AMAZING SPEED! INTEL'S NEW CORE i7

COMPUTER SHOPPER

The Best FREE SOFTWARE!

45 MUST-HAVE PROGRAMS

EVERYTHING YOU NEED TO OUTFIT YOUR PC

- Office suites
- Image editors
- Security apps
- Video editors
- Tax prep
- Virus killers
- Games

& Much More!

JANUARY 2009 (ISSUE DATE: JAN. 12, 2009)
U.S. $5.99
SX2 Media Labs
COMPUTERSHOPPER.COM

Holiday Blowout & Year

Shop MacMall for the best value and selection!

Next Generation Aluminum 13" MacBook™!

Aluminum unibody, LED-backlit display, NVIDIA graphics card & glass multi-touch trackpad!

$50 Cash Back!* FREE Epson Printer!*
FREE Parallels Desktop!*
After mail-in rebates. Other restrictions apply.

now $1294!
mail-in rebate – $50!
$1244!*

MacBook 2GHz #7684018

Next Generation Aluminum 15" MacBook™ Pro!

Aluminum unibody, LED-backlit display, NVIDIA graphics card & glass multi-touch trackpad!

$100 Cash Back!* FREE Epson Printer!*
FREE Parallels Desktop!*
After mail-in rebates. Other restrictions apply.

now $1994!
mail-in rebate – $100!
$1894!*

MacBook Pro 2.4GHz #7684020

BLOWOUT! Save $944!

MacBook Pro
15.4" Glossy Display 2.5GHz!
$150 Cash Back!*
FREE Parallels Desktop!*
FREE Epson Printer!* original price $2494!
After mail-in rebates. now $1699.99!
Other restrictions apply. mail-in rebate – $150!
MacBook Pro #7691239 $1549.99!*

BLOWOUT! Save $949!

MacBook Pro
15.4" 2.66GHz with SuperDrive!
$150 Cash Back!*
FREE Parallels Desktop!*
FREE Epson Printer!* original price $2699!
After mail-in rebates. now $1899.99!
Other restrictions apply. mail-in rebate – $150!
MacBook Pro #7691237 $1749.99!*

BLOWOUT! Save $599!

MacBook Pro
17" Hi-Res Display 2.66GHz!
$150 Cash Back!*
FREE Parallels Desktop!*
FREE Epson Printer!* original price $2999!
After mail-in rebates. now $2549.99!
Other restrictions apply. mail-in rebate – $150!
MacBook Pro #7691234 $2399.99!*

BLOWOUT! Save $799!

MacBook Pro
17" Glossy Display 2.5GHz!
$150 Cash Back!*
FREE Parallels Desktop!*
FREE Epson Printer!* original price $2999!
After mail-in rebates. now $2149.99!
Other restrictions apply. mail-in rebate – $150!
MacBook Pro #7691235 $1999.99!*

BLOWOUT! Save $844!

MacBook™ Air 13.3" 1.8GHz,
with 64GB Solid-State Drive!
$100 Cash Back!*
FREE Parallels Desktop!*
FREE Epson Printer!* original price $2594!
After mail-in rebates. now $1849.99!
Other restrictions apply. mail-in rebate – $100!
MacBook Air #7691240 $1749.99!*

Shop MacMall for the Best Value and Selection! Order Today—Get It Tomorrow!

Rugged 250GB FireWire 800, FireWire 400 and USB 2.0 HD
LaCie
Save $21!
was $154.99
now $133.99! #7335276

Quadra 500GB External Hard Drive
LaCie
Save $31!
was $173.99
now $142.09! #7383572

d2 Quadra 1TB External Hard Drive
LaCie
Save $56!
was $278.99
now $222.98! #7383574

My Book Studio 500GB Quad External Drive
WD
Save $104!
was $227.99
now $123.90! #7300954

1TB Barracuda Internal Hard Drive
Seagate
Save $74!
was $198.99
now $124.99! #7267155

Apple iWork™ '08
Save $10!
was $79.99
now $69.98! #7288383

Apple AirPort Express™ Base Station with 802.11b/g
Save $38!
was $97.99
now $59.99 #448199

22" Flat-Panel LCD
Save $61!
was $247.99
now $166.98! #7484467

QuarkXPress 8
Save $81!
was $799.99
now 779.98! #7525330

VMware Fusion 2
New!
Save $17!
was $79.99
now $62.98! #7659652

Jawbone II Bluetooth Headset
Aliph
Save $34!
was $129.95
now $94.99! #7525571

Final Cut® Studio 2
Save $94!
was $1294
now $1199.98! #7236099

Bento 2
New!
Save $5!
was $49.99
now $44.99! #7674132

Amp Up Your Savings!
We'll Beat Any Price on Any Apple Brand Product!

Mention Code: SHOPPERMAC "WE'LL BEAT ANY PRICE ON ANY APPLE BRAND PRODUCT or competitive promotion on any Apple brand product. We may require proof of dealer's pricing. Competitor must be an Apple Authorized Reseller. Product must be in stock at the competition. Advertised item must be identical to the one offered by MacMall and must be a new item in a factory sealed box. We reserve the right to limit quantity ordered. This offer does not apply to special, bonus or free offers, grand openings, special purchases or special buys, manufacturer's rebates, closeouts, clearances or to dealers' one-of-a-kind or other limited quantity offers. Nor does it apply to advertising errors made by any authorized dealer. Not open to dealers. Void where prohibited. Sorry, offer not valid in conjunction with other rebate offers. On multiple-item quotes "We'll Beat Any Price" applies to the price of the entire order, not individual line items. Offer applies to pre-taxed prices only. Offer valid only at time of purchase, not after the fact. ■ UP TO $150 CASH BACK OFFER-Get up to $150 Cash Back via MacMall mail-in rebate with purchase of select computer models. Ends 12/7/08. ■ FREE PRINTER OFFER-Get an

-End Savings!

FREE UPS SHIPPING!
On most orders over $99. After mail-in rebate. Call for details.

6 months same as cash!
Offer valid for purchases over $500. Call for details.

Authorized Reseller

iMac® 2.4GHz 20" Display!

$50 Cash Back!*
FREE Parallels Desktop!*
FREE Epson Printer!*
After mail-in rebates.
Other restrictions apply.

now ~~$1194!~~
mail-in rebate – $50!
iMac 2.4GHz #7497733 **$1144!***

iPod® touch!

8GB, 16GB and 32GB models!
FREE Engraving!
FREE iPod Charger!*
FREE Case!*
After mail-in rebates.
Other restrictions apply.

8GB iPod touch #7661971 **$224!**

BLOWOUT! Save $644!

MacBook Pro 15.4" Glossy Display 2.4GHz!
$150 Cash Back!*
FREE Parallels Desktop!*
FREE Epson Printer!*
After mail-in rebates.
Other restrictions apply.

original price ~~$1994!~~
now ~~$1499!~~
mail-in rebate – $150!
MacBook Pro #7691235 **$1349.99!***

BLOWOUT! Save $644!

MacBook™ Air 13.3" 1.6GHz, with 80GB Solid State-Drive!
$100 Cash Back!*
FREE Parallels Desktop!*
FREE Epson Printer!*
After mail-in rebates.
Other restrictions apply.

original price ~~$1794!~~
now ~~$1249!~~
mail-in rebate – $100!
MacBook Air #7323085 **$1149.99!***

The Hottest Software!

Office 2008 for Mac Special Media Edition (Full) Save $250!
Microsoft
~~$429.99~~
$179.99! #7352257
After $250 mfr. instant rebate. Price before is $429.99. Ends 1/10/09.

Creative Suite 4 Design Standard Upgrade Save $51!
Adobe
Now!
was ~~$499~~
$493.99! #7662746

Photoshop Elements 6 for Mac Save $20!
Adobe
~~$79.99~~
$59.98! #7373571
After $20 mfr. mail-in upgrade rebate. Price before is $79.96. Ends 12/31/08.†

Mac OS® X v10.5 Leopard™ Save $15!
~~$119.95~~
now ~~$109.94~~
$103.94! #7531897
After $6 MacMall mail-in rebate. Price before is $109.94. Ends 11/30/08.†

Spore Save $5!
EA
~~$49.99~~
$44.99! #7512957

Toast 9 Save $20!
roxio
~~$79.99~~
$59.98! #7405980
After $20 mfr. mail-in rebate. Price before is $79.98. Ends 12/31/08.†

Amp Up Your iPod!™

OnStage II Save $20!
JBL
was ~~$109.95~~
$39.99! #7401455

Pure-Fi Elite Stereo System for iPod Save $52!
Logitech
was ~~$137.99~~
$89.99! #7386397

NEW iPod® nano!
FREE Engraving!
FREE TuneRanger!*
FREE iPod Charger!*
FREE Case!*
8GB **$144!** 16GB **$194!**
*After mail-in rebates. Other restrictions apply.

NEW iPod® classic!
FREE Engraving!
FREE TuneRanger!*
FREE iPod Charger!*
FREE Case!*
$244! (Black or Silver)
*After mail-in rebates. Other restrictions apply.

Get up to **$150 Cash Back!*** on Apple Computers! After mail-in rebate.

FREE Epson Printer!* After mail-in rebate with purchase of an Apple computer from MacMall.

FREE Parallels Desktop!* After mail-in rebate with purchase of an Apple computer from MacMall.

Notebook Case!* only **$9.99!*** After $10 mail-in rebate with purchase of an Apple Notebook. Price before rebate is $19.99. Ends 12/31/08.

Symantec Antivirus! only **$19.99!*** Get Symantec Antivirus for Macintosh for only $19.99 with purchase of any Apple computer. Ends 12/7/08.

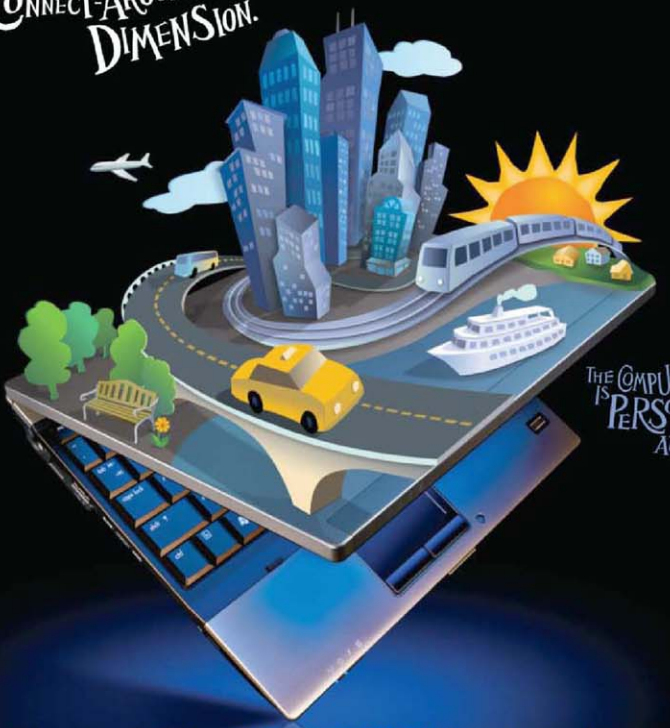
MacMall
Your #1 Apple Superstore!
1-800-MACMALL
1-800-622-6255
www.macmall.com

Epson Stylus R280 Photo Inkjet Printer (#7284134) FREE after $100 mfr. mail-in rebate with Apple CPU purchase. Price before rebate is $85.99. Ends 11/30/08. ■ FREE PARALLELS DESKTOP 3.0 OFFER–Get Parallels Desktop 3.0 for Mac (#7537016) FREE after $20 mfr. and $60 MacMall mail-in rebates with purchase of any new Intel-based Apple CPU. Price before rebates is $80. Ends 12/7/08. ■ FREE ENGRAVING OFFER–Get select iPod, iPod touch, iPod classic, iPod nano and iPod shuffle models engraved for FREE when you purchase them through MacMall. No rebate required. There is a $4.99 charge for select iPods. Call or visit www.macmall.com/myipod to place your order. ■ FREE CHARGER OFFER–After $9.99 mfr. mail-in rebate. Price before rebate is $9.99. Offer ends 12/31/08. ■ FREE TUNERANGER OFFER–After $30 mfr. mail-in rebate with the purchase of an iPod classic, iPod shuffle or iPod nano. Price before rebate is $29.99. Offer not valid on for iPod touch. Ends 2/1/09. ■ FREE iPOD CASE OFFER–Get a FREE iPod case with purchase of any iPod nano after $13.99 MacMall mail-in rebate. iPod touch after $19.99 MacMall mail-in rebate or iPod classic after $47.99 MacMall mail-in rebate. Prices before rebate are $19.99 for iPod nano or iPod touch case, or $47.99 for iPod classic case. Offer does not apply to iPod shuffle. Ends 12/7/08. ■ SYMANTEC NATIVELS OFFER–Get Symantec Antivirus for Macintosh for only $19.99 with purchase of any Apple computer. Ends 12/7/08. ■ NOTEBOOK CASE OFFER–Get an Eweik notebook case (#7662610 for 13" OR #7662623 for 15") for only $9.99 with purchase of any 13" or 15" MacBook after $10 mfr. mail-in rebate. Price before rebate is $19.99. Offer does not apply to 17" MacBook. Ends 12/31/08. ■ ALL OFFERS VALID ONLY WHILE SUPPLIES LAST. †For rebate terms and conditions, please visit our Web site and enter the applicable part number. Download rebate coupons at www.macmall.com/rebates

at&t

Work In 3G.

The Connect-Around-Your-World Dimension.



Built-in modem Free with activation

Gobi

Get more done with HP 3G notebooks starting at just $769*—it's the smart way to work in a changing business climate. That's because you'll experience faster connections in more places than ever before—from cross-town to cross-country. You'll also get a built-in Gobi™ modem at no extra cost with activation, plus a 30-day trial of LaptopConnect[1] from AT&T on the nation's fastest 3G network.[2] When you're working in 3G, it's productivity in another dimension.

Get connected now at hp.com/learn/3Gcs | 866-625-3573

hp

*Offer valid 11/1/2008–2/28/2009 on select notebooks with activation. AT&T wireless service not included with notebook. Check with local service provider for coverage and availability in your area. Offer available from HP Direct and participating resellers. Prices shown are HP Direct prices, are subject to change and do not include applicable state and local sales tax or shipping to recipient's destination. Photography may not accurately represent exact configurations priced. 1. 30-day free service offer: When you activate on a qualifying AT&T DataConnect plan with a two-year term on a qualifying HP notebook, a credit equal to the amount of the monthly service charge will be applied to your first monthly bill. To terminate service at any time, call AT&T at 1-800-331-0500. Early termination fee: none if cancelled in first 30 days; thereafter $175 decreasing $5 for each full month of the term completed on the service. Offer available on service plans activated on or between 11/1/2008–2/28/2009. Credit approval required. Service not available for purchase or use in all areas. Free service credit does not apply to overage charges accrued through sms text usage or international roaming charges. Taxes and other charges apply. Other restrictions may apply. See www.hp.com/go/att_notebook for price plans, service terms and conditions, and coverage maps. 2. Reference speeds require an HSUPA 3.6 Mbps/HSUPA capable device with Receive Diversity and/or Equalizer. AT&T is deploying HSUPA throughout the 3G footprint. HSUPA may not currently be available in all 3G areas. 3G speed claims based on AT&T network tests, without compression, using 3 MB data files for download and 2 MB data files for upload. 3G devices not enabled with HSUPA support typical upload speeds of 220–320 Kbps, based on our network tests without compression, using 500 KB data files for upload. Actual throughput speed varies. AT&T and the AT&T logo are trademarks of AT&T Intellectual Property. All rights reserved. Qualcomm is a registered trademark and Gobi and the Gobi logo are trademarks of Qualcomm Incorporated. © 2008 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. HP shall not be liable for technical or editorial errors or omissions contained herein.

CONTENTS

JANUARY 2009 VOLUME 29 NUMBER 1 ISSUE 346

11 New opinion section: Boot Up

The BEST Free Software

60
COVER STORY
Free Software Bonanza!
Now is not the time to be splurging on software. Turns out, you can get everything from office productivity suites to video-editing applications without spending a dime. Here's how.

73
Core (i7) Competency
Intel's new Core i7 family of processors represents a big leap forward in terms of both features and performance. Here's an in-depth look at the first wave of Core i7 CPUs, motherboards, and systems.

82
Flash Dance
Pocket-friendly USB flash drives are so ubiquitous today that you can pick one up at your local drugstore, but that doesn't mean they're all created equal. We tested 10 models that offer security and bling, including one that lets you carry 64GB right on your key ring.

REVIEWS

DESKTOPS
22 HP TouchSmart IQ816
24 eMachines EL1200-05w
24 Dell Studio Desktop

LAPTOPS
20 HP Mini 1000
28 Lenovo ThinkPad X200 Tablet
30 Asus N10Jc
34 Sony VAIO AW170Y/Q
36 CTL IL1A PC
36 Lenovo IdeaPad S10
38 Asus G50Vt-X1
38 Gateway MC7803u

COMPONENTS
40 ATI Radeon HD 4550
40 Antec Skeleton
41 Antec Micro Fusion Remote 350
41 Shuttle SN78SH7

NETWORKING
42 ZyXel NSA220
42 Netgear XAVB101 Powerline AV Ethernet Adapter Kit

PERIPHERALS
44 Iogear Wireless USB-to-VGA Kit
44 D-Link Wireless Internet Photo Frame

DISPLAYS
46 Gateway FHD2401
46 Westinghouse L1916HW

PRINTERS
48 Canon Selphy CP770
48 Xerox Phaser 3300 MFP

CAMERAS
49 Canon PowerShot SD990 IS

CONSUMER TECH
50 Apple iPod Touch (Second Generation)
51 T-Mobile G1

GAMING
52 Spore
52 Crysis Warhead

SOFTWARE
54 Adobe Premiere Elements 7
55 Roxio Creator 2009

THIS MONTH'S TOP PRODUCTS
57 Top Five Input Devices
58 Top Five Netbooks

NEW PRODUCTS

GEAR
16
- Apple LED Cinema Display
- Blackberry Storm
- Iomega StorCenter ix2
- Mitsubishi Diamond Series HC7000U
- Rock Revolution
- Sony Reader Digital Book

17

Page 73
Page 60

at one time, your PC ran like a gazelle.

There's a better Internet security solution... **Make the switch.**

- Won't slow down your PC
- Industry-leading virus detection
- FREE 24/7 personal support
- Jam-packed with useful extras

"I had trouble trying to locate and remove what was obviously a virus or spyware that was deeply rooted in my system and slowing it down. I tried several other software programs, including Norton and McAfee to no avail. BitDefender immediately found and rectified the issues with my system. I've happily been a BitDefender customer ever since." ***Cheryl Moore***

bitdefender®

make the Switch.

www.bitdefender.com/switch

amazon.com DELL Fry's LONDON DRUGS MICRO CENTER OfficeMax STAPLES

*Professional stunt turtle on a closed course. Do not attempt.

93

90

98

93

HELP & HOW-TO

COMPUTER CURES

87 *Shopper* editors offer advice on replacing the battery in your computer; changing your print settings; the difference between sleep, hibernate, and shutdown; and much more.

WEEKEND PROJECT

90 **Perfect Your Digital Images**
Want to touch up your trove of treasured digital photos? In Windows Photo Gallery, Windows Vista offers a wide array of photo-organizing and -editing tools that won't cost you a penny.

BUILD YOUR OWN

93
- Antec Fusion Remote Max
- EnzoTech Luna
- OCZ Gladiator Max
- Sapphire HD 4870 Toxic
- Stanley Fatmax Clip-N-Grip
- Thermaltake Xpressar

ALSO IN THIS ISSUE

BOOT UP

In our new opinion section, *Computer Shopper*'s editors discuss Lala.com and its impact on the music industry, offer tips on selling stuff online, and bicker about a giant TV, an overpriced keyboard, and Intel's Nehalem. Plus, Editor-in-Chief Emeritus Stan Veit takes us back to the early years.

11 Geek Speak
12 Q & A
14 Clickable Culture
14 TechMom

SHUT DOWN

98 **30 Years of *Computer Shopper*!**
In this, our 30th anniversary year, we dig back into *Shopper*'s archives for a look at the way things were: four years, four very different *Shoppers*.

DEPARTMENTS

6 Editor's Note
97 Ad Index

JANUARY 2009 VOLUME 29 NUMBER 1 ISSUE 346 *Computer Shopper* (ISSN 0886-0556) is published monthly, for $24.97 per year in the U.S., and $54.97 per year outside the U.S., by SX2 Media Labs, LLC, 72 Madison Ave., 10th Fl., New York, NY 10016. Periodicals Mail postage paid at New York, NY, and additional mailing offices. Publications Mail Agreement No. 40009021. POSTMASTER: Send address changes to *Computer Shopper*, P.O. Box 52565, Boulder, CO 80322-2565. Return undeliverable Canadian addresses to P.O. Box 505, RPO West Beaver Creek, Richmond Hill, ON L4B 4R6. Portions of *Computer Shopper* are published under license from CNET Networks, Inc., San Francisco, CA, USA. Editorial items appearing in *Computer Shopper* that were originally published on www.cnet.com, www.download.com, or www.news.com are the copyright property of CNET Networks, Inc., or its suppliers. Copyright © 2009 CNET Networks, Inc. All rights reserved. "CNET" is a trademark of CNET Networks, Inc. All other content Copyright © 2009 SX2 Media Labs, LLC. All rights reserved. Permission to use *Computer Shopper* content is granted on a case-by-case basis. SX2 Media Labs welcomes requests. Please direct inquiries to our Reprint Coordinator at Wright's Reprints: 1-877-652-5295. "*Computer Shopper*" is a trademark of SX2 Media Labs, LLC.

PRINTED IN THE U.S.A.

Cyberpower recommends Windows Vista® Home Premium

GAMER XPLORER X7-7700

from $1335

- Intel® Centrino®2 Mobile Technology
  - Intel® Core™2 Duo Processor
  - Intel® WiFi Link 5300 802.11 A/G/N
  - Intel® PM45 Chipset
- **Genuine Windows Vista™ Home Premium**
- 4GB DDR-II PC6400 800 MEMORY
- 250 GB SATA150 Hard Drive
- 17" WXGA+ TFT Display 1600 X 1050
- 8X DVD+-RW Rewritable Drive
- 1000/100/10 Network Card & 56K V.92 Modem
- NVIDIA® GeForce® Go 9800 GT 512MB
- 3-in-1 Built-in Media Reader
- 1 Firewire IEEE 1394 & 3 USB 2.0 Ports
- 1 PCMCIA Type II Slot
- 3 Hours Battery Life
- Weight only 7.6 Lbs

Intel® Core™2 Duo Processor

(6MB L2 Cache, 1066Mhz FSB)

T9600 2.80Ghz	*$1685*
P9500 2.53Ghz	*$1495*
T9400 2.53Ghz	*$1455*
(3MB L2 Cache, 1066Mhz FSB)	
P8600 2.40Ghz	*$1379*
P8400 2.26Ghz	*$1335*

intel Core i7 inside™

Extreme Performance

CREATE THE PC OF YOUR DREAMS

All Desktop systems come with 3 year Limited Warranty + lifetime toll free 24/7 techsupport

GAMER INFINITY 8800 PRO SE

from $1819

- Asus Intel® X58 Chipset MB Supporting 3 Way SLI™ and CrossFireX™
- Corsair 3GB-DDR3 1333 Tri Channel Memory
- 1TB SATA-II 3.0 7200 RPM HD 16MB Cache
- (2) NVIDIA® GeForce® GTX 260 896MB in SLI™ Mode
- LG® 4X Blu Ray Player
- LG® 22X DVD+-RW DRIVE
- High Definition 7.1 Surround Sound
- Logitech Office 104 Keyboard and Logitech Optical Wheel mouse
- CoolerMaster Cosmo Sport Gaming Tower Case 680 Watt SLI Power
- ASETEK LIQUID COOLING SYSTEM
- **Genuine Windows Vista™ Home Premium**
- Free 802.11G Wireless PCI Network Adapter

Intel® Core™i7 Processor

(8MB L3 Cache, 1066Mhz)

Extreme i7-965 3.20Ghz	*$2565*
i7-940 2.93Ghz	*$2099*
i7-920 2.66Ghz	*$1819*

GAMER CROSSFIRE X™ HD 4850

from $1089

- Intel® P45 Chipset Motherboard Supporting CrossFireX™
- Corsair 4GB-DDR2 800 Dual Channel Memory
- 500GB SATA-II 3.0 7200 RPM HD 16MB Cache
- (2) ATI Radeon™ HD 4850 512MB in CrossFireX™ mode
- LG® 22X DVD+- Rewritable DRIVE
- 16x DVD-ROM
- High Definition 7.1 Surround Sound & 600 Watt Subwoofer Speaker System
- Logitech Office 104 Keyboard & Optical Wheel mouse
- Sigma Gaming Unicorn Tower/ 500 Watt CrossFire Power
- **Genuine Windows Vista™ Home Premium**
- Free 802.11G Wireless PCI Network Adapter

Intel® Core™2 Duo Processor

(12MB L2 Cache, 1333Mhz FSB)		(6MB L2 Cache, 1333Mhz FSB)	
Extreme QX9650 3.00Ghz	*$2035*	E8600 3.33Ghz	*$1256*
Quad Q9650 3.00Ghz	*$1548*	E8500 3.16Ghz	*$1169*
Quad Q9550 2.83Ghz	*$1315*	E8400 3.00Ghz	*$1139*
(6MB L2 Cache, 1333Mhz FSB)		(3MB L2 Cache, 1066Mhz FSB)	
Quad Q9400 2.66Ghz	*$1265*	E7400 2.80Ghz	*$1089*
(4MB L2 Cache, 1333Mhz FSB)			
Quad Q8200 2.33Ghz	*$1169*		

GAMER INFINITY SLI™ GT

from $685

- NVIDIA® nForce® 750i SLI™ MB Supporting 2 Way SLI™
- Corsair 2GB DDR2 800 Dual Channel Memory
- 320GB SATA-II 3.0 7200 RPM HD 16MB Cache
- (2) PCI Express 16X NVIDIA® GeForce® 9400GT 512MB DDR2. Over 80% Performance Gain over single video card solution
- LG® 22X DVD+- Rewritable DRIVE
- 16x DVD-ROM
- High Definition 7.1 Surround Sound & 600 Watt Subwoofer Speaker System
- Logitech Office 104 Keyboard and Logitech Optical Wheel mouse
- X-Jupiter Jr Mid-Tower Case w/ 680 Watt SLI™ Power
- ASETEK LIQUID COOLING SYSTEM
- **Genuine Windows Vista™ Home Premium**
- Free 802.11G Wireless PCI Network Adapter

Intel® Core™2 Duo Processor

(12MB L2 Cache, 1333Mhz FSB)	
Quad Q9650 3.00Ghz	*$1115*
Quad Q8550 2.83Ghz	*$889*
(6MB L2 Cache, 1333Mhz FSB)	
Quad Q9400 2.66Ghz	*$849*
(4MB L2 Cache, 1333Mhz FSB)	
Quad Q8200 2.33Ghz	*$759*
(6MB L2 Cache, 1333Mhz FSB)	
E8600 3.33Ghz	*$845*
E8500 3.16Ghz	*$769*
E8400 3.00Ghz	*$735*
(3MB L2 Cache, 1066Mhz FSB)	
E7400 2.80Ghz	*$685*

TOLLFREE 800.707.0393 WWW.CYBERPOWERPC.COM

Celeron, Celeron Inside, Centrino, Centrino Inside, Core Inside, Intel, Intel Logo, Intel Atom, Intel Atom Inside, Intel Core, Intel Inside, Intel Inside Logo, Intel Viv, Intel vPro, Itanium, Itanium Inside, Pentium, Pentium Inside, Viv 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. NVIDIA®, nForce®, GeForce®, SLI™ are trademarks or registered trademark of NVIDIA Corporation or its subsidiaries in the United States and other countries. CyberPower PCs use genuine Microsoft® Windows® • www.microsoft.com/piracy/hm-intel

This Month Online

COMPUTER SHOPPER

ComputerShopper.com

Reviews | Best Prices | Top Products | How-To | Buying Guides | Downloads | News | Blog | Forums | Subscribe

Holiday Guide

Before you hit the stores this holiday season, check in with us for all the tips you'll need for buying the best tech gifts.
computershopper.com/holidayguide

Hot Downloads

Our Downloads Center serves up thousands of apps: essential utilities, virus stoppers, photo-editing software, and much more. Better yet, most are free.

computershopper.com/downloads

Reviews

Our editors are constantly performing hands-on tests of the latest PC products. Check in daily to read our latest findings.

computershopper.com/reviews

Free Newsletters

Sign up for our newsletters and get the best of *Computer Shopper* delivered right to your inbox.

computershopper.com/newsletters

Best Prices

Before you start shopping online, we can help you locate the best deal on whatever tech product you're in the market for.

computershopper.com/best-prices

Buying Guides

Ready to buy, but not sure what you're looking for? Our tech guides tell you everything you need to know to make the right purchase.

computershopper.com/buying-guides

New Video Page

Let ComputerShopper.com editors show you how the experts do it. Go to our new video page for shopping advice and information about the latest products.

computershopper.com/videos

Free Downloads

Check out our blog every day for the Daily Download, where Assistant Editor Matt Safford offers you his tips for the hottest free downloads.

computershopper.com/shoptalk

Apple Computer: The (Very) Early Years

Computer Shopper Editor-in-Chief Emeritus Stan Veit recounts the founding of the computer behemoth.
computershopper.com/appleearlyyears

EDITOR'S NOTE

John A. Burek

"FREE!" AND "HERESY!": Cries of both roiled the *Shopper* ranks as our cover story, "The Best Free Software," took shape. Let's be frank: In tough—and, heck, even not-so-tough—economic times, free *anything* has major pull, and we conceived a story idea ("Do you really need to *buy* software?") that has the attraction of a giant electromagnet. Would we be able, category by category, to find credible free alternatives to iconic commercial programs?

The verdict? Free apps have their place. Many of the programs we looked at were impressive, but, by the time we were done, we weren't quite so sanguine about freeware replacing *everything* on our PCs. The free image editors we looked at, for example, did a credible job at basic-to-moderate-level tasks such as cropping and color tweaking, but the video-editing candidates won't make Adobe Premiere Elements lose any sleep. Still, we uncovered plenty of free gems. Check out our mega-roundup starting on p. 60, and you may be able to bring capabilities to your PC that you thought were beyond your budget. Plus, browse our editors' favorite freeware games—you're sure to find a fun diversion (or 10).

Speaking of "free" and "image editors," Vista-based PCs have some robust "free" capabilities you might not be aware of. Vista's Photo Gallery tool, right within the OS, has some substantial photo-organizing and -editing chops. Senior Editor Matthew Murray gives a comprehensive primer on using this handy tool in this month's Weekend Project, "Perfect Your Digital Images" (p. 90).

Murray also spent major time this month with Intel's scorching new CPU line, the Core i7, and came away mightily impressed. The Core i7 is based on a smaller micron process than the Core 2 line, and, in our initial tests, it looks poised to define the 2009 desktop market. We expect it to bring 2008 levels of high-end performance to 2009 midrange PCs and herald a renaissance of low-cost power. In "Core (i7) Competency" (p. 73), we test the Intel Core i7 processors, a pair of motherboards that accept them, and three newly minted PCs that use this vanguard hardware. Warning: Expect to get your hair mussed.

We've got plenty else inside. Check out p. 20 and p. 30 for reviews of two dynamic new netbooks, the HP Mini 1000 and Asus N10Jc, a pair of Intel Atom-based variants on compact power. And in "Flash Dance" (p. 82), we take a closer look at the ubiquitous USB flash drive, testing 10 of these byte bearers for throughput and usability. Finally, turn to p. 11, and you'll see Boot Up, our new opinion section, where you'll find our editors holding court on the tech issues of the day, from the irreverent ("Geek Speak") to the practical ("TechMom"). It's complemented by Shut Down, our new closing page (p. 98). For 2009, Shut Down will highlight excerpts from *Computer Shopper*'s storied history in this, our 30th anniversary year.

That's right! In continuous publication since 1979, *Computer Shopper* will be entering its fourth decade of providing you smart tech-buying advice. And as ever, in print—or online at ComputerShopper.com—we want to know how we're doing. Write us at **feedback@computershopper.com.**

COMPUTER SHOPPER

EDITOR-IN-CHIEF John A. Burek

MANAGING EDITOR Jonathan Rougeot
ART DIRECTOR Todd Betterley

SENIOR EDITORS Sarah E. Anderson, Matthew Murray
ASSOCIATE EDITOR Les L. Shu
ASSISTANT EDITOR Matt Safford
VIDEO INTERN Samuel Lee

COPY CHIEF E. E. Bradman
COPY EDITOR Lizelle A. Vibar

CONTRIBUTING EDITORS Barry Brenesal, Rick Broida, Jamie Bsales, John R. Delaney, David English, Susan Glinert, Bill O'Brien, Asa Somers

EDITOR-IN-CHIEF EMERITUS Stan Veit

PUBLISHER Colleen Daly

ADVERTISING SALES
ADVERTISING DIRECTOR Steven Goodman

EAST
AL, AR, CT, DC, DE, FL, GA, IL, IN, KY, LA, MA, MD, ME, MI, MN, MO, MS, NC, NH, NJ, NY, OH, PA, RI, SC, TN, TX, VA, VT, WI, WV, Canada (East of Manitoba)
ADVERTISING DIRECTOR Steven Goodman (917) 326-8705
REGIONAL SALES MANAGER Nancy Roscoe (917) 326-8720

WEST
AZ, CA, CO, IA, ID, KS, MT, ND, NE, NM, NV, OK, OR, SD, UT, WA, WY, Canada (West of Ontario)
ADVERTISING DIRECTOR Steven Goodman (917) 326-8705
ACCOUNT EXECUTIVE Diana Langenbach (917) 326-8718

ACCOUNT COORDINATOR Shawn Calo (917) 326-8722
AD TRAFFICKER Tracey Camazzo

GENERAL MANAGER, ONLINE VP, MARKETING Josh London

MARKETING
MARKETING CONSULTANT Karol Steinschraber
TECHNICAL PRODUCER Richard Grech
CIRCULATION DIRECTOR Shawne Burke Pecar
DIRECTOR, SINGLE-COPY SALES Mark Peterson

CONTROLLER Tamika Williams

PRODUCTION
PRODUCTION MANAGER Randall McCall
ELECTRONIC PREPRESS SPECIALIST Deborah Jarski
STAFF ACCOUNTANT Teressa Owens
OFFICE ADMINISTRATOR Adriana Melendez

SX2 MEDIA LABS
PRESIDENT AND CEO David Sills
CHIEF STRATEGY OFFICER Elizabeth Roberts
CHAIRMAN Barry Schwimmer

SX2 Media Labs

Computer Shopper, 72 Madison Ave., 10th Fl., New York, NY 10016
Sales Info: 800-999-7467, Editorial: 917-326-8700, Fax: 212-481-0920
Customer Service: 877-214-7390, Subscription Inquiries: 800-274-6384

For subscription service questions, address changes, or to order: Please contact us at www.computershopper.com/service (customer service) or www.subscribe.cshopper.com (to order); Phone: US and Canada (800) 274-6384, elsewhere (386) 597-4374; Mail: Computer Shopper, P.O. Box 52565, Boulder, CO 80322-2565 (please include mailing label, as it contains information that will expedite processing); Fax: (386) 447-2321; E-mail (please include your full name and the address at which you subscribe; do not send attachments): cshopper@neodata.com. **Subscription rate:** The one-year (12-issue) rate is $24.97. Outside the US add $10 per year for surface mail. US funds only. Please allow 2-6 weeks to receive your first issue as well as for any changes to take place on an existing subscription. **Back issues:** $8 each in the US, $12 each elsewhere (subject to availability). Prepayment is required. Make checks payable to Computer Shopper. Mail requests to: Back Issues, Computer Shopper, P.O. Box 52565, Boulder, CO 80322-2565. **Mailing list:** We sometimes make our customer lists available to third parties that may interest you. If you do not wish to receive their mailings, please write us at: Computer Shopper, P.O. Box 52565, Boulder, CO 80322-2565.

The website you've been wishing for...

As the world's largest web host, 1&1 offers website plans for every skill level and budget.

Start your website today and get a Holiday Credit of up to $300!*

Offer ends December 31st!

DOMAINS

Up to a $5 credit!*

Register your website today! Prices start at just $8.99/year.

WEB HOSTING

Up to a $50 credit!*

Design your professional looking website. Starting at just $3.99/month.

E-COMMERCE

Up to a $100 credit!*

Set up your own online store and start selling! Prices start at just $9.99/month.

SERVERS

Up to a $300 credit!*

Powerful hardware for high performance needs. Starting at $99.99/month.

*Credit dependent on package selected. Setup fee and minimum contract term may apply. Visit www.1and1.com for full promotional offer details. Credit cannot be redeemed for cash. Offer ends December 31, 2008. Product and program specifications, availability and prices 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.
© 2008 1&1 Internet, Inc. All rights reserved

MEMBER OF united internet

Call **1.877.go1and1**

Visit us now **1and1.com**

1&1

CyberPower recommends Windows Vista™ Home Premium

AMD
The future is fusion

CREATE THE PC OF YOUR DREAMS

All Desktop systems come with
3 year Limited Warranty + lifetime
toll free 24/7 techsupport

AMD Turion X2 Ultra 64

AMD Phenom X4 64

AMD Phenom™ processors offer multi-core performance for life-like gaming, crystal-clear digital media and serious megatasking.

CyberPOWER Inc.

GAMER ULTRA XPLORER-64 9550

from $1075

Black + 6 Custom Colors to Choose From

- AMD Turion™ X2 Mobile Technology
- 2GB DDR-II PC6400 800 MEMORY
- 250 GB Ultra SATA150 Hard Drive
- NVIDIA® GeForce® Go 9600 GT 512MB
- 15.4" WXGA+ Wide-Screen TFT Display 1440x900 Pixels
- 8x DVD+/-RW Rewritable Drive
- Gigabit Network Card & 56K V.92 Modem
- Wireless 802.11G 54Mbps Networking
- 3-in-1 Built-in Media Reader
- 1 Firewire IEEE 1394 & 3 USB 2.0 Ports, 1 PCMCIA Type II Slot
- **Genuine Windows Vista™ Home Premium**
- Weight only 6.39 Lbs
- Free Carrying Case

AMD Turion™ X2 Mobile Technology

ZM-86	$1139
ZM-84	$1099
ZM-80	$1075

GAMER ULTRA CROSSFIRE X™ PRO

from $839

5 Cool Colors to Choose From

- AMD 790GX CrossFireX™ Chipset MB with Dual PCI-E
- Corsair® 2GB DDR2 800 Dual Channel Memory
- 500GB SATA-II 3.0 7200 RPM HD 16MB Cache
- (2) ATI Radeon™ HD 4850 512MB in CrossFireX™ mode
- LG® 22x DVD+/-RW Drive & 16x DVD-ROM
- HDMI High Definition 7.1 Sound & 600 Watt Subwoofer Speaker
- Logitech® Office 104 Keyboard & Optical Wheel Mouse
- **Genuine Windows Vista™ Home Premium**
- Raidmax Sagitta II Gaming Tower w/ 580Watt CrossFireX™ Power
- ASETEK LIQUID COOLING SYSTEM
- Free 802.11G Wireless PCI Network Adapter

AMD Phenom™ X4 Quad-Core Processor		AMD Athlon™ 64 X2 Processor	
9950+ CPU Black Edition	$975	6000+ CPU	$875
9850+ CPU	$959	5600+ CPU	$865
9750+ CPU	$939	5200+ CPU	$845
9650+ CPU	$915	5000+ CPU	$839

GAMER ULTRA 9800 GT

from $765

- NVIDIA® nForce® 760A SLI™ Chipset MB with Dual PCI-E
- Corsair® 4GB DDR2 800 Dual Channel Memory
- 500 GB SATA II 3.0 7200 RPM HD 16MB Cache
- NVIDIA® GeForce® 9800GT 512MB
- LG® 22x DVD+/-RW Drive & 16x DVD-ROM
- High Definition 7.1 Surround Sound & 600 Watt Subwoofer Speaker
- Logitech® Office 104 Keyboard & Optical Wheel Mouse
- Sigma Gaming WindStorm Mid Tower w/ 680 Watt SLI™ Power
- ASETEK LIQUID COOLING SYSTEM
- **Genuine Windows Vista™ Home Premium**
- Free 802.11G Wireless PCI Network Adapter

AMD Phenom™ X4 Quad-Core Processor		AMD Athlon™ 64 X2 Processor	
9950+ CPU Black Edition	$899	6000+ CPU	$799
9850+ CPU	$889	5600+ CPU	$795
9750+ CPU	$865	5200+ CPU	$769
9650+ CPU	$845	5000+ CPU	$765

GAMER ULTRA 8000 DREAM

from $655

5 Cool Colors to Choose From

- AMD 790GX CrossFireX™ Chipset MB with Dual PCI-E
- Corsair® 2GB DDR2 800 Dual Channel Memory
- 500GB SATA-II 3.0 7200 RPM HD 16MB Cache
- ATI Radeon™ HD 4670 1GB video card
- LG® 22x DVD+/-RW Drive & 16x DVD-ROM
- AMD High Definition 7.1 Sound & 600 Watt Subwoofer System
- Logitech® Office 104 Keyboard & Optical Wheel Mouse
- **Genuine Windows Vista™ Home Premium**
- X-Sniper G Gaming Case w/ See Through Window
- XG XtremeCool Silent & Overclocking Proof CPU Cooling System
- Free 802.11G Wireless PCI Network Adapter

AMD Phenom™ X4 Quad-Core Processor		AMD Athlon™ 64 X2 Processor	
9950+ CPU Black Edition	$789	6000+ CPU	$699
9850+ CPU	$779	5600+ CPU	$685
9750+ CPU	$755	5200+ CPU	$659
9650+ CPU	$729	5000+ CPU	$655

TOLLFREE 800.707.0393 WWW.CYBERPOWERPC.COM

AMD, the AMD Arrow logo, AMD Phenom™ ATI Radeon™ Graphics, 790 Series, and combinations thereof are trademarks of Advanced Micro Devices, Inc. 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. NVIDIA®, nForce®, GeForce®, SLI™ are trademarks or registered trademark of NVIDIA Corporation or its subsidiaries in the United States and other countries. CyberPower PCs use genuine Microsoft® Windows® - www.microsoft.com/piracy/howtotell

Geek Speak

BY MATTHEW MURRAY AND JOHN BUREK

M&J plan One Last Heist, spin a Core i7 fish story, and battle for the Best Keyboard Ever!

ON THE 10TH FLOOR of Shopper HQ, in the heart of midtown Manhattan, two enterprising editors on a diet of tech, talk, and cheese bring you their impressions of the connected life…in a disconnected way.

FILCH NOIR

Ever seen one of those 1950s French noir films in which a bunch of aging crooks pulls off One Last Heist but everything goes horribly wrong? (Think *Reservoir Dogs*, but with Gallic accents, less blood, and more black Citroëns.) Well, there stood Matthew and John, at Manhattan's Metropolitan Pavilion, transfixed by one awe-inspiring tech object: Pioneer's Kuro PDP-6020FD 60-inch plasma HDTV. A Pioneer rep's excited spiel dissolved into static in Matthew's and John's ears. Their brain waves marched in silent lockstep: One. Last. Heist.

