, PRODUCTION
Nancy Jonathans

ASSISTANT PRODUCTION MANAGER
Eliza Wee

PREPRESS MANAGER
Tamara Gargus

ONLINE MANAGEMENT

EXECUTIVE VP/GENERAL MANAGER, ONLINE Stephan Scherzer

VP, BUSINESS DEVELOPMENT
Ulla McGee

DIRECTOR, BUSINESS AND PRODUCT DEVELOPMENT Brian Buizer

SENIOR PROGRAM MANAGER
David Lake

DIRECTOR, ONLINE MARKETING
Alexa Wriggins

NEWSLETTER SERVICES MANAGER
Michael E. England

EMAIL MARKETING MANAGER
DW Malouf

BUSINESS DEVELOPMENT COORDINATOR Alisha Billingsley

WEB DESIGN

DIRECTOR, WEB DESIGN
Jason Brightman

SENIOR DESIGNER, USER INTERFACE
Johnathan Andersen

SENIOR VIDEO PRODUCER
Chris Manners

VIDEO INTERN
Topher Cousineau

TECHNOLOGY

CHIEF TECHNOLOGY OFFICER
Aaron Jones

DIRECTOR, IT & WEB OPERATIONS
Sean Greathouse

IT MANAGER Walter Clegg

SYSTEMS ANALYST Eileen Quan

IT SPECIALIST Scott Reyna

SENIOR SYSTEM/NETWORKS ADMINISTRATOR Wil Schultz

DIRECTOR, APPLICATIONS DEVELOPMENT Jim Hutson

SENIOR APPLICATIONS DEVELOPERS
Wei Ming Xu, Bill Cappel, Alexis Barrera, Justin Counts, Kieran Fitzpatrick

QA & RELEASE ENGINEER
Ryan Eilders

HUMAN RESOURCES

VP, HUMAN RESOURCES
Kate Coldwell

HUMAN RESOURCES REPRESENTATIVE
Ellen Cobb

FINANCE

SENIOR VP, COO/CFO Vicki Peilen

DIRECTOR, FINANCE Diane Ryczek

DIRECTOR, ACCOUNTING
Michelle Reyes

DIRECTOR, FINANCIAL AD OPERATIONS Diane Hacker

DIRECTOR, ADVERTISING ACCOUNT SERVICES Kevin Greene

STAFF ACCOUNTANT
Scott Lum-Duenas

ADVERTISER'S INDEX

Type find.pcworld.com/ plus the five digit number below, to go directly to any advertiser in this list.

Advertiser	Page	Find-It #
1&1 Internet Inc.	8	62597
1&1 Internet Inc.	37-44	62596
Aberdeen	96	62519
Acer America Corp.	17-20	62601
Acer America Corp.	61-64	62600
APC	85	62580
AT&T	15	62613
BitDefender Security	67	62581
Bluebeam Revolution	73	62602
CarMD	29	62611
CDW	32	62582
Citrix Systems	3	62583
CyberPower Inc.	11	62599
Eset (NOD32)	48	62584
Fujitsu America	C4	62603
G7 Productivity Sys.	68	62585
Goldtouch	69	62586
HP	C3	62615
IBM	47	62587
IBM	49	62598
iBuyPower.com	4-5	62604
iHome	59	62588
IRIS Inc.	10	62589
KVC Hosting	2	62605
Lavasoft	31	62590
Moneual Lab	71	62606
Newegg.com	26	62607
Norton	C2	62609
pcAmerica	107	62591
R-Tools Technology	72	62614
Siber System, Inc.	6	62593
Siber System, Inc.	75	62592
SMC Networks	57	62608
SpectorSoft Corp	35	62594
SRS Labs	51	62610
TRENDnet	25	62595
Webroot Software	23	62612