Oh, temptation! M&J had, all year, been scavenging the battlefields of the Great HD Format War, acquiring fallen HD DVD titles (ooh, *Transformers*!) and occasional Blu-rays. And TV prices are falling—a lot. *Consumer Reports* estimates LCD sets cost 20 percent less—and plasmas 20 to 30 percent less—than a year ago. PriceScan reports a staggering 12 percent drop on 40-inch 1080p sets in the third quarter of '08 *alone*. Bigger sets (and thinner ones—the Kuro is less than four inches thick) are falling too, and with the DTV transition imminent, the giant-TV snowball is only going to keep, well, snowballing.

Never mind that at $5,500, this otherworldly Pioneer costs double what John's first two cars did—*combined*. And never mind that, at 5 feet long and more than 100 pounds, getting it into Matthew's living room would resemble coaxing a rhinoceros into a Mini Cooper. They both knew: I *must* have it.

Lo and behold, John left *Shopper* HQ one night, in the shadow of the famed Empire State Building. He sidestepped a Yeti-size pile of curbside trash, then drew up short. Propped up by a pillar of discarded Yellow Pages and take-out containers was the biggest empty cardboard box he'd ever seen. The words "PIONEER 60" leapt out at him: *Someone* in the building had bought a Kuro!

The Last Heist is *on*.

John's honing his breaking-and-entering skills by watching *Mission: Impossible* clips on YouTube, and Matthew's measuring sight lines in his living room. Matthew thinks he's getting the TV, and that John won't betray him at the end of this caper. *Sacre bleu!* He'll find out.

BIG FISH TALE

Pale Monday-morning light streamed in the windows of *Shopper* HQ as John settled at his desk, bleary-eyed. His mug of makeshift mocha—cocoa plus vending-machine espresso—wasn't helping. A sheaf of papers had appeared over the weekend, stamped SHOPPER LABS: TEST RESULTS. But why the red ink? Red was reserved for…unusual cases.

He lifted the first page, eyes darting over the numbers. This *must* be a mistake, he thought. He read on. This *too*. But this number correlates, these scores are in line…could it really be that a $1,250 desktop PC was, in some ways, outperforming one costing over $6,000?

Now he was wide awake. Back to the front page—there was Matthew's signature, shakier than usual, looking like it had been scribbled at 3:37 a.m. or on Day 15 of a hunger strike. Scrawled beside it was one word: *Nehalem*.

Nehalem? Was it a Middle Eastern flashpoint that had fallen out of the news for a few days? A cousin of that universal grunt of indifference, "Meh"? A handwritten typo, related to "teh"? John *had* to know.

He found Matthew in the labs, slumped over a test bench strewn with energy-bar wrappers, motherboards, and PC towers. Between snores, a word escaped his lips: "Nehalem."

John whispered, "What is Nehalem?"

Matthew shot awake. "It's a river in Oregon, brimming with leaping salmon! It's the name of a Native American tribe! It's…." He paused and looked around. "It's…Monday."

"You spent the weekend here again, didn't you?"

"Blame Nehalem! It's the name of the micro-architecture used in Intel's new Core i7 processors. I've been testing them for days. The implications are staggering." He stormed past. "I *need* to get a salmon burger."

"But it's 9 a.m.!"

"Precisely!"

John shook his head, read the rest, and realized: Matthew was right. This report *must* be shared with the world. It's on p. 73. Advice: It goes best with cocktail sauce.

DAS BOOT

(Scene: JOHN's office. He's typing. MATTHEW enters left, waving a snazzy black keyboard, eyes as big as coasterized CD-Rs.)

"Behold the Das Keyboard!"

John ignores him.

Matthew tries again: "It's better than German chocolate cake with chopped walnuts."

John hears, "Grumble CHOCOLATE CAKE grumble grumble," and keeps typing.

"It's better than…the Northgate OmniKey 101."

Now *that* is sacrilege!

In days of yore, when

laptops (and issues of *Shopper*!) weighed 10 pounds, John cut his journalistic teeth on the OmniKey, the ruggedest, clackiest, most satisfying keyboard ever built by humans. Springy keys: check. Perfect tactile feel: check. Key noise galore, broadcasting to your co-workers and boss that you're working *really* hard: check. John's OmniKey gave way to a succession of sordid, mushy OEM keyboards and Logitech and Microsoft nice-tries. Had he known it would vanish like Crystal Pepsi and Mr. Goodbars with *real* milk chocolate, he'd have hoarded a dozen!

"*Nothing*'s better than the OmniKey," John barks, grabbing the keyboard and resting it across his lap. "Not even *Belgian* chocolate." He positions his fingers and types: **The quick brown fox jumped over the lazy OMG OMG OMG OMG**

It's clackety! Lots of noise! The keys bite back, in the nicest possible way! No funky media keys or screwy scroll wheels or gamer-friendly gewgaws. Now *this* is a keyboard for *men*. (And *wo-men*, too!)

John cries out, "Mine!"

Matthew: "Not on your life!"

After the tug-of-war is broken up by Managing Editor Jonathan ("What's the *matter* with you guys?"), Matthew clutches the keyboard tight.

"I'll have to buy one," John concedes. "What's it cost?"

Matthew's eyes shift. "Well….$129."

"$129 for a *keyboard*?"

"It used to be $89," Matthew says, his voice catching. "Then they added a USB hub. Now it's $40 more."

Memo to Managing Editor Jonathan! Please send the following telegram to Das:

Love your keyboard. Really we do. But $40 for a USB hub? People! Please reinstate the "cheaper" model. It's still ruinous, but considering the feel, we'd keep this keyboard until Ethernet-jack-in-our-skull interfaces show up or we're ready to shuffle off this mortal coil.

DEM BONES

"So let me get this straight," John said. "This…thing"—he waved at the mysterious metal mass on his desk—"is a PC case?"

It was called the Skeleton, and it didn't look like any case John had ever seen. It didn't look like a case *at all*. More like a prototype for R2-D2, better suited to bringing you coffee than housing a motherboard.

"Yes, it's a case," Matthew said patiently. "But it's open. Has no sides, no top."

John peered inside. "And everything is cooled by…?"

"…by the big fan on top, yes."

"And this *works*?"

"It seems to."

John had spent so many years working inside terribly cramped PC cases designed, apparently, by Torquemada that skepticism shone out of every pore. "And if I spill beer onto it?"

"Uh," Matthew gulped, "you really shouldn't do that."

"Or my canary lands on the northbridge chipset?"

"Clearly," Matthew said, yanking away the Skeleton, "this is *not* the right case for you. Maybe you'd be happier with one with purple flowers and crystals on it? I think In Win makes one of those."

"And dust? Must I move into a clean-room environment and wear a bunny suit?"

Matthew rolled his eyes. "No. But you'll upgrade your PC twice as fast. And have your drives and boards right before you, to adore with googly eyes."

John pursed his lips, re-examining the Skeleton. After his PC build-of-the-week, he'd have fast access to all those cables he always plugged in backward. He could swap video cards pronto. Overheating problems could be diagnosed scientifically. (Touch the CPU heat sink, see if you get a second-degree burn.)

He sighed, took out his credit card. "This column's getting expensive," he said. "Tell whoever's reading to see p. 40 for our review of this thing. And stop bringing gear in here, okay?"

Matthew grinned and agreed—until *next* month.

Send us a transmission:
geekspeak@computershopper.com

Q&A ..with Stan Veit

Stan Veit was *Computer Shopper*'s first editor-in-chief. Before that, he was a pioneer in personal computer sales. On the eve of *Shopper*'s 30th anniversary (see p. 98), we asked him a few questions about *Shopper*'s—and the PC industry's—formative years.

What did *Computer Shopper* and the computer industry look like when you started?

When I became editor-in-chief in 1983, the magazine was mostly classified ads for used or surplus equipment. There were few computer stores then, mainly in cities, so people in suburban or rural areas had to buy from RadioShack or through the mail direct from manufacturers.

There was no Internet like today's, of course, but there were online networks like The Source. You could communicate over dial-up at a blazing 30 baud. (Read: Super slow!) Also, users were highly segregated by their hardware and software. RadioShack TRS-80 stuff would not work with Commodores or Apples. Ditto for the Atari and Texas Instruments computers; all had unique designs, hardware, and OSs.

What pivotal industry event comes to mind during that decade?

IBM's transition to the PC space. It had always been a vertically integrated company: They made the chips, drives, software, and OSs, and the machines that ran it all. Before the PC, you bought or rented your computer from IBM.

IBM had no experience with personal computers and started years behind. The computer IBM entered the field with wasn't an IBM product; in fact, the only thing "IBM" about it was the logo. The CPU came from Intel, the OS and BASIC language from Microsoft, the printer from Epson. There was nothing proprietary. It allowed for the rise of the PC clones, which would eventually destroy IBM as a PC maker.

What was cutting-edge tech back in 1983?

Hard drives were becoming available for personal computers. They were very expensive, and we wondered who'd ever use up all 20MB!

Start Off the New Year with New Gear!

Begin your New Year with more efficient, cutting edge technology products from PROVANTAGE! We pride ourselves in offering our customers the latest and greatest technology available at the lowest prices. Discover why PROVANTAGE has been the best place to purchase cutting edge technology since 1984. Visit us at www.provantage.com or call 800-336-1166 today!

Get your Free Buyer's Guide Today!

Embrace Easy, Excellent and Exciting Computing

ASUS Eee PC 1000H Mini Notebook Computer

ASUL0A3 .....$479.76

ASUS

Modern design, maximum performance

Seagate

Seagate FreeAgent XTreme 1TB External Drive

SEGR03Q $197.34

Voice Activated Navigation

nüvi® 880 Personal Travel Assistant

GRML02H $799.00

GARMIN

Experience Noise Blackout™ Technolgy!

Jabra BT530 Bluetooth Headset

GNET0C8 .....$61.64

Jabra

SILVER PARTNER

Use your home network to listen to music in any room in your house!

Logitech Squeezebox™ Boom

LOG904V $272.76

Logitech

So Portable, You Could Get Carried Away!

Toshiba Satellite Pro® U400

TOSN0L8 .....$999.24

TOSHIBA

Leading Innovation

PROVANTAGE®

VISIT US AT PROVANTAGE.COM * 800-336-1166

Products, prices, terms, conditions or offers may change at any time. Company and/or product names are generally trademarks or registered trademarks of their respective companies. Some promotional text may be copyrighted by the product's manufacturer.

Clickable Culture

BY MATT SAFFORD

Lala brings music back to the Web—but will it bring dollars?

IT'S BEEN A PAINFUL decade for digital-music fans. Since the early days of MP3.com and the demise of free-for-all Napster, we've suffered through Sony CDs that install compromising software on our computers, music files that work only with certain players and software, and lawsuits meant to frighten us away from sharing files. Which is why the redesigned Lala **(www.lala.com)** is so enticing—it may change the way we consume music.

Lala differentiates itself from other music services by offering songs for a dime and whole albums for under a buck. The songs are only playable from the Web; if you decide to download them, Lala charges an additional 79 cents per MP3 (you can also listen to any song in Lala's catalog one time for free). The site also makes it easy to recommend music to other users, so sharing that killer track you just discovered is a breeze.

The Lala Mover software is even more impressive: Run it on your Mac or PC, and it syncs the music on your computer—even songs purchased from other services—with your Lala account on the Web, where you can play them from any Flash-enabled browser.

Lala works similarly to the long-defunct My.MP3.com service, which launched back in 2000. The record labels killed the service because they were afraid that piracy would eat into their still-soaring profits from CD sales. But now that revenue has tumbled, developers and music distributors are finally playing nice, and with sites like Lala, they're actually making it easier to buy (and share) music than steal it.

Unfortunately, it took more than a decade to get to this point, and draconian antipiracy measures have pushed loads of music fans to embrace less-than-legal options. Lala and other innovative sites just may entice some consumers back from the brink and push up profits for artists as well as labels. But labels and developers will have to be smarter than ever, because there's now an entire generation of kids who wonder why their parents ever paid for music.

TechMom

BY SARAH E. ANDERSON

Find hidden money at home: Make Craigslist and eBay pay the bills with these selling secrets

WITH LIVING expenses skyrocketing, saving money and coming up with extra cash are tasks that often fall to the mom, but let's face it: Clipping coupons and severe budgeting are not for everyone. (Me included!) So how do we get from one paycheck to the next while still paying the babysitter? We start selling—carefully. Although Craigslist and eBay are nothing new to savvy shoppers (and sellers), knowing what to sell—and when—is vital.

I've learned these lessons the hard way. (I once sold a pair of shoes for $1, which made shipping them a chore.) You don't have to. Check out these tips before you get started.

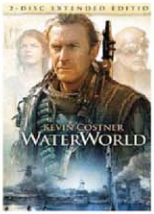
SEASON MATTERS. I'm writing this column in the fall, so Halloween costumes and holiday decorations are hot-ticket items—I saved last year's costumes and sold them to buy this year's. I also like to freshen up my holiday decorations every year but don't have the space to buy and store. So keep in mind the season. Skis, coats, and boots will be in demand during the winter, not in June.

CDs AND DVDs DON'T SELL WELL (UNLESS THEY DO). Reselling music and movies generally isn't worthwhile—resale prices tend to be slim. But there are exceptions, such as Disney movies that have gone back into the Disney vault. A used copy that's no longer available can command as much as a new DVD. (Use eBay's "completed listings" function for research.) Other good sellers are TV series on DVD, especially when the show has ended its run or is in later seasons.

START A SLUSH FUND. Set up separate PayPal accounts for certain types of items. For example, my husband has a revolving account just for video games. He buys new games only with money from that account, generated from selling games; if there isn't enough cash to buy the next Grand Theft Auto, he has to sell something! This is also a great way to teach teens good budgeting.

KEEP IT LOCAL. Selling on eBay means factoring in shipping. If you can keep it local, post on Craigslist instead—especially for big items. And if you can hand-deliver your item (for a fair fee), say so in the ad. This is attractive in areas where people rely on public transit. It means more money, and it could trigger a sale that otherwise might not happen.

AVOID COMPETITION. Unloading a Nintendo Game Boy Advance in perfect condition? That's great—except it'll be one of hundreds. Research similar items for sale and make yours stand out with a lower price, accessories, or free shipping. Or hold off until there are fewer sellers.



This DVD will probably *not* sell.

TRADE GOODS FOR GOODS. Saving on things you need is as good as making money to buy them. For this, look for barters and trades. You can find plenty of items and services for exchange on Craigslist—everything from toys to baby-sitting to trombone lessons.

TAKE A CUT. Out of items to sell? Ask friends and family if you can sell anything on their behalf, for a commission: 15 percent of something is better than 100 percent of nothing. But handle your own shipping, so as not to risk your standing on eBay.

Following these tips can inject some green into your budget. I can't promise they'll make you rich, but they can help get you from chicken and stars for dinner to steak and potatoes. And—bonus!—you'll rid the house of some clutter.

ALTERNATIVE THINKING ABOUT SYSTEM POTENTIAL:

See eye to eye with your budget—without limiting your vision.

Compromising is fine. For other people. But now you can watch your bottom line, while still getting a look into the future. The HP portfolio of solutions erases the gap between cost and innovation, while delivering reliable ProLiant technology, all at prices that require a second look. So, while others try to think outside the box—we're rethinking what goes on inside it.

Technology for better business outcomes.

intel Xeon inside™

Powerful. Efficient.

HP BladeSystem c3000 Enclosure

$3,959 (Save $1,863)

Lease for just $110/mo.
SmartBuy [PN: 481658-001]

- Supports up to 8 server blade devices in a 6U enclosure
- 3-year limited warranty

HP ProLiant BL260c Server

$899 (Save $631)

Lease for just $22/mo.
SmartBuy [PN: 480965-B21]

- Powered by the Intel® Xeon® Processor
- 2GB memory
- 1-year limited warranty

HP ProLiant DL120 G5 Server

$849 (Save $339)

Lease for just $21/mo.
SmartBuy [PN: 470064-763]

- Powered by the Intel® Core™ 2 Duo Processor
- One 250GB SATA hard drive
- 2GB memory
- 1-year limited warranty

HP StorageWorks DAT160 USB Tape Drive

$729 (Save $80)

Lease for just $18/mo.
SmartBuy [PN: Q1580SB]

- One-Button Disaster Recovery feature easily restores lost files, applications
- Store up to 160GB on a single cartridge, while backing up to 50GB/hr.

See additional HP models which feature small form factor, high-performance SAS hard drives.

To learn more, call 1-866-625-0806 or visit hp.com/servers/rethink4

hp

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: $5,822 – $1,863 instant savings = SmartBuy price of $3,959; Blade Server: $1,530 – $631 instant savings = SmartBuy price of $899; Rack Server: $1,188 – $339 instant savings = SmartBuy price of $849; Tape Drive: $809 – $80 instant savings = SmartBuy price of $729).

Intel, the Intel logo, Xeon and Xeon Inside are trademarks of Intel Corporation in the U.S. and other countries.
© 2008 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice.

BY LES L. SHU

◀ Mitsubishi Diamond Series HC7000U

Mitsubishi is so proud of its latest multimedia projector that the company slapped the Diamond name onto it. Like the flagship Diamond LCD and rear-projection HDTVs, the **HC7000U** has a native 1080p resolution, perfect for high-definition Blu-ray movies. It also has a dynamic contrast ratio of 72,000-to-1, and it's one of the quietest projectors on the market. The HD7000U retails for $3,995. If that's too much for your wallet, a lower-end unit (the HC6500U) costs $2,995, with a dynamic contrast ratio of 15,000-to-1. *Mitsubishi Digital Electronics America, www.mitsubishi-hometheater.com*

Rock Revolution ▶

Unleash your inner rock star with Konami's new **Rock Revolution** music-based video game. It includes more than 40 songs from various genres, and six players can play together online on the Sony PlayStation 3 or Microsoft Xbox 360. The game comes in a version bundled with a drum kit ($129.99); it's also compatible with most third-party guitar and drum peripherals. *Konami, www.konami.com*

◀ Apple LED Cinema Display

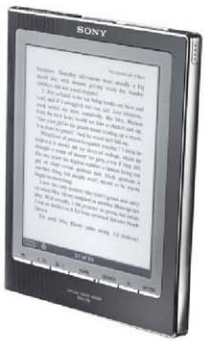
If you're lucky enough to get your hands on one of the new MacBook, MacBook Pro, or MacBook Air laptops, pair it with the must-have 24-inch **LED Cinema Display** from Apple ($899). The monitor uses an LED backlight, which turns on faster than traditional monitor bulbs. Plus, the LED helps make the monitor brighter. Using the new DisplayPort interface, the monitor connects to the new laptops through one cable, which can also charge the connected laptop. *Appie, www.appie.com*

BlackBerry Storm

The **BlackBerry Storm** is RIM's answer to Apple's iPhone, featuring a touch screen that supports multi-touch gestures and "clicks" when you type on the virtual keyboard. Unlike previous BlackBerry smartphones, the Storm retrieves messages and connects to the Web much faster thanks to Verizon Wireless' EVDO network, and it has a completely revamped interface that's sleeker looking and easier to use. *Research In Motion, www.blackberry.com*

Iomega StorCenter ix2

If you're looking for an easy way to share digital media within your household, add the Iomega **StorCenter ix2** to your network. The device offers up to 2 terabytes of storage ($479.99, or $299.99 for 1 terabyte), and Iomega focused on making it easy to set up and use. Retrospect Express is included for backing up your computers over the network, and the unit supports the UPnP and DLNA protocols, so compatible devices like gaming consoles, music-streaming devices, and security cameras can access the content on it, too. Two USB ports let you share printers or hard drives, and you can plug in a USB-based Bluetooth dongle to transfer files from a phone to the drive. *Iomega, www.iomega.com*



Sony Reader Digital Book

Condense your library into the compact Sony **Reader Digital Book** ($399.99). The latest model (PRS-700) itself resembles a small hard-bound book, with a soft cover and a weight of 10 ounces. A 6-inch touch screen allows readers to highlight text and create notes. The e-paper technology is viewable under bright sunlight, and there's an LED light for situations where there isn't any light. The device holds about 320 digital books, and expandable memory allows it to hold even more. To complement the Reader, Sony has also improved its eBook store. *Sony Electronics, www.sonystyle.com*

SAGER
THE PORTABLE POWER PEOPLE

Introducing Sager's Turbocharged Gaming Machines...

NP 9262

- 17.0" WUXGA Display (1920x1200) with Super Clear Glare Type Screen
- Intel® Core™ 2 Quad Processor Q9550 (12MB L2 Cache, 2.83GHz, 1333MHz FSB)
- 1GB DDR3 NVIDIA® GeForce™ 9800M GTX PCI-Express™ Graphics
- 512MB DDR3 NVIDIA® GeForce™ 9800M GT PCI-Express™ Graphics (optional)
- 1GB DDR3 NVIDIA® Quadro® FX 3700M PCI-Express™ Graphics (optional)
- Dual Graphics SLI™ Technology Capable
- 4GB Dual Channel DDR2 SDRAM at 800MHz
- 320GB 7200RPM SATA-300 Hard Drive
- 8X DVD+-R/RW/4X +DL Super Multi Drive
- Hardware Raid 0, 1, 5 Function
- One Optical Device and 3 Hard Drives Coexisting Capable
- Full sized Keyboard with Numeric Keypad
- Intel® WiFi Link 5300AGN Wireless LAN
- Integrated Bluetooth V2.0 Wireless
- Built-in 2.0M High-Res. Video Camera
- Built-in 7-in-1 Card Reader
- Genuine Windows Vista™ Home Premium
- Microsoft Office™ Ready with free 60-day trial

$2999

NP 5796

- 17.0" WUXGA Display (1920x1200) with Super Clear Glare Type Screen
- Intel® Centrino® 2 processor technology
  - Intel® Core™ 2 Duo Processor T9400 (6MB L2 Cache, 2.53GHz, 1066MHz FSB)
  - Intel® WiFi Link 5300AGN Wireless LAN
- 1GB DDR3 NVIDIA® GeForce™ 9800M GTX PCI-Express™ Graphics
- 1GB DDR3 NVIDIA® GeForce™ 9800M GTS PCI-Express™ Graphics (optional)
- 512MB DDR3 NVIDIA® Quadro® FX 2700M PCI-Express™ Graphics (optional)
- 4GB Dual Channel DDR3 SDRAM at 1066MHz
- 320GB 7200RPM SATA-300 Hard Drive
- 8X DVD+-R/RW/4X +DL Super Multi Drive
- Full sized Keyboard with Numeric Keypad
- Integrated Bluetooth V2.0 Wireless
- Built-in 2.0M High-Res. Video Camera
- Built-in Fingerprint Reader
- Intel® Turbo Memory support 2.0 (optional)
- 1 eSATA, 1 FireWire, and 3 USB 2.0 Ports
- Built-in 7-in-1 Card Reader
- HDMI output for High-Definition Video
- Available in Orange or Silver color Trim
- Genuine Windows Vista™ Home Premium

$2699

Blame your little brother.
Blame your high ping.
But never again, blame your rig.
The Sager Ultimate Gaming Machine–
Built to Game. Not to Blame.
Call Sager today or visit sagernotebook.com
to order your custom gaming computer.

Sager recommends Microsoft® Windows Vista™ Ultimate

Call us toll-free at:
800.669.1624

For up-to-the-minute pricing and ordering information:
sagernotebook.com

NP
8660

- 15.4" WSXGA+ Display (1680x1050) with Super Clear Glare Type Screen
- 15.4" WUXGA Display (optional)
- Intel® Centrino® 2 processor technology
  - Intel® Core™ 2 Duo Processor P8400 (3MB L2 Cache, 2.26GHz, 1066MHz FSB)
  - Intel® WiFi Link 5300AGN Wireless LAN
- 1GB DDR3 NVIDIA® GeForce™ 9800M GTS PCI-Express™ Graphics
- 512MB NVIDIA® Quadro® FX 2700M PCI-Express™ Graphics (optional)
- 4GB Dual Channel DDR3 SDRAM at 1066MHz
- 200GB 7200RPM SATA-300 Hard Drive
- 8X DVD+-R/RW/4X +DL Super Multi Drive
- Integrated Bluetooth V2.0 Wireless
- Built-In 2.0M High-Res. Video Camera
- Built-in Fingerprint Reader
- Intel® Turbo Memory support 2.0 (optional)
- 1 eSATA, 1 FireWire, and 3 USB 2.0 Ports
- Built-in 7-in-1 Card Reader
- HDMI output for High-Definition Video
- Genuine Windows Vista™ Home Premium

$1899

NP
5793

- 17.0" WSXGA+ Display (1680x1050) with Super Clear Glare Type Screen
- 17.0" WUXGA Display (optional)
- Intel® Centrino® processor technology
  - Intel® Core™ 2 Duo Processor T8100 (3MB L2 Cache, 2.1GHz, 800MHz FSB)
  - Intel® WiFi Link 5100AGN Wireless LAN
- 512MB DDR3 NVIDIA® GeForce™ 9800M GTS PCI-Express™ Graphics
- 4GB Dual Channel DDR2 SDRAM at 667MHz
- 320GB 7200RPM SATA-300 Hard Drive
- 2X Blu-Ray Reader / 8X DVD+-R/RW/4X +DL Super Multi Drive
- Full sized Keyboard with Numeric Keypad
- Integrated Bluetooth V2.0 Wireless
- Built-in 1.3M High-Res. Video Camera
- Built-in Fingerprint Reader
- Intel® Turbo Memory support 2.0 (optional)
- Built-in 7-in-1 Card Reader
- Genuine Windows Vista™ Home Premium
- Microsoft Office™ Ready with free 60-day trial

$1499

After $600 instant savings!

NP
2096

- 15.4" WXGA Display (1280x800) with Super Clear Glare Type Screen
- 15.4" WSXGA+ Display (optional)
- Intel® Centrino® 2 processor technology
  - Intel® Core™ 2 Duo Processor P8600 (3MB L2 Cache, 2.40GHz, 1066MHz FSB)
  - Intel® WiFi Link 5100AGN Wireless LAN
- 512MB DDR2 NVIDIA® GeForce™ 9600M GT PCI-Express™ Graphics
- 4GB Dual Channel DDR2 SDRAM at 800MHz
- 320GB 7200RPM SATA-300 Hard Drive
- 8X DVD+-R/RW/4X +DL Super Multi Drive
- Integrated Bluetooth V2.0 Wireless
- Built-In 2.0M High-Res. Video Camera
- Built-in Fingerprint Reader
- Intel® Turbo Memory support 2.0 (optional)
- Built-in 3-in-1 Card Reader
- HDMI output for High-Definition Video
- 9 Cell Smart Li-ION Battery
- Genuine Windows Vista™ Home Premium
- Microsoft Office™ Ready with free 60-day trial

$1199

After $200 instant savings!

NP
7680

- 15.4" WXGA Display (1280x800) with Super Clear Glare Type Screen
- 15.4" WSXGA+ Display (optional)
- Intel® Centrino® 2 processor technology
  - Intel® Core™ 2 Duo Processor P8400 (3MB L2 Cache, 2.26GHz, 1066MHz FSB)
  - Intel® WiFi Link 5300AGN Wireless LAN
- 256MB DDR2 NVIDIA® GeForce™ 9300M GS PCI-Express™ Graphics (up to 512MB TurboCache™)
- 2GB Dual Channel DDR2 SDRAM at 800MHz
- 160GB 5400RPM SATA Hard Drive
- 8X DVD+-R/RW/4X +DL Super Multi Drive
- Integrated Bluetooth V2.0 Wireless
- Built-in 2.0M High-Res. Video Camera
- Built-in Fingerprint Reader
- Intel® Turbo Memory support 2.0 (optional)
- 1 eSATA and 3 USB 2.0 Ports
- Built-in 7-in-1 Card Reader
- HDMI output for High-Definition Video
- Genuine Windows Vista™ Home Premium
- Microsoft Office™ Ready with free 60-day trial

$999

NP
7350

- 13.3" WXGA LED-Backlit Display (1280x800) with Super Clear Glare Type Screen
- Intel® Core™ 2 Duo Processor T5600 (2MB L2 Cache, 2.0GHz, 800MHz FSB)
- Intel® GMA X4500HD Integrated Graphics with Share memory architecture 256MB
- 2GB Dual Channel DDR2 SDRAM at 800MHz
- 160GB 5400RPM SATA Hard Drive
- 8X DVD+-R/RW/4X +DL Super Multi Drive
- Intel® WiFi Link 5100AGN Wireless LAN
- Integrated Bluetooth V2.0 Wireless (opt.)
- Built-in 1.3M High-Res. Video Camera
- Built-in Fingerprint Reader
- Intel® Turbo Memory support 2.0 (opt.)
- Built-in 7-in-1 Card Reader
- 3 USB 2.0 Ports
- 3D Surround Sound (S/PDIF output for DVD)
- Genuine Windows Vista™ Home Premium
- Microsoft Office™ Ready with free 60-day trial

$899

NP
7630

- 15.4" WXGA Display (1280x800) with Super Clear Glare Type Screen
- Intel® Core™ 2 Duo Processor T3200 (1MB L2 Cache, 2.0GHz, 667MHz FSB)
- Intel® Core™ 2 Duo Processor (optional)
- Integrated Graphics with Share memory architecture up to 256MB
- 2GB DDR2 SDRAM at 667MHz
- 160GB 5400RPM SATA Hard Drive
- 8X DVD+-R/RW/4X +DL Super Multi Drive
- Integrated Wireless LAN 802.11b/g
- Built-in 1.3M High-Res. Video Camera
- Built-in 7-in-1 Card Reader
- 3 USB Ports
- 3D Surround Sound (S/PDIF output for DVD)
- Genuine Windows Vista™ Home Premium
- Microsoft Office™ Ready with free 60-day trial

$699

intel
Centrino 2
inside™
Performance to go

Dealer/VAR, Government and Corporate pricing are available. Please call for details.

Super One Year Limited Warranty Policy: 30-Day Money Back Guarantee, if the replacement does not work as promised, or if you are not fully satisfied, we will issue a refund or exchange (less shipping charges). Three Year Limited Warranty: Parts and labor for three years. Three Year Limited Warranty (Parts): Applies to End Users in the United States of America only. **Extended Warranty Available:** Check out this comprehensive package of services/support. **Business Leasing Available:** Get your dream notebook with low monthly payments! **Super Corporate Offices** 19055 Rowland Street, City of Industry, CA 91748 **Sales Hours:** Monday - Friday 8:30AM - 5:30PM PST **Sales:** 800.888.8000 **Fax:** 626.839.8000 **Payment Methods Accepted:** • No Surcharge: Cashier's Checks Welcomed. ©2008 by Mitcell Computer, Inc. All rights reserved. Celeron, Celeron Inside, Centrino, Centrino Inside, Centrino Logo, Core Inside, Intel, Intel Logo, Intel Core, Intel Inside, Intel Inside Logo, Intel SpeedStep, Intel Viiv, Pentium, Pentium Inside, Viiv Inside, VPro, Xeon and Xeon Inside are trademarks of Intel Corporation in the U.S. and other countries. All company and/or product names mentioned herein are trademarks or registered trademarks of their respective companies. Prices and specifications are subject to change without notice. Banned software and shipping charges are not included. 30-day money back guarantee does not include freight or shipping and handling charges.

HP Mini 1000

Netbook has a killer keyboard, so-so speed

HP'S MINI-NOTE 2133 STOOD OUT with its high-res screen, Windows Vista OS—and high price. The new, low-priced Mini 1000 doesn't seem as distinctive, however, since its specs are almost identical to those of its competitors.

The Mini 1000 is impressive, with solid construction, a stylish and svelte case, a superb keyboard, and a super-bright screen. The glossy black lid now sports a subtle Swirl pattern. The keys are no longer slick and shiny but subtly textured, and the screen has grown from 8.9 to 10.2 inches. Despite the larger display, the Mini 1000 has slimmed down to 1x10.3x6.6 inches (HWD) and 2.5 pounds, making it the smallest, thinnest netbook yet with a full 10-inch-wide keyboard.

The standout feature of the Mini 1000 is its 92 percent keyboard. The keys feel solid, without the usual tapered edges, giving them flat tops with a slightly larger surface to hit. The layout is excellent, with none of the misplaced or shrunken keys found on other netbooks. The wide touch pad is very responsive; its buttons are easy to press, although we wish they were below the pad instead of off to the side.

EDITORS' RATING 8.4

0 BETTER ›› 10

PROS Superb keyboard feel, size, layout; very good audio; thin; lightweight; bright screen

CONS VGA port requires adapter cable; awkward touch-pad-button placement

SPECS 1.6GHz Intel Atom N270; 1GB RAM; 60GB hard drive; 10.2-inch display; Intel GMA 950; 2.5 pounds; 1x10.3x6.6 inches; Windows XP Home Edition SP3

Hewlett-Packard, 888-917-8092
www.hp.com

Direct Price $549

The 1,024x600-pixel display is so bright that blacks looked gray at full brightness. Turning down the brightness solves this issue. The display is sharp and has a very wide viewing angle, but its glossy finish is sometimes annoying. Though HP plans to offer an 8.9-inch screen as an option, the high-res 1,280x768 screen from the Mini-Note 2133 will not be available.

The 2133's anemic VIA processor has been replaced by the netbook-standard 1.6GHz Intel Atom N270, backed by 1GB of DDR2 memory and running Windows XP Home Edition SP3. HP included a 60GB hard drive with our review unit; 8GB and 16GB SSDs, 2GB of RAM, and a Linux OS with a friendly "Mobile Internet Experience" front end will be available as options.

For more: computershopper.com/laptops

Performance is in line with that of other Atom-powered notebooks. The Mini 1000 scored 135 on Cinebench 9.5. Tasks like e-mail, Web browsing, word processing, and light number-crunching were all smooth, but as with all netbooks, in terms of multimedia the Mini 1000 is more suited for video and audio playback than content editing and conversion. The netbook completed our Windows Media Encoder test in 27 minutes and 8 seconds and our iTunes encoding test in 19 minutes and 24 seconds, which is almost identical to the $439 Lenovo IdeaPad S10's scores. With the included three-cell battery, the Mini 1000 lasted 2 hours and 21 minutes playing back an MPEG-4 movie; lighter usage, such as writing and browsing the Web, squeezed out another 20 minutes.

The integrated GMA 950 chipset does a fine job with Windows applications and full-screen video playback, but its poor 3DMark06 score of 91 means gamers will be best off reliving five-year-old classics. The speakers are creatively placed behind a grille inside the laptop hinge, and although they don't have a lot of volume, the audio clarity is superb.

For networking, the Mini 1000 includes 802.11b/g Wi-Fi and Bluetooth 2.1 radios, as well as a 10/100 Ethernet port. You'll also find a pair of USB 2.0 ports, a combination headphone/microphone jack, an SD/MMC slot, and a VGA Webcam with a microphone. Though the notebook has a VGA monitor output, it uses a small custom connector, so you'll need to purchase an optional adapter cable to use an external monitor.

The Mini 1000 offers standout, solid construction and comfort. It is a worthy competitor in the netbook market, giving users the small size of the Lenovo IdeaPad S10 without the compromised keyboard. Unfortunately, we're not convinced that its keyboard and weight are enough to offset the $80 to $120 price premium over competitors from Asus, Lenovo, and MSI that provide nearly identical performance. —*Denny Atkin*

Epson Artisan 800

Quite possibly the perfect multifunction printer

EDITORS' RATING 9.2

0 BETTER ›› 10

PROS Packed with features; intuitive control panel; stunning photo output; fast print times; easy wireless setup

CONS Pricey; bulky

Epson America, 800-463-7766
www.epson.com

List Price $299.99

EDITORS' CHOICE

THE EPSON ARTISAN 800 is as near a perfect all-in-one as you are likely to find. The Artisan 800's features read like a wish list: legal-size color printing and copying, six-color photo printing, 4,800-dot-per-inch (dpi) color scanning, and color faxing. It can print from a PC connected via USB, Ethernet, or Wi-Fi—or without a PC, from an attached PictBridge camera, memory card, USB drive, or Bluetooth interface.

The touch screen and the adjacent keys (lit with pleasing amber LEDs) make choosing a function and navigating through options easy. You can edit photos via the onscreen menus.

Setup is straightforward. For wireless setup you will need to connect to your Wi-Fi router temporarily with the included Ethernet cable. If your router is inaccessible, you can get the MFP on your network by connecting to a PC that is connected to your wireless network; just be sure your computer is set to obtain an IP address automatically.

Epson claims the Artisan 800 can hit 38 pages per minute (ppm) in draft mode. We didn't see that throughput on our tests (using normal-quality settings), but performance was still impressive for an inkjet. The printer produced our 10-page Microsoft Word document in 1 minute and 20 seconds, and our 1-page color PDF file took just 15 seconds. Photo-output speed was also impressive: The Artisan 800 produced 4x6 images in Best Photo mode from an installed memory card in 25 seconds. Expect to see color copies in 18 seconds and black-and-white copies in 12 seconds.

Output quality is also strong. Text printed on plain inkjet paper was well-formed, with no sign of breakup, though it didn't have quite the darkness of laser-printed text. Color graphics printed on plain paper using the Text and Photo mode showed no banding in solid areas, though separation between gradient fill levels was nonexistent above 75 percent. Copies were clean and accurate, though more washed out than the originals.

The Artisan 800 lives up to its name when it comes to photo output. Colors were rich and accurate, and the printer reproduced details that would be lost on a lesser printer. And Epson claims the photos will last 200 years before fading if they are stored in a photo album.

The Artisan 800 isn't cheap, but Epson includes enough ink to justify the price. You can get faster print speeds and sharper text from a $300 personal color laser printer, but you'll give up photo quality and the Artisan 800's bevy of features.

—Jamie Bsales

For more: computershopper.com/printers

in this section

22 DESKTOPS
HP TouchSmart IQ816
eMachines EL 1200-05w
Dell Studio Desktop

28 LAPTOPS
Lenovo ThinkPad X200 Tablet
Asus N10JC
Sony VAIO AW170Y/Q
CTL IL1A PC
Lenovo IdeaPad S10
Asus G50Vt-X1
Gateway MC7803u

40 COMPONENTS
ATI Radeon HD 4550
Antec Skeleton
Antec Micro Fusion Remote 350
Shuttle SN78SH7

42 NETWORKING
ZyXel NSA220
Netgear XAVB101 Powerline AV Ethernet Adapter Kid

44 PERIPHERALS
Iogear Wireless USB-to-VGA Kid
D-Link Wireless Internet Photo Frame

46 DISPLAYS
Gateway FHD2401
Westinghouse L1916HW

48 PRINTERS
Canon Selphy CP770
Xerox Phaser 3300 MFP

49 CAMERAS
Canon PowerShot SD990 IS

50 CONSUMER TECH
Apple iPod Touch (Second Generation)
T-Mobile G1

52 GAMING
Spore
Crysis Warhead

54 SOFTWARE
Adobe Premiere Element 7
Roxio Creator 2009

THIS MONTH'S TOP PRODUCTS
57 Top Five Input Devices
58 Top Five Netbooks

Get More Online
Click to **computershopper.com** for the latest in-depth reviews, videos, and product news.

HP TouchSmart IQ816

Touch PC is finally ready for HD

WHEN WE REVIEWED HP's original TouchSmart IQ506, we were very impressed by everything the touch-oriented all-in-one offered to those looking for a catch-all home media and computing solution. About all we thought was missing was satisfactory HD support—pretty much precluded by the presence of a 22-inch monitor and the absence of a Blu-ray drive. HP has now released the newer, larger TouchSmart IQ816, available for $2,099, to address this concern. It offers a BD-ROM/DVD±RW optical drive and a 25.5-inch integrated display. But while we're glad to see that the line is taking some important steps toward addressing newer technologies, we're not completely satisfied with the results.

Specifically, the IQ816's Blu-ray playback struck us as only fair. Watching *X-Men: The Last Stand*, the colors were grainy and the video was far less sharp than we'd hope for with an HD system. (The overall quality wasn't appreciably better than what we saw with our standard-definition DVD of *The Matrix*.) Using our HD HQV Benchmark tool, we detected plenty of jagged edges on what should have been smooth lines, as well as more of the "noisy" video that prevents an absolutely clear viewing experience.

We were also a bit annoyed at the overinflated dimensions of the TouchSmart IQ816's display, which made it somewhat more difficult to deal with than its predecessor. Whereas the IQ506 was viewable right to the edges of its display's bezel, the IQ816 is not: It has 1-inch black bands on the left and right sides of the screen and quarter-inch bands on the top and bottom, all of which add more bulk to an already fairly large machine. Because of this, we had more difficulty moving and setting up the IQ816 than we anticipated—ideally, it's a two-person job.

EDITORS' RATING 7.9

0 BETTER ›› 10

PROS Attractive hardware, software design; nice variety of ports; improved gaming performance

CONS Large, unwieldy; HD playback lacks quality

SPECS 2.1GHz Mobile Core 2 Duo T8100; 4GB DDR2; 750GB hard drive; BD-ROM/DVD±RW; integrated 25.5-inch LCD; Nvidia GeForce 9600M GS graphics (512MB); Windows Vista Home Premium (64-bit)

Hewlett-Packard, 866-408-5408
www.hp.com

Direct Price $2,099

That said, we still found quite a bit to like in this newest TouchSmart, beginning with improved performance. The 2.1GHz Core 2 Duo T8100 processor and Nvidia GeForce 9600M GS graphics represent considerable jumps from the IQ506's components. Although the IQ816's scores aren't spectacular, they are noticeable improvements: 699 in Cinebench 9.5, 4,633 in Cinebench 10 (both using the tests' 64-bit versions), 7 minutes and 55 seconds for Windows Media Encoder, and 4 minutes and 31 seconds for iTunes. (As with the IQ506, none of our full-system tests—FutureMark's PCMark05, PCMark Vantage, or SYSMark 2007—would run; neither would our 3D tests, 3DMark06 or 3DMark Vantage.) The biggest change was in gaming: The IQ816's average frame rates of 40 frames per second (fps) in Company of Heroes in DirectX 9 (DX9) and 32.8fps in DX10 are solidly playable in a way the IQ506's were not (that system scored 9.3fps in the DX9 Company of Heroes test).

A bigger hard drive (750GB, versus 500GB) and a generous 4GB of RAM round out the package and keep the TouchSmart IQ816 a good choice for watching and recording television shows using the integrated TV tuner and the 64-bit Windows Vista Home Premium operating system. There are lots of other connectivity options as well, from a multiformat card reader to five USB 2.0 ports, S/PDIF and S-Video jacks, audio-in and -out jacks, a port for an IR blaster, and a Webcam in the top of the bezel. Other nice touches are the volume controls on the right side of the display, which let you raise or lower the volume without having to disrupt your movie watching, and the light beneath the display that can illuminate your desk or keyboard (the IQ816 comes with a wireless one, as well as a wireless mouse), as you see fit.

We also remain fans of the TouchSmart software, which eases navigation through the often labyrinthine menus in which Windows often hides its programs. Anyone who wants to be able to access frequently used apps and browse photos or music with the flick of a finger can use the software without any lessons; for anything more complicated, the Windows desktop is just a click away.