IDG INTERNATIONAL DATA GROUP

Volume 27, number 8. *PC World*™ (ISSN 0737-8939) is published monthly at $24.95 for one year (12 issues), $49.90 for two years (24 issues), $74.85 for three years (36 issues) by PC World Communications, Inc., 501 Second Street #600, San Francisco, CA 94107. Foreign orders must be prepaid in U.S. funds with additional postage. Add $12 per year for Canada; add $30 per year for airmail for all other countries. Canadian GST Registration #R124669680. Periodicals Postage Paid at San Francisco, California, and at additional mailing offices. Canada Post Publications Mail Agreement #40612608. Return undeliverable Canadian addresses to: Bleuchip Intl., P. O. Box 25542, London, ON N6C 6B2. POSTMASTER: Send address changes to PC World, Subscription Dept., P.O. Box 37571, Boone, IA 50037-0571. Editorial and business offices: 501 Second St. #600, San Francisco, CA 94107. 415/243-0500. Copyright © 2009. PC World Communications, Inc. All rights reserved. The trademark PC World is owned by International Data Group and used under license by PC World Communications, Inc. Technology Advice You Can Trust™, PC World Top 10™, Top 10™, PC World Top 100™, Top 100™, and Consumer Watch™ are trademarks of International Data Group, Inc., and used under license by PC World Communications, Inc. Printed in the United States.

MashUp*

*NOT A REAL PRODUCT...YET

WHAT WOULD YOU WANT?
Go to find.pcworld.com/63254 and brainstorm with us.

One **Set-Top Box** to Rule Them All

THE PITCH
Our ultimate set-top box/high-def DVR is a home theater PC (hey, we're *PC World*) that's quiet and turns on in seconds. Our interface blends the slick look and networking chops of Windows 7 Media Center with TiVo's ease of use (the latter already runs on PCs via Nero's Liquid TV kit). A PC-based DVR lets you hand-pick and upgrade hardware (drives, tuners, CableCards), manage codecs, and use plug-ins. (Auto ad-skipping, anyone?)

MEDIA DRIVES
Blu-ray/DVD to play movies, back up recordings (within DRM restrictions), and rip discs. Portable media drive has HDMI and works with the remote.

TOUCH DISPLAY
Interface to adjust settings without a TV, to display the program guide, and more. Can be switched off.

WIRELESS KEYBOARD, STREAMING FEATURES
Keyboard for PC tasks and Internet use. Our SlingLoaded DVR also lets you schedule from, and stream to, any Web device. Further options: Use a remote server to record or stream shows (inspired by actual Cablevision plans; see find.pcworld.com/63255), or share live TV with friends (as on Monsoon's HAVA boxes with SociableTV; find.pcworld.com/63253).

DETACHABLE TOUCH REMOTE
Though influenced by Asus's Eee Keyboard PC, our touchscreen also functions as a detachable remote control/minitablet that communicates with the DVR through Wi-Fi or infrared.

PARTS LIST

LM300 Touch Pro | Luxa2
What we took: Stunning barebones case to build your own DVR; has a 7-inch touch LCD.
find.pcworld.com/63249

GX100 | Okoro Media Systems
What we took: High-end prebuilt HTPC is controlled via a bundled Nokia Internet tablet.
find.pcworld.com/63252

Eee Keyboard PC | Asus
What we took: We borrowed design cues from this Windows XP computer-in-a-keyboard.
find.pcworld.com/63251

A-110 | Popcorn Hour
What we took: Portable media drive/streamer with HDMI, Wi-Fi, and built-in BitTorrent.
find.pcworld.com/63250

ILLUSTRATION: BRYAN CHRISTIE DESIGN

intel Xeon inside™

Powerful. Intelligent.

ALTERNATIVE THINKING ABOUT SERVER ECONOMICS:

Perform like a superstar. Save like an accountant.

Now more than ever, you need your money to work harder. With the new generation of HP ProLiant G6 Servers with Intel® Xeon® processor 5500 series you dramatically improve energy efficiency, flexibility and performance. And more reliability in each system means you can reduce business risk as you increase your productivity.

Decrease your IT support costs to an absolute minimum. HP Insight Control Suite (ICE) will help you to reduce operational expenses by up to $48,380 per 100 users.*

For total peace of mind, HP Care Pack Services deliver industry leading automated 24X7 system monitoring, diagnosis and fault notification to protect your investment.

Making you and your business shine.

Technology for better business outcomes.

HP ProLiant DL360 G6 Server
- Up to two Intel® Xeon® Processor 5500 Series
- 144 GB maximum memory footprint
- Supports up to 8 small form factor high-performance SAS hard drives
- HP ProLiant Onboard Administrator powered by Integrated Lights-Out 2

$2,969 (Save $723)

Lease for just $72/mo.**

SmartBuy [PN:519567-005]

HP ProLiant BL460c G6 Server Blade
- Up to two Intel® Xeon® Processor 5500 Series
- 96 GB maximum memory footprint
- Embedded Dual Port Flex-10 10GbE Multifunction Server Adapter
- HP ProLiant Onboard Administrator powered by Integrated Lights-Out 2

$2,209 (Save $375)

Lease for just $54/mo.**

SmartBuy [PN:532020-B21]

HP BladeSystem c3000 Enclosure
- Supports up to 8 server/storage blade devices in a 6U enclosure
- Optional HP Insight Control Environment management suite
- Low-line or high-line power options for maximum power flexibility

$3,499 (Save $2,319)

Lease for just $85/mo.**

SmartBuy [PN:481657-001]

Special 0% financing for up to 36 months also available.†

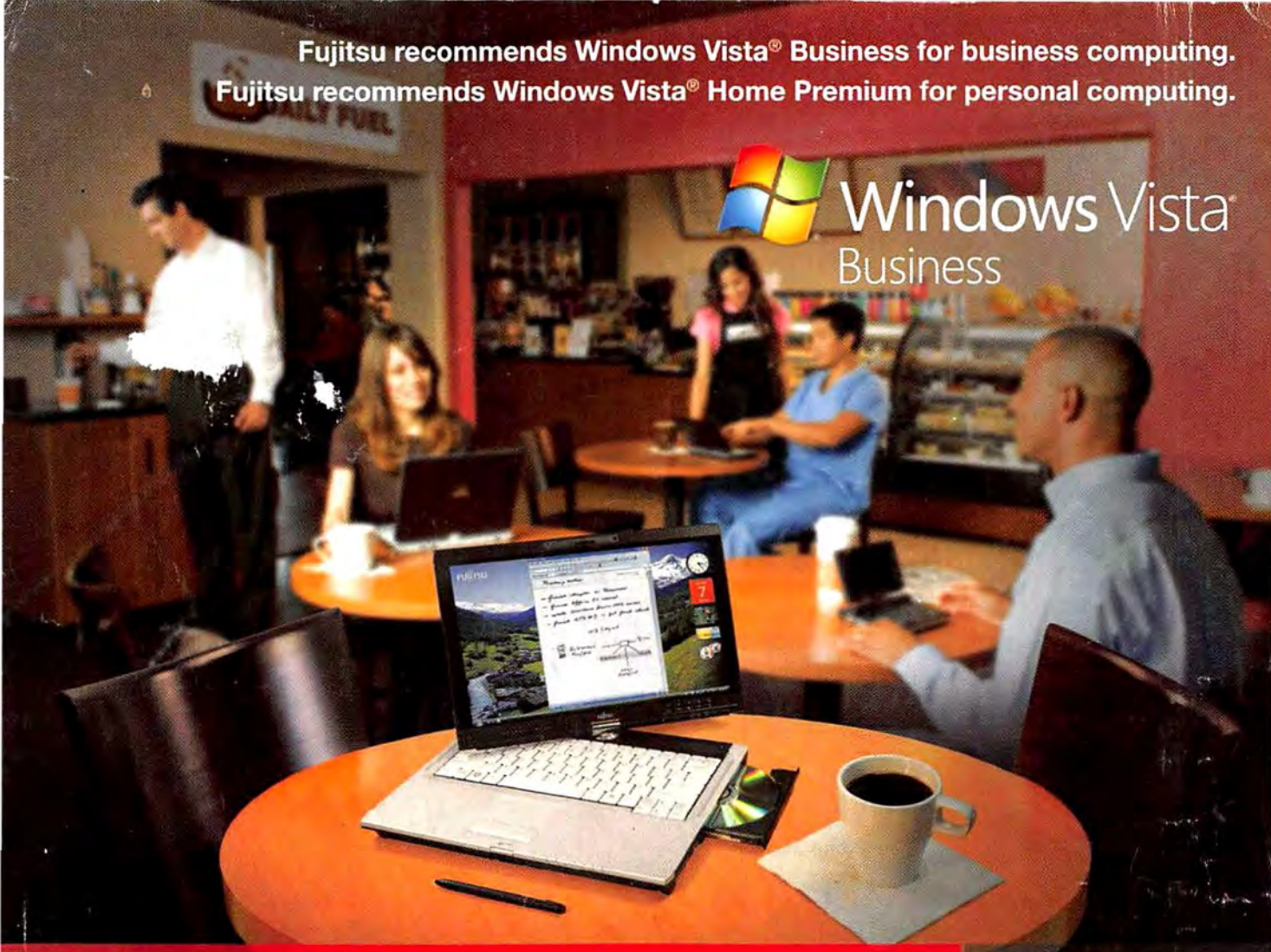
To learn more, call 1-866-625-0807 or visit hp.com/go/G6superstar5