No, the software isn't for advanced users, but it was never supposed to be—it's for people who want to keep their computing simple. So we can't quibble with the TouchSmart's overall design philosophy. We just wish that the IQ816 were more HD- and back-friendly (it's heavy and very wide) so it could realize even more of its promise as the ultimate media-management PC for your home. —*Matthew Murray*

For more: computershopper.com/desktops

Next time, try online meetings.

Business travel is a profitability killer. So do more and travel less with GoToMeeting, the award-winning online meeting service. With just a click, you can launch sales presentations, training sessions and product demos right from your desk. Hold unlimited meetings for one flat rate – free phone and VoIP conferencing included. Save your business time and money. **Try GoToMeeting free for 30 days.**

FREE 30-Day Trial

gotomeeting.com | promo code: shop

GoToMeeting®

by CITRIX®

eMachines EL1200-05w

Tiny desktop, tiny price, tiny performance

WE CAN UNDERSTAND the appeal of micropriced, micro-sized desktops: People want small, cheap, basic computers for doing basic things. With eMachines' latest entry in the small-form-factor category, the EL1200-05w, people will get exactly that, for just $298. But as part of the bargain, they'll get molasses-like speeds, painfully limited functionality, and nonexistent expandability.

The EL1200-05w measures 10.7x4.2x15 inches (HWD), and contains little more than what you'll need to push through everyday tasks: a single-core Athlon 64 2650e processor, 1GB of DDR2 RAM, integrated Nvidia GeForce 6150SE graphics, a 160GB hard drive, a DVD±RW drive, and Windows XP Home Edition. On the front panel, you'll find a multiformat card reader, headphone and microphone jacks, and two USB 2.0 ports; on the rear panel are six-channel audio outputs, an Ethernet port, four more USB ports, VGA-out, and two legacy PS/2 ports for connecting the included old-school mouse and keyboard.

EDITORS' RATING 6.5

0 BETTER ›› 10

PROS Small size; very inexpensive; decent software bundle

CONS Poor performance; limited expandability

SPECS 1.6GHz Athlon 64 2650e; 1GB DDR2; 160GB hard drive; DVD±RW; no monitor; integrated Nvidia graphics; Windows XP Home Edition

eMachines, 408-273-0888
www.emachines.com

Direct Price $298

Two half-height expansion slots are basically worthless: One contains a modem, and the other isn't even linked to a slot inside the system. There's also no room for a second hard drive or more memory. This nettop isn't intended for compulsive tinkerers, of course, although its performance at anything other than Web browsing or reading e-mail might prove problematic for others: The system's scores on our benchmark tests were among the lowest we've seen—only Asus's even smaller Eee Box lagged behind it in terms of overall slowness.

At least you get a one-year parts-and-labor warranty and a fair selection of software that includes Microsoft Works 9.0 and 60-day free trials of Microsoft Office Home and Student 2007 and the Norton 360 security software. But you'll need to decide whether these benefits outweigh the other trade-offs you'll have to make. —*Matthew Murray*

Dell Studio Desktop

Media-ready machine has some limitations

DELL'S $1,129 STUDIO DESKTOP LOOKS and behaves exactly like what it is: an uneasy blend of midrange and home-theater components that results in a less-than-cohesive machine.

Glossy black on the top and front panels and gunmetal gray on the side, the system's looks lean toward sedate. But its size definitely makes an impression; don't expect to easily fit this computer into your entertainment center. (A version using Dell's slimmer case style is also available.)

EDITORS' RATING 7.5

0 BETTER ›› 10

PROS 64-bit operating system; lots of RAM; TV tuner and large hard drive ideal to use with Media Center; wireless adapter included

CONS No Blu-ray drive; limited 3D capabilities, expansion room; not designed for most entertainment centers

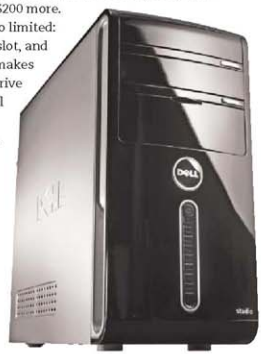
SPECS 2.33GHz Core 2 Quad Q8200; 4GB DDR2; 640GB hard drive; DVD±RW; no monitor; ATI Radeon HD 3650 (256MB); Windows Vista Home Premium (64-bit)

Dell, 800-915-3355
www.dell.com

Direct Price $1,129

Still, the Studio Desktop offers some healthy connectivity, including a 15-in-1 card reader, two FireWire ports, six USB ports, seven-channel audio, and an external 802.11n wireless adapter. The 2.33GHz Intel Core 2 Quad Q8200 processor makes it a potent performer, in large part because its 64-bit version of Windows Vista Home Premium can take advantage of every bit of its 4GB of DDR2 RAM. A 256MB ATI Radeon HD 3650 graphics card packs a modest punch, and the 640GB hard drive is a decent size for use with Vista's Media Center software and the included Hauppauge HVR1250 TV tuner.

Unfortunately, although our test system's motherboard had an HDMI-out port, it was equipped with just a standard DVD burner and no Blu-ray drive; you can add one, but you'll need to shell out at least $200 more. Expansion potential is also limited: There's only one free PCI slot, and the cramped case layout makes installing a second hard drive in the sole available internal bay difficult.



On our benchmark tests, the Studio Desktop proved mostly adept at everyday media chores and could even handle basic 3D gaming at reasonable frame rates. For heavy 3D tasks, the Studio Desktop isn't the best, but it remains a solid choice for a starter home theater PC. —*M.M.*

For more: computershopper.com/desktops

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 very wisely, they also boast a master/controlled outlets feature, which automatically powers down idle devices to conserve energy.

APC power protection products are available at:

BEST BUY · CDW · STAPLES (that was easy) · PC Connection · city

"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, it pays for itself, and it's 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**

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†

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 f968w or Call 888.289.APCC x8116 or Fax 401.788.2797

APC Legendary Reliability®

© 2008 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 • 996-0967 †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.

Lenovo ThinkPad X200 Tablet

Deluxe tablet gets almost everything right

EDITORS' CHOICE

WE WERE IMPRESSED with the Lenovo ThinkPad X200 ultraportable notebook that debuted this past summer with Intel's Centrino 2 platform, and for an encore, Lenovo has a treat for the tablet aficionados among us: the ThinkPad X200 Tablet. This business-focused machine has all the benefits of the X200 notebook, with added features that make it an outstanding—if pricey—tablet.

Wrapped in their familiar matte-black cloaks, the X200 and X200 Tablet look very similar, but there are some subtle differences. The X200 Tablet is actually a bit larger, measuring three-quarters of an inch deeper front-to-back. It's also about half a pound heavier (3.55 pounds, versus 3 pounds for the standard X200). But other attributes remain the same, from the impeccable (and very peckable) ThinkPad keyboard to the lack of an onboard optical drive—a typical, though not universal, omission in this class.

To accommodate tablet mode, the optional fingerprint reader has been moved to the screen bezel. Buttons on the bezel also let you switch the screen orientation; launch a quick-access menu for tablet and pen settings, brightness, volume, and so on; access the menu choices for shutting down or restarting the device; and disable the tablet buttons so you don't inadvertently press them.

EDITORS' RATING 8.0

0 BETTER ›› 10

PROS Excellent tablet features; good battery life; compact and lightweight; excellent keyboard; superb digitizer

CONS Pricey; no onboard optical drive; no touch pad; typical bland ThinkPad look

SPECS 1.86GHz Core 2 Duo SL9400; 2GB RAM; 160GB hard drive; 12.1-inch display; Intel X4500 HD; 3.6 pounds; 1.3x10.1x11.6 inches (HWD); Windows Vista Business

Lenovo, 866-428-4465
www.lenovo.com

Direct Price $2,339

The biggest new feature is the optional WideView MultiTouch + MultiView LED backlit panel. This 1,280x800 12.1-inch screen costs $275 more than the available standard WXGA panel, but it makes the X200 Tablet much more usable. For starters, the LED backlight provides a brighter image that's easier to see outdoors while also making the machine lighter and more power efficient.

You can use the panel as a touch screen (controlled by your finger) or with the pen stylus (better for writing and actions that require greater precision). Lenovo reports that the touch screen requires less pressure to register gestures than the panel found on the previous-generation ThinkPad X61 Tablet. When the pen comes within 25mm of the tablet surface, the active digitizer automatically disables the finger-touch sensitivity. This keeps the machine from incorrectly interpreting your stray touches as you work with the pen.

Our test unit came with the stylus-only screen, which has plenty of user benefits of its own. Most important, the digitizer is one of the most invisible we've seen; on some tablets, the overlay lends a soft-focus effect to the panel, but not here. It's also exceedingly accurate, and the cursor reacts to pen movement even when the stylus tip is almost an inch from the surface, which makes zeroing in on buttons and other onscreen targets easier. We also love the "flick" gesture support, which lets you use pen strokes to perform navigational and editing tricks such as scrolling, copying, and pasting.

Standard connections include three USB ports, VGA, Ethernet, ExpressCard, a 5-in-1 memory card reader, and headphone and mic jacks; there's a Wi-Fi radio switch and a slot for the stylus as well. Lenovo also equips the X200 Tablet with every wireless technology under the sun, including your choice of mobile broadband (AT&T for $80 or Verizon for $150), plus Centrino 2 Wi-Fi, WiMAX, wireless USB, Bluetooth, and GPS.

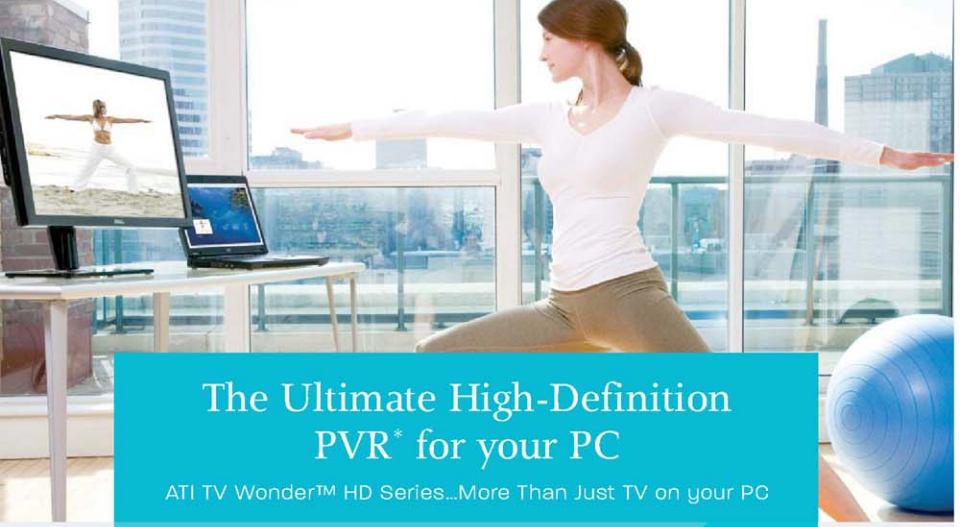
Our X200 Tablet came with the 1.86GHz Intel Core 2 Duo SL9400 processor. This ultra-low-voltage CPU gives up some performance compared with other processors, but the machine's Centrino 2 platform still delivers decent productivity performance for this class: The X200 Tablet scored a respectable 3,105 on Futuremark's PCMark Vantage benchmark suite. It also handled our Cinebench 10 test very well, with a score of 3,867. The X200 Tablet managed to convert our 11 iTunes files in a speedy 5 minutes and 9 seconds and complete our Windows Media Encoder test in a quick 7 minutes and 57 seconds. The 3D graphics from Intel's X4500 HD chipset were also decent, with a 3DMark06 score of 838 at the display's native 1,280x800 resolution.

The miserly processor also helped the machine deliver very good battery life from the eight-cell power pack: It ran for 3 hours and 5 minutes on our demanding DVD rundown test (we used the optical drive on the UltraBase, which came with our system).

For those who can spend closer to $3,000, Lenovo offers all manner of cutting-edge features. The optional 64GB solid-state drive ($635) provides faster performance than a traditional hard drive, as well as crashproof reliability ideal for road warriors. Our biggest qualm is the lack of a touch pad. But because the digitizer is so good, this is less of an issue.

If you need a tablet that's comfortable to hold and powerful enough to be your only business computer, the ThinkPad X200 Tablet is the way to go. —*Jamie Bsales*

For more: computershopper.com/laptops



The Ultimate High-Definition PVR* for your PC

ATI TV Wonder™ HD Series...More Than Just TV on your PC

The ATI TV Wonder™ HD series loads your system with a complete set of media abilities, to help transform your PC into a digital TV entertainment hub.

- Watch, pause and schedule recordings of your favorite TV shows
- Bring life to years of analog home video stored on camcorders and VHS tapes as you can digitize and preserve all those priceless moments
- Watch the latest DVD movie titles
- Choose from your vast library of TV shows and videos and transfer them to your Portable Media Player or burn your own DVD†

The ATI TV Wonder™ HD series provides the ultimate choice of inputs for TV and video capture while also preparing you for the North American DTV broadcast transition.

Do more with your PC with the ATI TV Wonder™ HD series of HDTV tuners.

ATI TV WONDER VIDEO

AMD LIVE! READY

www.amd.com/pctv

AMD Smarter Choice

† Some content protection restrictions may apply. * Inbound HD signal required.

© 2008 Advanced Micro Devices, Inc. AMD, the AMD Arrow logo, and combinations thereof, ATI, the ATI logo, ATI Hybrid Graphics logo and AMD Smarter Choice logo are trademarks of Advanced Micro Devices, Inc.
DirectX is a registered trademark of Microsoft Corporation. *Windows Vista operating system required.

newegg.com · circuit city · MICRO CENTER computers & electronics · FRYS.COM

Asus N10Jc

A netbook with pep

See our video review: computershopper.com/videos

THE ASUS N10JC NETBOOK suffers from an identity crisis. Even Asus stumbled when categorizing it, first calling it an ultraportable and then a netbook. Now that we've had a chance to review it, we understand the conundrum. But its unclear identity doesn't make it a bad choice.

At the crux of the confusion are two key attributes: its discrete graphics, which can handle HD video and visually intensive applications (just not 3D games); and its $649 price, which makes it among the more expensive netbooks on the market and puts it in direct competition with larger and more powerful budget notebooks. As a netbook—and by definition, a secondary, low-cost, highly portable PC—the N10Jc seemingly comes up short. But as a budget ultraportable (an oxymoronic term in itself), it offers something unique: a highly portable PC with discrete graphics at an affordable price.

EDITORS' RATING 8.0

0 BETTER ›› 10

PROS Sophisticated look; switchable graphics; very good keyboard for this class; long battery life; two-year warranty with one-year accidental damage coverage

CONS Chunkier than other netbooks; discrete graphics don't add enough value to offset price

SPECS 1.6GHz Intel Atom N270; 1GB RAM; 160GB hard drive; 10.2-inch display; Nvidia GeForce 9300M GS (256MB), Intel GMA 945 (switchable); 3.1 pounds; 1.5x10.8x7.7 inches; Windows XP Home Edition

AsusTek Computer, 888-678-3688
usa.asus.com

List Price $649

The glossy champagne-and-black color scheme is sharp yet subdued. At 3.1 pounds, the N10Jc is light enough, but its 1.25-to-1.5-inch thickness is similar to that of a full-size notebook. On the plus side, so is the selection of ports: three USB, microphone, S/PDIF-enabled headphone, LAN, VGA, and HDMI. It even has a 34mm ExpressCard slot and an 8-in-1 memory-card reader.

The 10.2-inch wide-screen display delivers a bright, crisp image. The panel's resolution is 1,024x600, which means you'll often need to scroll vertically. The most welcome ergonomic feature of the N10Jc is its keyboard: Just slightly undersized, it is much easier to type on than those of most netbooks we've tried. The right-hand Shift key is small, but at least it's in the right place.

The 1.6GHz Intel Atom N270 with 1GB of RAM, a 160GB hard drive (but no solid-state drive option), and Windows XP Home Edition are all standard netbook fare, as is the lack of an optical drive. 802.11a/b/g/n and Bluetooth wireless capabilities, a fingerprint reader, and a 1.3-megapixel Webcam are also onboard.

The N10Jc is the only netbook to offer not just discrete graphics but switchable graphics. You'll find Intel's 945 chipset as well as an Nvidia GeForce 9300M GS GPU with 256MB of VRAM. A toggle on the side of the N10Jc lets you decide whether to use the Intel graphics to save battery life or the Nvidia GPU for enhanced graphics performance.

How enhanced? We ran Futuremark's 3DMark06 using the Intel graphics, and the N10Jc scored an abysmal 90. Switching on the Nvidia chip (which requires a reboot) gave us a score of 1,575, which is good enough to handle moderate 3D tasks. That score destroys not just every other netbook score, but it outperforms all the budget 15.4-inch systems as well.

By other performance measures, the low-power Atom processor shows its limitations. We couldn't get PCMark05 to run, and our media-encoding tests were sluggish. The N10Jc needed 24 minutes to complete our Windows Media Encoder 9 trial and 24 minutes and 25 seconds for our iTunes conversion test—long for most notebooks but not for netbooks. It managed above-average scores of 134 on Cinebench 9.5 and 774 on Cinebench 10. Those numbers aren't too far off from HP's Mini 1000, which earned scores of 27 minutes and 8 seconds for the WME test, 19 minutes and 24 seconds for iTunes, and 135 and 835 on Cinebench 9.5 and 10, respectively. Unfortunately for Asus, the Mini 1000 costs $100 less and has an even better keyboard.

Of course, a netbook like the N10Jc is not intended as a workhorse but as a communicator. We were able to surf the Web via Wi-Fi, listen to streaming Internet radio, and open multiple Internet Explorer sessions without much trouble. Battery life while surfing and performing other chores was around 3 hours while using the Nvidia graphics, and it was 3 hours and 10 minutes with integrated graphics, which is good.

In addition to Windows XP, Asus includes its Express Gate preboot environment. Express Gate lets you access the Splashtop Browser, basic music and photo managers for accessing files on the hard drive and attached USB devices, the Pidgin IM applet, and the Skype VoIP utility without booting into Windows.

Asus backs the N10Jc with its standard two-year global warranty, which includes 24-hour toll-free tech support and free overnight shipping. There's even a one-year accidental damage warranty that covers drops, fire, spills, and power surges.

If all you need is e-mail and Web access while you're out and about, one of the less-expensive netbooks on the market should suffice. But if you want all the portability and some of the graphics power of an ultraportable notebook without the $2,000 price tag, Asus's N10Jc is the way to go. —*Jamie Bsales*

For more: computershopper.com/laptops

AMD PHENOM™ X4 QUAD-CORE.

THE POWER OF QUAD-CORE WITHIN YOUR REACH.

The AMD Phenom quad-core processor is the world's most advanced desktop PC processor!

AMD Phenom X4 64

iBUYPOWER recommends Windows Vista™ Home Premium

GAMER MAGE D230

ASUS® AMD® 780V Chipset Motherboard
GENUINE Windows® Vista™ Home Premium
Quiet & Overclocking Proof CPU Cooling System
iBUYPOWER Vantage gaming case + 500W SLI™-Certified Power Supply
Corsair 2GB DDR2-800 Memory
500GB SATA II 7200RPM Hard Drive
ATI® Radeon™ HD 3100 Video
LG® 22x Double Layer DVD±RW Drive
8 Channel Surround 3D Premium Sound
GB Ethernet LAN
600 Watt Surround Sound Speakers
Logitech Deluxe Keyboard & Optical Mouse
Free Wireless 802.11g 54MBps Network Adapter
Add ViewSonic® 20" Wide VG2030WM TFT LCD Monitor @ $288

AMD Phenom™ Quad-Core Processor	
9950+	$614
9850+	$604
9550+	$569
AMD Athlon™ 64 X2 dual-core Processor	
6000+	$519
5400+	$504
5000+	$484

$484

GAMER MAGE D400

MSI® DKA790GX CrossFire Chipset Motherboard
GENUINE Windows® Vista™ Home Premium
Thermaltake Armor+ MX Gaming Case + 800W SLI™-Certified Power Supply
Certified CPU Liquid Cooling System - Overclocking Proof
Corsair 4GB DDR2-800 Memory
1TB SATA II 7200RPM Hard Drive
ATI® Radeon™ HD 4870X2 2GB Video
LG® 22x Double Layer DVD±RW Drive, LG® 16x DVD-ROM Drive
8 Channel Surround 3D Premium Sound
600Watt Surround Sound Speakers
GB Ethernet LAN
Logitech Deluxe Keyboard & Optical Mouse

AMD Phenom™ Quad-Core Processor	
9950+	$1454
9850+	$1444
9550+	$1414
AMD Athlon™ 64 X2 dual-core Processor	
6000+	$1369
5400+	$1344
5000+	$1329

$1329

GAMER MAGE D270

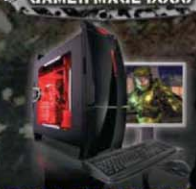
ASUS® AMD® 780V Chipset Motherboard
GENUINE Windows® Vista™ Home Premium
Quiet & Overclocking Proof CPU Cooling System
NZXT® Guardian921 Gaming Case + 680W SLI™-Certified Power Supply
Corsair 2GB DDR2-800 Memory
500GB SATA II 7200RPM Hard Drive
ATI® Radeon™ HD 4850 512MB Video Card
LG® 22x Double Layer DVD±RW Drive, LG® 16x DVD-ROM Drive
8 Channel Surround 3D Premium Sound
GB Ethernet LAN
600 Watt Surround Sound Speakers
Logitech Deluxe Keyboard & Optical Mouse
Free Wireless 802.11g 54MBps Network Adapter

ATI RADEON GRAPHICS
AMD 2-Series Chipsets

AMD Phenom™ Quad-Core Processor	
9950+	$859
9850+	$849
9550+	$819
AMD Athlon™ 64 X2 dual-core Processor	
6000+	$769
5400+	$749
5000+	$734

$734

GAMER MAGE D330



ASUS® M3N72-D SLI™ Chipset Dual PCI Express Motherboard
GENUINE Windows® Vista™ Home Premium
Certified CPU Liquid Cooling System - Overclocking Proof
NZXT® Lexa Blackline Gaming Case + 800W SLI™-Certified Power Supply
Corsair 4GB DDR2-800 Memory
500GB SATA II 7200RPM Hard Drive
NVIDIA® GeForce™ GTX-260 896MB Video Card
LG® 22x Double Layer DVD±RW Drive, LG® 16x DVD-ROM Drive
8 Channel Surround 3D Premium Sound
GB Ethernet LAN
600 Watt Surround Sound Speakers
Logitech Deluxe Keyboard & Optical Mouse
Free Wireless 802.11g 54MBps Network Adapter

AMD Phenom™ Quad-Core Processor	
9950+	$1174
9850+	$1164
9550+	$1129
AMD Athlon™ 64 X2 dual-core Processor	
6000+	$1079
5400+	$1064
5000+	$1049

$1049

TOLL FREE 888.462.3899 WWW.IBUYPOWER.COM

iBUYPOWER

AMD®, the AMD® logo, AMD® Phenom™, AMD Turion™ 64 Ultra, Athlon™ and combinations thereof are trademarks of Advanced Micro Devices, Inc. All prices are subject to change without notice or obligation.

GAMER PALADIN D670

ASUS® 750i SLI™ Chipset Dual PCI Express Motherboard
GENUINE Windows® Vista™ Home Premium
Quiet & Overclocking Proof CPU Cooling System
iBUYPOWER® Vantage gaming case + 550W SLI™-Certified Power Supply
Corsair 2GB DDR2-800 Memory
320GB SATA II 7200RPM Hard Drive
NVIDIA® GeForce™ 9500GT 512MB Video Card
LG® 22x Double Layer DVD±RW Drive, LG® 16x DVD-ROM Drive
Surround 3D Premium Sound
GB Ethernet LAN
600 Watt Surround Sound Speakers
Logitech Deluxe Keyboard & Optical Mouse
Free Wireless 802.11g 54MBps Network Adapter
Add ViewSonic® 20" Wide VG2030WM TFT LCD Monitor @ $284

Intel® Core™2 Duo Processor E7300	$699
Intel® Core™2 Duo Processor E8400	$759
Intel® Core™2 Duo Processor E8600	$869
Intel® Core™2 Quad-core Processor Q6600	$779
Intel® Core™2 Quad-core Processor Q9400	$874
Intel® Core™2 Quad-core Processor Q9550	$919
Intel® Core™2 Quad-core Processor Q9650	$1159
Intel® Core™2 Quad-core Processor QX9650	$1654

$699

GAMER PALADIN Q740

Color Options

ASUS® 750i SLI™ Chipset Dual PCI Express Motherboard
GENUINE Windows® Vista™ Home Premium
Certified CPU Liquid Cooling System - Overclocking Proof
Raidmax® Enzo Case + 800W SLI™-Certified Power Supply
Corsair 2GB DDR2-800 Memory
500GB SATA II 7200RPM Hard Drive
2X NVIDIA® GeForce™ 9600GT 512MB Video Card-SLI™ Enabled
LG® 22x Double Layer DVD±RW Drive, LG® 16x DVD-ROM Drive
Surround 3D Premium Sound
GB Ethernet LAN
600 Watt Surround Sound Speakers
Logitech Deluxe Keyboard & Optical Mouse
Free Wireless 802.11g 54MBps Network Adapter

Intel® Core™2 Duo Processor E7300	$999
Intel® Core™2 Duo Processor E8400	$1054
Intel® Core™2 Duo Processor E8600	$1164
Intel® Core™2 Quad-core Processor Q6600	$1074
Intel® Core™2 Quad-core Processor Q9400	$1169
Intel® Core™2 Quad-core Processor Q9550	$1214
Intel® Core™2 Quad-core Processor Q9650	$1454
Intel® Core™2 Quad-core Processor QX9650	$1949

$999

GAMER PALADIN D745

ASUS® 750i SLI™ Chipset Dual PCI Express Motherboard
GENUINE Windows® Vista™ Home Premium
Certified CPU Liquid Cooling System - Overclocking 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-260 896MB Video Card
LG® 22x Double Layer DVD±RW Drive, LG® 16x DVD-ROM Drive
Surround 3D Premium Sound
GB Ethernet LAN
Logitech Deluxe Keyboard & Optical Mouse
Free Wireless 802.11g 54MBps Network Adapter

Intel® Core™2 Duo Processor E7300	$1149
Intel® Core™2 Duo Processor E8400	$1209
Intel® Core™2 Duo Processor E8600	$1319
Intel® Core™2 Quad-core Processor Q6600	$1229
Intel® Core™2 Quad-core Processor Q9400	$1324
Intel® Core™2 Quad-core Processor Q9550	$1369
Intel® Core™2 Quad-core Processor Q9650	$1609
Intel® Core™2 Quad-core Processor QX9650	$2104

$1149

GAMER PALADIN Q840

Color Options

ASUS® P5Q3 Intel P45 Chipset DDR3 Motherboard
GENUINE Windows® Vista™ Home Premium
Certified CPU Liquid Cooling System - Overclocking Proof
Thermaltake Xaser-VI MX Gaming Case + 800W SLI™-Certified Power Supply
OCZ 4GB DDR3-1333 Gold Memory
1000GB(1TB) SATA II 7200RPM Hard Drive
ATI® Radeon™ HD 4870X2 2GB Video Card
LG® 22x Double Layer DVD±RW Drive, LG® 16x DVD-ROM Drive
Surround 3D Premium Sound
GB Ethernet LAN
Logitech Deluxe Keyboard & Optical Mouse
Free Wireless 802.11g 54MBps Network Adapter

Intel® Core™2 Duo Processor E7300	$1514
Intel® Core™2 Duo Processor E8400	$1549
Intel® Core™2 Duo Processor E8600	$1655
Intel® Core™2 Quad-core Processor Q6600	$1564
Intel® Core™2 Quad-core Processor Q9400	$1659
Intel® Core™2 Quad-core Processor Q9550	$1709
Intel® Core™2 Quad-core Processor Q9650	$1944
Intel® Core™2 Quad-core Processor QX9650	$2439

$1514

LX 795

- 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 Ports
- 4-in-1 Build-in Media Card Reader
- Free Deluxe Carrying Case

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

P8400 (3MB L2Cache, 2.26GHZ)	$1319
P8600 (3MB L2Cache, 2.40GHZ)	$1359
T9400 (6MB L2Cache, 2.53GHZ)	$1439
T9600 (6MB L2Cache, 2.80GHZ)	$1559

$1319

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.

More Fun While You Get More Done

intel Core 2 Extreme inside

Extreme Performance

NVIDIA SLI

iBUYPOWER recommends Windows Vista™ Home Premium

- 15.4" Wide Screen WXGA TFT LCD 1280x800 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
- **NVIDIA® Mobile GeForce™ 9600GT 512MB video**
- 4GB DDR2-800 Memory
- 320 GB 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 Build-in Media Card Reader
- Free Deluxe Carrying Case

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

P8400 (3MB L2Cache, 2.26GHZ)	$1059
P8600 (3MB L2Cache, 2.40GHZ)	$1099
T9400 (6MB L2Cache, 2.53GHZ)	$1179
T9600 (6MB L2Cache, 2.80GHZ)	$1409

$1059

WWW.IBUYPOWER.COM

iBUYPOWER

NVIDIA, nForce, SLI are trademarks or registered trademarks of NVIDIA Corporation or its subsidiaries in the United States and other countries.

Sony VAIO AW170Y/Q

Packed with features, power, and a gorgeous screen

THE SONY VAIO AW170Y/Q is the latest desktop-replacement notebook to feature a breathtaking 18.4-inch display and a wealth of features. Break out this 8.8-pound eye-catcher, and you'll be the envy of the laptop-toting set. Plus you'll send a signal that you're surviving the market crash just fine, thank you, since you just dropped $3,300 on a new laptop. Unfortunately, we're not convinced the AW170Y/Q is fast enough to justify the price.

Compared with other 18-inch notebooks, such as the $2,199 HP Pavilion HDX18 or the $1,549 Toshiba Qosmio G55-Q802, the VAIO seems way overpriced. But its vastly superior feature set puts it more in line with Dell's XPS M1730, which sells for $2,899 at its best configuration. That's a $400 gap that gets filled in with Sony's bundled software and chic design, which may not be enough for most users.

The VAIO cuts a dramatic profile. Its shiny, piano-black case opens to reveal a subdued, classic matte-black interior, a gargantuan wide-screen display, and a full-size keyboard with Chiclet-style separation. A sleek speaker grille above the keyboard houses a row of touch-sensitive media buttons, while a wide wrist rest, textured to feel like leather, frames the touch pad. Sony has otherwise exercised admirable restraint, adorning the VAIO AW170Y/Q with not much else save a subtle, green LED that lights up (slowly) when the system turns on. The power switch, meanwhile, is housed in an elegantly recessed cylindrical cover hinge.

EDITORS' RATING 7.5

0 BETTER ›› 10

PROS Huge, gorgeous display; terabyte-size hard drive array; included TV tuner; enviable software bundle

CONS Expensive; quirky performance; noisy DVD drive vibrates substantially; huge AC brick

SPECS 2.53GHz Intel Core 2 Duo T9400; 4GB RAM; two 500GB hard drives; Blu-ray/DVD±RW; 18.4-inch display; Nvidia GeForce 9600M GT (512MB); Windows Vista Ultimate

Sony Electronics, 877-865-7669
www.sonystyle.com

Direct Price $3,299

On the inside, the VAIO is loaded with power. A 2.53GHz Core 2 Duo T9400 CPU is coupled with a dual hard drive array (RAID Level 0), providing a whole terabyte of storage space. A built-in TV tuner, 4GB of RAM, and a noisy Blu-ray/DVD burner are just some of the signs that you're entering desktop-replacement country. Sony also throws in a fingerprint reader, a bezel-mounted Web-cam, 802.11a/b/g/n, and Bluetooth with A2DP technology. Connectivity will never be a problem, since the system has HDMI, optical-out, FireWire, and two memory-card slots along with the standard host of ports.

All those top-notch features aside, the 18.4-inch display is the VAIO's real claim to fame. Featuring an LED backlight and Sony's antireflective XBrite technology, the screen is stunning. When we watched *The Squid and the Whale*, colors were crisp and blacks deep and rich. Full 1080p HD support lets you play the latest DVDs, while the screen's 1,920x1,080 native resolution accommodates an intimidating number of spreadsheet cells. DVD playback was very smooth, and audio came through loud and clear, though we did experience a couple of hiccups as we watched our test movie.

In general, the VAIO handles daily tasks with ease. It sped through our iTunes conversion test in 3 minutes and 29 seconds and took 5 minutes and 48 seconds to complete our Windows Media Encoder test—two scores that are in line with the T9400-based systems from Sony and iBuypower we recently tested. But the VAIO faltered on Futuremark's PCMark Vantage test, turning in a score of 3,147, more than 300 points behind the Sony and over 800 points behind the iBuypower. The VAIO also matched these two systems in Cinebench testing, scoring 5,219 on version 10.

In 3D testing, the VAIO's 512MB GeForce 9600M GT graphics card delivered a truly impressive 6,351 on Futuremark's 3DMark06 test, blowing the other systems out of the water. Even at its native resolution, the VAIO kept pumping out pixels, scoring a solid 3,686. But then it clocked a more pedestrian 30 frames per second (fps) on our F.E.A.R. tests at 1,024x768 resolution and an unimpressive 13fps at native resolution. That's fast enough to play most titles, but true gamers will be left wanting more.

Meanwhile, the VAIO's relatively small 4,800mAh battery lasted just 1 hour and 18 minutes on our DVD rundown test. If you plan on taking your VAIO on the road, you'll want to opt for the $50 extended-life battery.

Part of why the VAIO costs more, of course, is that Sony preloads its software suite—which includes media, audio, and moviemaking packages, as well as Microsoft Works—onto the hard drive. A one-year warranty comes standard, and you can purchase up to three years of protection for $299.

If you're in the market for a true multimedia powerhouse notebook with Blu-ray—and style is a main concern—the VAIO is worth a look. But film editors, multimedia pros who have their own software, and even families looking for a single, do-everything home computer can get more bang for the buck with high-end systems from Dell, HP, Toshiba, and even MSI. You'll give up some resolution and some style points, but you'll save serious cash and get roughly the same performance. —*Asa Somers*

For more: computershopper.com/laptops

BE CONFIDENT WITH COLOR.

Build your business in living color with Original HP Color LaserJet print cartridges with HP ColorSphere toner.

Now you can have more vibrant, realistic images, more subtle shadows and smoother color gradations than ever. HP ColorSphere toner helps you create brilliant, high-quality color business documents every day, in-house.

And you can print with confidence because HP Color LaserJet print cartridges are #1 in reliability. In third party testing, HP Color LaserJet print cartridges produced 25% more client-ready documents than remanufactured cartridges.[1]

HP knows color and how to deliver reliable documents. Nothing comes closer to perfect printing. Choose Original HP Color LaserJet print cartridges with confidence.

ColorSphere
HP TONERS

[1] Based on average results of brands tested in the 2005 Toner Cartridge Reliability Comparison Study by QualityLogic, Inc. and commissioned by HP. Testing performed on the color toner cartridges for the HP Color LaserJet 4650 (Q3558A) printer. Individual results may vary. See **www.hp.com/go/suppliesreliability** for full details.

© Copyright 2008 Hewlett-Packard Development Company L.P. The information contained herein is subject to change without notice.

WHAT DO YOU HAVE TO SAY?

PROVANTAGE

To Order Call PROVANTAGE 800-336-1166
or visit us at www.provantage.com

Business partner

CTL IL1A PC

Buyer beware: You can do better in a netbook

CTL WENT FOR A MINIMALIST DESIGN on the IL1A—but not in a good way. At 1.7x9.6x6.8 inches (HWD) and 2.7 pounds, it's lighter than the 3.2-pound Asus Eee PC 1000H, but you pay for that with discomfort while typing. Much like the keyboards on older-generation netbooks, the IL1A's keyboard is cramped and makes touch-typing nearly impossible. The touch pad is too small, as are the loud touch buttons below.

EDITORS' RATING 4.0

0 BETTER ›› 10

PROS Small; lightweight; bright screen with good viewing angles

CONS Slow; short battery life; only 60GB of storage; tiny keyboard, touch pad, mouse buttons

SPECS 1.2GHz VIA C7-M; 1GB RAM; 60GB hard drive; 8.9-inch display; VIA Chrome9 HC3 IGP (64MB); 2.7 pounds; 1.7x9.6x6.8 inches; Windows XP Home Edition

CTL, 800-642-3087
www.ctlcorp.com

List Price $449

The 8.9-inch LED-backlit display is bright, though its 1,024x600 resolution causes some windows and dialog boxes to extend off the screen. You'll find a VGA and two USB ports, a 3-in-1 card reader, as well as headphone, mic, modem, and Ethernet jacks. A 1.3-megapixel Webcam, a mic, and speakers are available for video chats.

The system is painfully slow. Its 1.2GHz VIA C7-M processor, 1GB of RAM, and integrated VIA Chrome9 HC3 IGP graphics with 64MB of video memory couldn't handle even basic tasks. Booting up Windows XP Home Edition took 1 minute and 27 seconds, and surfing the Web taxed our patience. Also, the system crashed more than once and lost all ability to find wireless networks.

The IL1A needed 1 hour and 4 minutes for our WME test and 48 minutes and 6 seconds to convert 11 iTunes files. Likewise, its Cinebench 10 score of 319 was very disappointing. Battery life was less than impressive at 2 hours and 48 minutes, well below the 3:35 average. Even the 60GB hard drive is a letdown; other netbooks offer up to 160GB of storage. The CTL system comes with the company's one-year No Hassle Warranty.

The bright screen and light weight are the IL1A's only redeeming qualities. With a relatively high price, a cramped keyboard, slow performance, and screen-resolution issues, the IL1A just isn't a good choice considering the competition. —*Sarah E. Anderson*

Lenovo IdeaPad S10

A 3G ExpressCard-ready netbook

LENOVO'S IDEAPAD S10 DOESN'T STRAY far from the netbook pack, but its expandability features give it an edge.

The 2.7-pound S10 has solid construction and precise fit-and-finish. Its attractive, matte-white shell closely resembles a more squared-off version of the MSI Wind. The 10.2-inch LCD is very bright, with rich color reproduction and wide viewing angles, which you'll appreciate when showing information to someone else. It offers both 1,024x768 and 1,024x600 resolution. You often have to scroll vertically at 1,024x768, however; unlike the Eee PC 1000H, the S10 lacks the option to drop pixels vertically to fit the smaller screen.

EDITORS' RATING 8.3

0 BETTER ›› 10

PROS Small, lightweight; ExpressCard expansion slot; card reader supports both SD and Memory Stick; good speakers; inexpensive

CONS Cramped keyboard; short battery life

SPECS 1.6GHz Intel Atom N270; 1GB RAM; 160GB hard drive; 10.2-inch display; Intel GMA 950; 2.7 pounds; 1.3x9.9x7.1 inches; Windows XP Home Edition

Lenovo, 866-428-4465
www.lenovo.com

Direct Price $439

Its keyboard is mixed. The layout doesn't include any unpleasant surprises, but it's still a little cramped. At just an inch in height, the touch pad is among the smallest we've seen, but it's reasonably comfortable to use. The dual buttons are responsive.

The 1.6GHz Intel Atom N270 processor, 802.11g Wi-Fi and Bluetooth radios, 1.3-megapixel Webcam, and Windows XP Home Edition are standard netbook fare. Our S10 featured 1GB of DDR2 667 memory and a spacious 160GB hard drive.

The S10's standout feature is its ExpressCard/34 slot, which lets you add a 3G wireless modem. We also appreciate that the S10's card reader supports SD, MMC, and Memory Stick formats. You'll find a VGA monitor output; 10/100 Ethernet, headphone, and mic jacks; and two USB 2.0 ports. The S10's speakers offer above-average volume and clarity.

Performance is average for this category. The S10 scored a strong 827 on our Cinebench 10 test but lasted just 2 hours and 44 minutes with Wi-Fi on in power-saving mode.

The S10 is a worthy but unremarkable netbook. The nearly identically sized MSI Wind U100 will be a more attractive choice for many, given its larger keyboard and longer battery life. —*Denny Atkin*

For more: computershopper.com/laptops

Moneual™ recommends Windows Vista™ Home Premium Microsoft intel Core 2 Quad

Quality Time Made Easy

The Moneual 312 Home Theater PC may be slim in design, but comes with all the versatile functions of standard size cases. Easily record high quality movies off of Blu-ray discs, simultaneously record programming from multiple channels of live TV, and store all your online downloads on the internal Hard Disk Drives. With your whole media library accessible at the touch of a button, all you have to do is sit back, relax, and enjoy.

I*MAGINE

2008

MONEUAL 972

MONEUAL 812

MONEUAL 811

The Moneual Lab Elite Fleet

Each powerful, hand-crafted Moneual Home Theater PC not only includes a Blu-ray read/write drive for storing discs, TV tuner cards for TV recording, and high speed Internet connectivity for downloads and online gaming, but also up to 2TB of storage space to accommodate a massive collection of movies, music, photos, games, and more.

moneual.com 1.877.450.0105

Moneual™ LAB

*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 errors, misrepresentations, or photographic or other errors and reserves the right to correct any such mistakes. Moneual and Windows are registered trademarks with Moneual Corporation in the United States and/or other countries. © 2008 Moneual. All rights reserved.

Asus G50Vt-X1

Gaming on a budget just got easier

AVAILABLE ONLY AT BEST BUY, the Asus G50Vt-X1 offers one-touch overclocking and interactive lighting effects. Although it struggles with some 3D performance, it can run today's DirectX 9 gaming titles with ease.

The 7.2-pound G50Vt-X1 sports a piano-black lid with blue detailing. The same glossy black trim surrounds the 15.6-inch, 1,366x768 display, which offers good viewing angles.

EDITORS' RATING 7.5

0 BETTER ›› 10

PROS Solid DX9 gaming performance; cool lighting effects; one-touch overclocking

CONS Relatively low-resolution display; short battery life; weak DX10 performance

SPECS 2.26GHz Intel Core 2 Duo P8400; 4GB RAM; 320GB hard drive; DVD±RW; 15.6-inch display; Nvidia GeForce 9800M GS (512MB); 7.2 pounds; 1.6x14.8x10.4 inches; Windows Vista Home Premium (64-bit)

AsusTek Computer, 888-678-3688
usa.asus.com

List Price $1,249

The full-size keyboard and wide touch pad are responsive and comfortable. A 3.1-inch OLED display sits above the keyboard, and four buttons let you change the look and performance. You can toggle among Normal (2.26GHz), Turbo (2.38GHz), and Turbo Extreme (2.49GHz) modes, without having to reboot or enter the BIOS.

The G50Vt-X1 is equipped with HDMI, VGA, FireWire, external SATA (eSATA), S/PDIF audio, and four USB ports, along with a multiformat card reader, an ExpressCard slot, and a DVD burner. A 320GB hard drive comes with 64-bit Windows Vista Home Premium.

With a 2.26GHz Intel Core 2 Duo P8400 processor, 4GB of system memory, and a 512MB Nvidia GeForce 9800M GS graphics controller, the G50Vt-X1 turned in an above-average Futuremark PCMark Vantage score of 3,690. Its WME score of 6 minutes and 48 seconds was also strong. In Turbo Extreme mode (2.49GHz) the system scored 3,703 on PCMark Vantage and finished the WME test in 6 minutes and 5 seconds—not a great improvement. The system's 3DMark06 (1,024x768) score of 8,873 was excellent, however.

An impressive score of 74.3fps on our Company of Heroes test proves this machine's DX9 gaming prowess. The system managed only 23.9fps on the DX10 version, however. The six-cell battery lasted a scant 1 hour and 35 minutes.

This system is comparable to the Gateway P-7811FX, which is less portable. The Asus G50Vt-X1 is good for penny-pinching gamers who need a rig to travel with. —*John R. Delaney*

For more: computershopper.com/laptops

Gateway MC7803u

Beautiful outside, a little slow inside

THE MC7803U delivers stunning good looks and plenty of multimedia features. This 16-inch system appeals to buyers who take their media on the road, and at $999.99, the price is right.

The 7.1-pound MC7803u features a burgundy lid (or you can opt for black); the chrome stripe down the center is split by a leather-looking strip insert. The 16-inch, 16-to-9 widescreen is ensconced behind edge-to-edge glass. We love the multimedia buttons and full-size, backlit keyboard.

The MC7803u is equipped with a generous 320GB hard drive, a 1.3-megapixel Webcam, a 5-in-1 card reader, an ExpressCard/54 slot, Bluetooth and 802.11a/b/g/n wireless, an HDMI port, and an 8x DVD burner. The LCD's resolution on our test unit was 1,920x1,080, but final units will have 1,366x768. Our test system reproduced good colors and video motion, as well as clean sound, but the audio lacked depth.

The 4GB of DDR2 RAM is a plus, and the 2GHz Intel Core 2 Duo T5800 is solidly midrange. The MC7803u scored a subpar 2,202 on Futuremark's PCMark Vantage, and its showing on Cinebench 10 (2,153) is below average. It needed a long 13 minutes and 33 seconds to finish our WME 9 trial.

The ATI Mobility Radeon HD 3650 GPU (with 512MB of dedicated VRAM) delivered playable frame rates. On F.E.A.R. at 1,024x768, we saw 47fps, but when we upped the resolution and effects for Company of Heroes, the system managed only 10.2fps. The eight-cell battery lasted a good 2 hours and 15 minutes on our DVD rundown test.

EDITORS' RATING 7.0

0 BETTER ›› 10

PROS Stunning good looks; spacious hard drive; attractive price; multimedia control keys; HDMI port; some 3D-gaming ability

CONS Disappointing productivity and media-encoding performance; weak speakers; no Blu-ray drive

SPECS 2GHz Intel Core 2 Duo T5800; 4GB RAM; 320GB hard drive; DVD±RW; 16-inch display; ATI Mobility Radeon HD 3650 (512MB); 7.1 pounds; 1.5x15.3x10.4 inches; Windows Vista Home Premium

Gateway, 800-369-1409
www.gateway.com

Direct Price $999.99

The Gateway MC7803u isn't the most powerful multimedia laptop on the market. But its style rivals the best in its class, and the 16-inch screen and attractive price make it a good fit for enthusiasts. —*Jamie Bsales*

OVER 100 5 STAR RATINGS

COMPUTER SHOPPER

"The most powerful password-management software we've come across"

Is This Your Password System?

Ours is Better!

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."**

Computer Shopper Readers Download RoboForm for FREE!

RoboForm®

www.RoboForm.com/CS

ATI Radeon HD 4550

Budget graphics for media, not gaming

THE ATI RADEON HD 4550 OFFERS superb video playback, multiple-monitor support, and usable-if-unimpressive 3D performance at an entry-level price. This compact card is a perfect addition to a home theater PC, particularly if you want to play HD video, but gamers should consider the next card up in ATI's lineup.

The compact HD 4550 draws all its power from the PCI Express (PCIe) x16 slot it plugs into, making it a good choice for PCs with small power supplies. The card is passively cooled and completely silent, using a large metal heat sink instead of a fan.

The card we tested featured a dual-link DVI connector as well as both HDMI and DisplayPort outputs. There's onboard eight-channel sound when using the HDMI output, which is more convenient than Nvidia's HDMI-equipped cards, which require you to run an audio cable to your motherboard.

Along with 512MB of DDR3 RAM, the 4550 has DirectX 10.1 3D support and the excellent Unified Video Decoder (UVD) 2, which accelerates decoding of both DVD and high-definition or Blu-ray content. This takes the decoding load off the computer's processor, allowing smooth playback of video content on inexpensive, midrange computers, even at 1080p resolution. Both HD video and upscaled DVD content played back flawlessly, with vibrant color and no visual artifacts, on our 1.8GHz Core 2 Duo test system.

EDITORS' RATING 7.9

0 BETTER ›› 10

PROS Excellent video-playback quality in standard and high definition; inexpensive; silent

CONS Mediocre 3D performance

Advanced Micro Devices
877-284-1564
ati.amd.com

Direct Price $55

The 4550's excellent video-playback support and silent operation make it an outstanding choice for use with a home theater PC. If you spend any time gaming, however, you'd be far better served by the Radeon HD 4670, which offers more than double the 3D performance—at half the cost of a single game.

—Denny Atkin

Antec Skeleton

Unique case offers unprecedented accessibility

IN A MARKET WHERE MOST CASES BOAST about features that isolate PC components from the environment around them, Antec's Skeleton case is unique: It leaves your PC's innards exposed to the open air.

The Skeleton's two-level design allows room for the power supply, two 3.5-inch drives, and two 5.25-inch drives below the motherboard tray. Four additional 3.5-inch drives can be mounted on the sides of the case. A rail on the front of the case has power and reset switches, as well as audio, USB, FireWire, and external SATA (eSATA) ports.

EDITORS' RATING 8.0

0 BETTER ›› 10

PROS Very eye-catching; easy access to parts; sliding motherboard tray; good cooling

CONS Cable routing can be challenging; susceptible to dust; could be unsafe around small kids or curious pets

Antec, 410-770-1200
www.antec.com

Direct Price $179.99

The ATX motherboard and power supply are mounted on slide-out trays, and for the most part, the open-air design makes installing parts much easier than in a traditional case. The trickiest part is routing cables in the Skeleton's tight quarters. Installing cards is a snap, though with larger cards you'll want to remove the transparent card guide's two screws to simplify installation.

Despite the lack of a traditional airflow path, cooling doesn't seem to be an issue. With the massive 250mm Tri-Cool fan set to a barely audible medium setting, our CPU and chipset temperatures were about the same as when we installed the motherboard in a different case. One warning: The case's open design means you'll hear lots of noises usually muffled by a closed case.

Our biggest concern with the Skeleton is its lack of protection against the environment around the case. In a house with pets or curious, small kids, leaving the components exposed might be nerve-wracking, or even dangerous. And though the airflow from the fan should keep most dust away, you should invest in a large value pack of canned-air cleaners. But in a controlled environment, the Skeleton could be ideal for chronic upgraders. —D.A.

For more: computershopper.com/components

Antec Micro Fusion Remote 350

Compact home-theater case has some limitations

EDITORS' RATING 6.5

0 BETTER ›› 10

PROS 350-watt power supply; attractive front-panel LCD; rigid construction

CONS Low-profile expansion cards only; tricky cable routing; costly

Antec, 800-222-6832
www.antec.com

Direct Price $239.95

THE $239.95 ANTEC MICRO FUSION 350 REMOTE is an attractive home-theater-PC case with some design gotchas that give us pause.

Measuring 4.5x15.1x16.1 inches, the sturdy, compact case accepts only MicroATX motherboards. We wish Antec had left a wider perimeter around the board-mounting chamber—wedging our test mainboard into place was tight. Also, the single hard drive bay, a removable cage, is buried deep in the front of the case. We had to remove the front-panel LCD—a delicate operation—to access it.

Interior cable routing is tricky, too. There's minimal space for wiring, apart from piling it atop the motherboard. The included 350-watt power supply uses standard—not removable—leads, and stowing the unused ones takes what little space there is.

More crucially, the case limits your expansion-card options. The slim profile mandates only "true" low-profile cards with low-profile mounting brackets, greatly limiting your choice of graphics card and TV tuner. Fortunately, the lid is high enough to accommodate a normal CPU cooler—a stock Intel heat sink fits comfortably.

The case's home-theater fit-and-finish does shine. The aluminum bezel looks comfortably dressed in a crowd of home-theater components (though this case is too deep for most media racks).

Your DVD drive hides behind a flip door, and we like the customizable LCD, which shows media-file playback info and more via included software. The bundled remote, however, feels like a throw-in: small in hand and generic-looking, no match for the most basic dedicated Media Center remote.

While we like this case's compact size and exterior styling, it should be cheaper—and better designed inside. —*John A. Burek*

For more: computershopper.com/components

Shuttle SN78SH7

Bare-bones system primed for HD home-theater use

EDITORS' RATING 7.8

0 BETTER ›› 10

PROS Attractive, compact case; well-designed, inside and out; lots of home-theater connectivity options, including two eSATA ports; chipset supports DirectX 10 and Hybrid SLI

CONS Small size greatly limits expandability

Shuttle Computers, 888-972-1818
www.shuttle.com

Direct Price $299

AS LONG AS YOUR NEEDS ARE—and will remain—limited, Shuttle's $299 SN78SH7 bare-bones system should suffice as the starting point for a smart, small home-theater PC.

You have plenty of options for powering this 7.4x8.2x12.8-inch system: It uses an AM2+ socket ready for the latest Athlon X2 or Phenom processors. The two RAM slots can hold up to 4GB of DDR2 RAM. The chipset is the new Nvidia GeForce 8200, which supports DirectX 10 and is optimized for HD video playback without requiring a discrete graphics card. (If you decide to add a GPU, though, you can use it in concert with the integrated graphics—thanks to built-in Hybrid SLI technology—and boost your video performance.)

The SN78SH7 has microphone and headphone jacks, two USB 2.0 ports, and one four-pin FireWire jack on the front panel; and VGA-out, HDMI, and six-pin FireWire connections, two external SATA (eSATA) ports, four more USB ports, an Ethernet jack, and eight-channel audio on the back. There are two expansion slots (one PCI Express x16 and one regular PCI), and three drive bays (one each of external 5.25, external 3.5, and internal 3.5)—all in a removable drive rack—for components. An out-of-the-way 300-watt power supply and pre-tied cables help contribute to overall interior neatness.

Storage could present a problem for Media Center chores: You may need those eSATA ports, as there's no room for a second hard drive. In fact, we had trouble reinstalling the CPU's fan-and-heat-sink combo after our test build, though it and the drive tray were easy to remove. You'll also have to settle for a midrange graphics card at best; don't expect the longer single-slot, or double-slot, kinds to fit. —*Matthew Murray*

ZyXel NSA220

Home server is a breeze to set up, but pricey

ZYXEL'S NSA220 IS A VERSATILE network-storage device that does more than let you store and share files across a network. It also offers built-in FTP, HTTP, and BitTorrent download services; acts as a media server and a print server; and features built-in RAID capabilities. Its price-per-gigabyte ratio is off the charts, however.

Available through the distribution channel, the unit can be purchased without drives, or with up to 2TB of storage. Our review unit lists for $299.99 and was configured with two Western Digital drives for a total of 410GB of storage, which is expensive considering many new home-NAS drives cost less and offer 1TB of storage.

The NSA220 has two USB ports for transferring up to 10GB of data from a USB device, or for print-server functionality. But we were disappointed by the lack of support for eSATA devices.

Setup was a breeze, thanks to helpful tutorials. Bundled software includes a DLNA (Digital Living Network Alliance) program that ensures the NSA220 will work with approved digital home components for media serving, plus the popular Memeo Instant Backup application. The NSA220 was preconfigured for RAID 1 (mirrored drives for backup), but you can set it for RAID 0 (data striped across both drives).

EDITORS' RATING 7.8

0 BETTER ›› 10

PROS Easy to set up; integrated RAID

CONS Expensive; no support for eSATA drives

ZyXel Communications
800-255-4101
www.zyxel.com

Direct Price $299.99

Performance was above average in the RAID 1 configuration. The NSA220 required 15 minutes and 49 seconds to write a 10GB file and 16 minutes and 30 seconds to read it. That's much faster than many of the NAS products we've reviewed. Plus, if you configure the device for RAID 0, you'll see even faster transfer speeds. —*John R. Delaney*

Netgear XAVB101 Powerline AV Ethernet Adapter Kit

Extend your home network with existing wiring

IF A WIRELESS NETWORKING setup isn't feasible in your home, and you want to bring wired-network connectivity to other parts of the house without having to run new Ethernet cable, consider Netgear's XAVB101 Powerline AV Ethernet Adapter Kit ($149.99).

Power-line networking uses your house's electrical wiring to connect to your existing network. In other words, any power outlet becomes a network port. The XAVB101's adapters are compatible with HomePlug AV and can deliver speeds of up to 200Mbps, which allows you to stream HD video and transfer large files without choking the network or degrading video quality.

EDITORS' RATING 7.5

0 BETTER ›› 10

PROS Easy setup; good throughput

CONS Bulky design

Netgear, 800-876-9375
www.netgear.com

Direct Price $149.99

You'll need a router to use the XAVB101 kit, which consists of two bulky Powerline Ethernet adapters (additional ones cost $79.99 each) and two Ethernet cables to connect to your computer and router.

Setting up the Powerline network couldn't be easier; we plugged one adapter into a wall outlet next to our router and plugged the other adapter into an outlet on the other side of the house. A Powerline network was immediately established and the laptop obtained an IP address from the router within 30 seconds. The entire process took less than a minute and did not require any sort of software installation or interaction with our existing router.

In our tests, it took 15 minutes and 35 seconds to transfer a 4GB video file from our laptop to a desktop on the network. The same file took 22 minutes and 50 seconds via our 802.11n Wi-Fi network. We had no trouble streaming video from the Internet or from our host PC. —*J.R.D.*

For more: computershopper.com/networking

THE WAY NVIDIA. IT'S MEANT TO BE PLAYED™

www.nZone.com

Crytek® recommends NVIDIA graphic processors for *Crysis*®

starting $1,069

FORCE RECON

- Intel® Core™ I7 Extreme Quad/Dual Core/ Core 2 Duo or AMD Phenom™ X4 Quad Core/ Athlon™ 64 Dual Core Processor
- Intel® X58/Skulltrail/X48/NVIDIA® 780i/790i/780a/AMD RD790X/790FX Platform
- NVIDIA® GeForce® GTX280+/260+/ATI Radeon 4870 X2 Series Graphics
- NVIDIA® 3-way/Quad SLI/ATI Quad CrossFireX Ready
- High Performance Kingston/Corsair DDR3/2 Memory
- Vigor A.T.O.M.I.C. VGA Cooling System

starting $689

HORNET

- Intel® Core™ 2 Extreme Quad/Dual Core/ Core 2 Duo or AMD Phenom™ X4/X3 Quad/Triple Core/ Athlon™ 64 Dual Core Processor
- NVIDIA® GeForce® 9800GTX+/9600/ATI Radeon 4870/4850 Series Graphics
- NVIDIA® SLI/ATI CrossFire Ready
- High Performance Kingston/Corsair DDR2 Memory
- Vigor A.T.O.M.I.C. LT VGA Cooling System

starting $2,199

ATLANTIS

- Intel® Core™ 2 Extreme Dual Core/ Core 2 Duo/Quad/AMD Turion 64 Dual Core Processor
- 17"/20.1" WUXGA+ 1920x1200 Super ClearView Wide Screen
- NVIDIA® GeForce® Go 9800M GTX/ Quadro FX 1600M w/up to 1 GB MB VRAM
- NVIDIA® SLI Ready
- High Performance 800MHz DDR2 Memory
- Built-In 1.3MP Digital Camera

starting $1,099

ARES

- Intel® Core™ 2 Extreme Dual Core/ Core 2 Duo Mobile/Core 2 Duo Processor
- 15.4" WSXGA+ 1680x1050 Super ClearView Wide Screen
- NVIDIA® GeForce® Go 9800M/ 8600M Series Graphics
- Built-In 2.0MP 240° Rotational Digital Camera
- Built-in Finger Print Reader

BUILD YOUR OWN KILLER RIG @ WWW.VIGORGAMING.COM

VISIT US ONLINE @ WWW.VIGORGAMING.COM / TO ORDER 866.907.3536

©2004 -2008 Vigorgamingpc.com and Kraken Company. All rights reserved. All brands and product names are trademarks or registered trademarks of their respective companies. All prices and configurations are subject to change without notice or obligation. Original shipping charges and opened software are non-refundable. All returns have to be accompanied by an RMA number and must be in re-sellable condition. System systems may include some equipment and/or accessories which are not standard features. Vigor Gaming is not responsible for any typographical errors. © 2007 NVIDIA Corporation. NVIDIA, the NVIDIA logo, GeForce, and The way it's meant to be played are trademarks and/or registered trademarks of NVIDIA Corporation. All rights reserved. Crysis ® © 2007 Crytek. All Rights Reserved. Crytek, Crysis and CryENGINE are trademarks or registered trademarks of Crytek. EA and the EA logo are trademarks or registered trademarks of Electronic Arts Inc. in the U.S. and/or other countries. All other trademarks are the property of their respective owners.

VIGOR®

logear Wireless USB-to-VGA Kit

Easy streaming from PC to external monitor

IOGEAR'S WIRELESS USB-TO-VGA KIT lets you display your laptop content on an external monitor—an HDTV in particular—without cables. But the unit carries a steep $229.95 price tag, so if you're looking to economize, you might be better off plugging your laptop directly into the TV and using a wireless keyboard.

Setup is simple: Connecting the two wireless dongles to their respective devices (one for your laptop, the other for the external display) takes just a couple of minutes, and once everything is plugged in, your laptop should see the external display and you can drag any applications right onto the screen.

EDITORS' RATING 7.4

0 BETTER ›› 10

PROS Simple setup; works well for streaming laptop content to an HDTV

CONS Expensive; 1080p resolution not supported; external antenna makes USB dongle cumbersome

logear, 800-876-9375
www.logear.com

Direct Price $229.95

Unfortunately, the device doesn't support full-HD resolution at 1080p, but its maximum 1,680x1,050 (or 1,600x1,200) resolution is enough for most tasks, including watching HD content in 720p resolution. In our tests, the Wireless USB-to-VGA Kit had no problems streaming Web content to an external monitor from a netbook, and the signal was glitch-free until we wandered more than 30 feet away. When we walked back into signal range, the external monitor automatically reconnected after a delay of about 10 seconds. If you want to stream 720p video, you'll have to stay within 15 feet, but that's more than enough range for most living rooms.

We found the screw-on antenna annoying, as it makes the USB dongle sticking out of your laptop larger and more unwieldy. Our other gripe is the price. You're better off with a Media Center keyboard with a built-in mouse control, but if $229.95 doesn't put a dent in your wallet, logear's Wireless USB-to-VGA Kit is a great way to get your PC to your TV without wires. —*Matt Safford*

For more: computershopper.com/peripherals

D-Link Wireless Internet Photo Frame

A photo frame that's more than a pretty picture

MOST DIGITAL PHOTO FRAMES leave little to talk about: Plug in a memory card, turn it on, and watch it go. With its $250 Wireless Internet Photo Frame (DSM-210), however, D-Link ups the ante in the photo-frame market by adding a slew of features that work really well.

EDITORS' RATING 8.0

0 BETTER ›› 10

PROS Great feature set; nice display; easy-to-use interface; seamless FrameChannel integration

CONS Wide-screen aspect ratio is an odd choice for photo viewing

D-Link, 800-326-1688
www.dlink.com

Direct Price $249.99

The DSM-210 features a 10-inch wide-screen display capable of 800x480 resolution. In our tests, the display was vivid and bright, but we wish there were controls to adjust brightness and contrast to suit your tastes and viewing environment. We also felt that a wide aspect ratio was an odd choice for a photo frame, considering that photos are not captured in 16-to-9 format.

In terms of connectivity, the DSM-210 supports wired 10/100Mbps Ethernet and wireless 802.11g connections. It has 1GB of built-in storage and also accepts auxiliary storage via USB and flash-memory cards. The DSM-210 has a simple, easy-to-use interface with large and easy-to-understand icons. The unit is primarily controlled by the included wireless remote.

What is unique about the DSM-210 is its networking capability. Once you connect to your home network, the DSM-210 can stream photos from a Universal Plug and Play (UPnP) server. You can browse a media server's folders and stream photos to the frame.

Taking it one step further, the FrameChannel component offers an absolute wealth of photo-sharing opportunities. Here, you can set up "channels" that interface with popular photo-sharing Web sites. D-Link has also rolled out additional channels such as weather, NFL scores and standings, and even one for Getty Images. You can also set up RSS feeds to stream to your frame. —*Rich Grech*

Visit the Computer Shopper

2008 Holiday Guide

- Tips for getting a deal when holiday shopping
- Budget Laptop Roundup
- Top 10 Digital Cameras
- Editors' Dream Tech Gifts
- And more!

COMPUTER SHOPPER

Visit us online to find the best deals on the year's hottest products!

www.computershopper.com/HolidayGuide

Gateway FHD2401

Sleek-looking display fumbles with gray

WHEN WE SET UP THE FHD2401, we were instantly impressed. The silver-on-black bezel, hidden LED touch-sensitive controls, and bright 400cd/m² display make for a stunning addition to any desktop. Unfortunately, the FHD2401 doesn't perform as well as its looks would have us believe.

Although its 1,920x1,200 resolution and 16-to-10 aspect ratio are fairly standard for 24-inch monitors, Gateway makes the FHD2401 stand out by adding brushed-aluminum accents to the monitor's piano-black bezel. The silver stand is sturdy, although it doesn't allow height or angle adjustment.

In our DisplayMate **(www.displaymate.com)** tests, we saw gray-scale issues on both the dark and light ends of the spectrum. The FHD2401 failed to display the three lightest and darkest shades of gray. We also noticed rippling on the dark end of the color ramp test, a further indication of gray-scale problems.

The monitor does display text well; even when we shrank our font size down to 5.3 points, the words were readable and crisp. Still, a stand with height and angle adjustment would go a long way toward making the monitor more productivity-friendly.

The FHD2401 gained some ground in subjective gaming and DVD testing, thanks to its 2,000-to-1 contrast ratio and glossy screen. We noticed some slight loss of detail in gray areas, but the 2-millisecond (gray-to-gray) pixel-response time kept ghosting from affecting the image, even in the fastest-moving scenes of *The Bourne Identity*.

Overall, the FHD2401's bright, glossy screen and excellent design elements make it a serious contender for those who value form over function. While it performs well enough for productivity and casual multimedia use, discerning gamers and film geeks looking for a monitor that excels at reproducing the darkest (and lightest) shades of gray should look elsewhere. —*Matt Safford*

EDITORS' RATING 7.4

0 BETTER ›› 10

PROS Slick design; bright display; vivid colors; excellent text reproduction, even with small fonts

CONS Gray-scale issues on both ends of the spectrum; glossy screen invites glare; no height or angle adjustment

Gateway, 949-340-3822
www.gateway.com

List Price $469.99

For more: computershopper.com/lcd-monitors

Westinghouse L1916HW

Big-screen resolution in a small package

THE AFFORDABLE WESTINGHOUSE L1916HW packs a 22-inch monitor's resolution into a 19-inch display. Unfortunately, ergonomics and gray-scale performance limitations limit the monitor's usefulness.

The L1916HW's screen boasts an ample 1,680x1,050 resolution that's great for productivity, because you can have several windows open with little layering and clutter. Its bright screen and 3,000-to-1 dynamic contrast ratio are more than adequate for displaying text and surfing the Web. In our DisplayMate **(www.displaymate.com)** testing, the L1916HW kept text readable down to 5.3 points, although at such a high resolution we had to lean forward to read the tiny text.

The L1916HW struggled with the 10 darkest shades of gray, all of which appeared black in our tests. The light end fared better, but we wouldn't recommend this monitor for working with images or graphics.

The L1916HW performed adequately in our DVD and gaming tests, thanks to the fast 2ms (gray-to-gray) response time. Dark corners with detail often looked black, however.

The touch-sensitive control "buttons" are among the worst we've seen. Hidden behind the screen where you can't see them, they can turn screen adjustments into an exercise in anger management. The power button worked too well, frequently causing us to turn off the monitor while adjusting the screen. Other buttons didn't work until we found just the right way to swipe a finger over them.

Still, with its low price, the L1916HW is a decent monitor for a cramped dorm room—as long as you have simple productivity needs. Its light weight makes it easy to move and somewhat makes up for the stand's adjustment issues, though you'll probably need a third-party monitor stand to get the screen to the right height. —*M.S.*

EDITORS' RATING 7.0

0 BETTER ›› 10

PROS Inexpensive; desk-space-saving way to boost screen space

CONS Abysmal button controls; below-average gray-scale performance; stand lacks height and angle adjustments

Westinghouse Electric, 212-355-5049
www.westinghousedigital.com

Mfr. Est. Price $199

Xtreme Gear recommends Windows Vista™ Home Premium

AMD
The future is fusion

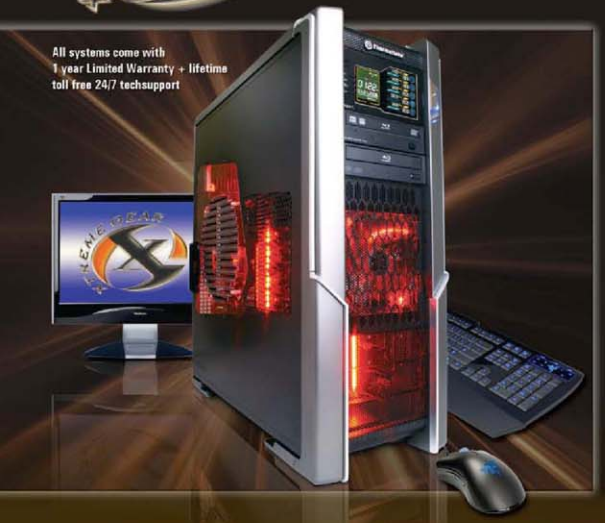
XTREME GEAR

CONFIGURE YOUR DREAM SYSTEM AT XTREME GEAR TODAY!

AMD Turion X2 64

AMD Phenom X4 64

AMD Phenom™ processors offer multi-core performance for life-like gaming, crystal-clear digital media and serious megatasking.



XG ACTION 6000

from $1135

AMD Turion™ 64 X2 Mobile Technology ZM-84
- AMD PowerNow! Technology
- HyperTransport Technology
- Enhanced Virus Protection Technology

15.4" WXGA Wide-Screen TFT Display 1280x800 Pixels
Genuine Windows Vista™ Home Premium
Corsair 4GB Dual Channel DDR2 800
320GB 5400 RPM SATA Notebook Drive
NVIDIA® GeForce® Go 9600GT 512MB
8X DVD+-RW Drive
802.11G 54MPS Wireless Network, 10/100 NIC and 56k V.92 Modem
Free Shipping + Free 4 GB Pen Drive

XG XION 9000

AMD Phenom™ X4 **9950**+ Processor Black Edition

from $1485

Xtreme Gear Liquid Cooling System
Genuine Windows Vista™ Home Premium 64 Bit Edition
AMD 790GX Dual PCI-E Mainboard Supporting CrossFireX™
Corsair® 4GB Dual Channel DDR-2 800
1TB Serial SATA 150 7200 RPM 16MB Hard Drive
ATI Radeon™ HD 4870X2 w/ 2GB Video Memory
20x DVD+/-RW with Lightscribe Technology
Sony 16x DVD Rom Drive
7.1 3D Audio, Logitech X530 5.1 Subwoofer Speakers
Gigabit Network Card
PCI 802.11G 54 MPS Wireless Network Card
Thermaltake Spedo Full Tower Case 680 Watt Power
Free 4 GB Pen Drive

XG XION 7000

AMD Phenom™ X4 **9650**+ Processor

from $865

Genuine Windows Vista™ Home Premium
NVIDIA® nForce® 750A SLI™ AM2 Dual PCI-E Mainboard
Corsair® 2048MB Dual Channel DDR-2 800
500GB Serial SATA 150 7200 RPM 16MB Hard Drive
NVIDIA® GeForce® 9800GTX+ 512MB DDR3 x16 PCIE Video
Sony 20x DVD+/-RW Drive & 16x DVD Rom Drive
7.1 nForce® 3D Audio
Logitech® S100 Stereo Speakers
Gigabit Network Card
PCI 802.11G 54 MPS Wireless Network Card
Antec Nine Hundred Tower Case 550 Watt Power
Free 4 GB Pen Drive

XG XION 4000

AMD Athlon™ X2 **6000**+ Processor

from $639

Genuine Windows Vista™ Home Premium
NVIDIA® nForce® 750A SLI™ AM2 Dual PCI-E Mainboard
Corsair® 2048MB Dual Channel DDR-2 800
500GB Serial SATA 150 7200 RPM 16MB Hard Drive
NVIDIA® GeForce® 9500GT 1GB 16x Video
Sony 20x DVD+/-RW Drive & 16x DVD Rom Drive
7.1 nForce® 3D Audio
Logitech S100 Stereo Speakers
Gigabit Network Card
PCI 802.11G 54 MPS Wireless Network Card
Turbo X-Cruiser Case 420 Watt with See Through Windows
Free 4 GB Pen Drive

XG XION 3000

AMD Athlon™ X2 **5000**+ Processor

from $459

Genuine Windows Vista™ Home Premium
AMD 780V AM2 PCI-E Mainboard
Corsair® 2048MB Dual Channel DDR-2 800
320GB Serial SATA 150 7200 RPM 16MB Hard Drive
ATI Radeon™ HD 3100 Video onboard
Sony 20x DVD+/-RW Drive & 16x DVD Rom Drive
7.1 AMD 3D Audio
Gigabit Network Card
PCI 802.11G 54 MPS Wireless Network Card
Xion II Mid-Tower Case 420 Watt Power
Free 4 GB Pen Drive

TOLL FREE 1.888.937.5580 WWW.BUYXG.COM

AMD, the AMD Arrow logo, AMD Phenom™ ATI Radeon™ Graphics, 790 Series, and combinations thereof are trademarks of Advanced Micro Devices, Inc. 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. NVIDIA®, nForce®, GeForce®, SLI™ are trademarks or registered trademark of NVIDIA Corporation or its subsidiaries in the United States and other countries. CyberPower PCs use genuine Microsoft® Windows® • www.microsoft .com/piracy/howtotell

Canon Selphy CP770

Snapshot printer is a mini photo lab

EDITORS' CHOICE

THE 3.2-POUND CANON SELPHY CP770 portable snapshot printer is a solid choice for those who print more than the occasional photo at home. It has some quirks, but once you see its image quality, you may never go back to a traditional inkjet printer.

The $149.99 CP770's dye-sublimation printing module nestles into the top of an oblong bucket that stores the AC adapter, paper trays, ink ribbon, and paper. The larger tray accepts 4x6 postcard paper, and the smaller tray handles stock about the size of a business card. A memory-card slot and a PictBridge USB port allow for printing without a PC.

Buttons for navigation, the menu, back, and printing are on top. The 2.5-inch LCD shows fuzzy images and limits them to 2 inches, thanks to menu icons. Still, navigation is easy. The menu lets you correct red-eye, convert a color photo to black-and-white or sepia, enhance the contrast and color depth, choose borderless prints, and print more than one image on a sheet.

Prints are true photo quality. Details were flawless, flesh tones accurate, and colors vivid without being oversaturated. Because the postcard media isn't the same aspect ratio as the photos from your digital camera, however, you'll lose half an inch. But the top coat protects the photo from water and helps it last up to 100 years in an album. Prints take about 1 minute and 15 seconds each, which is okay but not great.

EDITORS' RATING 8.0

0 BETTER ›› 10

PROS Beautiful photo output; easy to use; "bucket" case and optional battery make it truly portable

CONS Pricey; images on LCD are small and fuzzy; higher cost per photo than online and in-store print services

Canon U.S.A, 800-652-2666
usa.canon.com

List Price $149.99

You'll spend a hefty 28 or 33 cents per print, depending on the kit you buy. Also, other portable snapshot printers offer larger LCDs and support 5x7-inch output.

Nonetheless, we're still enamored of the Canon Selphy CP770. We love the bucket concept for portability and the near-flawless image quality. —*Jamie Bsales*

Xerox Phaser 3300 MFP

Fast but costly all-in-one is worth the coin

THE XEROX PHASER 3300 MFP delivers lightning-fast monochrome laser printing. Its $599 list price is steep, but that includes an ADF and an autoduplexing unit.

At 18x18.3x17.1 inches (HWD), the 3300 is beefy. It has a 150-sheet output tray, a 250-sheet input tray, and a 50-sheet multipurpose tray. A single-sheet output tray is at the rear, along with a 10/100Mbps Ethernet port, two telephone jacks, and a USB port. We like that you can save scanned documents to USB devices but would have liked support for flash-memory cards, too.

EDITORS' RATING 8.0

0 BETTER ›› 10

PROS Fast printing; easy to set up; autoduplexing

CONS Lacks wireless connectivity; pricey; no card reader

Xerox, 800-275-9376
www.xerox.com

List Price $599

Regular setup was a breeze; network setup was a bit more involved. The printer uses DHCP to obtain an IP address, and once we plugged in the network cable and rebooted the printer, we were assigned one.

The Phaser 3300 scans at 600x1,200dpi (optical) and 4,800x4,800dpi (interpolated), and you can scan documents and images to an application, e-mail address, or another machine or server on the network. Faxes transmit at 3 seconds per page at resolutions up to 300x300dpi (mono) and 200x200dpi (color). You can store up to 240 fax numbers.

Xerox claims 30 pages per minute; our 20-page document took 45 seconds, and copying our 20-page Word document took 1 minute and 2 seconds. Text reproduction was crisp and well-defined, and the small fonts were clear and legible. The ID Card Copy feature lets you copy both sides of a document onto a single sheet of paper in one step.

The Phaser 3300 has a duty cycle of 25,000 pages per month. It ships with a standard toner cartridge with a 4,000-page yield; an 8,000-page cartridge is available for $170.

At $600, the Xerox Phaser 3300 MFP isn't cheap, but if waiting around for printouts is bogging down office productivity, this speedster is worth every penny. —*John R. Delaney*

For more: computershopper.com/printers

Canon PowerShot SD990 IS

Quality and beauty in a small body

THE $399.99 CANON POWERSHOT SD990 IS packs a lot of power and beauty into a small body. Boasting a staggering 14.7 megapixels, this shooter is everything an amateur photographer could dream of.

The SD990's curvy body is both attractive and strong. Weighing 5.6 ounces, it's a tad on the heavy side, but for what it packs inside the body, we can't really complain. The camera's interface is easy to navigate on the 2.5-inch LCD. All of the buttons and dials are located in convenient, easy-to-find locations. We would have liked the power button to protrude from the body a bit more, to make it easier to push.

Power-up time is a speedy 1.3 seconds, and shutter lag is virtually nonexistent. Shot-to-shot time could be a bit better at 3.5 seconds without flash and 5.3 seconds with flash. But if you want to shoot quickly, just switch the camera into Quick-Shot mode; you have to use the optical viewfinder instead of the LCD to frame shots, but shot-to-shot time drops to less than 2 seconds.

The SD990 produces crisp and clear images in all kinds of light, even with the flash off, and the 3.7x optical zoom allows for a great deal of flexibility when shooting. Pictures we snapped in a moderately lit restaurant at night came out clear as day, and color representation was amazing. All hues were impressively bright and properly saturated.

Images got a bit noisy at ISO 800 and above. The optical image stabilization performed respectably, especially in better lighting. —*Jonathan Rougeot*

EDITORS' RATING 8.0

0 BETTER ›› 10

PROS Produces great images; well-designed; easy to use

CONS A tad heavy; images get grainy at higher ISO settings

Canon U.S.A., 800-652-2666
usa.canon.com

List Price $399.99

For more: computershopper.com/digital-cameras-camcorders

Apple iPod Touch (Second Generation)

Welcome features make this second act even better as a digital player

APPLE CALLS ITS SECOND-GENERATION iPod Touch "the funnest iPod ever," and with a growing list of games, best-in-class media management and navigation, Wi-Fi, and a host of other plusses, there's no arguing that this is the best the iPod has ever been. But the new features, which include a too-quiet internal speaker, volume buttons, and a slightly slimmer design, are hardly worth an upgrade from last year's model.

EDITORS' RATING 8.2

0 BETTER ›› 10

PROS Beautiful screen; up to 32GB of flash-based storage; games, apps, and Wi-Fi make it a mini-computer

CONS Pricey; internal speaker isn't great; lack of buttons makes gaming frustrating

Apple, 800-692-7753
www.apple.com

Direct Price $229 (8GB); $299 (16GB); $399 (32GB)

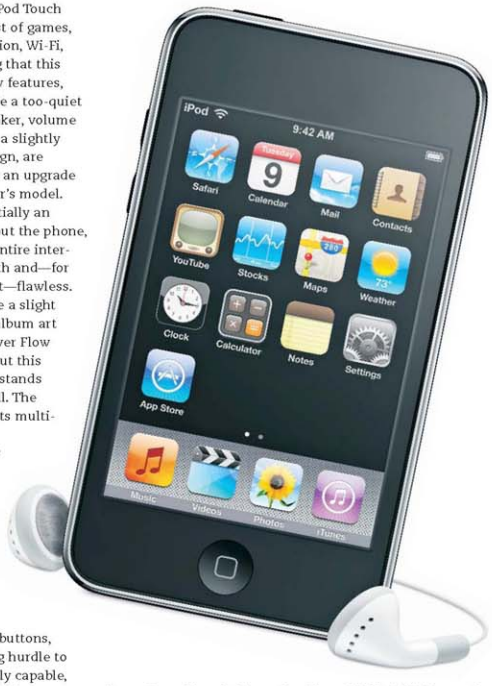
Still essentially an iPhone without the phone, the Touch's entire interface is smooth and—for the most part—flawless. We did notice a slight delay when album art loaded in Cover Flow navigation, but this minor glitch stands out only because everything else works so well. The touch screen is very responsive, and it supports multi-touch gestures.

On the other hand, the new internal speaker is really useful only for gaming, as its sound quality is somewhat worse than one would expect from an average cell-phone speaker. Worse still, it's so quiet that gaming in public—say, on a bus or a train—is still going to require wearing the earbud headphones. The hardware volume buttons, on the left side of the device, are a more successful addition.

Besides the volume, sleep/wake, and home buttons, the lack of any other hardware buttons is a big hurdle to gaming on the Touch. The processor is certainly capable, as evidenced by games like Spore, which look gorgeous on the 3.5-inch screen (480x320-pixel resolution). But precise controls aren't very easy with a touch screen; while it's great for board games and similar slow-moving apps, fans of racing, fighting, and other button-mashing genres will be disappointed. In Crash Bandicoot Nitro Kart 3D, for instance, you tilt the screen to steer, but have to tap the screen to jump or use items. Poking the screen tends to affect steering, which caused us to frequently crash into walls.

> The Touch is really more of a Mac in your pocket than just a media player.

Still, the Touch can be a fun gaming device in a pinch, and along with everything else it can do, it's really more of a Mac in your pocket than just a media player. As for staying power, Apple rates the battery life at up to 36 hours for audio and 6 hours for video, which is fairly impressive. With all the Touch can do, of course, the battery never seems to last long enough, particularly if you're using its Wi-Fi.



The Touch weighs 4.1 ounces and measures 4.3x2.4x0.3 inches (HWD). Apple lists a capacity of up to 1,750 songs in the AAC format for the 8GB model (up to 3,500 for the 16GB and up to 7,000 for the 32GB versions). The Wi-Fi supports 802.11b/g networks. For Nike+iPod users, support for the fitness device is now built right into the Touch, so you no longer need to attach an external dongle.

If all you want is music playback, go with the excellent Nano, which is smaller, cheaper, and generally a more polished device. But if you expect more than music from your pocket-friendly player, the Touch delivers features that are leaps and bounds ahead of any other single device. —*Matt Safford*

For more: computershopper.com/mp3-players

See our video review:
computershopper.com/videos

T-Mobile G1

The Android smartphone is here, but can it topple the competition?

ALTHOUGH IT SUFFERS from a few hardware flaws, the first smartphone to use Google's Android platform, the T-Mobile G1, outshines much of the competition thanks to a fun-yet-smart OS and a unique set of features. Aggressively priced at $179 (with a two-year contract), it merits the top spot among T-Mobile's high-end offerings. The G1 also showcases Android as a capable mobile platform.

Manufactured by HTC, the thick, 5.6-ounce G1 lacks style when compared to other new smartphones. That said, it does have a smooth finish with rounded corners. The big 3.2-inch display doubles as a touch screen, and it has a 320x480 resolution. Below the display is the G1's "chin," a part of the phone's front that juts out slightly, and that's where you'll find tactile navigation controls including a clickable trackball and dedicated Call, Home, Menu, Back, and End Call buttons.

Much of the phone's girth is due to the G1's sliding screen, which kicks out to reveal a full QWERTY keypad. The keys, which closely resemble the T-Mobile Sidekick's, are square-shaped and sufficiently spaced to prevent accidental strokes. The keypad also has a backlight, which is great for dark or low-light environments. Because the buttons are flush with the phone's surface, however, they're not always responsive. Furthermore, the G1's chin makes it painfully awkward to type messages while holding the phone horizontally.

EDITORS' RATING 7.2

0 BETTER ›› 10

PROS Intuitive interface; great feature set for the price; excellent wireless connectivity, including 3G, Bluetooth, and Wi-Fi

CONS Hardware/keyboard design can make typing difficult; 3G and GPS signal can be spotty; no 3.5mm jack; camera doesn't support video

T-Mobile, 800-866-2453
www.tmobile.com

Direct Price $179 (with two-year contract)

The phone has a loud mono speaker on the back, along with a 3.2-megapixel camera. Video capture isn't supported, and the camera has no flash, which is a shame, considering its impressive resolution.

After a brief startup, the G1 boots up to a clean, configurable home screen. The home screen is a three-page panorama, and you can flick between pages with a swipe of your finger, much like you do on Apple's iPhone 3G. By default, the center page features an analog clock with a preconfigured number of application shortcuts. Google Search is intentionally left blank for adding other app shortcuts. Overall, the G1's interface is on par with the iPhone's and proved to be clean, fun, and very intuitive.

Android is based on an open platform, which means any software publisher can design programs for it, and this is where the G1 really shines. The Android Marketplace, Google's answer to Apple's App Store, houses numerous apps that take advantage of the G1's features. Compare Everywhere, for instance, takes advantage of the G1's camera by letting you scan barcodes and comparison-shop on the fly. Amazon.com also takes advantage of the phone's media capabilities and lets you download DRM-free songs directly from its MP3 Store. The G1 doesn't currently offer as many apps as the iPhone, but its initial offering is nonetheless impressive.

As expected, Gmail, Google Maps, and Google Calendar are tightly integrated with the G1's OS. The G1 remains synced with Google's Web-based services from the moment you power it on, requiring you to sign in with a new or existing Google account. Through cloud computing, Android eliminates the need to manually sync your phone directly with your PC. And as with all things Google, don't expect native support for Microsoft Exchange.

Although call quality on the G1 was superb, our 3G support was spotty throughout New York City and parts of New Jersey. Likewise, the G1's GPS signal wasn't always clear. Web browsing was relatively quick with the G1's snappy Chrome-like browser. NYTimes.com, CNN.com, and our own ComputerShopper.com sites each loaded in just under 30 seconds via 3G. Besides 3G, the phone supports the slower EDGE network and faster Wi-Fi networks. Bluetooth also comes built in.