hp

*Source: IDC white Paper sponsored by HP. "Gaining Business Value and ROI with HP Insight Control" Document #210479, Feb 2008. **Prices shown are HP Direct prices; reseller and retail prices may vary. Prices shown are subject to change and do not include applicable state and local taxes or shipping to recipient's address. Offers cannot be combined with any other offer or discount and are good while supplies last. All featured offers available in U.S. only. Savings based on HP published list price of configure-to-order equivalent (Enclosure: $5,818–$2,319 instant savings = SmartBuy price of $3,499; BL Server: $2,584–$375 instant savings = SmartBuy price of $2,209; DL Server: $3,692–$723 instant savings = SmartBuy price of $2,969. Financing available through Hewlett-Packard Financial Services Company and its subsidiaries (HPFSC) to qualified commercial customers in the U.S. and is subject to credit approval and execution of standard HPFSC documentation. Prices shown are based on a lease 48 months in term with a fair market value purchase option at the end of the term and are valid through July 31, 2009. Other rates apply for other terms and transaction sizes. Financing is available on transactions greater than $349. Other charges and restrictions may apply. HPFSC reserves the right to change or cancel this program at any time without notice. †Financing available through Hewlett Packard Financial Services Company and its subsidiaries (HPFSC) to qualified commercial customers in the US and Canada and is subject to credit approval and execution of standard HPFSC documentation. Offer valid through July 31, 2009 on transactions in the United States between $1,500 and $150,000 USD and in Canada between $5,000 CAD and $150,000 CAD. Zero percent financing assumes transaction is documented as a lease with a $1 end-of-term purchase option (or local country equivalent), assuming lessee is not required to pay any nominal end-of-term purchase price at the end of the lease term and disregarding any charges payable by lessee other than rent payments such as maintenance, taxes, fees and shipping. This offer cannot be combined with any other rebate, discount or promotion without prior approval by HP and HPFSC. Rates are based on customer's credit rating, financing terms, offering types, equipment type and options. Not all HP products are eligible for the 0% lease rate. Not all customers may qualify for these rates. Other restrictions may apply. HPFSC reserves the right to change or cancel this program at any time without notice.

Intel, the Intel logo, Xeon and Xeon Inside are trademarks of Intel Corporation in the U.S. and other countries.
©2009 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice.

Fujitsu recommends Windows Vista® Business for business computing.
Fujitsu recommends Windows Vista® Home Premium for personal computing.



When your life is caffeinated, you need a notebook that keeps up.

FUJITSU

Fujitsu gives your mobile computing a serious boost—from ultra-portables that won't weigh you down to powerful desktop alternatives and everything in between—like the Fujitsu LifeBook® T5010. With Intel® Centrino® 2 Processor Technology for power, connectivity and long battery life, and with genuine Windows Vista® Business to stay connected, stay productive and stay away from the office, you'll be hooked.

See what Fujitsu is brewing.
www.fujitsudailyfuel.com

CDW-G PC Connection Insight

intel Centrino 2 inside
Look for Intel Inside®

© 2009 Fujitsu America, Inc. All rights reserved. Fujitsu, the Fujitsu logo and LifeBook are registered trademarks of Fujitsu Limited. Intel, the Intel logo, Centrino and Centrino Inside are trademarks of Intel Corporation in the U.S. and other countries. Microsoft, Windows and Windows Vista are registered trademarks of Microsoft Corporation. All other trademarks are the property of their respective owners.