In our testing, the G1's battery lasted 12 hours and 30 minutes (with Wi-Fi off) in moderate 3G and Internet use. Using the G1's GPS for extensive periods drains the battery, but otherwise, battery life is stellar for sending/receiving calls, Internet use, and running applications.

Unfortunately, the G1 has some minor first-generation shortfalls. For instance, there's no 3.5mm headphone jack for use with most headphones on the market, and there's no way to sync your contacts and calendar with your PC directly—you must rely on cloud computing. (MP3s and photos can be synced between the phone and a PC or Mac via drag-and-drop.) Despite the few complaints and first-generation glitches, however, Android is a promising platform that we're excited to see on other handsets in the future, and the G1 itself should be on top of every T-Mobile customer's list. —*Louis Ramirez*

For more: computershopper.com/cell-phones

Spore

Revolutionary game is evolutionary fun

SPORE IS A SPRAWLING, evolution-themed title from Electronic Arts. There's so much you can customize that virtually no two games will ever be the same, guaranteeing open-ended gameplay.

To get a sense of what Spore is like, imagine a cross between The Sims and Civilization. As with EA's ever-popular The Sims franchise, players can customize their "creatures" to the nth degree, while the empire-building aspects of the game—making friends, declaring war, spreading religion, developing a world economy—are very much like Civilization.

Though Spore isn't a massively multiplayer online role-playing game (MMORPG), it does have an online component: You always play Spore alone, but your creations can be uploaded to populate the worlds and galaxies other players create, and vice versa.

The story line begins with a creature that you customize. Your creature goes through the stages of evolution, starting as a simple ocean dweller and developing into a land-roving animal. It becomes smarter and sentient, and soon your creature and its pack learn to conquer other species, develop tribes and a civilization, dominate the planet, and head out for space exploration.

EDITORS' RATING 8.5

0 BETTER ›› 10

PROS Great graphics; high level of customization; large, open environments

CONS Copy-protection software may bother some players

Electronic Arts
www.ea.com

List Price $49.99

There's only one potential sore spot: The game installs its copy protection on your computer without notification, which has raised the ire of more than one Spore player.

In the end, Spore is a terrific game that's tons of fun and suitable for the entire family. Even gaming newbies can easily pick it up. If you enjoy creation-type simulation games like The Sims or strategy titles like Civilization, Spore is the most complex example of these genres yet. —*Shane McGlaun*

Crysis Warhead

Stirring actioner will shake your hardware

EA'S FOLLOW-UP to Crysis, Crysis Warhead, delivers great first-person-shooter (FPS) action. But like its predecessor, it will also tax your PC hardware.

EDITORS' RATING 8.0

0 BETTER ›› 10

PROS Great graphics; lots of customization for weapons; open-ended gameplay; includes fun multiplayer game

CONS Short single-player campaign; graphical glitches at some points

Electronic Arts
www.ea.com

List Price $29.99

The environmental settings and story will be familiar to those who've played the first game. The new story line revolves around enemy forces trying to gain a technological advantage by studying an alien battle suit and reverse-engineering weapons and technology from it. Throughout the game, the player tracks an enemy commander trying to flee an island with the battle suit in tow; the goal is to stop him before he escapes. Gameplay is similar to the original, and the special nano-suit and familiar weapons and vehicles make their return. There are also some new weapons, and players can now use two machine pistols at once.

At the game's highest (Enthusiast) settings, our very high-end gaming rig couldn't keep up. Performance improved greatly when we dropped it to the mid-level Gamer settings, and the graphics were stunning. Also, during our testing, we noticed a few bugs. There were spider-web-like flashes at random points, and the game crashed on two attempts to restore the game to full-screen mode after it had entered windowed mode on its own.

Compared with the length of the original, Crysis Warhead is relatively short. We were able to finish the entire game in only a few hours. But it comes with a fun multiplayer game called Crysis Wars, which is exactly what you'd expect from a great multiplayer online shooter: several different maps with open environments. Crysis Wars feels more like a stand-alone title than just an extension of the single-player game. —*S.M.*

For more: computershopper.com/software

SSN:
457-55-5462

I'm Todd Davis, CEO of LifeLock, and 457-55-5462 is my real Social Security number.

Each week brings new headlines of yet another major identity breach: 260,000 Social Security numbers released in Wisconsin, 45.7 million credit and debit card records stolen from a national retail chain, and the list goes on. The fact is another identity is stolen every three seconds, but I put my information out there because of my complete confidence in LifeLock's ability to protect my identity.

As the leader in proactive identity theft protection, LifeLock works to help stop identity theft by reducing your risk – even if your information falls into the wrong hands. And what we don't stop, we'll fix at our expense, up to $1 million. So whatever happens, you're protected.

Special offer

For a limited time, I'd like to give you LifeLock absolutely free for 30 days so you can have the same peace of mind I have. Call now and protect yourself today.

EXCLUSIVE OFFER

30 DAYS FREE

call 1-877-240-2088

LifeLock.
#1 In Identity Theft Protection™

Todd Davis, CEO of LifeLock

Never share your Social Security number unnecessarily. No payment, no obligation for 30 days. After 30 days, your credit card will automatically be billed. You can cancel at any time without penalty. This offer is exclusive to new members only and does not apply to existing LifeLock members. See web site for Terms and Conditions of Guarantee (Warranty).

Ad provided by MediaBids.com • 1-866-236-2259

Adobe Premiere Elements 7

HD and SD video editing for novices and hobbyists alike

NO, YOU DIDN'T BLINK and miss versions 5 and 6 of Adobe Premiere Elements. Adobe skipped a few numbers to bring the version number in line with its Photoshop Elements sibling. And with Premiere Elements 7, Adobe has also brought the $99.99 program more in line with the features of midrange video-editor competitors like Sony Vegas Movie Studio 9 and Corel VideoStudio X2. It's in no danger of harming sales of the $799 Premiere Pro CS4, but it no longer feels as if it was intentionally held back to ensure that it doesn't.

The program now imports video in AVCHD format, supporting newer HD camcorders like Canon's Vixia HF100, in addition to standard-definition and HDV high-definition video. The interface is easy to use, whether you're new to video editing or an old hand. For a quick video, simply drop video clips onto the sceneline, drop in transitions, and render the results. For more control, switch to the Timeline view, where you can work with up to three different video tracks, narration, and a soundtrack, making precise edits and adding advanced video effects.

EDITORS' RATING 8.1

0 BETTER ›› 10

PROS Excellent user interface; imports all common HD and SD formats; InstantMovie feature automates movie creation; good selection of editing tools, effects

CONS Limited number of InstantMovie templates; occasional crashes when rendering HD video

Adobe Systems, 800-585-0774
www.adobe.com

Direct Price $99.99

As with previous versions, there's a good selection of professional-looking video filters, transitions, and titling options for manual editing. New to version 7 is the InstantMovie feature, which does a surprisingly good job of taking selected clips and creating a movie from them in just a couple of steps, complete with titles, effects, transitions, and credits. Though there are 20 InstantMovie templates, we'd like to see more variety. For example, there's only one birthday template and two travel templates, so if you use the feature often, your videos will lack variety.

Other new features include Videomerge, an automatic compositing filter that creates a slick combination of two clips by replacing any solid-colored background with the second clip, and SmartSound, which generates a musical soundtrack to match the length of your video or scene exactly.

Premiere Elements 7 works best when paired with Photoshop Elements 7; Adobe bundles the two programs for $149.99. They share the same Organizer database (listing all the videos, sounds, and stills in your library), and you can send still frames to Photoshop for editing or send slide shows to Premiere Elements 7 for incorporation in an InstantMovie. The Organizer has been significantly optimized in this version. In Premiere Elements 4, if you had a large library of photos and videos it was nearly unusable, as it was so slow. Now it's a useful tool for locating and organizing video clips, particularly if you take advantage of the software's tagging functionality.

As with Photoshop Elements 7, Premiere Elements 7 works together with Photoshop.com. You get 2GB of online backup storage of your videos and photos for free (not much when you're dealing with video) and the ability to view your backed-up clips and movies from any PC. In addition to 20GB or more of storage, Adobe promises new tutorials, themes, sounds, and special effects on a regular basis for those who purchase a $30 Plus membership. Photoshop.com doesn't have public movie galleries, however, so you'll have to rely on YouTube or a personal Web site for sharing.

Once your video has been created, you can burn it to a DVD or Blu-ray disc, publish it directly to YouTube or a personal Web site, or render it to a file. You can create videos in the Adobe Flash Video, AVI, MPEG, Windows Media, and Quicktime formats. The AVI function supports additional codecs that you install, such as DivX. Premiere Elements 7 can also create files for the iPhone, iPod, PlayStation Portable, and Zune; for 3rd Generation Partnership Project-compatible cell phones; and for a number of other devices.

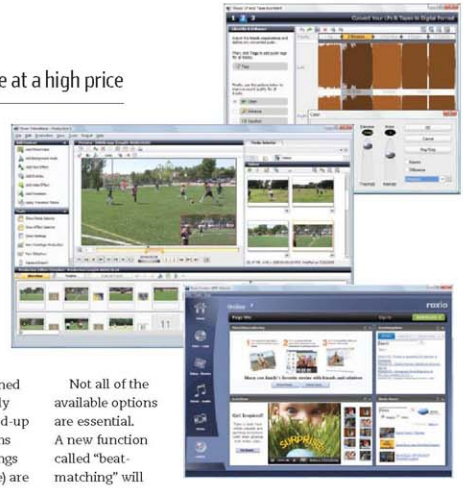
You'll want a powerful PC to use with Premiere Elements 7, particularly if you're editing HD video. The program will take full advantage of dual- and quad-core CPUs to speed up rendering. You'll also want plenty of memory. On our 2GB test system, we got occasional warnings that Premiere Elements 7 was running low on memory. We also had a few crashes when rendering HD video, though we were working with a prerelease version of the program.

Premiere Elements 7 strikes an excellent balance between ease of use and flexibility. The only real frustration is the lack of variety in InstantMovie templates. We hope to see regular additions to the template selection for Photoshop.com Plus members; additional templates would make membership even more appealing. —*Denny Atkin*

For more: computershopper.com/software

Roxio Creator 2009

Plentiful media-management features come at a high price



IT CAN'T BE EASY for a mature software suite to remain relevant year after year, version after version, especially amid increasingly tough competition from commercial products and free tools. Such products must work ever harder to improve themselves, even when it seems like there's nothing left needing improvement. How has Roxio managed this with its $99.99 Creator 2009, the latest version of its ridiculously comprehensive media-authoring suite? As it turns out, the update reflects both innovation and desperation.

Creator 2009 comes with a heavily revamped and streamlined interface that makes it easier to find the most common tasks while adding a serious dose of elegant visual appeal. While the launcher for last year's version, Easy Media Creator 10 Suite, was useful, it contained visual bloat that complicated the process of finding exactly the app you wanted. Creator 2009, however, has a scrubbed-up launcher that puts your six most commonly used functions front and center on the home page. Broader category listings (Data-Copy, Video-Movies, Music-Audio, Photo, and Online) are on the left, and links to videos, tutorials, and support options are on the right. You also have the option to choose any of the category pages as your start page by simply clicking a pushpin icon next to the category header—a nice touch for personalizing the experience.

EDITORS' RATING 7.5

0 BETTER ›› 10

PROS Wide variety of media-creation, -editing, and -sharing functions; attractive interface

CONS New features may not be worth upgrade; Blu-ray authoring requires extra-cost plug-in; no built-in Blu-ray playback capabilities

Roxio, 415-893-8000
www.roxio.com

Direct Price $99.99

You have almost as much control over everything else you do in Creator 2009, as well. Want to burn data onto a CD? Use a simple drag-and-drop interface, a more advanced Explorer-style window, or even a backup utility to save whole folders with a single click. You're granted the same flexibility when it comes to video editing: Creator 2009 can make your video clips and photos into a movie automatically, or you can drag and drop everything into an advanced storyline or timeline view to arrange everything just the way you want it. For DVD creation, the program lets you select from any number of pre-generated options or develop your own from scratch; similarly, ripping music from a CD can be either a mindless or a more detailed process.

There's plenty of other useful functionality to be found, too: a three-step wizard for digitizing LPs and tapes, as well as modules for capturing audio directly from a sound card, converting content for easy playback on your portable devices, and sharing photos and videos using Roxio's integrated online services.

For more: computershopper.com/software

Not all of the available options are essential. A new function called "beat-matching" will rearrange and adjust the crossfades of music tracks you're burning to CD to create ideal dance mixes that flow smoothly from one song to the next. There's not much call for this, and in our tests it didn't work very well: Vocals and tempos were frequently distorted, to distracting effect. (We recommend sticking with instrumental tracks with heavy beats for best results.) And while some users will undoubtedly appreciate the ability to automatically break audiobooks into workable chunks for a portable music player, we're not convinced that's a vital feature that couldn't already be decently replicated via Creator 2009's other audio-editing tools.

Alas, many of Creator 2009's functions have an antiquated quality about them anyway—Windows Vista and some freely available apps let you do many of the same things at roughly equivalent quality. True, Roxio's photo-editing feature is rather more robust than Windows Photo Gallery, with dedicated tools for removing wrinkles, blemishes, dust, and scratches and for fixing other imperfections. But the Roxio video-editing and DVD-authoring apps are more or less on par with Windows Movie Maker and Windows DVD Maker, and dedicated music managers such as Windows Media Player, iTunes, and Zune have friendlier user interfaces and can more conveniently catalog and spin songs than the Roxio tools can.

Creator 2009 has another shortcoming that should be a strength: HD. Although you can create Blu-ray discs with content directly from an AVCHD camcorder, you can't otherwise burn Blu-ray out of the box. For that, you'll need to drop $29.99 on an additional Blu-ray plug-in, bringing the total bill up to almost $130. And, even for that much money, you still won't be able to play Blu-ray discs using Creator 2009: For that, you'll need something like CyberLink's PowerDVD or Corel's WinDVD 9 Plus Blu-ray. We understand the issues having to do with licensing fees and content-protection regulations, but it's still a notable omission in a package that offers so much else. —*Matthew Murray*

Upgrade to DIRECTV
and lock in your price for one year!

OVER 150 CHANNELS
$52.99
$29.99 mo.
for 12 months
"The CHOICE" package

All prices reflected include an $10 bill credit for 12 months after rebate, plus an additional $5 bill credit for 12 months when you enroll in Auto Bill pay program. Valid email address required.**

Act now and take advantage of these other great offers!

FREE
PROFESSIONAL INSTALLATION
IN UP TO 4 ROOMS

Lease fee of $4.99/mo. for second and each additional receiver. Complex/custom installation extra. Handling and delivery fee $19.95.

FREE
DIRECTV® HD DVR
UPGRADE

Models may vary.

Skip commercials with a single click®

With activation of CHOICE XTRA™ package or higher. Programming, DVR service and HD Access required.**

FREE
FOR 3 MONTHS*

28 Premium movie channels

HBO® 7 Channels

STARZ 12 Channels

SHOWTIME 9 Channels

With CHOICE XTRA™ package or higher.

- DIRECTV has 99.9% signal reliability
- Local channels included in every package†
- 100% digital on every channel
- #1 in Customer Satisfaction‡
- Get 3 times more channels in HD than cable††—now over 130▽

††Based on average number of HD channels offered by major cable providers in major metropolitan areas. ‡Among the largest national cable and satellite TV providers, 2008 American Customer Satisfaction Index, University of Michigan Business School.

Offers end 3/31/09 and are based on approved credit, credit card required. New customers only (lease required).

DIGITAL READY

No Equipment to Buy! No Start-up Costs!

Call 1-877-769-7929 today!

DIRECTV. SATELLITE TELEVISION

Credit card not required in MA and PA. †Eligibility for local channels based on service address. ††To access DIRECTV HD programming, an HD Access fee ($9.99/mo.), a DIRECTV Slimline Dish, an HD Receiver and HD television equipment are required. ▽Only available for recorded programs. ***BILL CREDIT/PROGRAMMING OFFERS:** LIMIT ONE PROGRAMMING OFFER PER ACCOUNT. Featured package names and pricing are as follows: CHOICE $62.99/mo. and CHOICE XTRA $57.99/mo. **Visit directv.com to enroll in the DIRECTV Auto Bill Pay program. Requires valid email address. Upon DIRECTV System activation, customer will receive rebate instructions (included in customer's first DIRECTV bill, a separate mailing or, in the state of New York, from retailer) and must comply with the terms on the instructions. In order to receive full $23 bill credit customer must enroll in DIRECTV Auto pay prior to offer redemption. Rebate begins 6–8 weeks after receipt of rebate form online or by telephone. Timing and duration of promotional price depends on rebate date.** Account must be in "good standing," as determined by DIRECTV in its sole discretion, to remain eligible. DIRECTV not responsible for late, lost, illegible, mutilated, incomplete, misdirected or postage-due mail. IF, AFTER 12 CONSECUTIVE MONTHS (3 MONTHS FOR HBO/STARZ/SHOWTIME), CUSTOMER DOES NOT CONTACT DIRECTV TO CHANGE SERVICE, THEN ALL SERVICES TO WHICH CUSTOMER IS SUBSCRIBING WILL AUTOMATICALLY CONTINUE ON THE 13TH MONTH (4TH MONTH FOR HBO/STARZ/SHOWTIME) AT THE THEN-PREVAILING RATES, INCLUDING THE $4.99/MO. LEASE FEE FOR THE 2ND AND EACH ADDITIONAL RECEIVER. In certain markets, programming/pricing may vary. Package pricing at directv.com/packages. DIRECTV System has a feature that restricts access to channels. LIMIT ONE BILL CREDIT PER DIRECTV ACCOUNT. ****HD DVR UPGRADE INSTANT REBATE:** Advanced equipment instant rebate requires activation of CHOICE XTRA ($62.99/mo.) package or above, FAMILIAR ULTRA or above, Jadeworld or any qualifying international service bundle, which shall include PREFERRED CHOICE programming package, DVR service commitment ($6.99/mo.) required for DVR and HD DVR lease. HD Access fee ($9.99/mo.) required for HD and HD DVR lease. LIMIT ONE ADVANCED EQUIPMENT REBATE PER DIRECTV ACCOUNT. **INSTALLATION:** Standard professional installation only. Custom installation extra. **SYSTEM LEASE:** Purchase of 18 consecutive months (24 consecutive months for advanced receivers) of one DIRECTV base programming package ($29.99/mo. or above) or qualifying international services bundle required. **FAILURE TO ACTIVATE ALL OF THE DIRECTV SYSTEM EQUIPMENT IN ACCORDANCE WITH THE EQUIPMENT LEASE ADDENDUM MAY RESULT IN A CHARGE OF $150 PER RECEIVER NOT ACTIVATED. IF YOU FAIL TO MAINTAIN YOUR PROGRAMMING COMMITMENT, DIRECTV MAY CHARGE A PRORATED FEE OF UP TO $480. RECEIVERS ARE AT ALL TIMES PROPERTY OF DIRECTV AND MUST BE RETURNED UPON CANCELLATION OF SERVICE, OR ADDITIONAL FEES APPLY. VISIT directv.com OR CALL 1-800-DIRECTV FOR DETAILS.** Programming, pricing, terms and conditions subject to change at any time. Pricing residential. Taxes not included. Receipt of DIRECTV programming is subject to the DIRECTV Customer Agreement, copy provided at directv.com/legal and in your first bill. HBO and Cinemax are registered service marks of Home Box Office, Inc. Starz and related channels and service marks are the property of Starz Entertainment Group LLC. Showtime and related marks are trademarks of Showtime Networks Inc., a CBS Company. NFL, the NFL Shield design and the NFL SUNDAY TICKET name and logo are trademarks of the NFL and its affiliates. NFL team names and uniform designs are registered trademarks of the teams indicated. **PHOTO CREDITS:** Journey to the Center of the Earth. ©MMVIII New Line Productions, Inc. And Walden Media, LLC. All Rights Reserved. SpongeBob SquarePants: ©2008 Viacom International Inc. All Rights Reserved. Nickelodeon, SpongeBob SquarePants and all related titles, logos and characters are trademarks of Viacom International Inc. SpongeBob SquarePants created by Stephen Hillenburg. ©2008 DIRECTV, Inc. DIRECTV, the Cyclone Design logo, CHOICE XTRA, FAMILY and PREMIER are trademarks of DIRECTV, Inc. All other trademarks and service marks are the property of their respective owners.

TOP 5 INPUT DEVICES

INTERFACE WITH YOUR PC IN COMFORT WITH THESE WELL-DESIGNED PERIPHERALS.

1

Logitech diNovo Mini
www.logitech.com
$149.99
Editors' Rating: 8.2 ✓

Specs
- Keyboard alternative
- USB interface

Bottom Line
The Logitech diNovo Mini is the first keyboard that truly feels at home in the living room. It's a must-have device if you have minimal typing needs and are looking for a keyboard that's not just transplanted from the desk.

2

Logitech MX Air
www.logitech.com
$149.99
Editors' Rating: 8.2

Specs
- Mouse alternative
- USB interface

Bottom Line
The MX Air can work as a traditional mouse, but it thrives in the air, letting you control the cursor on your home theater PC's screen with just a wave of your arm. Quite simply, it's one of the best remote-navigation tools available.

3

Enermax Caesar
www.enermaxusa.com
$75
Editors' Rating: 8.1

Specs
- Wired keyboard
- USB interface

Bottom Line
Made of brushed aluminum and steel mesh, the Enermax Caesar commands attention—and its solid construction and roomy size make it as functional as it is attractive. Integrated headphone and microphone jacks—and a built-in USB hub—round out the specs of this feature-packed keyboard.

4

3Dconnexion SpaceNavigator
www.3dconnexion.com
$59 (Personal Edition); $99 (Standard Edition)
Editors' Rating: 8.0

Specs
- Mouse alternative
- USB interface

Bottom Line
The orb-shape SpaceNavigator lets you pan, zoom, and rotate simultaneously, as well as zip through 3D environments—all with an accuracy not possible with a mouse. It's not ideal for every use, but if you're into design, modeling, or graphic arts—or if you just love Google Earth—you'll want to check it out.

5

Microsoft SideWinder Mouse
www.microsoft.com/hardware
$79.95
Editors' Rating: 8.0 ✓

Specs
- Wired mouse
- USB interface

Bottom Line
The latest entry in Microsoft's SideWinder line of gaming mice is highly customizable, letting you program two additional buttons, record macros, and adjust the weight and resolution to match your precise specifications.

✓ = Editors' Choice

* = Configuration changed from original review

For more: computershopper.com/top-products

TOP 5 NETBOOKS

YOU WON'T FEEL WEIGHED DOWN WITH THESE TINY LAPTOPS.

1

Asus Eee PC 1000H
eeepc.asus.com
$449
Editors' Rating: 9.0 ✓

Specs
- 1.6GHz Atom N270
- 1GB DDR2 memory
- 80GB hard drive
- Integrated graphics
- 10-inch TFT
- 3.2 pounds
- One-year warranty

Bottom Line
Though it's not the smallest or lightest netbook, this latest iteration of the market-changing Eee PC from Asus offers the best overall combination of comfort, customization, battery life, and portability. Plus, it comes with superior utility software, a multitouch touch pad, and excellent audio.

2

MSI Wind U100
www.msimobile.com
$479.99
Editors' Rating: 8.7 ✓

Specs
- 1.6GHz Atom N270
- 1GB DDR2 memory
- 80GB hard drive
- Integrated graphics
- 10-inch TFT
- 2.3 pounds
- One-year warranty

Bottom Line
The MSI Wind U100 balances size, price, weight, usability, and performance, all at a comfortable price. It has a keyboard robust enough to let you touch-type at full speed, a screen that lets you view most Web pages without any side-scrolling, and a size and weight that will have you double-checking to make sure it's really in your backpack.

3

HP Mini 1000
www.hp.com
$549
Editors' Rating: 8.4

Specs
- 1.6GHz Atom N270
- 1GB DDR2 memory
- 60GB hard drive
- Integrated graphics
- 10.2-inch TFT
- 2.5 pounds
- One-year warranty

Bottom Line
Small, thin, and lightweight, the HP Mini 1000 offers perhaps the best netbook keyboard out there, complete with a large right-Shift key right where it belongs. Its Atom N270 processor delivers performance on a par with the rest of the pack. Loaded with Windows XP or a proprietary Mobile Internet Experience Linux-based operating system, the Mini 1000 offers enough versatility to please mobile users on a budget.

4

Lenovo IdeaPad S10*
www.lenovo.com
$399
Editors' Rating: 8.3

Specs
- 1.6GHz Atom N270
- 512MB DDR2 memory
- 80GB hard drive
- Integrated graphics
- 10.2-inch TFT
- 2.6 pounds
- One-year warranty

Bottom Line
The Lenovo IdeaPad S10 is a worthy netbook, even though it's hardly different from competing units out there. But if you're looking for one that can accommodate a mobile broadband card, the S10 jumps to the top of the list, thanks to its 34mm ExpressCard slot.

5

Acer Aspire One
www.acer.com
$329.99
Editors' Rating: 7.5

Specs
- 1.6GHz Atom N270
- 512MB DDR2 memory
- 8GB solid-state drive
- Integrated graphics
- 8.9-inch TFT
- 2.2 pounds
- One-year warranty

Bottom Line
Acer's entry into the netbook market, the Aspire One, not only makes good use of its Linux OS but is one of the lightest laptops available right now. Its specs aren't as good as some of the competition, but its solid-state drive delivers quick boot-ups, and its display is one of the sharpest in Netbook Land.

✓ = Editors' Choice

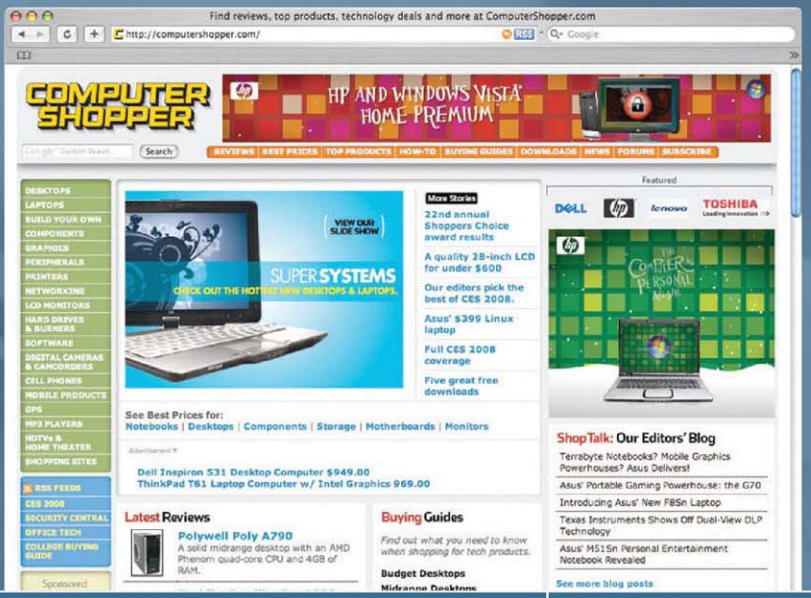
* = Configuration changed from original review

For more: computershopper.com/top-products

WEB EXCLUSIVES

Now Online.

- Reviews
- Help and How-To
- Best Prices on Tech Products
- Top Products
- Free Downloads
- **& More!**



The most comprehensive guide to today's technology. Visit us online. Get more of what you love.

COMPUTER SHOPPER

www.computershopper.com

The BEST Free Software

Edited by Sarah E. Anderson

From desktop publishing to securing your PC, we show you how to do everything for free.

MONEY'S TIGHT, AND IF YOU NEEDED TO STRETCH YOUR BUDGET like Silly Putty to buy a new PC recently, the last thing you want to do is drop another bundle to buy new software. Thanks to the mighty Internet, you may not have to. Like the desire to check friends' Facebook statuses, the draw to free software and Webware is irresistible and addictive. Adobe, Microsoft, Symantec, and other software giants are taking on the likes of Google, OpenOffice.org, and Picnik, which offer plenty of functionality—and fun—without costing you a dime.

Overall, we found that most consumers can get many of the features they need out of freeware, and in many cases, professionals can, too, depending on their business needs. Here we take a look at everything from our 10 favorite free games (p. 70) to the top 5 must-have utilities (p. 72). We also show you when it pays to buy software (p. 65). And for do-it-yourselfers, we examine the wide array of free operating systems based on Linux (p. 63). So whether you just bought a low-cost netbook to satisfy your basic computing needs or blew your budget on a top-of-the-line gaming or entertainment rig, we show you how to save—a lot—without sacrificing a thing.

To download these free apps, visit: computershopper.com/freesoftware

OFFICE PRODUCTIVITY

You could buy this...

Microsoft Office ($399)

The mother of all productivity suites, Microsoft Office is a staple, and let's face it: It's not going anywhere, especially in the business world. But that doesn't mean you have to drop $399 on Office Standard 2007 for your home PC. After all, nowadays you can buy a whole computer—desktop or notebook—for less than that.

You may not realize it, but most of us don't use even a fraction of what Microsoft Office has to offer. Take Office's Excel spreadsheet app, for example. Have you ever used its mapping programs? How about conditional formulas? XML? A very small percentage of users might miss one or more of these functions, but you can get much of the core functionality from freeware.

We looked specifically at replacements for Office's Word (word processing), Excel (spreadsheet), and PowerPoint (presentation) elements and highlighted a few key features that most users will require as a baseline. For Word, we looked at whether the freeware alternatives can track changes, mail merge, and handle headers, footers, and page numbers. For Excel, we focused on formulas, general ease of use, and chart making. And for PowerPoint, we looked at the available templates, transitions, and effects available.

We don't expect businesses or even college students to quit buying Microsoft Office, but individuals who spring for a new notebook but can't (or don't want to) shell out for the pricey suite can find solace in these freeware options. They allow you to open documents that others send you, create documents that you can send to others, and get a remarkable amount of functionality for free.

...or try one of these

Google Docs

(Web app, www.google.com)

WHAT WE LIKE: Available anywhere there's an Internet connection; no download necessary; easy to use; easy to share with other Gmail users

Now that "Google" is a noun, a verb, a destination, and a way of life, it should come as no surprise that it's also a productivity suite. The best part about Google Docs is that you don't need to download it, since it's available anywhere you have an Internet connection. It stores all your files without taking up any space on your hard drive, and you can share your documents with anyone who has a Gmail account. As with all the alternatives here, it plays nicely with Microsoft documents.

WORD PROCESSING

Google's word processing is rudimentary. It works well as a one-dimensional method for getting your notes down on paper to share with others or to access on another system. It offers a scant 11 fonts—and that doesn't include the ubiquitous Times New Roman or Arial. (You will find Georgia and Sans Serif, however, which look basically the same as those two.) Point size is also limited to seven presets, ranging from 8 to 36 points; you don't get the ability to type in a specific size. Bold, italic, and underscore are all available and work with the same familiar shortcut keys associated with Word. We did notice, however, that Ctrl+Del doesn't work like it does in Word (deleting the whole word in front of the cursor), but Ctrl+Backspace does (deleting the whole word behind the cursor).

Much to our dismay, mail merge and tracking changes are not options with Google Docs, nor can you set the page numbers to count automatically as you can using Word's Header and Footer function. While you can set up headers and footers, no extra window appears to help you navigate these features. When you go to Google's Help section to search for such topics, the results often include rants from Google Groups (which you must sign into to read) about why Google doesn't include the feature you're looking for. This is frustrating.

SPREADSHEET

The search-engine giant's attempt to mimic Excel comes up way short. The first (and most annoying) thing we noticed was that it doesn't offer an Excel-style "address bar" above the entire spreadsheet. Typically, this is where you'd find the formulas that are entered into a given cell, and while Google allows for formulas, there's no way to see them in the spreadsheet; you see only the result. When we copied and pasted from an Excel spreadsheet, most of the formulas

(sums and averages) transferred without difficulty, but our cell with a subtotal formula changed the format of the result from mm:ss to hh:mm:ss.

PRESENTATION

While we aren't hugely enamored of Google's approach to word processing and spreadsheets, its presentation tool is much more compelling. None of Google's apps try to imitate Microsoft's, and in the case of presentations, that pays off. Google offers the best templates we've seen for personal slide shows (which are really just photo albums), plus some good ones for professional use. Our favorites were the scrapbook albums, baby albums, wedding albums, and four-sided folding cards. Unfortunately, we couldn't find any animation or special-effects options, and no help menu is available.

Google Docs Presentation

Overall, we wouldn't recommend Google Docs as an alternative to Microsoft Office, but it's a useful tool under the right circumstances, like when you want to create simple documents to share with a group or access later on a different computer.

Lotus Symphony 1.1

(Free download, www.lotus.com)

WHAT WE LIKE: Most closely resembles Microsoft Office; packed with features; good help menus

Of the three suites we looked at, Lotus Symphony 1.1 is the one that acts most like Microsoft Office—not to say it's exactly like Office. Even though you download the suite (all 409MB of it), you cannot open just one application as you can with Office. Instead, you open all of Symphony and then choose what kind of file you'd like to create. This is hard on system resources, and it's hard on multitaskers who want each application to show up separately on the Windows taskbar. We do like the tabbed interface, however, which shows not just the titles of each open file, but the type as well, so you can easily move from one to the other. Those who work in two screens and want to refer to a spreadsheet while writing a document, though, will have to open two different instances of the suite, which could tax older processors or systems with limited RAM.

Lotus Symphony Word Processor

WORD PROCESSING

A blank document in Lotus Symphony includes a gray box around the edge, which we don't mind so much. More irksome, however, is the fact that when we copied text from OpenOffice into Symphony, the pasted text showed up in a separate window and couldn't be edited natively. We had to double-click on it to prompt an edit box. This is a feature we'd expect to see in a desktop-publishing program, not an office-productivity suite. While copying and pasting from Microsoft Word didn't give us this trouble, the situation made us wonder what other anomalies we might run into if we used Symphony as our sole productivity suite.

In terms of slightly more advanced features, mail merge and tracking (or in this case, recording) changes are available and relatively easy to use. We wish we could add the track changes buttons to the toolbars on top to more closely resemble Word, but you can still toggle recording on and off pretty easily in the Edit drop-down menu (just click Edit > Revision > Record). Likewise, accepting and rejecting changes is easy, if not quite as smooth as with Word. If you use this functionality once in a while, it's perfectly acceptable. If you're an editor, however, it's not.

SPREADSHEET

What Symphony lacks in word processing, it makes up for in its spreadsheet capabilities. It's not revolutionary, but it does mimic Excel almost to a T. The cells work the same way they do in Excel, in that you can click on rows and columns, adjust their heights and widths by double-clicking on the seam, and delete or insert new ones by right-clicking.

Our formulas transferred well; interestingly, our complex subtotal formula needed a semicolon instead of the comma that was there in Excel, but Lotus made the conversion automatically. Pasting from Excel took several seconds, but when our data showed up, all the numbers and formulas were correct. Creating charts was also easy, though you have to click the drop-down menu next to the Create button instead of clicking its own button on the toolbar.

PRESENTATIONS

Lotus does not impress with this feature. Its templates are flat-out boring: Two have floral backgrounds, and nearly all the rest are just different combinations of blue and black. That said, making presentations is easy. We located the transitions/effects tool without trouble, and the Help function is actually pretty helpful after the initial indexing. Switching into display mode isn't as intuitive as in PowerPoint. We looked around for the little icon we're used to seeing, but in the end, we had to right-click on the slide that was showing (not the one in the thumbnails) and click Play Screen Show.

Lotus Symphony Presentation

OpenOffice.org

(Free download, www.openoffice.org)
WHAT WE LIKE: Excellent bullet and numbering schemes; PDF button; very similar to Microsoft Office; easy to use

Like Lotus Symphony, OpenOffice.org opens all files under one umbrella application, except it opens each in its own window instead of in a tabbed interface, which makes working in one while referring to another easier. Overall, the suite is pretty similar to Microsoft Office.

WORD PROCESSING

Of the three freeware suites we looked at, we like OpenOffice.org's word processing the best. Like Symphony, OpenOffice uses a box interface, but it's more a design element than a functional part of the structure. We especially like that you can easily save documents directly to PDF via a button on the toolbar, and a mail-merge wizard is available under the Tools menu. Bullets, numbering, and tabs are all very intuitive, with a toolbar that pops up to simplify the process. In fact, we like this feature better than we like Word's because it's more flexible and offers more control. (Sometimes with Word, the bullets or numbering schemes have a way of taking over your document.) We wish a similar toolbar would pop up for headers and footers as in Microsoft Office, but no luck.

OpenOffice.org Word Processor

SPREADSHEET

If you're used to working in Excel a lot, you'll find a lot to like in OpenOffice.org's spreadsheet capability. Manipulating rows and columns is virtually the same process. Formulas work the same way, too, with the exception of that pesky subtotal formula we tested. In this case, it returned an error message, and we had to replace the comma with a semicolon manually. We also don't like that every time we clicked a cell and hit Delete we got a window asking if we wanted to Delete All. (In fairness, Lotus Symphony demanded the same type of second step.) Sorting, creating charts, and managing decimal places is as easy with OpenOffice.org as it is with Excel. As spreadsheet functionality goes, there's little here not to like.

OpenOffice.org Spreadsheet

PRESENTATIONS

OpenOffice.org's presentation tools are satisfactory for basic uses. Its templates aren't quite as polished as the ones in PowerPoint, and unlike those in Google Docs, they're not as fun, either. We do like the tabbed interface, though, which is present only in this application instead of in the whole suite as with Symphony. And effects and animations are easy to use—just put your cursor exactly where you want the effect to show up, then go to the task pane on the left to choose your effect.

OS for $0

Why stop at free applications when you can get the whole operating system for nothing?

You can get more than just apps for free. You can legally download an entire full-featured operating system without having to pay anyone anything—so long as you're willing to venture into the wild, wonderful world of Linux. This can be a great way to outfit a super-cheap PC.

Of course there's a catch. While various distributions (also known as "distros" or "flavors") of Linux can give you functionality and a graphical user interface closely resembling the kind you find on Windows, installation and driver updates aren't quite the same breezy affairs. Most components and peripherals have Linux software available for them, but you'll need to do a lot more research to make sure you have it at your disposal ahead of time.

Since Linux is open-source software (the source code is free and available for anyone to modify), using it means sacrificing the tech support you'd get from Apple or Microsoft if you were running Mac OS or Windows. Luckily, there's a flourishing community of Linux devotees on the Web, and chances are you'll be able to get even your toughest questions answered. In terms of a single, go-to phone number for free Linux distros, however, you're out of luck.

If you're feeling adventurous, Linux is an exciting way to go. Check out the links below for more information about various free distributions.

- Ubuntu (www.ubuntu.com): Among the most popular and easiest to use, this Linux flavor is the one most like Windows.
- OpenSUSE (www.opensuse.org): Courtesy of Novell, OpenSUSE has especially robust hardware and software support.
- Slackware (www.slackware.com): One of the oldest Linux distros, Slackware is renowned for its stability and simplicity.

Once you've decided on a distro and installed it, be sure to check out the sites below for the apps and information you'll need to get the most out of Linux.

- www.mythtv.org: You don't need Windows and Media Center to turn your computer into a home theater PC. MythTV can do it for you—for free.
- www.winehq.org: If you still have a ton of Windows software you'd like to run, Wine will provide an environment for doing just that. It's not compatible with everything, but it has an astonishingly wide scope.
- www.linux-drivers.org: Looking for drivers and compatibility lists for your Linux PC? Look here first.
- www.linuxjournal.com: For the latest news about Linux, as well as blogs, help, and other resources, this is a must-visit Web site.
- www.slashdot.org: Though it's a general tech-news site, Slashdot's open-source- and Linux-friendly spin makes it ideal for learning more about the free OS and its burgeoning community. —*Matthew Murray*

To download these free apps, visit computershopper.com/freesoftware

PDF CREATION

You could buy this...

Adobe Acrobat ($299 to $449)

With Portable Document Format (PDF) being today's lingua franca for digitized documents, creating your own PDF files is an essential need that's often overlooked—until you desperately have to make one. Acrobat Standard and Acrobat Pro (Adobe's for-pay suites, not its free reader) are the leaders in this field, but they're overkill for most simple PDF-creation purposes and, at $299 to $449, leave lasting bruises on your budget.

PDF creation is one area where freeware excels. Our most-wanted features here are the ability to combine multiple PDFs into one, adjust quality levels versus file size, and password-protect PDFs. And one nonnegotiable demand is the ability to create PDFs without mandatory, annoying, company-specific watermarks. The apps and services we looked at provide a mix of these; none provides all.

...or try one of these

CutePDF Writer

(Free download, www.cutepdf.com)
WHAT WE LIKE: Print-menu-based PDF creation; minimal footprint

CutePDF's PDF-creation process employs the Print button. In whichever app you're viewing your target document, choose CutePDF Writer as your printer, hit Print, and choose a save location for the PDF—that's all there is to it. You don't get much in the way of adjustment options (the few that the software's online FAQ details are really hacks) or anything in terms of PDF-manipulation features, but CutePDF Writer is a low-overhead tool worth considering. Acro Software, the maker, also offers a $50 Professional version, which adds a host of editing and security features.

CutePDF Writer

Online PDF-creation services

(Web apps, online.primopdf.com, and others)
WHAT WE LIKE: No software install required; handy for use on public PCs

Another option for free PDF making is a Web-based PDF-creation service. Adobe offers one, Create PDF **(www.adobe.com /acom/createpdf)**, but you need to sign up for an Adobe ID to use it, and you're limited to making just five PDFs before you have to start paying.

A better alternative for one-off PDF creation is Primo Online, which delivers your rendered PDF via e-mail. It's handy if you're working on someone else's computer or a public PC and don't want to install software. Functionality is limited, and the main disadvantage is speed; you'll have to upload your file to the site and wait for it to send your rendered file back. PrimoPDF is just one of several such sites, all of which are undeniably handy in a pinch, but for heavy PDF creation we recommend downloading one of the freeware apps. (Primo also offers PrimoPDF, a freeware version of its $99 Nitro Pro PDF software; the freeware's functionality falls between that of CutePDF Writer and PDF ReDirect.)

Primo Online

PDF ReDirect

(Free download, www.pdfredirect.com)
WHAT WE LIKE: Print-menu-based PDF creation; PDF encryption; merge function

PDF ReDirect works like CutePDF—you use the print feature on your application to generate the PDF—but it has many additional features that allow for tweaking. You can password-protect any PDF you create using 40-bit encryption (a $19.95 Professional upgrade boosts the security to 128 bits), and a quality-selection menu lets you scale the file size down at the cost of image quality. Another nice touch: The creation window offers a "PDF print preview," which shows a thumbnail version of your PDF before creation, from which you can launch a full-size preview. You also get the choice of outputting content using the RGB or CMYK color scheme, an important option to have if your PDFs' ultimate destination is a professional printer. PDF ReDirect also lets you merge multiple PDF files and specify the PDF-conversion engine you use. (Open-source engines are available; you can also use Acrobat's Distiller, if you own it.)

PDF ReDirect

When Shelling Out Pays Off

Now that some software companies are giving away applications they used to charge for—and thanks to collaborative software initiatives like the GNU Project and open source—the Internet is awash with free apps to download. Some of them are as good (or almost as good) as their for-sale counterparts, and they may fill PC-function gaps many home users might otherwise simply do without. But before you decide to never again pay for shrink-wrapped software, consider your computing needs and whether free downloads can deliver what you need.

If you're a business owner who handles his or her own IT needs, for example, be aware that most free apps offer limited support or none at all. GNU Project-based free applications like GIMP are supported by their communities of users and programmers, whereas users of freeware like AVG's Anti-Virus Free Edition get no support at all. If the software goes awry, don't expect to be able to call up a company for immediate assistance; your only options may be writing an e-mail to the developer or trawling online forums for help from fellow users. While you might be surprised by the support resources you can find through these channels, if a mission-critical portion of your business relies on the software in question, tread carefully. Lack of support can also frustrate less-computer-savvy users who need the hand-holding.

Fit and polish are two other areas where freeware tends to lag behind. Freeware apps often lack the smooth look or seamless functionality of the best for-pay apps—and that's to be expected, since commercial software makers put significant resources into smoothing out rough edges.

The biggest difference between paid and free software, however, is in advanced features. Professional artists and photographers, for example, need features in Photoshop that most users have never even heard of, and videographers must have especially robust software to handle their projects. But for casual tasks, the free software discussed here will often do the trick. —*Les L. Shu*

REMOTE ACCESS

To download these free apps, visit: computershopper.com/freesoftware

You could buy this...

GoToMyPC 6 ($19.95 per PC, per month; other pricing plans available)

Install GoToMyPC on your work PC, and no matter how far you are from the office, access to your essential apps and files is as close as the nearest Web browser. It's simple to set up, and it offers 128-bit encryption to keep both machines secure. The monthly fee makes it expensive to use over time, however, and the host software won't run on a Mac. One of these free alternatives is worth a try. The only thing you risk losing is a recurring monthly charge to your credit card.

...or try one of these

LogMeIn Free

LogMeIn Free

(Free download, www.logmein.com)

WHAT WE LIKE: Setup and ease of use rival GoToMyPC; access to all files and programs via Web browser; 256-bit encryption

LogMeIn Free is a boon for GoToMyPC users looking to access a single PC while they're out of the office or away from home. While it won't actually let you transfer files, you can e-mail them via the host PC or use a free file-sharing service like Driveway.com to transfer large files. Upload the file from your host PC to the site, click a link on the PC you're using, and files up to 500MB will download to the computer you're currently using. An OS X version is available for Mac users. Install it on an OS X machine, and you'll be able to control your Mac from the Web even if you're on a PC. And the built-in 256-bit encryption puts GoToMyPC to shame.

TeamViewer

(Free download, www.teamviewer.com)

WHAT WE LIKE: Speedy and simple file transfers; 256-bit encryption

TeamViewer lets users access their desktops remotely, run programs, and transfer files between computers. For private, noncommercial use, it's 100 percent free and secures sessions with 256-bit encryption. While you will have to launch a program to gain access to your PC remotely, the file is available from the front page of the TeamViewer site; it's less than 2MB and runs as a simple executable, so there's nothing to install. This app is also available in an OS X-friendly version for Mac users.

TeamViewer

The BEST Free Software

TAX PREPARATION

You could buy this...

Intuit TurboTax ($50 to $80)

It's bad enough we have to send so much money to Uncle Sam, but spending $50 to $80 for software to help us figure out the IRS's arcane rules adds insult to injury. Intuit's TurboTax makes this prospect a little easier.

TurboTax's greatest asset is its interview-based approach to preparing your taxes, which presents a series of questions for you to answer while it fills in the forms behind the scenes. It also asks about potentially tax-changing life events (marriage, divorce, new baby), so it knows which areas to concentrate on with you. The program can automatically import your W-2 data from most leading payroll firms and your interest and investment-income data from scores of banks and brokerages, saving you lots of typing and reducing the opportunities for mistakes.

Deep, context-sensitive help—in the form of clear-English explanations and sometimes video clips—is never more than a click away. The program even performs an error check, going so far as to flag items that might raise an eyebrow at the IRS. And when you're done, it seamlessly handles the e-file process and notifies you when your return has been accepted.

While TurboTax is a tough act to follow, free alternatives have cropped up that, in our experience, get the job done just fine and keep your money where it belongs: in your pocket.

...or try one of these

Intuit TurboTax Online

(Web app, www.turbotaxonline.com)

WHAT WE LIKE: Same TurboTax engine; free e-filing; context-sensitive help and online community support

TurboTax Online is a Web-based service from Intuit that lets those with simpler needs complete and even e-file their tax returns online for free.

TurboTax Online isn't a stripped-down version of the boxed product; rather, it's a streamlined version designed for the users most likely to gravitate toward free online services: 1040A and 1040EZ filers in a hurry. It features what Intuit calls a Fast Path approach, letting most users get from start to finish in about 40 minutes. As with the boxed product, it asks questions up front to ascertain your situation, then walks you through only the relevant sections. It also automatically makes sure that filers eligible for the earned income tax credit get it, doing the calculations and filing the paperwork for you.

As with the boxed product, help is always just a click away. In addition to the context-sensitive help topics, TurboTax Online users get access to Intuit's live online community of tax pros and power users.

TaxACT 2008 Online Standard

(Web app, www.taxact.com)

WHAT WE LIKE: Free e-filing; full-featured tax-prep engine; familiar interview format; includes sections for major life events

TaxACT from 2nd Story Software is perfect for those uncomfortable with signing on with a lesser-known provider. New users are offered an online tour of the product to get familiar with the tab-based interface, navigation, help system, and other features. As with boxed tax-prep software, TaxACT Online walks you through a plain-English interview (including major life

events) while it fills in forms in the background. TaxACT will also automatically import relevant data if you used the program for last year's filings. Its review process offers red alerts for incomplete or inconsistent information and yellow alerts for items that require action.

TaxACT was very efficient at helping us prepare a 1040 return, prompting us not only for wage data but also dividend and other investment income, as well as income and expenses from any business we owned. Unlike for-pay solutions, it cannot automatically import earnings data from payroll services or financial firms. No context-sensitive help is available, and you will see some ads.

TaxSlayer.com Classic

(Web app, www.taxslayer.com)

WHAT WE LIKE: Interview-based interface; includes one state return; progress bar tracks where you are in the process

TaxSlayer.com is exceedingly straightforward and should work well for those with simple returns.

After registering and entering your filing status, the interview wizard walks you through the process, asking questions about dependents, income, deductions, credits, and so on. As with most other online services, TaxSlayer.com cannot automatically import your W-2 data and other information, but the onscreen form looks just like a W-2, so filling in the boxes is easy enough. A handy progress bar in the upper-right-hand corner shows where you are in the process, and hyperlinked help topics appear on every screen.

TaxSlayer.com Classic lets you prepare your federal and state taxes for free. Multistate filers will need to step up to TaxSlayer.com Premium ($19.95), and e-filers must pay a $9.95 fee.

You could buy this...

Adobe Photoshop Elements ($99)

The word "Photoshop" has become a verb that simply means "edit." But you don't have to spend $99 to access many Photoshop-style tools. If you're running Windows Vista, you can perform some of these tasks (see the Weekend Project "Perfect Your Digital Images" in the Help & How-To section, p. 90). We looked at three alternatives that will get the red out, change color to sepia or black and white, or add special effects to your photos—for free. Advanced users who need filtering tools, masks, and other high-end features should stick with Photoshop.

...or try one of these

Picasa

(Free download, www.picasa.com)
WHAT WE LIKE: Quickly scans PC for pictures; large thumbnails and easy scrolling let you find any picture quickly; comprehensive photo-editing download

If you really want to replace Photoshop Elements or another for-pay photo-editing program, Picasa is a must-have download. We love how easy it is to use. When you first launch it, it asks if you want it to scan your PC for photos. This process happens quickly, and you can start viewing the results immediately as the scan continues in the background. Fixing red-eye is a breeze, and the I'm Feeling Lucky tool is dead-on. (We got lucky with every photo we tried it with.)

Picasa doesn't save your changes automatically, however, nor does it prompt you to save when you navigate away from an edited photo, so be aware of that quirk. Also, while Picasa is perfect for managing your entire photo library and performing some basic changes, we wish it allowed for more control when choosing black and white or sepia. You can apply these effects but can't adjust the shades as easily as you can in other programs.

Picasa

Picnik

(Web app, www.picnik.com)
WHAT WE LIKE: Offers advanced features that are easy to apply; red-eye fix works for both humans and animals; allows adjustment of all special effects

Best for special projects, Picnik offers a nice array of features and is dead simple to use. Just upload a photo and choose Edit to crop or adjust red-eye (which works well for both people and pets) and the like. Then go to the Create tab to apply special effects such as sepia, black and white, vignette, matte, or other finishes that are often complicated effects in downloaded programs.

Picnik

We like to use Picnik for a single photo that we're preparing to frame or send out to family and friends. It's not meant to manage large collections of photos, so we suggest using it in concert with another application.

Photoscape

(Free download, www.photoscape.com)
WHAT WE LIKE: Good auto levels

Although Photoscape seems comprehensive enough on paper, we didn't love using it. It uses the same folder tree for image navigation found in Windows Explorer and shows thumbnails there, but the images are too small to decipher. Stretching the window wider only shows more images—it doesn't make the thumbnails larger. In general, the interface is not nearly as intuitive as Picasa's, and the red-eye function didn't work with two of the three photos we tried it on. When you click Save, the image replaces the original unless you specify otherwise.

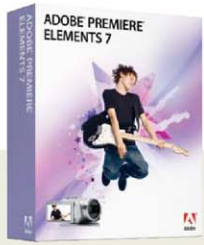
We couldn't find the option to change photos to black and white or sepia at a quick glance, which is definitely a strike against it. Oddly, all of our images seemed faded and washed out compared with the same images on Picasa. Nonetheless, we liked the auto levels, which fixed the colors with one click. Photoscape is a handy free tool for that one purpose, but check out the other two first.

Photoscape

To download these free apps, visit: computershopper.com/freesoftware

VIDEO AND AUDIO EDITING

You could buy this...



Adobe Premiere Elements ($99.99)

Traditionally, video and audio editing have been complex processes best suited to well-crafted commercial software such as Adobe Premiere Elements (or its professional-grade big brother, Premiere). For the most part, that's still true if you're producing medium-size or larger video projects that require a degree of polish—that is, anything with more than rudimentary effects or edits.

Still, freeware can suffice for shorter projects or more elemental jobs. In our editors, we like to see timeline-based editing, a deep undo function, support for at least basic transitions between clips (such as fades and dissolves), decent titling features, and nondestructive, nonlinear editing. Freeware video editors represent a compromise on many of these fronts (indeed, none of our picks qualifies as truly nonlinear). But they can suffice for hobbyist or amateur work, such as creating short videos for uploading online or sharing via e-mail. And for audio editing, our favorite freeware alternative is a powerful editor that plays in the big leagues.

...or try one of these

Audacity

(Free download, www.audacity.sourceforge.net)
WHAT WE LIKE: High-grade waveform editing; wide filter/effect selection; option for VST plug-in support; easy to use

Essential to any media creator's toolbox is a feature-packed, intuitive audio editor, and Audacity is an A-grade fit. This open-source application is a good substitute for older editions of Adobe Audition (formerly Cool Edit Pro), allowing for precise, robust waveform-based audio capture and editing.

We've long been mightily impressed with the quality of Audacity's stock audio filters for equalization, reverb, sample-based noise reduction, click removal, and plenty more. And now, a separate patch gives Audacity access to the vast outside world of VST plug-ins. The program is indispensable for tasks such as cleaning up aged or deteriorated recordings, and recording analog audio from LPs or cassettes for digital renewal. (Note: MP3-file creation requires the installation of an encoder, such as the free LAME.) We'd gladly pay money for this freeware gem.

Audacity

Jahshaka

(Free download, www.jahshaka.org)
WHAT WE LIKE: Robust feature set for experienced users; extensive file-format compatibility

Jahshaka is the closest freeware we've seen to commercial consumer-level editors like Premiere Elements and Corel VideoStudio. In some ways it exceeds them in capability; Jahshaka has animation, paint, and effects modules that bring to mind Adobe's After Effects. Jahshaka is powerful, but it can also be frustrating: The documentation is minimal, and the interface isn't overly intuitive. (The best help we found was some YouTube tutorial videos assembled by the Jahshaka faithful.) Veterans of video editing should be semicomfortable after a few hours of experimentation, but beginners are better off elsewhere. As an early-in-the-game, open-source app with a good following, however, it bears watching.

JumpCut

JumpCut and JayCut

(Web apps, www.jumpcut.com, www.jaycut.com)
WHAT WE LIKE (JumpCut): Wide file-type support; fun titling and transitions
WHAT WE LIKE (JayCut): Local-download support; basic timeline-based editing; lots of scene transitions

Two separate but similar Web apps, JumpCut and JayCut let you edit video without downloading any software.

Yahoo's JumpCut is more of a video-mashup tool than a heavy-duty editing app. It lets you upload a wide variety of file types (including Realmedia, AVI, MP4, and Quicktime). The upload-file size is limited to just 100MB—a mere morsel in video-editing terms—but you can do a lot with your snippets. You can upload multiple clips, slice and rearrange them on a timeline, and create flashy transitions. You can also apply a reasonable variety of decent-looking titles and place cards, as well as superimpose new background music or apply video effects—as basic as brightness enhancement or as out-there as decorative spinning propellers. And the interface is as friendly as video editing

gets. (Considering how user-hostile video-editing apps can be to beginners, this simplicity is a feat in itself.)

The key shortcoming of JumpCut—and it's major—is that the service doesn't let you download your created videos back to your PC. You can only host them on Yahoo's JumpCut service. You can find freeware that can grab video from online-video services like JumpCut and YouTube, but the process is a hassle.

JayCut shares some of the shortcomings of Yahoo's JumpCut, but it lets you download your edited videos back to WMV files. JayCut, like JumpCut, is best for short mashups, not for jazzing up your 90-minute Caribbean-vacation video. The interface isn't quite as polished as JumpCut's, but you get a better mix of transitions and a more Premiere-like multitrack timeline in which to work. JumpCut's titling features are far stronger, however.

VirtualDub

(Free download, www.virtualdub.com)
WHAT WE LIKE: Fast edits to AVI files; nondestructive editing

VirtualDub won't satisfy video aficionados, but it's worth a spot in your toolbox for quick-and-dirty video-editing tasks. The Windows Movie Maker utility in XP or Vista is a much friendlier alternative, but VirtualDub is faster for making simple cuts and trims. Changes aren't made to your source file; instead, they're reflected when your video is saved to a second file, and editing is strictly a linear, single-track affair.

VirtualDub works primarily with AVI files—don't look for wide-ranging compatibility—but its smart keyframe editing makes quick work of editing out segments of AVI video. On the downside, transitions aren't supported, which means you'll need another app for any kind of sprucing up. And while the documentation is surprisingly clear and well-written, there's a definite learning curve.

VirtualDub supports some basic filters (a coarse one for video noise, plus filters for brightness/contrast and color anomalies). If you're intrepid, it also supports an API that enables the use of community-created custom filters. Easily accessible via Google search, they can bring wide-ranging capabilities, such as video de-ghosting or age restoration. And VirtualDub is an excellent utility for initial video capture from a TV tuner or capture card; it's lean and uncomplicated for that purpose.

PHOTO MANAGEMENT

You could buy this...

Adobe Photoshop Elements ($99)

Typically, when we think of Photoshop, we think of photo editing. But Adobe long had one of the best photo-organizing tools around in Adobe Photoshop Album, whose functionality has been incorporated into later versions of Photoshop Elements. The photo-sharing and -storage components of Elements allow amateur photographers to load, tag, sort, and find their photos with ease. It's an excellent program, but some freeware online-sharing tools offer some of this functionality and, being Web-based, are built for easy access to your images for friends and family.

...or try one of these

Photobucket

(Web app, www.photobucket.com)
WHAT WE LIKE: Easy online sharing; simple access to embed codes for images; lots of editing options

Photobucket is an easy-to-organize photo-and-video repository that offers quick access to codes for embedding your images into your social-networking pages. You can share photos and videos with others or password-protect your account. Photobucket also offers a slew of editing options, and a free account provides up to 1GB of storage. The site lets you search for icons you can use to personalize your Facebook, MySpace, and other social-networking pages.

Flickr

(Web app, www.flickr.com)
WHAT WE LIKE: Easy-to-use, multifeatured organization tools; allows for social networking; useful editing tool

Widely used by bloggers as a photo-storage service, Flickr takes online photo galleries a step further by also acting as a social-networking site, allowing you to join an online community and share your photos. You can easily edit photos through its partnership with Picnik, a leading online photo-editing service. (See "Photo Editing" on p. 67.) This site also lets you organize photos into sets (groups of pictures) and collections (groups of sets), making viewing, organizing, and sharing a breeze. The site's tagging option allows for even greater organization.

Kodak Gallery

(Web app, www.kodakgallery.com)
WHAT WE LIKE: Lots of products to choose from; easy to share albums with family and friends

Kodak Gallery is a more traditional online photo service that lets you upload, edit, share, and purchase photos. This family-friendly, consumer-focused site lets you upload your photos to the site and store them there; you can also have your photos printed on a holiday ornament, mug, or calendar, or you can purchase albums and frames. High-resolution versions of images can be stored on the site, but you have to have the paid plan ($2.49 per month or $24.99 per year) to access them.

The BEST Free Software

DESKTOP PUBLISHING

You could buy this...

Microsoft Publisher

($169.95), Adobe InDesign ($699), or QuarkXPress ($799)

Also known as page-layout software, desktop-publishing programs are used to create publications and unique documents. The professional-grade desktop publishers are Adobe's InDesign and Quark's QuarkXPress; consumers, small businesses, and anyone who needs to make in-house documents, fliers, or brochures typically veer toward Microsoft Publisher.

InDesign is also tied into Adobe's suite of publishing apps, which includes Photoshop and Dreamweaver; the suite allows projects to move seamlessly from one program to another. But professional-grade also means a professional-level price tag: InDesign CS4 and QuarkXPress 8 each sell for well over 500 clams. And even though Microsoft Publisher is much more affordable at just $169.95, that could be $170 left in your pocket if one of these freeware alternatives suffices.

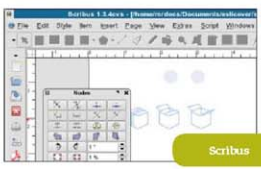
...or try one of these

Scribus Desktop Publishing

(Free download, www.scribus.net)

WHAT WE LIKE: Easy to use; simple interface; premade templates suited for casual users; PDF creation

Scribus is an open-source desktop publisher that's available for Windows, Mac OS X, and Linux. With pro-level features like color management, typesetting, PDF creation, PostScript printing support, and text import from word processing apps, Scribus has been compared equally with InDesign and QuarkXPress. But Scribus isn't compatible with files created in commercial desktop-publishing software, so if you have clients that send you such files, or you need to send InDesign or Quark files to a printer, you might encounter issues on that front. Users who want something powerful without paying half a grand for it, however, should take a look at Scribus.



Scribus

Serif PagePlus SE

(Free download, www.freeserifsoftware.com)

WHAT WE LIKE: Advanced features; available for multiple operating systems

With premade templates for creating documents like greeting cards and business cards and a few pro features like word processing, typesetting, and drawing tools, Serif's PagePlus SE is simple to pick up and use. The free edition is based on an older version (PagePlus 9) of Serif's for-pay PagePlus app, so it retains the professional look and feel.

Serif PagePlus SE

What you won't get are PDF exporting and Web publishing. (You can upgrade to PagePlus 9 for a whopping $10 if you want those extras.) You won't get the power of InDesign and QuarkXPress, so it isn't ideal if you are looking for advanced features like plug-ins or color management. But most users will find the free version of PagePlus adequate for basic page-layout needs.

Our Editors' Top 10 Free Games

Freeware isn't limited to simply navigating your way around tasks that you used to have to pay for. It's also a good way to kill a few hours in your downtime. Our editors have some quirky tastes in games, and their lesser-known freeware faves are worth checking out. (No Tetris knockoffs or America's Army here.)

1 Rails

Casey Jones, eat your heart out. In Rails, you micromanage cargo delivery, train upgrades, and track building as you grow a railroad empire. Based on a series of train-theme board games, Rails features a stock map of Europe, plus the ability to download or create custom maps. And it's a great geography teacher: Ever wondered where Izmir and Kaliningrad are? Now we know, and we need to deliver them beer and aluminum, stat.

Rails

2 Rumble Box

Face it: Some days you simply feel like hanging out in a high-walled box and beating the stuffing out of waves of impassive humanoid aggressors made

Rumble Box

out of cubes and spheres. (Maybe that sounds like your job.) Rumble Box lets you get your sock 'em fix, but with a twist: Knock out an enemy warrior, and it falls apart, leaving piles of cubes behind. Your objective is to stack up debris high enough to escape. Bonus levels, peppy music, and a serious graphics-card-physics workout are included.

TrackMania

3 TrackMania Nations Forever

Auto-racing fans will exult in TrackMania, which features exceptional graphics and sound. In this commercial-quality racer, you vie against the clock or online opponents on wildly acrobatic racetracks at crazy-fast speeds. Formula 1-style cars in international regalia and a build-your-own-track editor make the hours go by in a high-speed blur.

4 N

Convincing physics, challenging level design, and loads of style make N one of the best Flash-based time wasters we've ever played. Propel your stick-figure ninja through perilous levels in the pursuit of gold. Repeatedly falling to a painful demise really shouldn't be this much fun.

5 War Rock

A Counter-Strike-style first-person shooter, War Rock is a decent team-assault title that's free to play online. The theme is modern warfare; weapon effects are visceral, and you can even command military vehicles, à la Battlefield 1942. Choose one of several character classes—sniper, medic, heavy-weapons guy, and so on—and join the capture-the-base mayhem. Graphics are merely decent, but this one won't break the defense budget.

Synaesthete

6 Synaesthete

Talk about tricky to categorize: Control a futuristic Gumby lookalike through a vector-style music world, defeating baddies and bosses by matching their electronica beats using your keyboard. The game is unusual for the synchronicity between its soundtrack and the gameplay, as well as the strange, vaguely inspirational messages that float as you play. (Easy-listening enthusiasts, steer clear.)

7 Kingdom of Loathing

Fed up with the overblown seriousness—and the price—of massively multiplayer role-playing games like World of Warcraft? Kingdom of Loathing is for you. Control stick-figure warriors like Turtle Tamers, Pastamancers, and Disco Bandits as they bludgeon monsters ranging from Candied Yam Golems and Mob Penguins to the (almost) deadly Vampire Clams. Trade meat for the weapons and skills you need to defeat the dastardly Naughty Sorceress.

Sauerbraten

8 Sauerbraten CTF Edition

The open-source Sauerbraten, a lightning-fast first-person shooter that echoes Unreal Tournament and Quake, is a free fragfest with an above-average map editor. Sure, the scenario is pure action-game cliché—hordes of aliens and ogres, big guns, grim-looking arenas, and one very put-upon space marine—but with solo scenarios and a variety of multiplayer modes, there's plenty to please casual shooterites.

9 Crayon Physics

This quick, charming distraction is short and sweetly educational (and especially well-suited to tablet PCs). Use your mouse as a pen to draw tumbling boxes, planks, and lines that collide with a little red ball you're trying to move to an objective. You'll soon be thinking in Rube Goldberg terms to get that stubborn ball to do your will. The game has just seven brief

Crayon Physics

stages, but it's addictive enough that you'll be seeing balls and boxes in your REM sleep.

10 Freeware text adventures

Looking for a real blast from the past? You can find hundreds of free text adventures, also known as interactive fiction games, at the IF Archive. (Think Zork.) You'll have to type in commands and read the responses, but you'll find some outstanding writing in these refreshingly retro titles. Feeling especially adventurous? Use the tools you find here to write your own.

BONUS

Command and Conquer: Red Alert

We know, we said lesser-known games. The Command and Conquer canon certainly doesn't qualify, but not everyone knows that the original hit is available for free online. After all these years, the graphics may be far from stunning, but the gameplay remains great. A quick Web search will also uncover the official free releases of several other yesteryear hits (among them, the first two installments in the Grand Theft Auto franchise).

The BEST Free Software

SECURITY

You could buy this...

Norton 360 ($79.99)

After you've purchased a new computer, the most important software you'll need to install is a security or antivirus app or suite. Although Microsoft has improved the ability of Windows to thwart nefarious programs, it isn't perfect, and security software is still necessary.

The most common security apps are from McAfee and Symantec. Besides protecting against viruses, spyware, adware, and Trojans, Symantec's Norton 360 suite, for example, also includes a firewall, antiphishing features, e-mail scanning, automatic backup, automatic updates, online storage, and other PC-maintenance tools. Norton 360 is a full-featured suite indeed, but if you're on a budget, you might be able to forgo some of these features. While these free alternatives don't deliver as much as Norton 360 does, you can still find antivirus software with features such as scanning options, scheduled scanning, and updates for the latest virus definitions.

...or try one of these

Avast Home Edition

(Free download, www.avast.com)

WHAT WE LIKE: Full of features, including antirootkit detection; e-mail and IM message scanning

The only requirement of Avast Home Edition is that you must be a home user; this full-featured security app is free for the download. In addition to virus and spyware killing, you also get antirootkit detection, which protects you against malware that installs itself and stays hidden on your PC. The app updates itself automatically, has a Web Shield function to monitor the traffic between your PC and the Internet, and also offers protection with e-mail and instant messages. Plus, it's compatible with Windows versions dating from Windows 95 all the way up to Windows Vista.

AVG Anti-Virus Free Edition

(Free download, free.avg.com)

WHAT WE LIKE: No-nonsense virus detection and protection; spyware fighting

The Anti-Virus Free Edition from AVG is one of the most popular freeware apps out there, but AVG makes it clear that the software is barebones. You don't get support or additional features, period. But Anti-Virus Free Edition does provide virus and spyware protection, plus virus-definition updates, which is what everyone should have as a minimum. The virus definitions are frequently updated, making sure you're protected against new infections. The latest version also comes with LinkScanner, a safe-search technology that offers real-time protection against malicious Web sites while you're surfing. Unlike some virus-protection software, this free application won't hog your system's resources.

Avira AntiVir Personal

(Free download, www.free-av.com)

WHAT WE LIKE: Antiphishing features; thwarts dialers

This basic freeware program scans your system for viruses, worms, and Trojans. It also has antirootkit and antidialer protection; the latter, for those still using a dial-up connection, protects against malware dialing programs that change your local dial-up number to expensive Internet access numbers, either international or fee-based, without your permission or knowledge. It also has antiphishing support.

Reviews by Sarah E. Anderson, Jamie Bsales, John A. Burek, Jonathan Rougeot, Matt Safford, and Les L. Shu.

5 Must-Have Utilities

Upgrading your PC components can be tricky, particularly if you've never cracked open your case before. Before you take a screwdriver to your machine, try these free downloads.

3DMark06 Basic Edition

This 3D benchmarking software will put your video card through a workout to help you decide if it's time for an upgrade. It tests fancy things like lighting engines and shader models. Don't be surprised if your machine slows way down on some tests, as this software is designed to test the limits of beefy gaming rigs. When the test is complete, you can compare your scores against others who have used the software and decide if it's really time to upgrade your GPU.

Belarc Advisor

A great way to get to know your PC's insides, Belarc Advisor scans your system in seconds and loads up a detailed profile in your Web browser. The front page tells you what hardware you've got. It even tells you what RAM you're running and whether you have free slots to install more. Other pages notify you if you've missed a Microsoft Update or if your virus protection is out of date.

Free RAM Optimizer

Free RAM Optimizer sits in your system tray monitoring memory use and forcing unruly apps to return your resources. If you use this program and still frequently run low on memory, it's probably time to add more RAM to your system.

SpeedFan

If your computer keeps crashing while doing labor-intensive tasks like playing 3D games, it could be overheating and in need of a new CPU fan, a video-card cooler, or just some cleaning. SpeedFan, which displays system temperatures from your internal sensors, will tell you for sure.

WinDirStat

If you're running out of storage space, run WinDirStat. It will scan your drives and show what's taking up space. If you don't find anything you're willing to delete, it's probably time to buy another hard drive.

To download these apps, visit computershopper.com/freesoftware

Core (i7) Competency

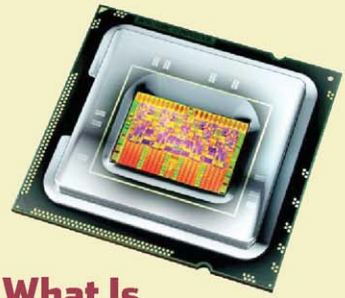
By Matthew Murray and Denny Atkin

Intel's new processor family promises faster speeds at lower prices. Does it deliver? We put the first hardware to the test.

If it seems to you that Intel's innovations are released like clockwork, you're actually not that far off. The company's "tick tock" model ensures that every year sees either a new silicon process technology that packs in more transistors (the "tick") or a new microarchitecture that can take better advantage of all those additional transistors. The most recent tick came in late 2007, when Intel released its new 45-nanometer (nm) Penryn platform.

It's "tock" time. In late November, Intel released three processors in its new quad-core Core i7 family, based on a new microarchitecture (code-named "Nehalem") that's aimed at delivering higher performance and improved energy efficiency—along with an impressive slate of new features.

We obtained the line's low- and high-end processors, the Core i7-920 (priced at $284) and the Core i7-965 Extreme Edition (priced at $999), as well as two motherboards (from Asus and Intel itself) based on the X58 chipset and the LGA1366 socket required to run the new processors. Plus, we acquired three of the first desktops based on Core i7 CPUs, offering a range of capabilities at a span of prices from $1,249 to $2,995, to discover the level of real-world performance you'd be able to expect from them. We'll also delve into the technology to find out what benefits Core i7 might have on the way you work, play, and compute between now and the next time Intel's pendulum swings.



What Is the Core i7?

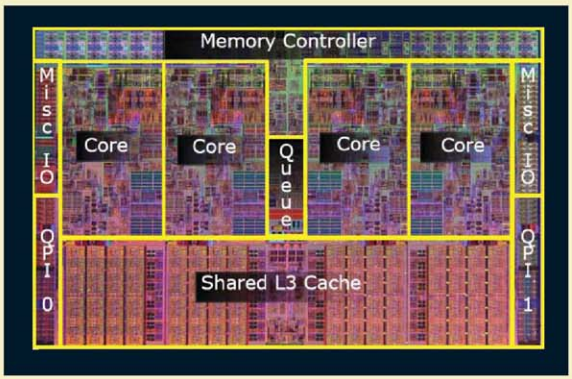
Intel's Core i7 processors are based on the Penryn manufacturing process the company introduced in late 2007, but otherwise, they represent significant rethinking of the well-established Core 2 Duo, Core 2 Quad, and Core 2 Extreme lines.

To begin with, Core i7 processors won't fit in the LGA775 motherboard chip sockets those CPUs do. Core i7 chips require the new, larger LGA1366 socket, which means, yes, you'll need another motherboard. (At press time, only Intel's own X58 chipset supported the chips.) Plus, Core i7 doesn't support DDR2 memory—it's faster (and more expensive) DDR3 or nothing. And the memory's voltage should top out at 1.65 volts; anything higher may damage the processor.

While these may seem like inconveniences if you've been planning an upgrade, they don't come without benefits. In addition to faster algorithms, new SSE4 text-processing instructions, and better virtualization support, Core i7 processors introduce several key new features:

- Whereas the memory controller, the element that governs memory I/O, used to be on a separate chip, it's now located directly on the processor itself, thus improving communications between those two key components.
- That memory controller no longer supports two channels of memory—it supports three. So instead of using two or four DIMMs to get a dual-channel performance boost, you'll now need three or six to take advantage of triple-channel memory technology.
- The memory controller, all four processing cores, and all caches (including a 64K L1 cache, a 256K L2 cache, and an 8MB shared L3 cache) are located on one die, again improving efficiency.
- Not up to overclocking a processor on your own? If you don't need to use all of the processing cores at any given time, the ones you don't need will turn off, reducing heat outlay, and automatically bump up the remaining cores' potential.

Also new to Core i7 is the elimination of the front-side bus (FSB). Core i7 processors employ a new technology, the Intel QuickPath Interconnect, for increased bandwidth and reduced latency. Hyper-Threading has also been reintroduced into the line, so each core can process two threads simultaneously, minimizing the amount of time that parts of a core sit idle—and essentially making eight-core processing a reality. If that's not enough multiprocessing for you, the technology can support as many as eight physical cores, meaning that 16-core processing might not be that far away.



The design of the Core i7 ("Nehalem") processor

THE PROCESSORS

Intel Core i7-920
Mfr. Est. Price $284

Intel Core i7-940
Mfr. Est. Price $562

Intel Core i7-965 Extreme Edition
Mfr. Est. Price $999

Intel, 408-765-8080
www.intel.com

THE MOTHERBOARDS

Asus P6T Deluxe OC Palm Edition
Mfr. Est. Price $299

AsusTek Computer, 888-678-3688
usa.asus.com

Intel Desktop Board DX58SO Extreme Series
Mfr. Est. Price $340

Intel, 408-765-8080
www.intel.com

The First Processors

Intel Core i7-920, Core i7-940, and Core i7-965 Extreme Edition

Editors' Rating: 9.0 out of 10

Pros: Extremely fast; self-overclocking feature; Hyper-Threading gives some of the advantages of eight-core processors

Cons: Requires new motherboard socket and chipset; won't allow some older high-speed memory to run at full speed; requires three or six memory DIMMs for best performance

EDITORS' CHOICE

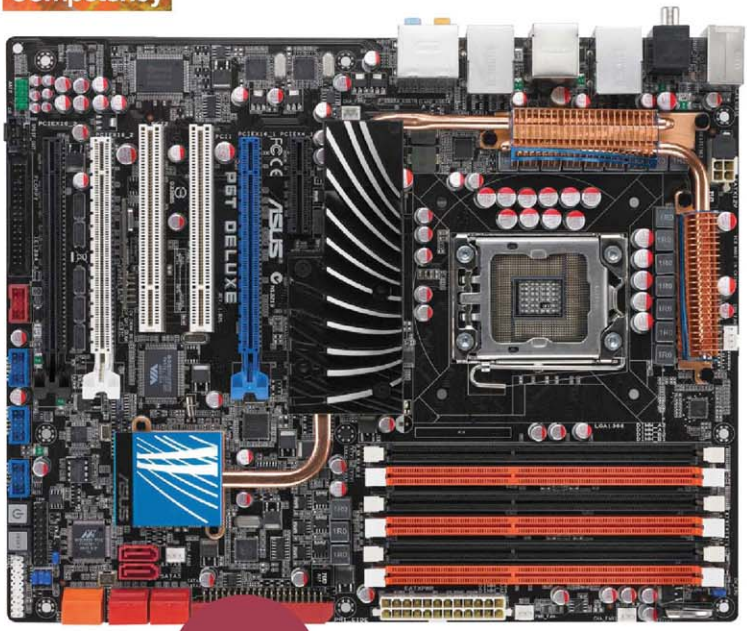
INTEL'S NEW Core i7 processors don't just live up to their hype—they exceed it. Representing a huge performance jump over previous generations, the Core i7 allows even midrange systems to leave the fastest Core 2 Extreme Edition CPUs in the dust. The initial chip lineup includes the $284 Core i7-920 running at 2.66GHz, the $562 Core i7-940 running at 2.92GHz, and the $999 Core i7-965 Extreme Edition running at 3.2GHz. The Core i7 Extreme Edition differs from the less-expensive chips because it features an unlocked multiplier, which simplifies overclocking, and a faster QuickPath communication bus.

We compared the Core i7's performance to Intel's previous king of the hill, the $999 3.2GHz Core 2 Extreme QX9770, running on a 1,600MHz FSB. How much faster is the Core i7 than its Core 2 predecessors? Our Windows Media Encoder test, which uses only two CPU cores, saw the smallest performance increase, but it still managed to drop from 2 minutes and 55 seconds on the QX9770 to 2 minutes and 29 seconds on the i7-965, a 17 percent speedup. Our quad-core-aware Sony Vegas 8.0 video-editing tests showed the most dramatic improvement, dropping from 3 minutes and 43 seconds on the QX9770 to 2 minutes and 20 seconds on the i7-965 in our MPEG-2 tests and from 1 minute and 21 seconds to 50 seconds in our MPEG-4 rendering test—59 and 62 percent speedups, respectively. Our iTunes conversion test took 3 minutes and 37 seconds on the QX9770, which dropped to 2 minutes and 46 seconds on the i7-965, a 30.7 percent improvement.

Even more impressive in the bang-for-the-buck department is the performance of the entry-level i7-920, which still managed to beat out the QX9770 in all of our productivity tests. Results ranged from a mere 1 percent speed increase in Windows Media Encoder to an 18 percent increase in the iTunes conversion test and an impressive 31 percent performance enhancement in our Vegas 8.0 MPEG-2 rendering test. On the other hand, most games don't see much change, as modern titles tend to rely more on graphics-card performance than CPU speed.

Some of the Core i7's performance increase comes from its ability to access memory at a very high speed, via the CPU's onboard memory controller and the new QuickPath Interconnect, which offers dramatically better bandwidth and takes the FSB middleman out of the equation. To take full advantage of this bandwidth, you'll need to team the Core i7 with triple-channel memory.

Performance enthusiasts will find that overclocking the new chips requires learning new techniques, as the FSB-related adjustments of earlier chips don't apply here. The Core i7-965 Extreme Edition is the easiest one to overclock, since it has an un-



Asus P6T Deluxe OC Palm Edition

locked multiplier. You can just increase the multiplier values to try faster speeds; we achieved 3.8GHz with minimal adjustments, and faster speeds may well be possible with appropriate system cooling and voltage tweaking. The slower chips require you to adjust the overall system bus speed to overclock them, but with the right combination of motherboard and memory, overclocking is a definite possibility. We were able to run the 2.66GHz Core i7-920 at 3.34GHz on our Asus P6T motherboard (see next review), in conjunction with a 6GB, 1,333MHz high-speed DDR3 PC3-10666 Platinum Low-Voltage Triple Channel Memory Kit from OCZ.

As has always been Intel's policy, end-user overclocking isn't officially supported. However, Intel has its own turbo mode, Intel Dynamic Speed Technology, that automatically runs some CPU cores at higher-than-rated speeds, depending on the cooling in your case and the current processor load. On our 3.2GHz DX58SO test system with stock BIOS settings, for example, the CPU is clocked at 3.46GHz, a jump in multiplier from 24 to 26, when only one or two cores are in use.

The Core i7 represents a huge performance jump for desktop PCs. Since even the relatively inexpensive Core i7-920 beats the formerly top-of-the-line Core 2 Extreme Edition QX9770, CPU-intensive tasks such as video editing, transcoding, and number crunching just got a lot faster. Gamers who already have high-end systems aren't likely to see much of a boost, but the Core i7 is the obvious upgrade for gamers moving up from older Athlon X2 or Pentium 4 setups. —*D.A.*

The First Motherboards

Asus P6T Deluxe OC Palm Edition

Editors' Rating: 8.5 out of 10

Pros: Excellent overclocking capabilities; six memory slots; supports both SLI and CrossFireX; external overclocking device

Cons: Power-saving options are disabled when overclocking; PCIe slot arrangement precludes installing three double-width graphics cards

EDITORS' CHOICE

THOUGH THE P6T Deluxe OC Palm Edition is Asus's first board supporting Intel's new Core i7 processor, its design is anything but conservative. Where Intel's DX58SO board (see next review) supports overclocking, the $299 P6T Deluxe invites it out for dinner and a movie. Add in tons of expandability, both SLI and CrossFireX support, and the unique OC Palm external display, and the P6T is an excellent foundation for a high-performance Core i7 system.

Gamers will be pleased that the board supports both Nvidia's SLI and AMD's

CrossFireX for using up to three graphics cards together, so they're no longer tied to one brand or the other. (Not all X58 boards support SLI, as Nvidia requires board manufacturers to pay a licensing fee.) As you'd expect from an Asus enthusiast board, the P6T Deluxe's BIOS has detailed overclocking features for adjusting a wide variety of CPU and memory timings and voltages. The BIOS has settings for memory speeds up to 1,600MHz with standard Core i7s or up to 2,000MHz with the Extreme Edition. The board also includes TurboV software, which lets you adjust a number of speed and voltage settings on the fly from within Windows.

We tested the board with the entry-level Core i7-920. By pairing this $284 CPU with OCZ's new DDR3 PC3-10666 Platinum Low-Voltage Triple Channel Memory Kit, which supports 1,333MHz speeds with low latency, we were able to match the performance of the $999 Core i7-965 Extreme Edition in most of our tests. The RAM's extra speed headroom over 1,066MHz memory let us easily push the 2.66GHz Core i7-920 to 3.34GHz by upping the basic system bus speed from 133MHz to 166MHz. The P6T made the overclocking easy, with no need to adjust CPU voltages.

The "OC Palm" in the name refers to a small USB device with a color LCD, directional pad, and a few buttons. You can pick up the OC Palm and adjust the TurboV overclocking settings, allowing you to push the system a little faster from inside games or other applications. You can also use it to monitor temperatures and voltages or to view Yahoo Widgets.

The P6T Deluxe includes the Asus EPU energy-management feature, which lets you reduce voltage to a variety of components to save power, either manually or automatically based on load. Unfortunately, the EPU features only work when you're running at stock clock speeds. That's disappointing, given how many of this board's features are geared toward overclocking.

Designed with enthusiasts in mind, the board features onboard power and reset switches, so you can set it up and power it on without connecting the front panel of a PC case. We would have liked to see a button to clear the BIOS settings; the board uses a traditional jumper.

The P6T Deluxe is loaded with ports. There are eight USB connectors on the back panel and headers for six more on the motherboard, as well as dual Gigabit Ethernet ports and a pair of FireWire connectors. On the storage front, you'll find six Serial ATA (SATA) ports, one external SATA (eSATA) connector, and two Serial Attached SCSI (SAS) ports that support either SAS or SATA drives. The P6T Deluxe has onboard eight-channel audio with analog and digital outputs. Despite all this, Asus still managed to fit legacy ports on the board, with an IDE drive connector, a floppy port, and a single PS/2 mouse/keyboard connector. On the expansion-slot front, you'll find three PCI Express (PCIe) x16 slots, one PCIe x4 slot, and a pair of PCI slots.

For such a full-featured board, particularly one featuring six RAM slots, the layout is comfortable to work with. The chipset heat sinks are fairly low-profile and shouldn't cause any conflicts with large CPU coolers. The second and third PCIe x16 slots are adjacent to each other, however, so you can't install three double-width graphics cards together. For a three-card setup, at least two cards will have to be single-slot models. You can use a pair of wide cards, such as two GeForce GTX 280s or a pair of Radeon HD 4870 X2s.

The P6T Deluxe is an excellent foundation for a high-performance Core i7 system. We wish we could shift to power-saving mode without having to first disable overclocking manually, but that's about the only nit we have to pick with this powerful, stable board. It has something for everyone: Gamers will appreciate the ability to choose SLI or CrossFireX, performance-minded tweakers will find tons of settings to play with, and people who leave their PCs on 24/7 will appreciate the power-saving features. —*D.A.*

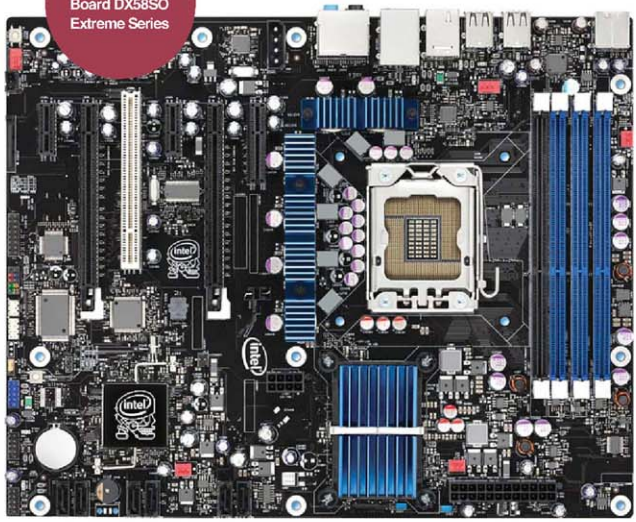
Intel Desktop Board DX58SO Extreme Series

Editors' Rating: 8.4 out of 10

Pros: Easily overclocked from within Windows; extensive BIOS performance options; loads of USB ports; CrossFireX support

Cons: No SLI support; lacks legacy ports

THE $340 DX58SO may be officially billed as the Intel Desktop Board Extreme Series DX58SO, but its code name—"Smackover"—and the robotic skull surrounding the Intel logo on the chipset's heat sink are good indicators that this new motherboard is



aimed squarely at the enthusiast crowd. With support for dual graphics cards, extensive overclocking options for both processor and memory, and a full load of ports, Intel's new board is ready to capture the eyes of enthusiasts who'd typically embrace performance brands.

The DX58SO officially supports memory speeds of up to 1,333MHz, though overclocking options will let you use 1,600MHz or faster memory. The board has four DIMM slots, accommodating up to 16GB of RAM. For best performance, you'll want to populate three of them to enable triple-channel access.

Intel's BIOS has deep overclocking options, letting you adjust the maximum multipliers by processor core and increase the host clock frequency, which replaces the front-side bus as the tweaking value of choice for enthusiasts looking to up the speed of ratio-locked processors like the Core i7-920 and Core i7-940. When using the multiplier-unlocked Core i7-965, you can adjust Intel's dynamic overclocking feature and increase the maximum multiplier depending on how many cores are in use. For instance, you might run at 3.86GHz when only one or two cores are stressed but drop to a stock 3.2GHz when all four cores are in use. You can make many overclocking adjustments on the fly from within Windows, using the Intel Desktop Control Center software.

The DX58SO does away with most legacy ports. Not only is there no PS/2 keyboard port or IDE hard drive connector, but the floppy connector is AWOL as well. The board is generously equipped with six SATA ports (though one will be blocked if you use a long, double-wide graphics card). And the DX58SO has loads of modern expansion ports, with a whopping eight USB 2.0 connectors on the back panel, along with Gigabit Ethernet, FireWire, digital and analog audio, and two eSATA ports. The motherboard has four additional internal USB connectors, as well as internal FireWire, Consumer Infrared, and HD audio ports. The board's eight-channel HD audio comes courtesy of a Real'Tek ALC889 codec.

The DX58SO includes two PCIe x16 slots, which can support a pair of AMD graphics cards in CrossFireX mode (Intel and Nvidia haven't worked out the proper licensing agreements for the DX58SO for SLI support), as well as one PCIe x4 slot, a pair of PCIe x1 slots, and a single PCI slot. Overall, the DX58SO's layout is good, putting most ports in easy-to-reach spots at the perimeter of the board. The heat-sink designs let you install huge coolers without worrying about conflicts. A small snap-on fan, lit by a blue LED, is included for the chipset heat sink. It's somewhat loud, however, so you'll want to forgo it unless you're pushing up the host clock frequency.

Though it lacks the extreme features of the other motherboards we looked at, the Intel DX58SO is a stable, well-equipped platform with a good set of overclocking features for both casual tweakers and hard-core performance fans. —D.A.

The First Desktops

Falcon Northwest Talon

Editors' Rating: 8.5 out of 10

Pros: Overclocking results in very good performance; Blu-ray/HD DVD combo drive included; neatly organized interior

Cons: Price is somewhat high given the performance; limited upgrade potential; monitor not included

AS ONE OF THE EARLIEST new gaming systems built on Intel's Core i7 processing family and the new X58 chipset, Falcon Northwest's new Talon desktop is in a tricky place. It offers impressive performance at a price ($2,995) that, while hardly cheap, represents the direction Intel's new technology will undoubtedly take the industry as it spreads. Unfortunately, that achievement is dampened by at least one competing system that provides more and charges less.

We're thinking specifically of iBuypower's Gamer Paladin F870-SB (see review below), which matches the Talon in most crucial ways. Both have 6GB of triple-channel DDR3 memory, and both run the 64-bit version of Windows Vista Home Premium, so not a kilobyte of that RAM is wasted. Both have two optical drives: a Blu-ray/HD DVD combo drive and a DVD±RW. Each also has a 1-terabyte (TB) hard drive, a dual-GPU ATI Radeon HD 4870 X2 2GB graphics card for outstanding 3D performance, and the Asus P6T Deluxe

motherboard (see review above).

The biggest difference between them in terms of hardware is the processor. The iBuypower PC uses the midrange Core i7-940, with a clock speed of 2.93GHz, while the Talon uses the low-end 2.66GHz Core i7-920 overclocked to 3.2GHz. Since the processors are identical except for their clock speeds, this led to practically identical results in our benchmark tests. In productivity and gaming tests alike, we saw practically no discernible variations in terms of capabilities. The biggest jump we recorded was when we ran Futuremark's PCMark Vantage full-system productivity test: The Talon earned a score of 7,728, while the iBuypower nabbed a 6,425. In every other case, the differences were, at best, negligible.

So the deciding factors became price and extras. And in those areas the Talon didn't quite match up to the F870-SB. At $2,499, the iBuypower machine costs about $500 less than the Falcon Northwest—and you get a monitor, that faster processor (ripe for still more overclocking to even higher speeds), and more expandability as part of the deal.

Compared with the F870-SB, the Talon looks positively sedate (or, if you prefer, adult): a glossy black box from front to back, top to bottom. (The front panel, hidden behind a drop-down door and sporting four USB ports, a FireWire jack, and headphone and microphone connectors, doesn't spoil the lines.) But inside you have room for only one more hard drive and one more external 5.25-inch drive, limiting future expansion more than the iBuypower PC's massive case does.

The interior, though, is impeccably neat and organized, with cables and wires tied out of the way, leaving vast open spaces for free airflow. The selection of rear-panel connectors (eight USB, a combo PS/2, digital and eight-channel audio, two Gigabit Ethernet, and one each eSATA and FireWire) is the same as on the iBuypower; the Talon's multiformat card reader also includes a 3.5-inch floppy drive, which the iBuypower's doesn't.

Don't get us wrong: The Talon is a fine machine, an elegant alternative to the brasher iBuypower and the systems like it we're starting to see. But that price difference is a significant one, not least because another system based on the Talon's same Core i7-920 CPU, the Gateway FX6800-01e (see the next review), offers outstanding performance at a still-lower price: $1,249. With Core i7, you get a lot of power that you don't have to pay a lot for, so when you do shell out extra, you want to make sure that you're getting your money's worth. Considering the initial Core i7 competition, with Falcon Northwest's Talon, you're not. —*M.M.*

Gateway FX6800-01e

Editors' Rating: 8.5 out of 10

Pros: Outstanding performance for the price

Cons: Limited internal expansion

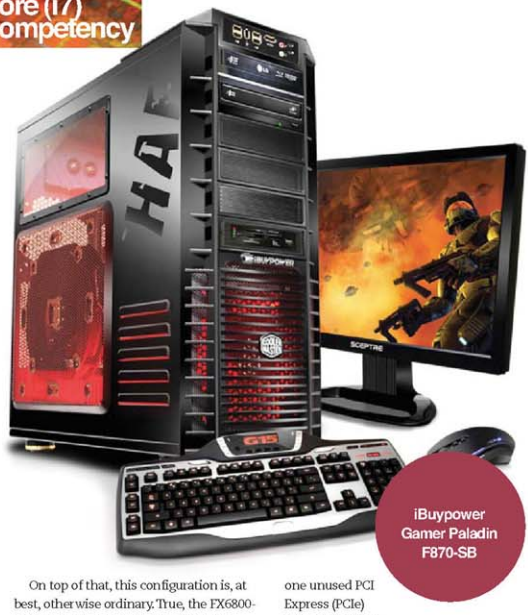
EDITORS' CHOICE

SUDDENLY, $1,249 goes a lot further than it used to. That's the price of Gateway's new FX6800-01e gaming PC, available exclusively at Best Buy stores. It's based on Intel's new Core i7 platform and offers performance that, until recently, you could only buy for hundreds of dollars more.

For example, the iBuypower Gamer Haf 9SE we reviewed in last month's issue barreled through most of our benchmark tests with a facility we've seldom seen for machines at its $1,999 price. But in every test, the FX6800-01e either just surpassed the iBuypower's scores or came very close to doing so—no mean feat, given the $750 price difference. The Gateway needed just 3 minutes and 36 seconds to complete our Windows Media Encoder test (versus the iBuypower's 3 minutes and 30 seconds), for example, and 3 minutes and 42 seconds to finish our iTunes conversion task (the iBuypower needed 3 minutes and 21 seconds).

The benefits of the Core i7 processor to the FX6800-01e are even more striking when you compare it with another system in the same general price range. Dell's $1,129 Studio Desktop (see review on p. 24) fell behind in every area, with a Cinebench 10 score of 9,364, Windows Media Encoder and iTunes results of 4 minutes and 8 seconds and 3 minutes and 54 seconds respectively, and a result of 4,972 in PCMark Vantage. That's all—we have to mention—without the extra gaming punch the FX6800-01e has because of its 512MB ATI Radeon HD 4850 graphics card.

The most interesting part of the FX6800-01e, however, is that it packs all this power despite being based on the lowest-end Core i7 CPU currently available, the 2.66GHz Core i7-920. Because of the shift heralded by this processor, we expect that this system is only the first of many that will radically reshape the midrange-PC market over the next year.



On top of that, this configuration is, at best, otherwise ordinary. True, the FX6800-01e has 3GB of DDR3 RAM, taking full advantage of Core i7's triple-channel memory configuration. But, since for a while now we've been seeing even mainstream systems with 4GB, this is hardly surprising. The same goes for the 750GB hard drive, which is roomy but not unusually so, and the single DVD±RW drive, a common furnishing. (The operating system is the 64-bit version of Windows Vista Home Premium, likewise par for the current computing course.)

The case, too, is essentially what you'd expect from Gateway's gaming line: basic black with copper highlighting (including a giant, stylized "FX" on the side) that looks like uncertain edginess. Inside, you've got space for one more external 5.25-inch drive and for one internal 3.5-inch drive. (A third bay on the outside of the case contains Gateway's new Media Control Center, which lets you browse through photos, music, and so on without needing to pick up the mouse.) Two externally accessible, slide-out trays will let you easily add one or two SATA drives for more storage. You also have three free RAM slots, though other expansion is harder to come by: You have one unused PCI Express (PCIe) x16 slot and one PCIe x4 slot—the graphics card and a modem occupy the other two slots.

On the rear panel, you'll find two PS/2 slots for connecting a mouse and keyboard, a nine-pin serial port, two eSATA jacks, six USB ports, one FireWire port, and the traditional Ethernet and eight-channel audio hookups. There are actually two front panels, one on the front of the machine, which houses the expected headphone and microphone jacks, along with another FireWire port; and one on the top of the case, sporting a multiformat card reader, two USB ports, and a Copy button for quickly copying your cards' contents to your hard drive. (A similar no-hassle Backup button is also located on the front of the case to make saving files regularly a snap.)

But most gamers will probably consider all this secondary to the FX6800-01e's 3D prowess. While not exceptional by the grand standards of hard-core enthusiasts, the results we saw were remarkable given the machine's price and are finally bringing serious gaming potential into the hands of even those on strict budgets. We recorded 163.1 frames per second (fps) on Company of Heroes in DirectX 9 (DX9) and 53.8fps in DX10 at a resolution of 1,280x1,024, both excellent scores. There were drops at 1,600x1,200 that resulted in frame rates of 99.1fps and 41.5fps respectively, which are still very good showings. At 2,560x1,600, we were less satisfied: The 53.1fps in DX9 remains a solid score, but the 17.7fps in DX10 is considerably less so. The system's 3DMark Vantage score of 21,903 at the Entry preset was close to the iBuypower Gamer Haf 9SE's of 22,633, though that difference also widened as the resolutions increased.

The moral is that when it comes to high-power, high-resolution gaming, there's no magic bullet as far as the processor is concerned—a killer GPU is what really makes the ultimate difference. But performance of the kind that the FX6800-01e doles out will be more than enough for most gamers who don't need to play at the stratospherically high resolutions that the most powerful graphics cards offer. If you fall into that category, you'll be able to spend a whole lot more money on games and play them better than you could a year (or even six months) ago. —*M.M.*

iBuypower Gamer Paladin F870-SB

Editors' Rating: 8.7 out of 10

Pros: Excellent performance; 1TB hard drive, Blu-ray/HD DVD reader included

Cons: Not every game benefits from Core i7 technology

EDITORS' CHOICE

IS THE iBuypower Gamer Paladin F870-SB a glimpse into the future of reasonably priced high-end gaming computers? Given how quickly technology can change, it's hard to say for sure. But this $2,499 system demonstrates that the advent of Intel's new Core i7 processing platform can spell only good things for gamers—and their bank accounts.

One of the most impressive systems we saw last year was the Cyberpower Gamer Infinity SLI 8800 (in fact, we named it Gaming Desktop of the Year in our annual Top 100 Products of the Year roundup), one of the earliest Penryn-based systems. It retailed for $3,299. Less than a year later, the Gamer Paladin F870-SB comes close to matching it in almost every area we tested—for $800 less. That's how far things have progressed.

The last iBuypower system we tested was the Gamer Haf 9SE, in the previous

issue, which at $1,999 seemed like a steal. While we're not convinced that every gamer will get $500 worth of extra benefit out of the F870-SB, even in this short time period there have been some major advancements in value for performance. At all resolutions (1,280x1,024, 1,600x1,200, and 2,560x1,600), our DirectX 9 (DX9) Supreme Commander tests hovered with the new system around 53 frames per second (fps); the Gamer Haf 9SE averaged around 47fps. In our other DX10 tests (Company of Heroes and Call of Juarez), the two systems were in a statistical dead heat straight down the line. The big divergence happened on our DX10-based Futuremark 3DMark Vantage tests: The F870-SB's scores of 33,232, 15,390, 10,278, and 7,203 (at the Entry, Performance, High, and Extreme presets, respectively) noticeably surpassed the Gamer Haf 9SE's results of 22,633, 12,613, 9,458, and 6,985. This is despite both systems using the same powerful dual-GPU graphics card, a 2GB ATI Radeon HD 4870 X2.

Two big differences between the systems help explain the discrepancy, both related to Core i7. The first is the processor itself. The Gamer Paladin F870-SB uses a midrange 2.93GHz Core i7-940; the Gamer Haf 9SE used a 2.83GHz Core 2 Quad Q9550. The second is memory: The F870-SB uses 6GB of triple-channel DDR3 memory, while the Haf 9SE used 4GB of dual-channel DDR3. (The operating system was, in both cases, the 64-bit version of Windows Vista Home Premium, and thus able to use all of that memory.)

Aside from the hard drive—one terabyte now, versus 500GB then—the systems were quite similar. Both had a DVD±RW drive and a Blu-ray/HD DVD combo drive; both came with a 20.1-inch Sceptre LCD monitor; and both even used the same black and imposing Cooler Master Haf gaming case, which is loaded with fans and other ventilation, as well as industrial sex appeal with intricate grillework and even a windowed side panel. (The case is loaded with expansion potential, too: three free external 5.25-inch drive bays and four free internal 3.5-inch ones.)

On the Gamer Paladin F870-SB's front panel are four USB ports, one FireWire port, and one eSATA jack, as well as headphone and microphone ports and a 12-format flash-card reader. On the rear panel, you'll see eight more USB ports and a combo PS/2 port (meaning you can connect an old-school keyboard or mouse, but not both), as well as digital and eight-channel audio-outs, two Ethernet jacks, and one more each of FireWire and eSATA. (The system uses Asus's P6T Deluxe motherboard—see our review earlier in this story.) There are also grommets for hoses in the back, in case you'd like to add an external liquid-cooling system to the rig at some point. Another feature of the case is a fill port on the top to facilitate adding coolant.

However you cool it, this is a hot gaming system with a scorching price. It's not quite the fastest we've seen, even within the same general price range (the aforementioned Cyberpower trumped it in some areas), but it's a huge step up in capability—and down in price—compared with some of our all-but-unaffordable past leaders like the Vigor Colossus and even the Alienware Area-51 ALX we looked at last issue. It won't be long until those systems are soundly surpassed by PCs costing half, or even a third, of the price. The Gamer Paladin F870-SB represents the first, bold steps in exactly that direction. —*M.M.*

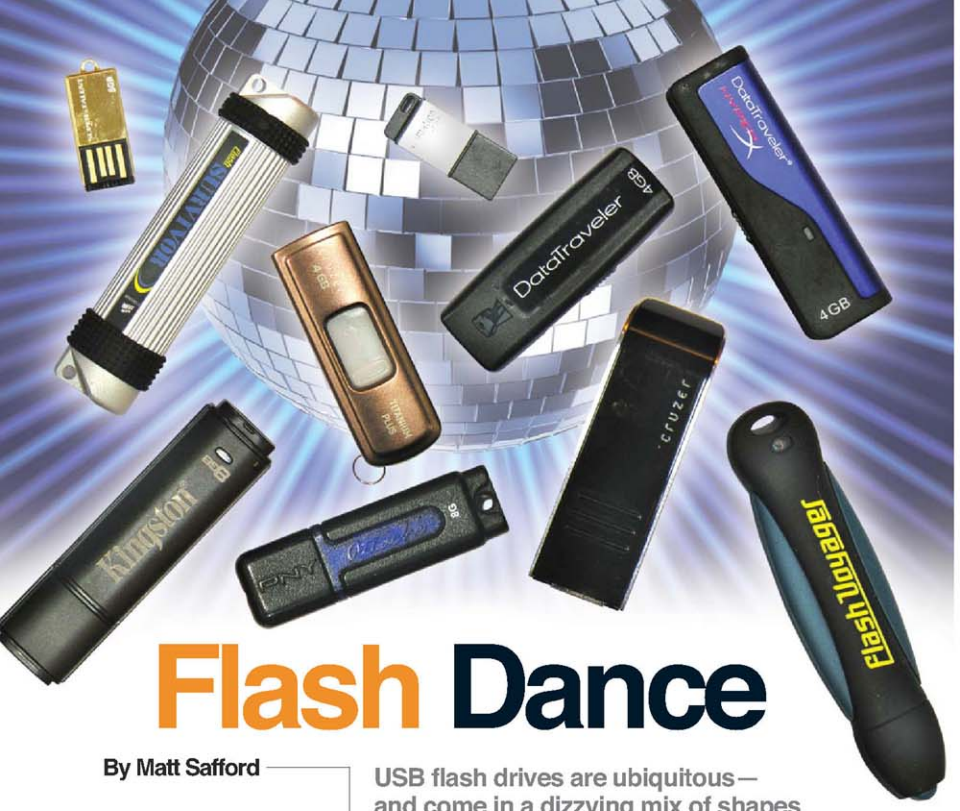
BENCHMARK TEST RESULTS

	Falcon Northwest Talon	Gateway FX6800-01e	iBuypower Gamer Paladin F870-SB
PRODUCTIVITY TESTS			
Cinebench 10 (64-Bit)	17,991	14,160	14,220
Windows Media Encoder 9 (Minutes:Seconds)	3:07	3:36	3:17
iTunes Conversion (Minutes:Seconds)	3:02	3:42	2:49
Futuremark PCMark Vantage (64-Bit)	7,728	6,279	6,425
DIRECTX 9 GAMING TESTS			
Company of Heroes			
1,280x1,024	274fps	163.1fps	251.7fps
1,600x1,200	176.2fps	99.1fps	181.9fps
2,560x1,600	112.4fps	53.1fps	99.9fps
Supreme Commander			
1,280x1,024	54.5fps	48.3fps	53.3fps
1,600x1,200	54.2fps	45.8fps	53.3fps
2,560x1,600	55.1fps	33.4fps	53.1fps
DIRECTX 10 GAMING TESTS			
Futuremark 3DMark Vantage			
Entry (1,024x768)	34,628	21,903	33,232
Performance (1,280x1,024)	15,690	7,112	15,390
High (1,680x1,050)	10,310	Would not run	10,278
Extreme (1,920x1,200)	7,218	2,416	7,203
Company of Heroes			
1,280x1,024	52.2fps	53.8fps	58.1fps
1,600x1,200	58fps	41.5fps	38.3fps
2,560x1,600	48.4fps	17.7fps	48.5fps
Call of Juarez			
1,280x1,024	31.5fps	36.9fps	31.3fps
1,600x1,200	25.3fps	29.3fps	25.2fps
1,920x1,200	22fps	25.1fps	21.8fps

FEATURE COMPARISON

	Falcon Northwest Talon	Gateway FX6800-01e	iBuypower Gamer Paladin F870-SB
EDITORS' RATING	8.3	8.5 ✓	8.7 ✓
CONFIGURATION			
Processor	2.66GHz Core i7-920 (overclocked to 3.2GHz)	2.66GHz Core i7-920	2.93GHz Core i7-940
Memory	6GB DDR3	3GB DDR3	6GB DDR3
Storage	1TB hard drive	750GB hard drive	1TB hard drive
Optical drive(s)	DVD±RW; BD-ROM/HD DVD-ROM/DVD±RW	DVD±RW	BD-ROM/HD DVD-ROM/DVD±RW; DVD±RW
Monitor	None	None	20.1-inch Sceptre LCD
Graphics	ATI Radeon HD 4870 X2 (2GB)	ATI Radeon HD 4850 (512MB)	ATI Radeon HD 4870 X2 (2GB)
Operating system	Windows Vista Home Premium (64-bit)	Windows Vista Home Premium (64-bit)	Windows Vista Home Premium (64-bit)
COMPANY	**Falcon Northwest** 888-325-2661 www.falcon-nw.com	**Gateway** 800-369-1409 www.gateway.com	**iBuypower** 888-462-3899 www.ibuypower.com
DIRECT PRICE	$2,995	$1,249	$2,499

✓ = Editors' Choice



Flash Dance

By Matt Safford

USB flash drives are ubiquitous—and come in a dizzying mix of shapes and speeds. We test 10.

FLOPPY-KILLING FLASH DRIVES are now sold nearly everywhere, from big-box retailers to the corner drugstore, and with good reason: They're a cheap, pocket-friendly, reliable way to carry important files between computers. With no moving parts—and new models available in capacities up to 64GB—they may soon supersede the portable hard drive as well. If you're still relying on a model with a paltry 512MB of storage, you may want to consider upgrading. Bigger 4GB drives are available for under $20, and some roomy 8GB models sell for less than $30.

But are the flash drives available on store shelves better or worse than the myriad options available online? We tested 10 current models to help you decide which drive is right for you, whether you need government-grade security, spacious storage, or just a little bling for your key ring.

Corsair Flash Survivor

Editors' Rating 7.8 out of 10

Pros Rugged, sealed, aircraft-grade aluminum case

Cons Below-average speeds; large for a flash drive

The Corsair Flash Survivor is the tank of our roundup—it's designed to protect files, not transfer them quickly.

Encased in a sealed tube of aircraft-grade aluminum that mimics a waterproof case for camping matches, the drive is rather large, taking up more space in your pocket than most flash drives do. It's available in 8GB, 16GB, and 32GB capacities; we tested the 32GB version.

The drive's average read speed of 17.9MB per second is below the average of other drives in this group, and the average write speed also fared a bit below average, at an even 8MB per second. Clearly, though, the intended users of this drive will subject their hardware to wind and weather, and data safety would be a primary concern. For that purpose, this model has few equals.

Corsair Flash Voyager

Editors' Rating 7.7 out of 10

Pros Low cost per gigabyte; massive storage for a flash drive

Cons Slow write speeds; large (for a flash drive); rubber casing attracts dust

With a monstrous 64GB of storage, the Corsair Flash Voyager drive is certainly spacious enough for most users' needs. It's also physically the largest flash drive we've tested recently.

Its read speeds were above average in our tests, at 19.6MB per second, but write speeds were well below, at 6.2MB per second. That means you'll spend almost three hours waiting for this drive to fill up.

The rubber housing gives the drive a durable feel, but dirt and dust love to stick to it, making it difficult to keep clean. Also, though the price ($249.99 for the 64GB model) may seem steep, it worked out to only $3.91 per gigabyte, making it cheaper by that measure than most of the flash drives we tested here. It's also available in 4GB, 8GB, 16GB, and 32GB capacities.

Imation Atom

Editors' Rating 9.0 out of 10

Pros Extremely small; inexpensive; near-top-notch read and write speeds; no cap to lose

Cons Easy to lose; somewhat flimsy build; only available up to 8GB

Don't let the small size fool you—Imation's Atom USB flash drive is one solid performer.

In our tests of the 8GB model, the Atom drive managed an average read speed of 22.2MB per second, which is nearly as fast as that of Kensington's built-for-speed HyperX drive. The average write speed of 11MB per second was also impressive for a drive so small. Among the 10 drives here, only the SanDisk Extreme Cruzer Contour and Kingston DataTraveler HyperX wrote files faster.

The Atom is about the weight of a stick of gum and just barely larger than Super Talent's tiny (but poky) Pico-C. With nearly the best performance in this group, a reasonable $50 price tag on the 8GB model, and a form factor so small you could accidentally eat it, Imation's Atom is the best all-around flash drive here. Unfortunately, it's not yet available in capacities larger than 8GB. (It's also available in 1GB, 2GB, and 4GB versions.)

Kingston DataTraveler 100

Editors' Rating 7.7 out of 10

Pros Cheap; simple, solid design; no cap to lose

Cons Slightly below-average read/write speeds

The Kingston DataTraveler 100 isn't a fast USB flash drive, to be sure, but it's still a good budget buy.

The drive's 16.4MB per second average read speed and 7.3MB per second write speed are slower than most flash drives we tested recently, though not by a lot. For someone who just wants to carry around documents, music, and photos, the DataTraveler 100 is plenty fast enough. And its low $15 price (for the 4GB model) is hard to criticize in these turbulent financial times.

5 Free, Flash-Friendly Portable Apps

USB flash drives aren't just for toting files—you can also carry useful applications that will run straight from the drive on any PC you plug in to. With these apps, you can write documents, burn discs, edit images, and play most movie or music files, all without installing anything on the host PC.

AbiWord

For many people's needs, Microsoft Word is overkill. AbiWord is a capable, free, open-source alternative that feels like Office 2003. It can open and save to DOC files, and its small footprint makes it ideal for users with older PCs. Other features include several foreign-language dictionaries. All that's really lacking is a full-fledged grammar checker, but if you paid attention in middle school, you won't miss it much.

Foxit Reader

There's a reason polite Web sites warn you when you're about to click on a PDF link—Adobe's Reader, the default PDF app on most machines, can bog down your PC. Foxit Reader is a stellar free alternative that loads PDF files quick as lightning. If all you do with PDFs is open them and fill out the occasional form, Foxit has you covered. A different version is optimized for USB flash drives, but in our tests, this standard version had no problems running from one.

GIMP Portable

GIMP, a great open-source Photoshop alternative, offers many of the same features as the industry-standard image editor. You can create illustrations, retouch photos, and add functionality via free plug-ins. Power users will balk at the lack of CMYK support, but for most nonprofessionals, GIMP can tackle any image-editing task.

InfraRecorder Portable

To simply burn a few files onto a disc without using a giant suite, try InfraRecorder. Its interface is intuitive, its footprint is small, and, best of all, it's free. If you don't always need the advanced features offered by Nero or Roxio, it's worth a spin.

VLC Media Player Portable

Video playback is often way more difficult than it should be. For those in the know (and that now means you), the free VLC Media Player plays just about any video you can throw at it, including DVDs, with ease. This small program also handles audio with similar versatility, tackling WAV, WMA, MP3, AAC, and a host of other file types.

Download all of these utilities from computershopper.com/downloads

Flash Dance

KEY CONTACTS
Corsair: www.corsair.com
Imation: www.imation.com
Kingston: www.kingston.com
PNY: www.pny.com
SanDisk: www.sandisk.com
Super Talent: www.supertalent.com

Although the drive's protective casing is completely plastic, it feels solid, and we like the way the USB plug slides inside the drive so that you don't have to worry about losing a detachable cap. You can buy it in 1GB, 2GB, 4GB, 8GB, and 16GB capacities.

Kingston DataTraveler BlackBox

Editors' Rating 7.3 out of 10

Pros Government-grade security; 256-bit hardware-based encryption; reformats after 10 attempts to hack your password; forces complex password creation

Cons Extremely expensive; heavy; large for a flash drive

The pricey DataTraveler BlackBox from Kingston turned in above-average read and write speeds in our tests, but this drive is really about security.

With 256-bit hardware-based AES encryption, it's certified secure enough to carry government secrets. If anyone lodges a brute-force attack on this drive to hack your password, it will lock down and reformat after 10 consecutive failed attempts.

The security aspect is mirrored in the drive's construction: Its stainless-steel case feels as solid as that of the rugged Corsair Flash Survivor drive, and it has a titanium coating designed to show evidence of tampering. Unfortunately, the prohibitive price ($327 direct for the 8GB model we tested) will keep this drive out of the pockets of anyone who doesn't have a government-grade expense account. (It's also available in 2GB and 4GB capacities.)

Specs Explained: Flash-Drive Speed

Flash-drive speeds on online spec sheets and in-store packaging can be confusing—perhaps even a bit misleading. Sometimes, manufacturers list a drive's speed as "150x" or "200x" without any explanation of what that number is a multiple of. And when they do list a straight-up number for read and write speeds, it's usually "burst speed," or the maximum speed achieved in testing. A speedy drive may read at, say, 30MB per second briefly under ideal conditions, but in our average-speed tests, most drives didn't even hit 20MB per second.

If you see a flash drive's speed listed as a mysterious multiple of "x," you might be surprised to learn that the "x" is a throwback to CD-ROM speeds. At 1x, an old-school optical drive reads or writes 150K per second. That means a "200x" flash drive is rated for throughput at 30MB per second. You can bet, though, that that number is the burst—not average—speed, and that the actual write speed will be much slower.

Kingston DataTraveler HyperX

Editors' Rating 7.2 out of 10

Pros Fastest drive we've tested recently; slide-inside USB plug means no cap to lose

Cons Barely faster than other, much cheaper drives; high cost per gigabyte; only available in capacities up to 8GB

Kingston's speedy DataTraveler HyperX is the fastest flash drive we tested in this batch. It's available in 2GB, 4GB, and 8GB capacities; we looked at the 4GB version.

With an average read speed of 22.7MB per second, the HyperX barely beat out Imation's much more wallet-friendly Atom drive. The HyperX had the fastest average write speed of the group (13.5MB per second), but SanDisk's Extreme Cruzer Contour finished just a hair behind and costs much less per gigabyte.

If you're the kind of person who always needs the fastest hardware, or if you constantly read and write lots of files on different computers, the HyperX might be worth the cash. But for everyone else, a slightly slower drive would be a much smarter purchase.

FEATURE AND PERFORMANCE COMPARISON

	Corsair Flash Survivor	Corsair Flash Voyager	Imation Atom ✓	Kingston DataTraveler 100	Kingston DataTraveler BlackBox	Kingston DataTraveler HyperX	PNY Attaché
EDITORS' RATING	7.8	7.7	9.0	7.7	7.3	7.2	7.0
Capacity	32GB	64GB	8GB	4GB	8GB	4GB	8GB
Cost per Gigabyte	$4.37	$3.91	$6.25	$3.75	$40.88	$14.25	$5.62
Average Read Speed	17.9MB per second	19.6MB per second	22.2MB per second	16.4MB per second	17.2MB per second	22.7MB per second	14.5MB per second
Average Write Speed	8MB per second	6.2MB per second	11MB per second	7.3MB per second	8.5MB per second	13.5MB per second	6.5MB per second
DIRECT PRICE	$139.99 (list)	$249.99 (list)	$49.99 (list)	$15	$327	$57	$44.99

✓ = Editors' Choice

PNY Attaché

Editors' Rating 7.0 out of 10

Pros Cheap; available at many major retail chains

Cons Very slow write speed; below-average read speed

We don't have any major complaints about PNY's Attaché USB flash drive, but it didn't excite us, either. It's an unremarkable, workmanlike model, and you can find a better value in a USB key.

The Attaché is small, cheap, light, and more than capable of storing and transporting files. It's also one of the drives most commonly found in big-box retail stores. It comes in 1GB, 2GB, 4GB, 8GB, and 16GB capacities; we tested the 8GB model.

Unfortunately, the competing Kingston DataTraveler 100 offers slightly better performance at a lower per-gigabyte price, so it makes sense to steer clear of the Attaché drive if given a choice. But if you can find it at a discount, it does a decent job of toting your files.

SanDisk Extreme Cruzer Contour

Editors' Rating 7.6 out of 10

Pros Slick design; no cap to lose; speedy read and write speeds

Cons Ratcheting, retractable USB connector takes some getting used to; moderately expensive; no key-chain hole

SanDisk's Extreme Cruzer Contour is a slick-looking USB flash drive with the performance to back up its hand-some exterior.

In our tests, the 4GB version delivered a well-above-average read speed of 21.3MB per second. Average write speed was similarly impressive, at 13.2MB per second. Those numbers put this drive's performance quite close to Kingston's DataTraveler HyperX—for about 30 percent less money.

Unfortunately, the Cruzer Contour doesn't come with a hole for hanging it off your key chain. SanDisk includes a case with a small clip for toting the drive, but it's bulky, bland, and feels like it could easily break. We like this drive for its performance and good looks, but we recommend you carry it in your pocket just to be safe.

We also like the fact that there's no cap to lose on this flash drive, but the two-step ratcheting mechanism that extends and retracts the USB connector can be confusing at first and never feels quite as smooth as it should.

SanDisk Ultra Cruzer Titanium Plus

Editors' Rating 7.1 out of 10

Pros Free online file backup; crush-resistant metal case; above-average read speeds

Cons Online backup requires annual fee after six months; slow write speeds; only available in 4GB capacity

The Ultra Cruzer Titanium Plus is available only in a 4GB capacity. In our tests, it delivered a fast average read speed of 20.4MB per second, but its average write speed of just 7.4MB per second is significantly slower than many other drives we've recently tested. This is surprising, considering SanDisk's Cruzer Contour fared so much better.

This drive somewhat makes up for its relatively sluggish write speed by offering free automatic online backup of all files on the drive. The software doesn't work on a Mac, however, and after six months, you'll have to pay a $30 annual fee to keep backing up your files. That makes the feature far less appealing. Unless you plan on paying to keep your files backed up online, we suggest you go with a drive with a faster write speed.

Super Talent Pico-C

Editors' Rating 7.8 out of 10

Pros Supersmall; very inexpensive; chrome or gold-plated all-metal housing; fast read speed

Cons Very slow write speed; may be too small for some; unavailable in capacities larger than 8GB

Super Talent's Pico-C is impressively tiny and pleasingly shiny. It's also very inexpensive: The 8GB model's cost per gigabyte is the lowest of all the drives here.

The Pico-C is lighter than a nickel, and it comes in chrome or a gleaming, gold-plated model. Its small size will turn heads, to be sure, but if you have big hands, you might want to go for a slightly larger drive.

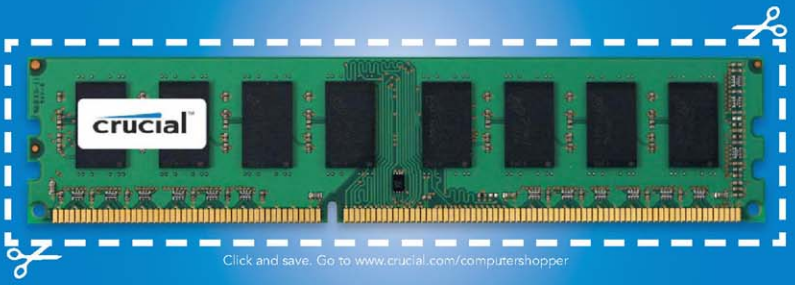
At 21.3MB per second, the Pico-C's average read speed was quite fast for a flash drive, but write performance wasn't so stellar, averaging just 5.5MB per second. But considering its price (the 8GB model we tested costs about $29; a 4GB one is also available) and tiny size, it's a decent value. If you can do without the bling, however, we recommend picking up the Imation Atom drive. It costs more, but it's similarly small and delivers better write performance.

	SanDisk Extreme Cruzer Contour	SanDisk Ultra Cruzer Titanium Plus	Super Talent Pico-C
	7.6	7.1	7.8
	4GB	4GB	8GB
	$10.00	$7.50	$3.63
	21.3MB per second	20.4MB per second	21.3MB per second
	13.2MB per second	7.4MB per second	5.5MB per second
	$39.99	$29.99	$29 (mfr. est.)

How We Tested

In testing these USB keys, we discovered that the burst-speed specifications cited by most manufacturers, for the most part, tell you very little about the drives' real-world performance. To get a more realistic average speed, for both reading and writing files, we created a 1GB test folder packed with one large (500MB) game-install file, plus dozens of smaller photos and MP3s. We transferred the folder to the drives (to test write speed) and from the drives (to test read speed), performing each test three times and averaging the results. We then divided to get the speed in megabytes per second. That's right—we did all the math for you. Now just promise us you'll think twice before snapping up the first USB key you see at Rite-Aid.

For more: computershopper.com/peripherals



Click and save. Go to www.crucial.com/computershopper

Your computing can go further. So can your money.

You would love a new computer, but you're finding it tough to find the money in the budget.

Here's a solution. A simple RAM upgrade from Crucial can give you what you're waiting for, at a fraction of the price of a new system. That means you can enjoy more speed, easier multitasking, enhanced multimedia experience, and more—all without breaking the bank. Plus, our memory features limited lifetime warranties, great technical support, and free shipping.*

Find out what a memory upgrade can do for you; Crucial is the solution that makes sense. Go to: **www.crucial.com/computershopper** to learn more.

crucial™
The Memory Experts™

*For a limited time, place an order over $40 at www.crucial.com/computershopper and get free shipping (7-12 business days) within the contiguous U.S.

©2008 Lexar Media, Inc. All rights reserved. Information is subject to change without notice. Crucial, the Crucial logo, and The Memory Experts are trademarks and service marks of Micron Technology, Inc. All other trademarks are the property of their respective owners. Lexar Media, Inc. is a subsidiary of Micron Technology, Inc. Lexar Media, Inc. is not responsible for omissions or errors in typography or photography. Ad expires 30 days after publication.

COMPUTER CURES

COMPUTER SHOPPER'S EDITORS SOLVE YOUR TOUGHEST TECH PROBLEMS

TIMING IS EVERYTHING

Whenever I turn my computer on, I have to constantly change the time and date at setup before I can log on. (I press F2 and have to change it.) Can you tell me why this is happening and what I can do to fix it?

GARDELL GREEN

Assistant Editor Matt Safford charges to the rescue: The most likely cause of any PC that can't keep the right time is a problem with the CMOS battery. This battery resides on the motherboard and helps the PC retain its prebootup settings.

A good first step is to leave the computer on for 24 hours to see if the battery recharges itself. If that doesn't work, however, you're going to have to crack open your case and replace it.

Unplug your PC first, then open up the case. Before touching any of your PC's internals, make sure you touch something metal other than your computer, or part of the PC's metal chassis. (You don't want a static charge to fry something and cause more problems.) You might consult your PC's or motherboard's manual for help finding the battery, but with a flashlight, it shouldn't be hard to locate. Look over the surface of the motherboard for a silver, button-shaped disk about the size of a quarter, mounted horizontally or vertically.

Once you find the battery, it should pop out easily, though you may have to press in a clip or lever, depending on your motherboard model. (As an aside, we'd recommend writing down your BIOS settings before doing this, but if your system clock is malfunctioning, you've very likely lost any saved settings already, anyway.) Take the battery to an outlet that sells coin-cell batteries, such as RadioShack **(www.radioshack.com)**, and get an exact replacement.

Before popping in the new battery, remember to discharge any static electricity again. Install the new battery in the same way you took the old one out, making sure the polarity is correct. Close up the case, plug your PC back in, and turn it on. Fix the time once more, and your PC should no longer have trouble keeping it.

WILL PRINT FOR FOOD

I recently started printing grocery coupons from the Web, and I had to download a utility called Coupon Printer to do so. I like that the utility puts up to three coupons on a page, but I wish it let me change the print settings first. Every page prints in full color on my inkjet printer, taking up time and ink, and there's no opportunity to change the print settings before it prints. I want to change the default settings, but I can't figure out how to do that on my Canon Pixma MX700. Is it possible?

AMY DALLMANN

Senior Editor Sarah E. Anderson cooks up a solution: Printing out online coupons is a great way to save money, so long as it doesn't cost you more in ink than you would have saved on your groceries! It's possible to print these in gray scale, but the instructions will vary depending on your printer. You're right about the Coupon Printer utility and that there's no way to work within it—you have to hit "Print" from inside the Web page, and then it just prints without a prompt to allow for settings changes. (The software is tightly controlled to keep users from printing dozens of the same coupon.)

While you can't change Coupon Printer's defaults, if your printer software allows, you can create a "coupon printing" profile that you can leave active all the time. Alternately, you can switch between the default and coupon-printing profiles as needed.

Here's what you'd do with your Canon printer. Go to Control Panel > Printers and Faxes, right-click on your printer, and select Printing Preferences. Under the Main tab, select these settings: Plain Paper, Auto Sheet Feeder, Draft (or a similar low-quality setting), and Grayscale Printing. (The names of these settings may vary on other printer models.) Then go to the Profiles tab. (This, too, may vary; it may be in the form of a "save favorite settings" menu or something similar.)

On the left, Current Settings should be highlighted. Click Add to Profiles, type in **Coupons**, and click OK. The Coupons profile should now appear on the left. Double-click it to retrieve it. A message will appear asking if you're sure you want to do this; click OK. Then click Apply and OK to exit.

The printer will use the Coupon settings until you change it back. You can switch it back by repeating these steps and selecting Defaults, or, if you're in a program and ready to print something else, just click Print > Preferences (or Properties), and you'll reach that same dialog box again.

For more: computershopper.com/howto

COMPUTER CURES

MEDIA CENTER MANIA

I'm currently building up an HTPC and need some info. How can I use the computer in one room while using Windows Vista's Media Center on a television in another, using the same computer?

Also, in order to take advantage of high-definition video and audio, I'll need to get cards with an HDMI output. Is it true that an HDMI video card will only send video and an HDMI sound card will only do the audio? If this is the case, how would I get both the audio and video into one HDMI input on an A/V receiver?

JON ROUSSEAUX

Editor-in-Chief John A. Burek mediates the issue: Your first question is easily solved: You'll want a Media Center Extender. These devices are made for exactly the purpose you suggest: making use of a Media Center PC on a TV set that's in a location distant from the computer. (Note that you'll need to be running Windows Vista Home Premium or Ultimate.) Extenders work via wired networks or wireless streaming; devices are offered by Linksys, D-Link, Hewlett-Packard, and others. Microsoft's Xbox 360 can also serve as an Extender.

An alternative is running long video (DVI, HDMI, or VGA) and audio cables from your PC to the TV set in the other room, but you may encounter signal troubles when using overly long cables, and you'll run into the major complication of controlling the PC from the other room. Unless the PC is within range of whatever remote control you're using (unlikely), you'd need to bounce your remote control's signal via ancillary hardware to the PC. A Media Center Extender handles all that.

Not so simple is the HDMI connectivity issue. Whether video and audio can be carried over the same cable depends on your OS (for Windows, you'll need Vista or XP) and your hardware. Onboard sound and video can be carried over a single HDMI cable only if the specific motherboard and chipset support it; if they don't, you'll have to make a separate (non-HDMI) audio connection between the PC and A/V receiver.

Need a Media Center Extender? If you own an Xbox 360, you already have one.

If you'll be using a dedicated video card, it depends on the card. Certain ones, such as many models in ATI's Radeon HD 2000, 3000, and 4000 series, can carry audio and video over a single HDMI cable, but you'll need to check that the particular kinds of audio feeds you intend to transmit are supported. (For example, not all HDMI-audio-capable graphics cards support eight-channel audio, if that's important to you.) Also, some ATI cards move the combined HDMI audio/video over a special DVI-to-HDMI adapter that may not be bundled—ask for details when buying the card.

HOW DEEP IS YOUR SLEEP?

When shutting down my home-office desktop for the day, is it best to leave it in the standby mode, hibernation mode, or simply shut it down completely? What's your recommendation, and why?

PAUL SANSEVERO

Managing Editor Jonathan Rougeot puts the issue to "rest": The default choices Windows XP offers on the shutdown menu are Turn Off and Stand By. (Shut Down and Sleep are the options for Vista users.) When you put your computer into standby mode, you're basically telling it to take a brief nap. It uses less power, but it doesn't shut down any applications or save the state of your system to the hard drive. It saves energy by shutting down nonessential hardware such as peripherals and fans.

An additional mode, hibernation, writes everything in your computer's memory to the hard drive, shutting down your system almost completely. Because of this, it takes your PC a little longer to start back up from hibernating. Since your data has been saved to the hard drive before hibernation, the PC skips its full boot process and loads what was written to the hard drive back into RAM, and the applications that were running start up as if nothing had happened.

You may need to turn hibernation on, however. To enact the hibernation option in Windows XP, click the Performance and Maintenance icon in the Control Panel (if necessary), select Power Options > Hibernate tab, and put a check mark in the "Enable hibernation" box. If the option isn't there, Windows does not support this option with your hardware. You'll then need to set the length of time your PC is idle before it hibernates; you do this on the Power Schemes tab, on the drop-down menu labeled "System hibernates."

Vista offers an additional shutdown option, Hybrid Sleep, a combination of sleep and hibernation that saves your work to both memory and your hard drive, and then puts your PC into power-saving mode. It should be enabled by default; to check, access it via Control Panel > Power Options, click "Change plan settings" for your power-saving scheme, then "Change advanced power settings." There, unfold the "Sleep" and "Allow hybrid sleep" submenus. (In the same location, you can also enable XP-style hibernation.)

Standby/sleep and hibernation both save your work so you can pick up right where you left off, but shutting down forces you to close all programs and start fresh. Our advice: If you're leaving your computer for a little while and would like to quickly resume what you were doing, standby/sleep is best for short periods of downtime, and hibernate is best for longer ones. If you don't need to immediately pick up where you left off or don't want to save your data in open programs, then turn off your PC. Remember, though, that if you plan to replace any of your hardware, you *must* first turn the computer completely off.

For more: computershopper.com/forums

A COMPLEX OUTLOOK

I'm upgrading my Microsoft Office 2003 Student & Teacher software to Office Home & Student 2007. Since the new version of Office Home & Student doesn't include Outlook, I'm going to have to change to Outlook Express for my e-mail.

I've tried to move my contacts from Outlook to Outlook Express, and my attempts have been unsuccessful—the addresses do not get entered into the Address Book in Outlook Express. As far as moving my Archive files, I am unable to find where I can import PST files into Outlook Express from Outlook. Is there a way to import my address book and Archive files from Outlook to Outlook Express?

MYRNA AND DON PEET

Associate Editor Les L. Shu digs into Outlook arcana:

One would think that migrating your mail and address book from Outlook to Outlook Express (OE) would be a one-click piece of cake, considering both programs are Microsoft creations. Although OE does offer tools for importing your Outlook address book and messages, they don't always work properly. There are solutions, but they'll involve a bit of elbow grease.

Getting your Outlook contacts into OE isn't difficult. To export your list of contacts, you should first save it as a comma separated values (CSV) file. In Outlook, go to File > Import and Export, and choose "Export to a file." From there, pick "Comma Separated Values (Windows)," then browse to the contacts folder you want to export from the tree. Choose the location and a name for the file, and hit Finish.

Now that your file has been exported, you'll import it into OE. In OE, go to File > Import, and pick Other Address Book. When the Address Import Tool window pops up, pick "Text File (Comma Separated Values)," and locate the exported file you just saved. OE will transfer the Outlook contacts to its Contacts list, and you're done. In our tests, Outlook Express successfully pulled in all the names, e-mail addresses, and phone numbers associated with our contacts.

The Outlook Express import function can easily migrate your Outlook Mailbox messages into OE's Inbox, but transferring your archived mail is a little trickier. The problem is that your Archive Folders in Outlook are saved as .PST files, whereas OE uses a different file type, .DBX. You could download an app that converts your exported Archive Folder file into .DBX, but we haven't seen one that works well or that we trust. If you go this route, you'd use the same "Export to a file" function mentioned earlier, choosing "Personal File Folder (.pst)." Select the Archive Folder from the tree, check the "Include subfolders" box, and save the file—we saved it to our Windows desktop.

The best solution we've found is to move your Archive Folders back into your Mailbox and then have OE move those folders automatically. Unfortunately, if you have tens of thousands of messages like we do, this could take a while.

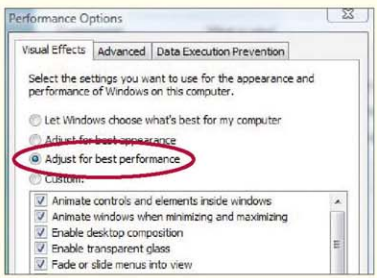
TIP OF THE MONTH: A GOOD TIP BEARS REPEATING

A reader from Colorado elaborates on a tip submitted a few issues ago by "Tip of the Month" winner Ben Kim, and it's worth noting: Sometimes the simplest tweaks deliver big results.

Here's a good heads-up for your readers. The tip in the "Computer Cures" September edition, p. 98 (or online at **computershopper.com/howto/computer-cures-july-2008***), regarding improving performance for Windows XP, also works just fine for Windows Vista!*

I adjusted my Vista desktop machine, following the suggestion to "Adjust for best performance," and I can see a noticeable increase in speed. If my choice is between (1) fancy graphics and (2) speed, I'll choose speed every time. Thanks!

RALPH B. JACOBSEN



In that tip, Mr. Kim suggested going into XP's Control Panel and selecting System (in Advanced/Classic view). Once the System Properties window appears, click the Advanced tab, then the Settings button in the Performance section. You would then select the "Adjust for best performance" radio button to disable Windows XP's special effects.

In Vista, the process is similar, though the navigation is a little different: In Control Panel (in Vista's default view, not Classic view), click System and Maintenance > Performance Information and Tools. Select "Adjust visual effects" from the Tasks pane at left, and, in the Performance Options window that pops up, select the "Adjust for best performance" radio button.

Send us your favorite tip, and you could receive a year's subscription to *Computer Shopper*!

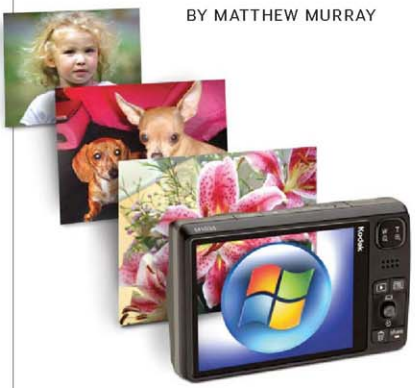
"Computer Cures," *Computer Shopper*, 72 Madison Ave., 10th Fl, New York, NY 10016
computer.cures@computershopper.com

Please include your name. Due to the number of letters we receive, we cannot provide personal replies, nor return any enclosures.

No need to splurge on pricey photo-finishing software—Vista's tool is all you need.

Perfect Your Digital Images

BY MATTHEW MURRAY



DIGITAL CAMERAS MIGHT BE the most convenient invention ever for preserving memories—lots of them. But going from snapping the images to sampling them isn't always easy. You can buy software with advanced editing and organizational features—Adobe's Photoshop Elements being one of the best-known—but you don't need to.

If you use Windows Vista, you already have access to a powerful tool: Windows Photo Gallery. With it, you can perform simple editing functions, sort your photos, and even view them in slide shows and send them over the Internet.

For more: computershopper.com/howto

1 Start Photo Gallery

Launching Windows Photo Gallery is easy: The icon is right on your Start menu. Click the Start button in the lower-left corner of your screen (it's got the Windows Vista icon on it) to bring up the Start menu. You might find the Photo Gallery icon right on the initial menu, but if you don't, click All Programs and search for it in the alphabetical listing of programs that comes up. Click it to start the program.

2 Add photos, fast and easy

If you already have photos stored on your computer, the first step is to get them imported into Photo Gallery so you can work with them.

Click the File menu in the black bar at the top of the Photo Gallery window, then click Add Folder to Gallery. Navigate to the location of the folder on your computer (the folder is probably either My Documents or a subfolder within it), then click OK. The folder will be added to the folder list at the left side of the Photo Gallery window.

You don't necessarily need to have already saved your photos on your computer. If they're still on your camera or if you have one ready to scan, Photo Gallery can help there, too. Make sure your camera or scanner is connected to your computer and powered on. Click the File menu again, and then click the Import From Scanner or Camera option. This brings up a list of devices attached to your computer. Click the one from which you want to get the images, then click the Import button.

If you're scanning in an image, you'll see a dialog box that lets you choose the image type, specify the color format and resolution, and so on. When you're done, click Preview to make sure everything's okay, then click Scan.

When you import a group of photos, Photo Gallery gives you the opportunity to add a tag to it. Just type in the name of the tag you want to use, and hit Enter; the new tag name for the group

Click File in Photo Gallery's menu to add photos.

You can add content directly from a digital camera or scanner using the Import Pictures and Videos interface.

will appear under Tags in the left section of the Photo Gallery window. This will make it easier to organize your photos later, especially if you have a lot of them.

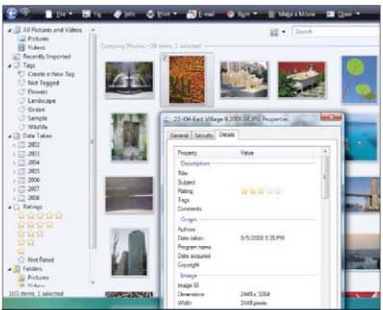
3 Enter useful information about your photos

Once Photo Gallery contains all your pictures, you might want to add information that will be embedded in the file itself. This will give anyone who ever sees the image the backstory only you can impart; it will also make it easier to find photos later when you're searching for them.

To add a caption to a photo, double-click on the photo to open it, then click <Add Caption> in the lower-right corner of the window. Type as much information about the photo as you want.

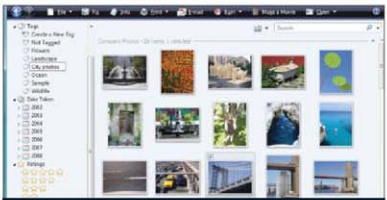
Entering terms in the Search field in the Photo Gallery window (or in Windows Vista's own search feature) will search the caption text for all images in Photo Gallery. The more captions you have, and the more detailed they are, the easier it will be to find your photos. (Note: Search will also find tags; see the "Tags and Ratings" section below.)

Click the <Add Caption> button, then type in your description of the photo. Be specific—Windows can search this text.



Right-click on a photo in Photo Gallery and select Properties to edit its tags, star rating, or other information.

To add additional information, right-click on a photo in the Photo Gallery window and select Properties from the menu that appears. You'll open the Details tab of the photo's Properties. In this window, you can give your photo a title or a subject, specify who took the picture and when, and even add copyright information—just click in the blank area next to the attribute you want to change, then start typing. You can add more tags in the Tags field (separate them with semicolons) or provide star ratings, for still another way to sort them. (Serious photographers can even insert details about the lens, flash, and contrast used.)



Once your photos are tagged, click on the appropriate icon under Tags, Date Taken, or Ratings to sort your photos by criteria you select.

4 Tags and ratings

Providing tags for your photos will make it easier to categorize and sort them. Microsoft gives you some default choices (Flowers, Landscape, Ocean, Sample, and Wildlife—all corresponding to the default photos that come with Windows), but for greater convenience you can create your own.

To create a tag, click Create a New Tag under Tags on the left side of the Photo Gallery window, then type the name of the tag you want to create. That tag will appear under the Tags section.

It's easy to add a tag to a photo: If the tag already exists, just drag the photo's thumbnail onto the tag. If you want to add a new tag, just click the Add Tags button at the right side of the window and type in the tags you want to use. (You'll also see a list of the tags already applied to the photo.)

To rate a photo (the scale is from one to five stars), select or open the photo, then click on the appropriate number of stars in the info panel.

Once you've tagged and/or rated your photos, you can sort them by one or more of the criteria you've established. Click the tag name or the star rating on the left side of the screen, and Photo Gallery will display all the photos bearing that tag or rating. You can view photos across multiple tags, ratings, dates, or a combination of the three by holding down the Ctrl key while selecting them.

5 Editing your photos

Unless you're a professional photographer, you shouldn't expect award-winning shots every time you press your camera's shutter button. But if you get an effect or a look you don't like, Photo Gallery provides basic tools for tweaking the appearance of your pictures. Just select the photo you want to edit in the Photo Gallery window, then click the Fix button to start making your changes.

The Auto Adjust option is the easiest way to clean up the exposure and color of your photo. Click the button, and Photo Gallery automatically enhances your picture's color and sharpness.

Click the Adjust Exposure button, and you'll be presented with

two sliders for changing your picture's brightness and contrast. Moving the brightness adjuster will lighten or darken your entire image, while the contrast slider lets you control the difference between the lightest and darkest areas of the image.

By using the Adjust Color option, you can change the temperature (cool or warm), the red/green tint, or the overall saturation of color in your image, just by manipulating three sliders.

To trim off the excess portions of your image that you don't need (or want) to see, click the Crop Picture button. Selecting this option brings up a selection box on your image, which you can drag about the picture and adjust, using the handles, to exactly the size you want. (You can also use the Proportion drop-down menu to change the "aspect ratio" of the selection box, or click the "Rotate frame" button to rotate it 90 degrees.) When you've selected the portions of the image you want to keep (they will display in the photo's natural color, and everything else will be dimmed), click the Apply button to delete everything else.

Change your photo's brightness or contrast using the Adjust Exposure editing tool.

Want to zero in on one particular part of your image? Just use the cropping tool to select what you don't want, then click Apply.

Fix Red Eye does exactly what it says: It removes the demonic look that sometimes creeps into your subjects' eyes when you're photographing them using a flash. Just click and drag the mouse cursor around the eye or eyes that need adjusting, and the color will correct itself.

Not happy with your changes? Click the Undo button (in the lower-right corner of the photo window) to undo the change or changes you just made. Undo also remembers your history of changes, so you can undo one, two, or even all of the adjustments you make to your photo. Any undoing you want to do must be done before you exit Photo Gallery—but if you later decide against your changes, you can use the Revert function to go back to the original version of the photo. (You'll lose all of the changes you've made to it, though.)

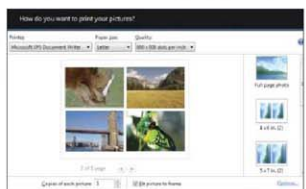
6 Share your photos

A big part of the fun of taking photos—and making them great by editing—is being able to show them to others later. Just select one or more photos, then choose your sharing options.

If you just want to look at your collection on your computer, click the Play Slide Show button at the bottom of the screen; it will include all the photos you've selected. (If you haven't selected any photos, the slide show will display all the photos in Photo Gallery.) Once the slide show is playing, you can click on the arrows to move backward and forward among the pictures or click on the controls to change the show's speed and style (a shuffling of all your photos, for instance, or a loop in the order they appear in Photo Gallery). If you're using Vista Home Premium or Vista Ultimate, you'll have a number of different themes and transition styles to choose from, so you can present your photos exactly the way you want them to look. Click the Exit button to close out the slide show.

Photo Gallery lets you create a slide show to present any of your pictures in a dynamic way on your PC's display.

Want to make prints of one or more of your images? Click the Print button, then click the Print option to bring up the Print Pictures window. Select which printer you want to use, the paper size, the resolution, the number and orientation of photos on each printed page, and the number of copies you want. Clicking Options lets you sharpen the picture for printing or specify whether you want to see only printing options that are compatible with the printer you're using. When you're done, click Print.



When printing photos, select sizes, layouts, and paper sizes carefully so you get just the hard copies you want.

If you prefer, you can use Photo Gallery to order prints of your photos. Click the Print button, then click Order Prints. You'll be given a list of online and brick-and-mortar printing companies to which you can send your images for professional processing.

You can also e-mail your photos from within Photo Gallery. Select the photos you want to send, then click the E-mail button. You'll be asked to specify the size of the pictures you want to mail. Your options are 640x480, 800x600, 1,024x768, 1,280x1,024, or Original Size, which could have even greater dimensions. Just keep in mind that the smaller your pictures, the smaller the file, and thus the easier it will be for you to e-mail the photos. Click the Attach button, and a blank e-mail message pops up, with the photo (or photos) already inserted as an attachment.

A convenient option for either storing your photos for the long term or sending them through the mail is burning them to CD or DVD. Photo Gallery provides that option, as well. Click the Burn button, then select either the Data Disc or Video DVD option to save your photos to a blank disc.

Finally, if static images aren't enough for you, click Make a Movie to open up Windows Movie Maker. Here, you can combine photos, video, and audio into an exciting personalized feature suitable for distribution via DVD or YouTube.

For more: computershopper.com/software

Build Your Own

NEW PRODUCTS FOR BUILDING A CUSTOM PC | BY MATT SAFFORD

Get a grip

Dropping screws into a PC case during a build is a pain. Worse, if you forget to fish one out before you power up, you can short out your motherboard and fry other costly components. The $10 **Stanley FatMax Clip-n-Grip** screwdriver averts potential electrical catastrophe by holding on to those screws for you with its spring-loaded clips. Six different bits are stored in the handle, meaning this single screwdriver should suffice for most PC-building projects. *The Stanley Works, www.stanleytools.com*

Cool blue waterblock

Waterblocks are usually built for performance, not looks, but EnzoTech's $69.99 **Luna** aims for both. A shiny silver mounting plate etched with hieroglyphics surrounds a pulsing blue LED ring, making your CPU cooler look like something straight out of *Stargate*. Underneath is an all-copper block with space for circulating your cooling fluid of choice. It supports most recent CPU sockets. *EnzoTech, www.enzotechnology.com*

Component chiller

If your overclocked components are so hot they're bringing your water-cooled rig to a boil, give the **Thermaltake Xpressar** a look. It uses a microcompressor and coolant (like a fridge or air conditioner) to keep all your PC's innards chilled—as much as 20 degrees cooler than a "mere" liquid-cooled rig. If you can afford the steep $799 price (and have money left over for one of the handful of supported motherboards), you'll definitely have the coolest PC at the LAN party. *Thermaltake, www.thermaltakeusa.com*

For more: computershopper.com/build-your-own

Overclocked and vapor-cooled

Sapphire's $350 **HD 4870 Toxic Edition** wraps AMD's already impressive pixel-pumping card in a vapor-cooled vacuum chamber, which allows the card to ship with a pre-overclocked GPU for more gaming enjoyment. It also includes 512MB of GDDR5 memory running at 1GHz. Two high-speed connectors allow you to go CrossFireX-crazy and chain as many as four cards together in one monstrous gaming machine. Just don't ask us to pay your power bill. *Sapphire Technology, www.sapphiretech.com*

Direct copper contact

The $50 **OCZ Gladiator Max** separates itself from the CPU-cooler crowd by mounting its four copper heat pipes under the base, where they make direct contact with your sizzling CPU. The heat is carried up to the Max's compact folded-aluminum fins, where it's whisked away from your components by a large 120mm fan. Rubber fan connectors help keep things quiet, even under full load. Socket support includes Intel's LGA775, as well as AMD's AM2, 939, and 754. *OCZ Technology, www.ocztechnology.com*

Living-room zoom

Who wouldn't want to play Crysis from the couch? Antec's $250 **Fusion Remote Max** hopes to bring the gaming PC into the living room. A squat entertainment-PC case with an included remote for media playback, it supports MicroATX and standard ATX motherboards. Its ample internal space can house a build beefy enough for serious PC gaming on your plasma television. You can pack in dual graphics cards and up to five drives. The drive brackets feature silicone grommets to stifle vibration. *Antec, www.antec.com*

For more: computershopper.com/components

ABE'S OF MAINE

SINCE 1979! CAMERAS AND ELECTRONICS

5 FERNWOOD AVE, RARITAN CENTER, EDISON, NJ 08837

CELEBRATING OVER 25 YEARS IN BUSINESS

FAX 1-718-228-8727

CALL TOLL FREE 1-800-960-2237

OPEN SUNDAY

HOLIDAY HOURS or 718-645-1818

Mon.-Thurs. 9:30AM-10:30PM
After Thanksgiving 9:30AM-11:00PM
Friday 9:30AM-5:00PM
Saturday ..... Closed
After Thanksgiving Sat. 9:30AM-11:00PM
Sunday 10:00AM-7:00PM

ORIGINALLY FROM OLD ORCHARD BEACH, MAINE

Orders and Inquiries can now be E-Mailed to us at: info@abesofmaine.com

WORLDWIDE SHIPPING

ALL MERCHANDISE IS BRAND NEW & FACTORY FRESH!

www.abesofmaine.com

DIGITAL CAMERAS

NIKON D90 DIGITAL SLR W/18-105MM VR LENS KIT

- 12.3 Megapixel Digital SLR
- Auto-Actived Lighting
- In Camera Image Editing
- 4.5 Frames Per Second
- 3" LCD Monitor

In Stock!

NIKON COOLPIX S60

NEW! 10 Megapixel Digital Camera
- 5X Optical Zoom
- Expeed Image Processing
- 3.5" LCD Screen
- Optical VR Image Stabilization

In Stock!

NIKON DIGITAL CAMERAS

D700	NEW!
D300	In Stock!
D200	In Stock!
D60	In Stock!
D40	In Stock!
D60	Low Price!
D60	CALL!
D60 w/18-135mm	CALL!
Coolpix S210	NEW!
Coolpix S700	Low Price!
Coolpix S610	Low Price!
Coolpix S710	In Stock!
Coolpix S500	In Stock!
Coolpix S630	In Stock!

SONY DSLR-A300

10.2 MEGAPIXEL DIGITAL SLR W/18-70MM LENS
- Optical Image Stabilization
- Bionz Image Processor
- 2.7" LCD Screen

$499.99

SONY DSC-T700

- 10 Megapixel Digital Camera
- Carl Zeiss Lens
- Optical Image Stabilization

$334.99

SONY DIGITAL CAMERAS

DSC-H10	IN STOCK
DSC-H50	CALL
DSC-T300	319.99
DSC-T77	259.99
DSC-T500	NEW!
DSC-T700	NEW!
DSLR-A300	539.99
DSLR-A200	IN STOCK
DSLR-A350	New Low Price!
DSC-H20	IN STOCK
DSC-W120	IN STOCK
DSC-W130	IN STOCK
DSC-W150	IN STOCK
DSC-W170	CALL!
DSC-W300	CALL!

CANON EOS 50D

- 15.1 Megapixel Digital SLR
- Digic 4 Image Processor
- 9 Cross-Type High Precision Sensor
- 3" LCD Screen

In Stock!

CANON POWERSHOT SD1100 IS ALL COLORS

- 8 Megapixel Camera
- Optical Image Stabilization
- 4X Digital Zoom
- 3X Optical Zoom
- 2.5" LCD Screen

$159.99

CANON DIGITAL CAMERAS

EOS Rebel XS	IN STOCK!
EOS Rebel XSi	IN STOCK!
PS G10	IN STOCK!
SD850IS	IN STOCK!
PS SD990	CALL!
PS 990 IS	IN STOCK!
SD890 IS	IN STOCK!
SD790 IS	Low Price!
SD770 IS	Low Price!
PS A2000	NEW!
PS A1000 all colors	NEW!
PS E1 all colors	NEW!
PS A550	NEW!
PS A470	Low Price!
EOS 5D	CALL!
EOS 5D Mark II	CALL!
EOS 50D	NEW!
EOS 1DS Mark III	CALL!
EOS 1D Mark II N	CALL!

Powershot SX110IS Black & Silver ... IN STOCK!

KODAK Z1012IS

- 10.1 Megapixel Digital Camera
- 32 MB Internal Memory
- 12X Optical Zoom
- 2.5" LCD Screen

$219.99

KODAK Z1085

- 10 Megapixel Digital Camera
- Optical Image Stabilization
- High ISO Mode
- 5X Optical Zoom

In Stock!

KODAK DIGITAL CAMERAS

Z1285	IN STOCK!
Z8612	CALL
M1033 (all colors)	IN STOCK!
V1253	IN STOCK!
Z1085	IN STOCK!
V1073	159.99

PENTAX K200D

10.2 MEGAPIXEL DIGITAL SLR BODY
- 16 Segment Metering
- 2.7 High Resolution Screen

IN STOCK!

PENTAX K20D

- 14.6 Megapixel Digital SLR
- Prime Image Processing
- 2.7" LCD Monitor
- Weather & Dust Resistant Body

IN STOCK!

PENTAX DIGITAL CAMERAS

Optio W90	IN STOCK!
Optio M50 All Colors	124.99
Optio W90	194.99
Optio S12	NEW!
K100D Super	IN STOCK!
K200 3w/18-55mm II Lens	New Low Price!
K20D	NEW!
K200D	NEW!
K20D w/18-45mm Lens	IN STOCK!

PANASONIC DMC-FZ28

- 10.1 Megapixel Camera
- 18X Optical Zoom Lens
- 2.7" LCD Screen

$279.99

PANASONIC DIGITAL CAMERAS

DMC-FX37 All Colors	IN STOCK!
DMC-FX35 All Colors	IN STOCK!
DMC-TZ4 all colors	189.99
DMC-TZ5 all colors	224.99
DMC-FS5 all colors	IN STOCK!
DMC-FX10 all colors	IN STOCK!
DMC-LX3	CALL!
DMC-FX500 (black, silver)	279.99
DMC-FS20 all colors	179.99
TZ-50	IN STOCK!

FUJI FINEPIX Z1000FD

- 10 Megapixel Digital Camera
- 12X Optical Zoom Lens
- Face Detection Technology

$174.99

FUJI DIGITAL CAMERAS

Finepix S8100	IN STOCK!
Finepix F60FD	NEW!
Finepix Z20	CALL!
Finepix Z200	NEW!
Finepix F100	IN STOCK!
Finepix S1000	New Low Price!
Finepix S2000	IN STOCK!

OLYMPUS SP-565

- 10 Megapixel Digital Camera
- Wide-Angle 20X Optical Zoom Lens
- 13.5 FPS High Speed Shooting

$319.99

OLYMPUS DIGITAL CAMERAS

E510	IN STOCK!
E420	IN STOCK!
E520	IN STOCK!
Stylus 850SW all colors	IN STOCK!
Stylus 1030	IN STOCK!
SP-570	IN STOCK!

30 DAY MONEY BACK GUARANTEE

NO RESTOCKING FEE!

CAMCORDERS

SONY HVR-Z1U

3 CCD High-Def Camcorder
- Carl Zeiss Lens
- 12X Optical Zoom
- Optical Super Steadyshot

$3699.99

Price After $400 Mail-in Rebate

SONY HDR-SR12

120 GB HDD Camcorder
- 10.2 Megapixel Digital Resolution
- 12X Optical Zoom
- 150X Digital Zoom
- 3.2" LCD Screen

New Low Price!

SONY HDR-CX12

Memory Stick Pro Duo Handycam
- 1920x1080 Resolution
- 10.2 Megapixel Still Image Capture
- 2.7" LCD Screen
- 12X Optical Zoom

IN STOCK!

SONY CAMCORDERS

DCR-DVD910	NEW!	HVR-Z1U	IN STOCK!
DCR-DVD810	NEW!	HVR-V1U	IN STOCK!
DCR-DVD710	NEW!	HVR-M15	IN STOCK!
DCR-SR45	NEW!	HVR-M25	2949.99
DCR-SR65	NEW!	HVR-M35U	IN STOCK!
DCR-SR85	NEW!	HDR-HC9	IN STOCK!
DCR-SR85	NEW!	HDR-SR12	NEW!
HDR-TG1	649.99	HDR-SR11	NEW!
HVR-A1U	CALL!	HDR-SR12	NEW!
HVR-Z1U	4049.99		

CANON XL-2 $200 MAIL-IN REBATE

3 CCD Mini DV Camcorder
- 16:9 and 4:3 Aspect Ratio Shooting Formats
- XL Mount Interchangeable Lens
- Variable Frame Rate
- Optical Image Stabilization
- 20X Optical Zoom
- Color EVF with 2" LCD

CALL!

CANON GL-2 $250 MAIL-IN REBATE

3 CCD MiniDV Recording
- 20X Optical Zoom - 100X Digital Zoom
- Optical Image Stabilizer
- 1.7 Megapixel Digital Still
- IEEE 1394 In/Out Terminal
- Manual Auto Level Control

New Low Price!

CANON VIXIA HV-30

24P Cinema Mode
- Color Viewfinder
- 2.7 LCD Screen

New Low Price!

CANON CAMCORDERS

HV30	IN STOCK!	HG20	NEW!
DC300	IN STOCK!	HF10	IN STOCK!
ZR850	IN STOCK!	HF11	IN STOCK!
ZR830	IN STOCK!	HF100	New Low Price!
ZR950	IN STOCK!	FS10	IN STOCK!
HG-A1	3199.99	FS11	IN STOCK!
HG10	CALL!	FS100	IN STOCK!
HG20	NEW!		

JVC GZ-MG365

60 GB Hard Drive Camcorder
- 35X Optical Zoom
- 800X Digital Zoom
- 2.7" Widescreen LCD

In Stock!

JVC CAMCORDERS

GZ-MG330 All Colors	New Low Price!
GZ-MG335	IN STOCK!
GZ-MG360	New Low Price!
GZ-MG365	399.99
GZ-HD10	IN STOCK!
GZ-HD30	IN STOCK!
GZ-HD40	IN STOCK!
GR-HD110	CALL!

PANASONIC SDR-H40

40GB HD Camcorder
- SD Memory Card Slot
- Optical Image Stabilizator
- 42X Optical Zoom

$319.99

PANASONIC CAMCORDERS

SDR-H80	CALL!
SDR-H40	IN STOCK!
SDR-SW20	IN STOCK!
HDC-SD9	NEW!
HDC-HS100	IN STOCK!

PANASONIC PRO CAMCORDERS

AG-DVX100B CALL! HDC-DX1 IN STOCK!

AG-DVC80 IN STOCK!

HITACHI CAMCORDERS

DZ-HS300 IN STOCK! DZ-HS500 399.99

35MM

NIKON FM10K MANUAL FOCUS BODY W/35-70MM LENS

$234.99

CANON EOS REBEL T2 KIT

Body with electronic flash with Canon 28-80 II 4.0-5.6 Lens

$237.99 USA Warranted

WE CARRY A FULL LINE OF SLR BODIES, LENSES, AND FLASHES

WE CARRY A FULL LINE OF LARGE SCREEN TVS, LAPTOPS, PRINTERS, PROJECTORS, AUDIO, GPS, SMALL HOME APPLIANCES, VCR'S, and DVD PLAYERS

Please visit our website or call us toll free for product information.

Company Policy: To order use any Major Credit Card, COD orders welcomed, call for details. Or mail in Bank, Cashiers or Certified Check. For Personal Check or Money Order, allow approximately 4 weeks for delivery. Call toll-free for Shipping & Handling Charges. All merchandise is Brand New unless otherwise stated in writing. All merchandise is subject to availability. Exchange or Refund less Shipping, Handling and Restocking fee of 10% allowed within 10 Days from date of receipt only if returned in original retail condition with carton, packing papers and certified warranty cards. Some products may reflect a final price after manufacturer rebates. Quantities Limited. Not responsible for typographical errors. DCA4608847 Enjoy your Order

For advertising information call Brittany Fantozzi at 212•779•7172 x231; email bfantozzi@mediapeople.com

Save up to 70%!

Get plenty of power protection and huge savings on APC's large selection of **OVERSTOCKED, PHASEOUT,** and **REFURBISHED*** inventory at greatly reduced prices. **DON'T WAIT TO ORDER; INVENTORIES ARE LIMITED!**

Get free shipping!"

> Go to *www.apc.com/promo*
> Enter key code f970w
> Start Saving Today!

APC FACTORY OUTLET STORE

NOT FOR RESALE. Offer valid through APC Factory Outlet e-commerce store only. Cannot be combined with any other offers or discounts. Limited quantities available - no rain checks accepted. We reserve the right to limit quantities for purchase. 90 day warranty on refurbished UPS products. Maximum of 10 like items per order. Free shipping is only valid on economy shipping of products weighing less than 150 lbs. and in the continental United States. Only major credit cards (Mastercard, VISA, Discover and American Express) accepted. *Software, cables, manuals not included with refurbished units.

☎ 888-289-2722 x8118

©2008 American Power Conversion Corporation. All APC trademarks are owned by Schneider Electric Industries S.A.S., American Power Conversion Corporation, or their affiliated companies.
e-mail: easupport@apc.com • 132 Fairgrounds Road, West Kingston, RI 02892 USA 998-1133

AD INDEX

1 & 1	1and1.com	9
Abe's of Maine	www.abesofmaine.com	95
AMD	www.amd.com/pctv	29
American Power Conversion	www.apc.com/promo	25 - 27, 96
Bit Defender	www.bitdefender.com/switch	4
Citrix	gotomeeting.com	23
Crucial	www.crucial.com/computershopper	86
Cyberpower, Inc	www.cyberpowerpc.com	6, 10
Dell	www.dell.com/shop730x	Cov. 4
Direct TV	1-877-769-7929	56
HP	hp.com/learn/3Gcs	2
HP	hp.com/servers/rethink4	15
iBUYPOWER	www.ibuypower.com	31 - 33
Lifelock	1-877-240-2088	53
MacMall	www.macmall.com	Cov. 2, 1
Moneual	moneual.com	37
Provantage	provantage.com	13, 35
Roboform	www.roboform.com/cs	39
Sager	sagernotebook.com	18, 19
Vigor Gaming	www.vigorgaming.com	43
Xtreme Gear	www.buyxg.com	47
ZT Systems	www.ztsystems/computershopper	Cov. 3

All advertising is subject to Publisher's approval and acceptance without recourse. The advertising herein that is typeset and/or designed by *Computer Shopper* is the property of *Computer Shopper* and not that of the advertiser. The advertiser has purchased the right of reproduction in *Computer Shopper* only and does not have the right to reproduce the ad in any other place of publication. We are not responsible for mistakes, misprints, or typographical errors and will not issue credits of any kind for such errors. Advertisers and their agencies assume responsibility for the condition of the contents of advertising printed, and agree to indemnify the Publisher of *Computer Shopper* for any and all claims and expenses arising therefrom. *Computer Shopper* standards suggest to the advertiser that statements concerning shipping and handling charges, warranties, and money- or no money-back guarantees should be stated in all forms of advertising within *Computer Shopper*. The opinions expressed in the articles, columns, and ads are those of the writer and not necessarily those of *Computer Shopper*.

Computer Shopper
72 Madison Ave., 10th Fl.
New York, NY 10016

Sales Info: 800-999-7467
Editorial: 917-326-8700
Fax: 212-481-0920
Customer Service: 877-214-7390

30 Years of *Computer Shopper*!

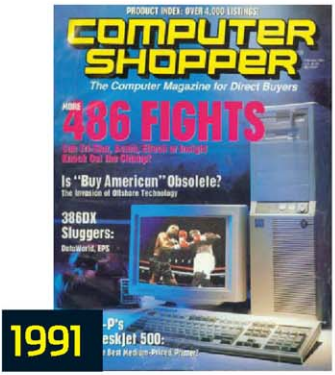
WHAT STARTED in the waning years of the 1970s as a paper full of classified ads for hobbyists interested in surplus or used computer equipment evolved through the years into the magazine you're holding today. To celebrate this, our 30th anniversary year, we'll be digging back into the archives throughout 2009. Here: Four very different covers, four very different years.

1981

5MB hard drives ($2,499 each!) were all the rage... *(November 1981)*

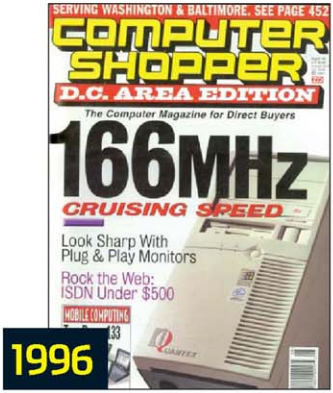
1986

...five years later, a 3.7MB hard drive for the Commodore 64 cost $695. *(September 1986)*



1991

From "The Invasion of Offshore Technology": "Open up almost any name-brand PC, and it's not surprising to find at least half of the components were made somewhere in Asia." *(February 1991)*



1996

The Pentium in its prime. "Cruising speeds" today are 20 times faster. *(August 1996)*

ZT recommends Windows Vista® Home Premium.

ZT Affinity

The Latest Technology... For Less!

Select the Powerful Notebook or Desktop That's Right For You

intel Core 2 Quad inside

Quad-core. Unmatched.

ZT Affinity Desktops featuring Intel® Core™2 Quad Processors

ZT Affinity 7230Xi Desktop

As low as: $599.99*

After Limited-Time $100 Instant Savings

QUAD-CORE PERFORMANCE

- **Intel® Core™2 Quad Processor Q9300** (2.50Mhz, 6MB Cache, 1333MHz FSB)
- **Genuine Microsoft® Windows Vista® Home Premium Edition (64-bit) SP1**
- 4GB DDR2 SDRAM Memory
- 500GB SATA Hard Drive
- 20x Dual Layer DVD+/-RW Drive
- 19-in-1 Card Reader
- Keyboard, Mouse and ZT Multimedia 2pc. Speakers
- Lifetime, Toll-Free Phone Technical Support

*Costco Non-Member Price: $629.99
Model #: ZT-7230Xi-37

Shown with display sold seperately

ZT Affinity Notebooks featuring Intel® Centrino® 2 processor Technology

ZT Affinity N4003i Notebook

As low as: $799.99*

After Limited-Time $150 Instant Savings

LATEST MOBILE TECHNOLOGY

- 15.4 inch WXGA Display (1280x800)
- **NEW Intel® Centrino® 2 Processor Technology**
- **Intel® Core™2 Duo Processor P7350**
- **Genuine Microsoft® Windows Vista® Home Premium Edition (64-bit) SP1**
- 4GB DDR2 Memory 250GB Hard Drive
- 20x DVD+/-R/RW Dual Layer Burner
- Integrated 1.3mp Webcam
- Dedicated Numeric Keypad
- Lifetime, Toll-Free Phone Technical Support

*Costco Non-Member Price: $839.99
Model #: ZT-N4003i-37

With over 14 years building personal computers in the USA, ZT Systems is the winner of numerous industry awards. ZT Affinity means the latest technology for less, with quality you can trust and the peace of mind of lifetime toll-free technical support.

Get yours today at www.costco.com

COSTCO .COM

*May reflect limited-time instant savings offers. Pricing and model availability varies by retailer. Additional shipping and handling charges may apply.

Get a new Maxtor™ 80GB OneTouch™ 4 Mini HD, FREE!

Buy a new ZT Affinity PC with Windows Vista Premium operating system and get a BONUS PACK of hardware accessories after mail-in rebate including a new Maxtor OneTouch 4 Mini 80GB External USB Drive. Find out how at:

ZTsystems.com/bonuspack

† After mail-in rebate, S&H Taxes apply. Limited time offer. While supplies last. Other restrictions apply. Limit one BONUS PACK per software purchase. Offers may be substituted as necessary. Individual customers are solely responsible for offers and redemptions fulfillment.

www.ztsystems.com/computershopper

866-984-7687

ZT Systems

Systems pictured may include some equipment and/or accessories, which are not standard features. Not responsible for errors in typography and/or photography. All rights reserved. All brands and product names, trademarks or registered trademarks are property of their respective companies. Intel, the Intel logo, Centrino, Centrino Inside, Intel Core, Core Inside are trademarks of Intel Corporation in the U.S. and other countries.

Dell recommends Windows Vista® Ultimate.

Monitor not included. Add a 24" monitor for $349.

THERE'S NO SUCH THING AS AN UNFAIR ADVANTAGE.

Introducing the new XPS 730x. When it's you against hordes of mythical nasties hell-bent on furious destruction, it helps to have the best weapons. We'd recommend a brand-new Intel® Core™ i7 processor (it's really fast) with factory overclocking* (makes it even faster), tri-channel DDR3 memory* (ditto), and upgrading to Windows Vista® Ultimate (increased RAM utilization available with 64-bit OS makes it – you guessed it – extremely fast). Throw in Dell's optional H_2C liquid cooling system and an Alienware® AlienFX® lighting system, and those odds start looking better and better. Just don't let the whole "humanity's only hope" thing go to your head, ace. Yours is here.

XPS

New Dell™ XPS™ 730x
Starting at

$1999

Monitor not included.

Other Dell gaming desktop systems starting at $1099

GET YOURS AT WWW.DELL.COM / SHOP730X | 1-800-873-1410

DELL

YOURS IS HERE

*PRICING/AVAILABILITY. Prices, specifications, availability and terms of offers may change without notice. Taxes, fees, shipping, handling and any applicable restocking charges are extra, and vary. Offers may be combined with other select offers or discounts. U.S. Dell Home and Home Office new purchases only. Dell cannot be responsible for pricing or other errors, and reserves the right to cancel orders arising from such errors. Check Dell.com for availability. MEMORY AND GRAPHICS. Significant system memory may be used to support graphics, depending on system memory size and other factors. XPS 730x OVERCLOCKING: Dell warrants the full functionality of your system at factory overclocked settings. Overclocking beyond factory settings may cause system instability and reduce the operating life of your system components. Dell does not provide technical support for any hardware or software issues arising from any third party application, such as NVIDIA nTune 5.0, used to enable overclocking. TRADEMARK AND COPYRIGHT NOTICES. Microsoft and Windows are registered trademarks of Microsoft Corporation. ©2008 Dell Inc. All rights reserved. Newspaper Advertisement Supplement. Legendary ® 2008 Spark Unlimited, Inc. LEGENDARY is a trademark of Spark Unlimited, Inc. All Rights Reserved. Used under authorization by Gamecock Media Group. ©2008 Gamecock Media Group. Gamecock and the Gamecock logo are trademarks and/or registered trademarks of Gamecock Media Group © 2008.